

NORTH-EASTERN HILL UNIVERSITY

Mawknroh-Umshing, Shillong - 793 022, INDIA

Tel: +91-364-2721001 (4 lines), Fax: +91-364-2721000

Website : www.nehu.ac.in

NEHU ANNUAL REPORT 2017-18



North-Eastern Hill University Forty-Fourth Annual Report

2017-2018



**FORTY-FOURTH
ANNUAL REPORT**

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From the Vice-Chancellor's Desk



I am delighted to place before you this Forty-Fourth Annual Report on activities and achievements of NEHU for the year 2017–18. This year's annual report shows that we have passed another milestone towards excellence. There has been much that NEHU has achieved for 44 years of its existence, and what had been accomplished in 2017–18 is in concurrence with the University's motto—**RISE UP AND BUILD.**

NEHU is committed to achieving what it has been set up as objectives with a vision to develop academic leadership, keeping in consonance with the national and global perspective that values diversity and inclusion. Its mission is, therefore, to achieve excellence in teaching, learning and research, capacity building, social outreach, skill development and innovative academic programmes.

The eight schools of the University have 44 teaching departments and two centres, located on Shillong and Tura campuses. The total of 335 teachers and 5127 students gives rise to a teacher-student ratio of 1:15. As many as 1697 students of the University departments were awarded their degrees/diplomas in 2017–18, of which 625 were males and 1072 females.

Research activities in 2017–18 were promising with hundreds of publications, including 265 papers published in India and 250 abroad. Of 515 papers, 282 are published in the UGC-approved journals, 219 are indexed in Elsevier's Scopus, and 181 in Web of Science. The NEHU faculty held 10 international and 79 national/regional seminars or conferences,

with a total of 331 presentations. In addition, faculty members of the University were actively involved in 150 research projects supported by various government funding agencies. Many academic departments have also academic collaborations with other institutions within and outside the University.

The University's prospects for academic excellence call for augmented resources, including filling of vacancies, increased financial support and internal revenue, and above all, greater commitment on the part of the academic community. I would like to take this opportunity to thank to all students, teaching and non-teaching staff, and stakeholders for their hard work and endeavours towards this end. I also express my thanks to the members of the Editorial Board for their efforts in bringing out this Annual Report on time for perusal and information of all readers.

A handwritten signature in black ink, appearing to read 'S. K. Srivastava', written in a cursive style.

Prof. S. K. Srivastava
Vice-Chancellor

Executive Summary

North-Eastern Hill University (NEHU), established in 1973 by an Act of Parliament, is the oldest Central University in North-East India with its headquarters at Shillong and a campus at Tura in the West Garo Hills District of Meghalaya. The main objective of the University is *to disseminate and advance knowledge, and to pay special attention to the improvement of the social and economic conditions and welfare of the people of the hill areas in North-East India, particularly their intellectual, academic and cultural advancement.*

This Forty-Fourth Annual Report presents the activities and achievements of the University for the academic year from **1 April 2017 to 31 March 2018**. It is based on the information collected from the departments/centres and administrative units of the University.

Background

The University has eight schools: School of Economics, Management and Information Sciences (SEMIS), School of Education (SE), School of Humanities (SH), School of Human and Environmental Sciences (SHES), School of Life Sciences (SLS), School of Physical Sciences (SPS), School of Social Sciences (SSS), and School of Technology (SOT) with 44 Departments and two Centres as shown in **Figure 1** below:

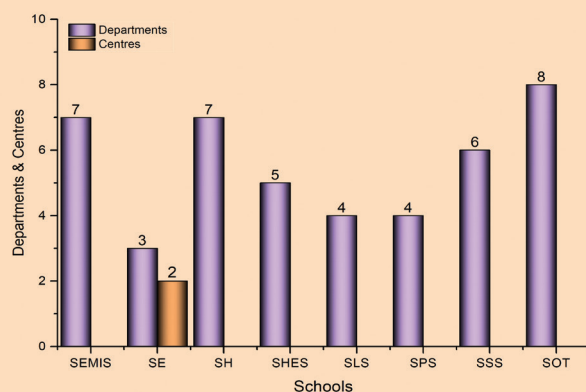


Figure 1: Number of Departments and Centres by Schools

There are thirty-five departments on Shillong campus and nine departments at Tura campus. While many departments offer only postgraduate and PhD programmes; some others offer undergraduate degrees as well, but all departments and centres are actively involved in research projects. Several departments are supported by the Central Government funding agencies like the Special Assistance Programme (SAP) of the University Grants Commission (UGC) and the FIST Programme of the Department of Science and Technology. Two departments (Botany and Chemistry) are recognized by the UGC as Centres for Advanced Studies. The University also has 69 affiliated colleges (33 permanent and 36 provisional affiliations), including NEIGRIHMS (offering MBBS and MD/MS courses) and some minority institutions. It is also one of the first few select Universities, which grants affiliation to Minority Educational Institutions from all over the country.

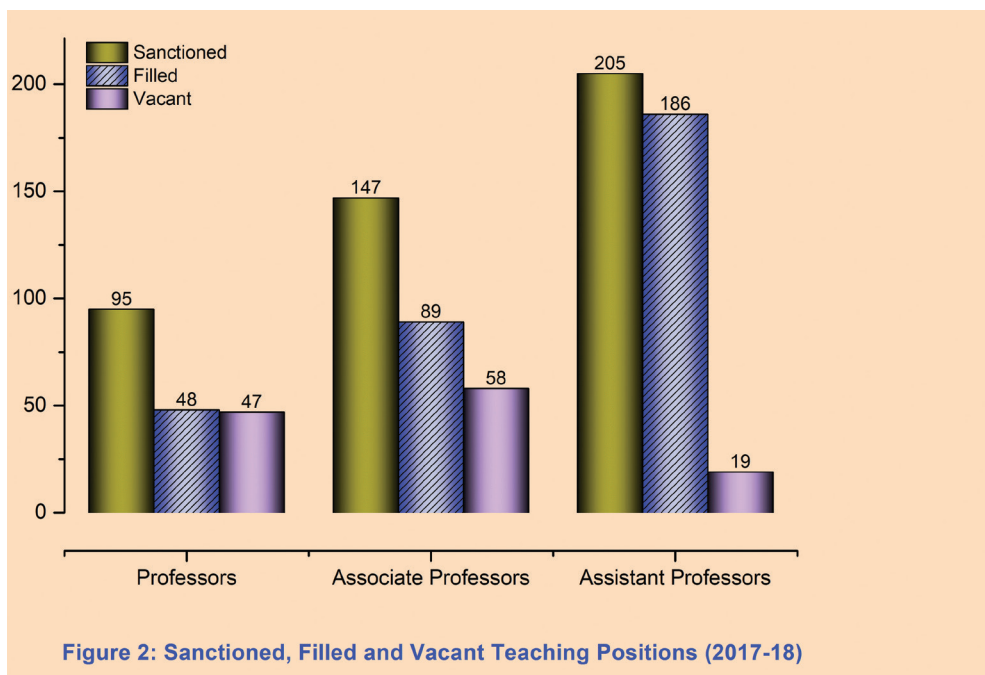
NEHU is the recipient of a number of endowments of many organizations and individuals. The University has instituted several awards like the Dr. Shankar Dayal Sharma Literary Award, Prof. M. K. Khare Memorial Prize, Smt. Sarada Krishna Iyer Memorial Award, U Tirot Sing Memorial Prize, Prof. M. N. Karna Young Sociologist Award, Rajendra Kumar Sunheri Devi Jain Charitable Award, Kiang Nongbah Award and Dr. D.S. Babu Memorial Award. Several faculty members of the University have been honoured in recognition of their contribution towards high academic distinction in the country.

The University has a number of centres, units and cells, known as *Central Services*, which carry out and facilitate the educational and research activities as well as the health, sports and other activities for the general welfare of the University community. Such Central Services include Central Libraries, Voice and Data Networks, Health Centres, Career and Counselling Cells and Student's Welfare Cells (one on each campus at Shillong and Tura). Other Central Services are Guest Houses, Hostels and different units; including International Hostels, College Development Council, UGC-Human Development Centre, Bioinformatics Centre, Computer Centre, Hindi Cell, Equal Opportunity Cell, Pension Cell, Women's Cell, RTI Cell, Internal Quality Assurance Cell, National Service Scheme Cell, Publication Unit, Sophisticated Analytical Instrument Facility, Design Innovation Centre, Sports Department, and Campus Development Department (all located on Shillong campus).

NEHU also provides space for other institutions, namely IGNOU, ICSSR-NERC, English and Foreign Languages University, Sports Authority of India, and the Shillong Science Centre, which are functioning within the Shillong campus.

Teaching and Non-Teaching Staff

- ☞ The University has 447 sanctioned posts, of which 323 have been filled under the three categories of teaching position, viz., Professors, Associate Professors, and Assistant Professors, as given in **Figure 2**. In 2017-18, there were altogether 335 teachers (including those from erstwhile Mizoram and Nagaland campuses).
- ☞ As for the non-teaching staff, the University has 703 sanctioned posts; of which 67 were in Group A, 185 in Group B, and 451 in Group C. As many as 313 non-teaching posts were lying vacant during 2017-18; of which 71 and 227 were in Group B and Group C, respectively.



Student Enrollment

NEHU is a leading university in North-East India that attracts students and scholars not only from the North-East but also from other parts of the country and abroad. Almost all departments have conducted entrance tests for admission to their respective programmes as per the University Rules. The University has adopted the Choice Based Credit System (CBCS) at the postgraduate level and in some departments at the undergraduate level as well.

- ☞ During 2017–18, as many as 5127 students were enrolled for degrees/diplomas in various departments of the University, thereby giving rise to a student-teacher ratio of 15:1 (i.e., there were about 15 students enrolled for every one teacher during the period under report).
- ☞ Student enrollment for degrees in various departments of the University had slightly decreased from 4929 in 2016–17 to 4827 in 2017–18 (about 2% less than it was last year, but similar to that in 2015–16). However, enrollment in diploma and certificate courses increased from 223 in 2016–17 to 300 in 2017–18.
- ☞ The enrollment of students for various degrees and programmes of the University is given in **Table 1**. As many as 3755 students (73%) were enrolled for degrees at the undergraduate and postgraduate levels (including 11 overseas students), and 1072 research scholars (21%) were admitted into MPhil/PhD programmes (including 3 overseas students).

Table 1: Student Enrollment in Departments of the University							
Degree/Diploma	SC	ST	OBC	General	Male	Female	TOTAL
BA LLB	5	262	0	21	129	159	288
BArch	5	42	2	71	65	55	120
BTech	74	302	38	300	560	154	714
MA	7	1330	25	110	427	1045	1472
MSc	6	524	9	97	269	367	636
MCom	1	81	0	14	44	52	96
MLISc	0	55	1	1	18	39	57
MTTM	2	50	0	3	30	25	55
LLM	0	18	0	2	7	13	20
MBA	11	37	13	46	47	60	107
MCA	3	27	1	16	31	16	47
MEd	1	38	0	5	4	40	44
MTech	4	44	1	50	69	30	99
PG Diploma	0	35	0	14	27	22	49
FC SEDE	6	218	12	15	79	172	251
MPhil	9	54	9	31	30	73	103
PhD	58	568	48	294	441	527	968
Post-Doc	0	1	0	0	1	0	1
GRAND TOTAL	192	3686	159	1090	2278	2849	5127
%	3.74	71.89	3.10	21.26	44.43	55.57	100.00

- As many as 3686 students out of 5127 belonged to the Scheduled Tribes (72%), and 7% were SC and OBC. Overall, there were 2278 males (44%) and 2849 females (56%), i.e., there were about 80 male students per 100 female students. This male-female ratio has declined from 85 males per 100 females in 2016–17 to 80 males per 100 females in the current year.
- The enrollment of PhD scholars increased from 930 in 2016–17 to 968 in 2017–18 (i.e., about 4% more than the number last year, but it decreased by 10 percentage points compared to the rate last year). The number of MPhil scholars had also decreased from 134 in 2016–17 to 103 in 2017–2018. Almost all research scholars were given scholarship of different types, such as UGC-Non-NET Fellowship, CSIR-UGC-NET Fellowship, NFHE, etc.
- The University enrollment of students from within and outside North-East India is shown in **Figure 3**. As many as 3129 students (52%), who were enrolled in various departments of the University, belonged to the State of Meghalaya, and 1815 students (35%) were from the other North-Eastern states. Besides Meghalaya, Assam has the highest number of students (18%), followed by Nagaland (7%), Manipur (5%) and other states including Sikkim. There were also 14 overseas students, and more than 3% of the total student enrollment were from other parts of the country.

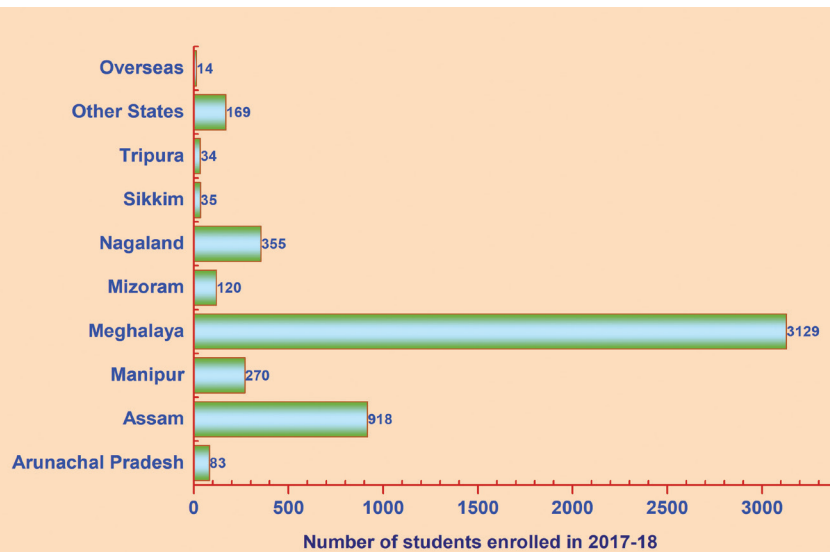


Figure 3: Student Enrollment from Within and Outside North-East India

Table 2: Students of NEHU-Teaching Departments Awarded Degrees/Diplomas

Degree/Diploma	SC	ST	OBC	General	Male	Female	TOTAL
BA LLB	3	37	0	3	11	32	43
BTech	16	61	4	64	101	44	145
MA	6	613	6	34	181	478	659
MSc	5	238	4	43	108	182	290
MCom	1	29	0	9	15	24	39
MLISc	1	26	0	1	15	13	28
MTTM	0	28	0	2	17	13	30
LLM	0	4	0	5	2	7	9
MBA	2	31	2	11	24	22	46
MCA	0	8	0	4	8	4	12
MEd	0	19	0	1	4	16	20
MTech	6	8	0	21	20	15	35
PG Diploma	0	13	0	0	7	6	13
FC-SEDE	4	132	7	8	36	115	151
MPhil	2	31	2	20	20	35	55
PhD	2	71	5	42	56	66	122
GRAND TOTAL	48	1349	30	268	625	1072	1697
%	2.83	79.49	1.77	15.79	36.83	63.17	100.00

Degrees Awarded

- ☞ The number of students who were awarded degrees and diplomas according to various categories is given in **Table 2**. A total of 1697 students were awarded their degrees/diplomas from NEHU-teaching departments in 2017–18, of which 625 and 1072 were males and females, respectively (i.e., there were about 58 males per 100 females who received degrees/diplomas in 2017–18).
- ☞ Out of 1697 students, 79% were Schedule Tribes (ST) and about 5% of them belonged to the Schedule Castes (SC) and Other Backward Communities (OBC).
- ☞ As many as 1168 and 177 students were awarded their Master's degrees (69%) and MPhil/PhD degrees (10%), respectively. Overall, the number of students awarded degrees/diplomas from NEHU-teaching departments during 2017–18 was by and large similar to that in 2016–17.

Publications and Presentations

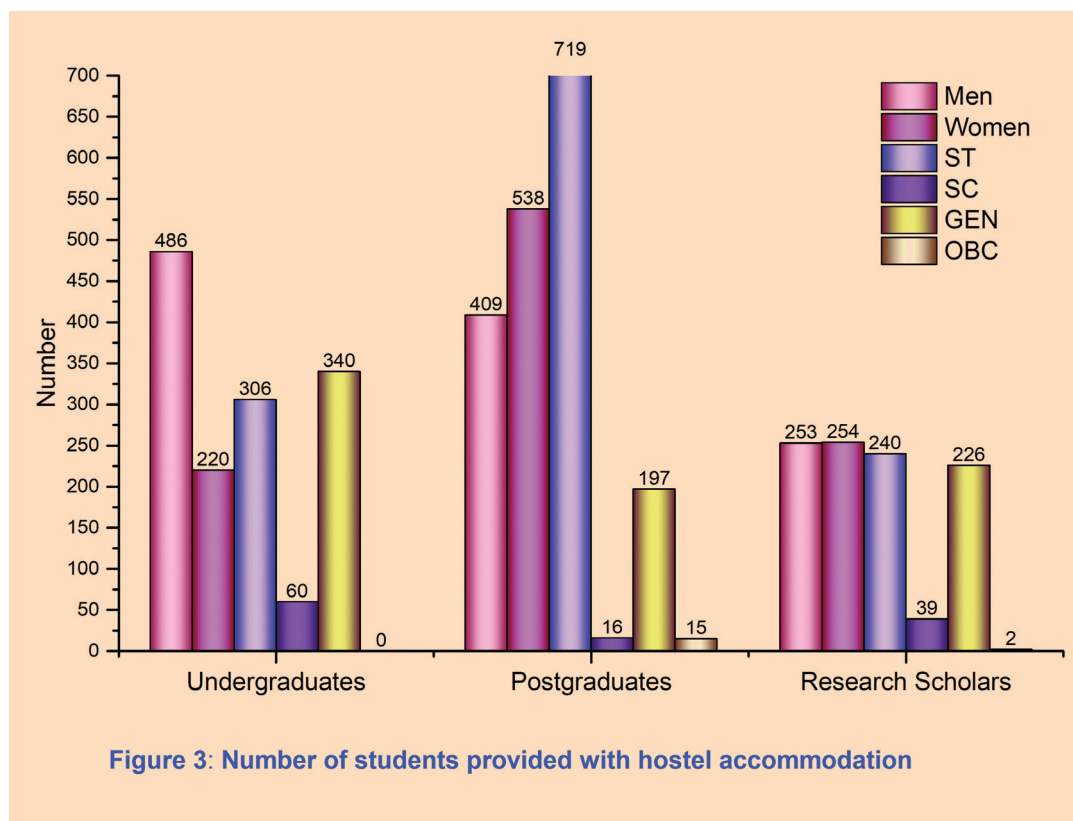
- ☞ In 2017–18, departments and faculty members of the University organised 89 educational events (10 less than 99 last year), including conferences, seminars, symposia and workshops; of which 79 (13 less than the figure last year) were regional and national, and 10 (3 more than than it was last year) of them were international.
- ☞ The University faculty made a total of 331 presentations at national and regional events (i.e., 11% less than 371 in 2016–17) and 142 at international events (i.e., 129% of 110 in 2016–17 or 29% more than it was last year).
- ☞ Scholarly publications by the faculty included 265 research papers in journals published in India (i.e., 4% less than 276 last year) and 250 in journals published abroad (i.e., similar to 251 in 2015–16, but 6% less than 265 in 2016–17).
- ☞ Of 515 research papers, 282 were published in the UGC-approved journals (55%), 219 were indexed in Elsevier's Scopus (43%), and 181 (35%) in Web of Science (Clarivate Analytics). The number of papers published in journals that are indexed in Scopus and Web of Science during the current academic year has increased by 3 and 6 percentage points as compared to 40% and 29% in 2016–17, respectively.
- ☞ The faculty have also authored/edited about 31 books (49% less than it was last year), and the number of book chapters contributed to edited volumes, including proceedings of seminars and conferences, are by and large similar to 207 published in 2016–17.
- ☞ Faculty members of the University were actively involved in 150 research projects during the period under report (10% less than 167 in 2016–17). Of these, 16 new projects were sanctioned (63% less than 43 in 2016–17), 96 projects are ongoing, and 35 projects were completed. These projects are being supported by various funding agencies like UGC, DST, DBT, CSIR, DRDO, ICMR, DAE (BRNS), ICSSR, ICAR, NEC, etc.

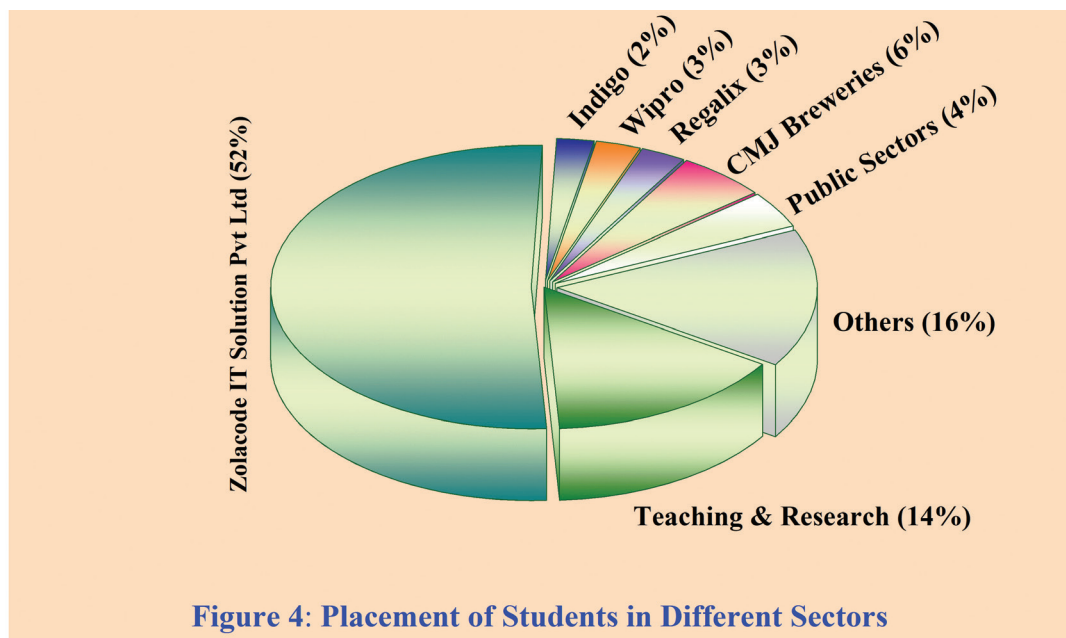
Patents Filed

- Faculty members of the Departments of Biomedical Engineering, Energy Engineering, and Biotechnology and Bioinformatics had filed patents on (i) *Method for Lead Removal by Biofloculant from a Bacterium to Treat Wastewater*, (ii) *Production of Bio-Diesel from Pine Tree Extracts*, (iii) *Determination of the Presence and Location of Arterial Blocks Using Fast Fourier Transform and Power Spectral Density Analysis of Arterial Pulses*, (iv) *Detection of the Presence of Multiple Cardiac States from ECG*, and (v) *Estimation of the Time Window of Heart Attack or Heart Failure*.

Academic Collaboration

- Academic collaboration is an integral part of teaching and research as enshrined in the Act and Statutes of NEHU. One of its main goals is ***to cooperate or collaborate with any other University or authority in such manner and for such academic purposes.*** During the year under report, the University has signed Agreements/MoUs with several institutions. Many faculty members also have academic collaborations with eminent scholars and scientists from within and outside the University. Some research projects are also collaborated with NEIGRIHMS, DRDO, IGCAR, BARC, IITs, etc.





Hostel Accommodation

- ☞ The number of students who were given hostel accommodation had increased by 4% from 2092 in 2016–2017 to 2174 in 2017–18. So about 42% of the students admitted to various programmes of the University were provided with hostel accommodation on both campuses.
- ☞ As many as 1265 students living in hostels were Scheduled Tribes (58%), and 48% of them were females. The different categories of students residing in hostels are given in **Figure 3**.

Placement of Students

- ☞ In addition to the academic and administrative processes in the University, the Career and Counselling Cell (CCC) was established in 2008 to help the students acquaint with information on job avenues and placements in different institutions and concerns. The CCC regularly publicizes different matters relating to counselling and guidance, training, career, internship and job opportunities. It also interacts with reputed industries and other concerns to keep the students informed of the high demand market areas and to establish industry-university linkages. The Cell organizes seminars, interactive sessions and special lectures on emerging professional trends and events, job profiles, entrepreneurship, leadership roles, soft skills, etc.

- Details of NEHU students placed in various sectors and establishments, based on records given by the CCC and other departments of the University, are given in **Figure 4**. There were 181 students who got placements during 2017–18 (77% more than 102 in 2016–17), of which 32 students (18%) were in research and teaching sectors, and about 77% and 5% of them got placed in private and public sectors, respectively.

Other Activities

- The **Bioinformatics Centre at NEHU** serves as a nodal Centre for the newly constituted North-East Bioinformatics Networks by the DBT in all the North-Eastern states. It also operates the DBT-sponsored Online Access Facility of Library Resources for 36 Secondary and Senior Secondary Schools in the North-Eastern States, and monitors the DBT e-Library Consortium Facility for NEHU. Apart from carrying out researches in biodiversity, the Centre also provides training to all disciplines of research in biotechnology, and serves as one of the seven Examination Centres for BINC Exams. The Centre was awarded the Third Rank Position Incentive Awards 2017 in the category of Distributed Information Centre for publications in journals of high repute.
- The **NEHU Data and Voice Network** facilities at both campuses enable the faculty, research scholars and students to access Internet in addition to UGC-INFONET and INFLIBNET resources. All academic departments have digital class rooms with Wi-Fi connection and an on-line access to over 3500 journals. The Wi-Fi project of the MHRD-MEITY through ERNET is being commissioned and operational in all the departments on Shillong campus with around 3000 registered users.
- The University also has a Centre for **Sophisticated Analytical Instrument Facility and a Super Power Computer** to facilitate research activities. The Centre acquires and develops capability for preventive maintenance of analytical instruments. During the year under report, it organised two short-term training courses and one workshop on *Optical Microscopy with Image Analyzer and Its Applications*.
- The **Central Library** at Shillong had increased the collection of books/volumes from 289,483 in 2016–17 to 295,005 in 2017–18, but the number of subscribed journals published in India increased from 126 in 2016–17 to mere 233 in 2017–18. The number of subscribed journals published abroad had, however, decreased from 137 in 2016–17 to 117 in 2017–18. The Library has hosted an Online Public Access Catalogue (OPAC), whereby the Library's catalogue of books can be accessed by all users on the internet. The Library also pays special attention to the physically challenged by providing an automated device (Lex Air Digital Capture Book Reader) that enables a visually-impaired library user to hear the words/text/line from a book/document through a text-to-audio conversion. The Library also has its **Institutional Repository** available on <http://dspace.nehu.ac.in>. A total of 90,000 pages of the rare and out-of-print books were digitized and uploaded on the Repository. **As for Tura Campus**, the library collection of books had increased from 27,776 in 2016–17 to 28,923 in 2017–18, and the number of subscribed journals has remained more or less the same as last year. The Library is using Libsys4 Software for housekeeping operations. The Library also has the OPAC and internet browsing facilities to students, research scholars, faculty members and non-teaching staff on the campus.

- ☞ The **College Development Council (CDC)** is an intermediary between the University and the affiliated colleges by providing necessary guidance and advice, especially in affiliation, promotion, coordination and improvement of educational standards in affiliated colleges. In 2017–18, the CDC had taken the following major actions: (i) Coordinated for 28 Inspection Teams to 28 colleges, (ii) Permission to start four new colleges, (iii) Four new colleges were provisionally affiliated, (iv) Nine colleges were provisionally affiliated for new subjects/courses, (v) Twenty-six colleges were given renewal of provisional affiliation, (vi) One college was provisionally permitted to start new courses, (vii) One college was given permanent affiliation to start new courses, and (viii) Three colleges were permitted to start new PG Departments.
- ☞ The **UGC-Human Development Centre** had given training of 622 participants belonging to various universities and colleges recognized by the UGC. In 2017–18, the Centre had conducted four Orientation Programmes, five Refresher Courses, three Short-Term Courses, one Summer School, and one Winter School in which scholars from the University and other institutes served as resource persons.
- ☞ The **Centre for Distance Education** is the only nodal agency of the Rehabilitation Council of India to spread teaching and learning among children with disability in the North-Eastern region through various modes of distance learning systems. The Centre started the BEd Special Education (BEd-SEDE) programme in 2007, while the Foundation Course on Education of Children with Disability (FC-SEDE) commenced in 2010. In the current year, 251 students were admitted to the FC-SEDE programme. As many as 57 students received their BEd-SEDE certificates, and 151 students got FC-SEDE certificates.
- ☞ The **Sports Department** organized different Inter-College Tournaments in Football, Badminton, Basketball and Table Tennis (men and women), and in Chess (mixed) at various places. It also organized the Inter-College Cross Country and the NEHU Cross Country Run (2017 Edition) on 29 August 2017 for teaching, non-teaching members and students of the University to commemorate the birth anniversary of **Major Dhyani Chand**, which is celebrated as **National Sports Day**. In addition, NEHU teams such as Badminton, Volleyball, Table Tennis Men's Team, and Men's Football Team participated in the East-Zone Inter-University Tournament 2017.
- ☞ The **NSS Cell of NEHU** conducted many social welfare events like pulse polio immunization, blood donation, awareness of HIV/AIDS and drug abuse, and other training and social programmes. Eighteen Blood Donation Camps and Twenty-six Camps on *Healthy Youth for Healthy India* were organized in various places of Meghalaya during 2017–18. The Cell also organized and coordinated 21 academic and social events, including workshops and seminars on different topics like Disaster Management, Digital India, Waste Management, etc. Several environmental programmes were also organized, such as cleaning drives and tree plantation of 1960 saplings. Many Swachh Bharat programmes were conducted, besides skill development and village welfare programmes. Several programmes had been conducted for the residents of the model village, **Lawsohtun**, including installation of 52 solar street lights. The Cell has also adopted another 54 villages for the benefits of various welfare programmes.

- ☞ The **Internal Quality Assurance Cell** functions as a mechanism to mobilize, monitor, and maintain the momentum of quality consciousness among stakeholders with a view to improving the academic and administrative performance of the University. It also functions as an internal assessment and accreditation body of the University. The IQAC made all preparations along with the University Management Committee for the visit of the Peer Team of NAAC to the University from 31 May to 2 June 2017. In collaboration with NAAC (Bangalore), it also organised one Assessors' Orientation Programme at NEHU on 19 & 20 March 2018 as per the Revised Accreditation Framework, which was participated by 6 Vice-Chancellors, 32 Professors and 22 Principals of different universities, colleges and institutions in North-East India.
- ☞ The **Campus Development Department** has completed major building works, including furnishing works of the Guest House near Guwahati Airport at a cost of ₹8.00 crores. Remaining works, including furnishing and installation of ACs, are in progress. In addition to several renovation and repair works, construction of a twenty-bedded Guest House at Tura campus was completed; furnishing works are in progress. Construction works are also in progress for Deen Dayal Upadhyay Community College for Skill Development at Wāhājār (West Jaintia Hills). Some construction works like 12 units of L-type quarters, 6 units of P-type quarters, and 4 units of Non-Teaching quarters are being outsourced to the CPWD.
- ☞ Regarding financial position, the total receipt of the university in 2017–18 was ₹323.04 crores, of which ₹274.90 crores from the Government of India including the UGC (i.e., an increase of ₹59.46 crores from ₹215.44 crores last year). A total amount of ₹248.72 crores was utilized for various purposes of the University.

Conclusion

NEHU has maintained its position as a leading central university in building excellence and raising standards of higher education at both national and international levels. The University is committed to achieving academic excellence by initiating and developing national and international partnerships and collaborations that appreciate and promote the values of diversity and inclusion. The University is above par in terms of enrollment, student-teacher ratio, female-to-male ratio enrollment, and above all, *teaching and research*. The University's potential for excellence in teaching and research has also been *endorsed by the National Assessment and Accreditation Council (NAAC), which accredited the University with A Grade in 2017*, thereby securing its status for three consecutive times. Contributions of the University especially in terms of publications are sought and valued within and outside the country. According to the Indian Citation Index 2017, *NEHU ranked 13 among the top 20 central universities in the country based on published papers and citations*. The University has also performed well in teaching and research productivity as reflected in PhD theses, research projects, and academic collaborations; but, deeper institutional commitments are also needed to focus on those areas envisioned in the aims and objectives of the University keeping in view the socio-economic realities and timeliness of research quality in well-defined target areas.

Officers of the University

Visitor	President of India
Chief rector	Governor of Meghalaya
Chancellor	Prof. André Bêteille (Till 3 October 2017)
Vice-Chancellor	Prof. Sri Krishna Srivastava
Pro-Vice-Chancellor (Shillong)	Prof. H. Lamin
Pro-Vice-Chancellor (Tura)	Prof. G. Singaiah
Registrar	Dr. J. N. Nayak (In-charge)
Finance Officer	Shri. L. M. K. Lyngrah (In-charge)
Controller of Examinations	Shri. T. K. Singha (In-charge)
Librarian	Shri. F. R. Sumer (In-charge)
Dean, Students' Welfare	Prof. H. Kayang
Dean, School of Economics, Management and Information Sciences	Prof. B. Mishra (Till 4 March 2018) Prof. B. Panda (Since 5 March 2018)
Dean, School of Education	Prof. S. M. Sungoh
Dean, School of Humanities	Prof. B. K. Agarwala
Dean, School of Human and Environmental Sciences	Prof. D. K. Nayak (Till 5 January 2018) Prof. R. Khongsdier (Since 6 January 2018)
Dean, School of Life Sciences	Prof. B. B. P. Gupta
Dean, School of Physical Sciences	Prof. R. H. D. Lyngdoh
Dean, School of Social Sciences	Prof. C. Mawlong
Dean, School of Technology	Prof. Gautam Saha

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Shri R. K. Ram	Member

CONTENTS

From the Vice-Chancellor's Desk	v
Executive Summary	vi
Officers of the University	xvii
Members of the Editorial Board	xviii
I School of Economics, Management and Information Sciences	1
Department of Agribusiness Management and Food Technology (Tura Campus)	2
Department of Commerce	5
Department of Economics	10
Department of Journalism and Mass communication	21
Department of Library and Information Science	23
Department of Management (Tura Campus)	29
Department of Tourism and Hotel Management	41
II School of Education	46
Department of Adult and Continuing Education	47
Department of Education	51
Department of Education (Tura Campus)	68
Centre for Distance Education	72
Centre for Science Education	75
III School of Humanities	78
Department of English	79
Department of English (Tura Campus)	88

	Department of Garo (Tura Campus)	93
	Department of Hindi	98
	Department of Khasi	104
	Department of Linguistics	114
	Department of Philosophy	119
IV	School of Human and Environmental Sciences	124
	Department of Anthropology	125
	Department of Environmental Studies	134
	Department of Geography	141
	Department of Horticulture (Tura Campus)	151
	Department of Rural Development and Agricultural Reproduction (Tura Campus)	158
V	School of Life Sciences	163
	Department of Biochemistry	164
	Department of Biotechnology and Bioinformatics	175
	Department of Botany	188
	Department of Zoology	203
VI	School of Physical Sciences	215
	Department of Chemistry	216
	Department of Mathematics	229
	Department of Physics	232
	Department of Statistics	237
VII	School of Social Sciences	241
	Department of Cultural and Creative Studies	242
	Department of History	246
	Department of History and Archeology (Tura Campus)	255
	Department of Law	258

	Department of Political Science	265
	Department of Sociology	274
VIII	School of Technology	278
	Department of Architecture	279
	Department of Basic Sciences and Social Sciences	282
	Department of Biomedical Engineering	291
	Department of Computer Applications (Tura Campus)	301
	Department of Electronics and Communication Engineering	304
	Department of Energy Engineering	311
	Department of Information Technology	314
	Department of Nanotechnology	322
IX	Administrative Departments	325
	College Development Council	325
	Examination Department	328
	Finance Department	330
	Planning Department	332
X	Central Services	333
	Bioinformatics Centre	333
	Campus Development Department	337
	Career and Counselling Cell	339
	Career and Counselling Cell (Tura Campus)	346
	Central Library	348
	Central Library (Tura Campus)	355
	Computer Centre	357
	Equal Opportunity Cell	360
	Health Centre	361

Hindi Cell	363
Internal Quality Assurance Cell	364
National Service Scheme Cell	365
NEHU Data and Voice Network (NDVN)	379
Publication Unit	384
Sophisticated Analytical Instrument Facility	386
Sports Department	390
Students' Welfare Cell	393
UGC-Human Resource Development Centre	396
Women's Cell	399
Appendix A: Members of the University Court	401
Appendix B: Members of the Executive Council	406
Appendix C: Members of the Academic Council	409
Appendix D: Members of the Board of Research Studies	415
Abbreviations and Acronyms	417



SCHOOL OF ECONOMICS, MANAGEMENT AND INFORMATION SCIENCES

Dean : Prof. B. Mishra (Till 4 March 2018)
Prof. Bhagirathi Panda (Since 5 March 2018)

Telephone : 0364-2723131(O)/0364-2726184(R)/9436117613(M)

E-mail : deanemis@nehu.ac.in, bhagirathi2@yahoo.co.in

The School of Economics, Management and Information Sciences comprises seven departments, namely Agri-Business Management and Food Technology, Commerce, Economics, Journalism and Mass Communication, Library and Information Sciences, Management, and Tourism and Hotel Management. All the departments offer the Master and PhD programmes, and the Department of Economics also offers the MPhil programme. The USPs of the School are its (i) vibrant academic culture created and sustained by the mosaic of experienced and young faculty drawn from different parts of the country and the opportunity of working in a multicultural environment, (ii) an overt teaching pedagogy principally grounded on the imperative of balancing theory and practice, and (iii) the ambience of teaching and research on different subjects calibrated and qualified by contemporariness, relevance and job requirements of the students, the North-Eastern Region of India and the country. Some of the quantifiable outcomes of the School under the period of report (April 2017 to March 2018) are listed out below:

(i) Papers published in national and international journals: 77, (ii) Articles published in Scopus indexed journals/books: 13, (iii) Book chapters/conference proceedings published: 33, (iv) MPhil awarded: 1, (v) PhD awarded: 16, (vi) Seminars organised: 18, (vii) Seminars/conferences/workshops attended by faculty with paper presentation: 61, (viii) Projects undertaken by faculty: 10, (ix) Fellowships received by students for undertaking PhD programme: 51, (x) Students placed (Departments of Management and Library & Information Sciences only): 26.

Each department under the School has its thrust areas of research. However, areas in which the school has established its primacy at the national level include Economics of the North-Eastern Region of India, Rural and Labour Economics, Public Economics and Local Finances, Environmental and Resource Economics, Sub-regional Economics, Accounting and Finance, Entrepreneurship and Small Business, Micro-Finance and Rural Credit Management, Information Technology and Social Marketing, Supply Chain Management, Hospitality and Tourism Studies, Sustainable Tourism, Agri and Food Marketing, Food Biotechnology, Knowledge Organisation, Information Storage and Retrieval, Application of Management Concepts and Management Principles in Libraries and Information Centres, Information/Knowledge Management, Information Management, Film Studies and Culture & Media Studies. Faculty members of the School, in addition to teaching and research, have also provided crucial policy support to the central, state and local governments on issues and programmes of *transformative development*.



DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND FOOD TECHNOLOGY (TURA CAMPUS)

Head : Dr. Sheena Haorongbam
Telephone : 03651-223107
E-mail : amftnehutura@gmail.com, sheenahaorongbam@gmail.com

Faculty: 3

Designation	Name and Qualification	Specialization
Assistant Professor (3)	Sheena Haorongbam, MSc & PhD (Panjab)	Biochemical, Analytical and Nutritional Aspect of Plant-Based Foods, Process and Preservation of Foods, Its Health Impacts and Food Habits
	Gino A. Sangma, MBA (NEHU)	Marketing Management and Agribusiness Management
	R. Sasikumar, MSc (GB Pant)	Fruits and Vegetables Processing Technology Food Biotechnology Beverage Technology Fermentation Technology

Thrust Areas of Research

Management of Small Business, Entrepreneurship, Supply Chain Management, Micro Finance, Rural Marketing, Agri and Food Marketing, Tourism Development, Food Biotechnology, Food Processing Technology, Food Packaging Technology, Fermentation Technology, Traditional Knowledge and Food Habits, Certification and Quality Assurance of Foods, Post-Harvest and Processing Technology and Management of Fruits and Vegetables, Skill Development, Rural Extension Services, Food Analysis and Hygiene, Underutilized Forest Resources.

Brief Statement of Academic Activities

The Department offers the MBA programme in Agri-Business and Food Technology. During the current year under report, the Department admitted fifteen students for the MBA programme, and seven students completed their MBA degree successfully. Faculty members of the Department have contributed two research papers published in journals, one book and two book chapters/proceedings.

Students' Profile

Enrolment Capacity: MBA—15

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MBA	06	09		12		03	03	12	15

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MBA	03	04	01	05		01	05	02	07

Department of Aribusiness Management and Food Technology (Tura Campus)

Educational Tour of Students

Teacher-in-Charge: Mr. Sendrick A. Sangma, Guest Lecturer and Miss Tane Zillian T. Sangma, Guest Lecturer

Places/Institutions Visited: Garo Hills Cooperative Cotton Ginning and Oil Mills Ltd., Phulbari, West Garo Hills, Meghalaya

Duration of Tour: On 3 June 2017

Purpose of Tour: Industrial Visit

Courses Conducted

Postgraduate: MBA (Agri-Business and Food Technology)

Semester I

Management Concepts, Managerial Economics, Computer Applications, Business Environment, Quantitative Analysis for Managerial Decision, Accounting for Managers, Financial Management, Management of Food and Agribusiness.

Semester II

Business Communication, Agri-Business Marketing, Human Resource Management in Agri-Business, Operations Management, Supply Chain and Retail Management, Legal Aspects of Business, Fundamentals of Food Processing and Preservation, Tax Laws.

Semester III

Research Methods, Entrepreneurship and New Venture Development, Agricultural Credit and Co-operative Management, Agribusiness Management, Agri and Food Marketing, Farm Business Management, Agricultural Project Management, Agricultural Input Management, ICT in Agribusiness, Food Chemistry and Analysis, Food Microbiology, Unit Operations in Food Processing, Post-Harvest Management of Horticultural Crops, Food Additives and Regulations.

Semester IV

Strategic Management, Intellectual Property Rights, Commercial Horticulture, Commodity Futures Trading, International Trade in Agriculture, Livestock Production Management, Cereal and Bakery Technology, Food Hygiene and Sanitation, Total Quality Management in Food Industry, Beverages and Fermentation Technology, Project/Dissertation.

Seminars/Conferences/Symposia/Workshops

Attended

Gino A. Sangma

Presented an oral presentation on “Sustainable Utilization and Conservation of Natural Resources in West Garo Hills Region of Meghalaya” at the national conference on *Enhancing Nutritional Security through Climate Smart Farming Practices* organised by the Cooch Behar Association for Cultivation of Agricultural Sciences on 17 & 18 March 2017.

Publications

Published in India

Sasikumar, R., Vivek, K., Chakaravorthy, S., Deka, S. C. (2017). Effect of post-harvest quality parameters on ultra-sonication treatment of khoonphal (*Haematocarpus validus*) of Meghalaya, North-East India. *Journal of Food Processing and Technology*, 8: 668, doi: 10.4172/2157-7110.1000668.

Published abroad

Vivek, K., Mishra, S., Sasikumar, R. (2017). Effect of ultra-sonication on postharvest quality parameters and microbial load on *Docynia indica*. *Scientia Horticulturae*, 225:163–170.

Books/Book Chapters/Proceedings

- Akoijam, S. L. S., Sangma, A. G. (2017). Destination marketing of tourist spots: A study of Garo Hills in Meghalaya, India. In: *Proceedings of the International Conference on Knowledge Transfer and Transformation: Global and Local Business for Competitiveness and Social Justice*. Kathmandu, Nepal, p. 549–561.
- Sangma, A. G. (2017). Problems and prospects of agri-tourism in West Garo Hills, Meghalaya. In: *Agricultural Marketing Issues and Challenges*. D. Bhagat and S. L. S. Akoijam (Eds.). Biotech Books, New Delhi, Chapter 13, p. 151–162.
- Sasikumar, R., Chakkaravarthy, S., Vivek, K. (2017). *Food Processing Technology: A Technical Manual*. Biotech Publication, New Delhi, ISBN: 978-81-7622-370-6.

Research Projects

New: 3

Title of Project	PI/CO-PI	Funding Agency	₹ in Lakhs
Phytochemical and Molecular Characterization, Bioprospecting of Genes, Value Addition and Quality Enrichment of Bamboo through Plant Tissue Culture Technique from North-East India	PI: Arindam Barman Co-PI: Dr. Sheena Haorongbam	DST (SERB), New Delhi	30.04
Development of Low Cost Process Technology for Extraction of Oleoresin, Essential Oils and Its Value Added Products from Tejpatta (<i>Cinnamomum tamala</i>) and Creating Entrepreneurship for Tribal People of Meghalaya	R. Sasikumar, A. K. Chaurasiya	TRIFED, New Delhi	22.33
Value Addition of Banana (<i>Musa</i> sp) and Creating Small Scale Enterprises of Meghalaya Tribal Community through Minimal Processing Technology	R. Sasikumar, R. K. Duary	DBT-NER, New Delhi	71.06

Other Activities

Dr. Sheena Haorongbam

Attended and completed a faculty development programme on *Entrepreneurship* sponsored by EDII (Guwahati) and organised by the Department of Management (NEHU, Tura) from 1 to 14 March 2017.

Gino A. Sangma

Attended and completed a capacity building programme on *Enhancement of Capacities of Researchers in Social Sciences Research Areas: An Attempt for Transformation in Research Attitude and Aptitude* sponsored by ICSSR (New Delhi) organised by the Department of Management (NEHU, Tura) from 5 to 18 May 2017.



DEPARTMENT OF COMMERCE

Head : Dr. A. P. Pati
Telephone : 0364-272-3161
E-mail : hodcom@nehu.ac.in

Faculty: 3

Designation	Name and Qualification	Specialization
Professor (3)	N. M. Panda, MCom (Utkal), PhD (Manipur)	Management Accounting and Entrepreneurship
	A. P. Pati, MCom, PhD (Utkal)	Finance
	K. C. Kabra, MCom, PhD (JRNRVU)	Accounting and Finance
Associate Professor (3)	Ricky A. J. Syngkon, MCom & PhD (NEHU)	Managerial Economics and Entrepreneurship
	S. G. Maji, MCom, PhD (Burdwan)	Accounting and Finance
	S. Kharmawphlang, MCom & PhD (NEHU)	Entrepreneurship and Marketing

Thrust Areas of Research

The Department aims at imparting education that is needed for creating and managing business enterprises in an emerging economy of North-East India. Keeping in view the importance of Business Research at national and regional levels, it also conducts socially relevant research work, awareness programmes, etc. The thrust areas of research in the Department include Accounting & Finance, and Entrepreneurship and Small Business.

Brief Statement of Academic Activities

There are six regular teachers, including three Professors and three Assistant Professors. Currently the Department has 100 students at Master's level and 18 students at doctoral level. Besides regular teaching and research work, the Department conducts seminars, workshops, awareness programmes, career, PhD scholars present their progress of research works, and such presentations are organised regularly.

Two student seminars (debates) on GST and demonetisation were conducted during the year. Prof. P. K. Pradhan (Department of Commerce, Utkal University) delivered a talk to the MCom Students, and resource persons from BSE (Mumbai) delivered lectures on stock market investment to the MCom Students.

School of Economics, Management and Information Sciences

Students' Profile

Enrolment Capacity: MCom—50, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MCOM	49	52	04	83		14	74	27	101
PhD	02	01		02		01	02	01	03

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MCOM	15	24	01	29		09	27	12	39
PhD		02				02		02	02

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor & Joint Supervisor
Gitika Talukdar	Evolution and Emerging Trend in Work-Life Balance: A Meta-Analysis	V. K. Shrotryia (Supervisor—on lien) and S. Maji (Joint Supervisor)
Kasturi Saikia	Corporate Social Responsibility and Beneficiaries Satisfaction: A Study of Oil Sector Companies in North-East India	V. K. Shotriya (Supervisor—on lien) and K.C. Kabra (Joint Supervisor)

Research Fellowships: 14

UGC NON-NET	National Fellowship for Higher Education (ST)	Maulana Azad Minority Fellowship	UGC NET JRF/SRF	ICSSR
03	01	02	07	01

Fieldwork/Educational Tour of Students

Teacher-in-Charge: R. A. J. Syngkon

Places/Institutions Visited: Kerala, Goa and Mumbai

Duration of Tour: 18 days (24 January to 10 February 2017)

Purpose of Tour: To enable the students to see, experience and learn about the diverse socio-economic and cultural lives of people in these places, and to observe entrepreneurial activities in a different socio-economic and cultural setting/context.

Courses Conducted

Postgraduate: MCom

Semester I

Business Environment, Organization Behavior, Financial Analysis and Reporting, Statistics for Decision Making, Managerial Economics.

Department of commerce

Semester II

Financial Management, Human Resource Management, International Business, Services Management, NGO Management, Accounting for Services.

Semester III

Financial Markets and Instruments, Entrepreneurship, Cost and Management Accounting, Financial Risk Management, Management of Small Enterprise, Business Survey and Research.

Semester IV

International Business, Strategic Management, Security Analysis and Portfolio Management, Project Planning and Control, Human Resource Management.

PhD Courses

Research Methodology, Management Theory and Entrepreneurship, Organisational Behaviour, Literature Review in concerned area.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised a national seminar on *Demonetisation and Digitisation of Indian Economy* on 27 & 28 November 2017 at the Old Guest House (NEHU, Shillong) with Prof. K. C. Kabra as Convener.

Attended

Prof. N. M. Panda

Chaired a technical session on “Recent Trends in Financial Research” at a national seminar organised by the Department of Management, NEHU, Tura (23–24 November 2017).

Prof. A. P. Pati

Presented a paper on “Micro Credit Intervention in Northeast India: Is It Supplementing Rural Credit?” at the national seminar on *Agrarian Crisis, Rural Credit and Employment in the North-East* organised by the Omeo Kumar Das Institute of Social Change and Development (OKDISCD) and the Department of Economics, NEHU, Shillong (23–24 February 2018).

Dr. Ricky A. J. Syngkon

Presented papers on (i) “Sustainable Rural Livelihood: Its Prospects and Problems” at the one-day regional seminar on *Rural Livelihood* organised by *Sohra Government College* on 11 April 2017, and (ii) “Entrepreneurial Skills and Rural Development” at the one-day seminar on *Entrepreneurship and Development* organised by *Tirot Singh College (Mairang)* on 9 May 2017.

Dr. S. G. Maji

Presented papers on (i) “Intellectual Capital and Bank Performance in India: An Application of Panel Data Quintile Regression” at the *Annual Banking Conference 2017* organised by the Bangladesh Institute of Bank Management on 26 & 27 November 2017 in Dhaka, and (ii) “Towards SSE: The Role of Women’s Participation” at the Academy on *Social and Solidarity Economy: Innovative Ecosystems for Solidarity Economy Policies and South-South Cooperation* organised by ILO and Global Social Economy Forum in Seoul, South Korea (26–30 June 2017).

Dr. Shimti Kharmawphlang

Presented a paper entitled “Delayed Financing: An Impediment for Rural Enterprise Growth” at the 1st International Conference on *Rural Management* organised by Xavier School of Rural Management at Xavier University, Bhubaneswar, Odisha (23–24 November 2017).

Publications

Published in India

- Deb, R., Panda, N. M. (2018). The role of social entrepreneurship in North-East India. *Jamshedpur Research Review*, XXVI (1): 29–38.
- Ezhilarasi, G., Kabra, K. C. (2017). The impact of corporate governance attributes on environmental disclosures: Evidence from India. *Indian Journal of Corporate Governance*, 10(1): 24–43.
- Ghosh, B., Kabra, K. C. (2017). Capital structure, group affiliation and financial constraints: Indian evidence. *Prajnan*, XLVI (1): 9–36.
- Ghosh, B., Kabra, K. C. (2018). Dynamic capital structure adjustments and business group affiliations: Indian evidence. *Business Perspectives and Research*, 6(1): 27–41.
- Laskar, N., Maji, S. G. (2017). Corporate social responsibility performance and firm performance: A cross country analysis from Asia. *IPE Journal of Management*, 7(1): 138–148.
- Maji, S. G., Goswami, M. (2017). Determinants of credit risk of Indian banks: A study on pre- and post-structural break. *The Management Accountant*, 52(11): 46–63.
- Maji, S. G., Hazarika, P. (2017). Testing the impact of competition on risk of Indian commercial banks: A comparative analysis. *Research Bulletin*, 43(3): 74–90.
- Panda, N. M. (2017). Corporate governance: An ethical perspective. *The Sankalpa*, 2(1&2): 101–116.

Published Abroad

- Laskar, N., Chakraborty, T. P., Maji, S. G. (2017). Corporate sustainability performance and financial performance: Empirical evidence from Japan and India. *Management and Labour Studies*, 42(12): 88–106.
- Laskar, N., Maji, S. G. (2017). Corporate sustainability performance and firm performance: Evidence from India and South Korea. *International Journal of Corporate Strategy and Social Responsibility*, 1(2): 118–140.
- Maji, S. G., Hazarika, P. (2018). Capital regulation, competition and risk-taking behaviour of Indian banks in a simultaneous approach. *Managerial Finance*, 44(4): 459–477.
- Pati, A. P. (2017). Contribution of microfinance in achieving millennium development goals: Evidences from global pool data. *International Journal of Rural Development*, 13(2): 182–198.
- Pati, A. P. (2018). Credit risk stress testing practices in BRICS economies: Post-global financial crisis scenario. *Global Business Review*, 18(4): 936–954.

Book Chapter

- Maji, S. G. (2017). Towards SSE: The role of women’s participation. In: *Academy on Social and Solidarity Economy: Innovative Ecosystems for Solidarity Economy Policies and South-South Cooperation*. Anita Amorim and Roberto di Meglio (Eds.). ILO Publication, Seoul, p. 20–22.

Department of commerce

Honours/Awards/Recognition

B. Ghosh and K. C. Kabra's paper on "What Determines Firms' Zero-Leverage Policy in India?" published in *Managerial Finance*, 42(12): 1138–1158 was awarded the highly commended paper at the 2017 Emerald Literati Network Awards for Excellence.

Prof. N. M. Panda

Member of the International Advisory Board, The SANKALPA, *International Journal of Management Decision*, Utkal University.

Prof. A. P. Pati

Editor of the *Journal of Trade and Management* and Member of the Editorial Board of the *Orissa Journal of Commerce and NEHU Journal*.

Prof. K. C. Kabra

Elected as President of the Meghalaya Chapter of Indian Accounting Association.

Other Activities

Prof. N. M. Panda

Resource person in the workshop on (i) *Preparation of a Handbook on Entrepreneurship Development for North-East India* organised by NCERT, New Delhi (15 November 2017), and (ii) Preparation of a handbook on *Entrepreneurship Development for North-East India* organised by NCERT, New Delhi (10–11 January 2018). He also delivered a lecture on "The Challenges of Entrepreneurship Development in North-East India" at NERIM (Guwahati) on 14 September 2017.

Prof. A. P. Pati

Resource person in (i) 2nd North-East India Commerce and Management Association (NEICMA) national conference on *Sustainable Rural Livelihood: Emerging Dimensions* organised by the Department of Commerce, Rajiv Gandhi University, Itanagar (10–11 November 2017), and (ii) national seminar on *Financial Services in India: Emerging Issues and Trends* organised by Gauhati Commerce College (Guwahati) on 21 & 22 March 2018.

Delivered the inaugural address at the national seminar on *Financial Services in India: Emerging Issues and Trends* organised by Gauhati Commerce College, Guwahati (21–22 March 2018). He was also a reviewer for the *International Journal of Rural Development*.

Prof. K. C. Kabra

Delivered lectures on (i) "Career Opportunities at +2 Level for Commerce Students" organised by the Akhil Bhartiya Vidyarthi Parishad at RB Anup Chand Secondary School, Shillong (7 May 2017), (ii) "What is Goods and Service Tax (GST)?" during a refresher course in *Tribal Studies* organised by UGC-HRDC, NEHU, Shillong (9 February 2018), and moderated a debate on *Goods and Service Tax* held at the Department on 12 March 2018.

Dr. R. A. J. Syngkon

Delivered lectures on "Myths of Entrepreneurship" and "Entrepreneurship and the Tribal Mind Set" during an orientation course organised by UGC-HRDC, NEHU, Shillong (29–30 January 2018).

Dr. S. G. Maji

Acted as reviewer for the *Journal of Financial Economic Policy* (Emerald), *International Journal of Learning and Intellectual Capital* (Inderscience) and *International Journal of Corporate Strategy and Social Responsibility* (Inderscience).



DEPARTMENT OF ECONOMICS

Head : Prof. U. K. De (Till 13 July 2017)
 Prof. B. Panda (From 14 July 2017 to 4 March 2018)
 Prof. B. Mishra (Since 5 March 2018)

Telephone : 0364-272-3161

E-mail : bmishra_nehu@hotmail.com

Website : <http://nehu-economics.info>

Faculty: 13 (one on lien)

Designation	Name and Qualification	Specialization
Professor (6)	N. Srivastav, MA (Rajasthan), PhD (IIT Kanpur)	Industrial Economics
	E. D. Thomas, MA & PhD (NEHU)	Macroeconomics, International Economics and Rural Economics
	P. Nayak, MA & PhD (IIT Kharagpur)	Human Development, Women Empowerment
	B. Mishra, MA & PhD (Utkal)	Public Economics, Political Economy
	U. K. De, MPhil, PhD (Burdwan)	Econometrics, Environment and Resource Economics, Economics of Agriculture and Rural Development, Empowerment of Women
	B. Panda, MPhil (Berhampur), PhD (Utkal)	Development Economics, Rural Economics
Associate Professor (2)	P. S. Suresh, MPhil (SVU), PhD (Hyderabad)	Financial Economics
	S. Umdor, MA & PhD (NEHU)	Indian Economy, Local Govt Finance
Assistant Professor (5)	W. Tariang, MA & PhD (NEHU)	Agriculture Economics, Gender and Poverty
	D. Nongkynrih, MA & PhD (NEHU)	Labour Economics
	D. W. Thangkhiew, MA & PhD (NEHU)	Macroeconomics
	V. Pala, MA & PhD (NEHU)	Microeconomics, Quantitative Economics
	D. Das, MSc (Gauhati), PhD (IIT Gauhati) (on lien)	Econometrics

Department of Economics

Thrust Areas of Research

Public Economics and Local Finances, Economics of North-East India with emphasis on Upland Economy, Rural Development, Human Development, Financial Economics, Environmental Economics.

Brief Statement of Academic Activities

During the year, the Department concentrated on its postgraduate teaching programmes and researches. The faculty members participated in a number of regional, national and international seminars and conferences. The Department organised the 19th Annual Conference of the North-Eastern Economic Association and National Seminar on (i) *Entrepreneurship and Campaigns of Skill India, Start-Up India* and (ii) *Structural Transformation of the North-Eastern Economy* on 23 & 24 March 2018. This conference was attended by more than 150 economists from all parts of the North-East and outside the North-Eastern Region. The Department had also organised a two-day national seminar on *Agrarian Crisis, Rural Credit and Employment in the North-East* in collaboration with OKDISCD (Guwahati) from 23 to 24 February 2018. It also conducted the one-day workshop on *India's Monetary Policy* in collaboration with the RBI team from Mumbai and Guwahati on 9 November 2017. Further, to enrich the academic exposure of its students, Mr. Kenny R. Shullai, 3rd semester MA student of the Department, was sent to Japan under the SAARC-JAPAN Network Programme (Economic Cooperation), and Mr. Shullai visited Japan from 27 November to 5 December 2017. Another attainment of the Department was the awarding of annual scholarships to ten meritorious ST students of the 3rd semester batch by the EXIM Bank of India for the year 2017–18. The Indian Statistical Institute (ISI, Kolkata) had selected one of the III semester students from the Department for an all-paid internship programme of the Institute. Faculty of the Department had visiting/collaborative assignments with eminent institutes like TISS (Mumbai), OKDISCD (Guwahati), RBI (Mumbai) and ISI (Kolkata).

Students' Profile

Enrolment Capacity: MA—55, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	17	38		46	01	08	29	26	55
MPhil		01				01		01	01
PhD	02	02		02	01	01		04	04

Degree Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	21	29		48		02	33	17	50
PhD	03	03		04	01	01	03	03	06

School of Economics, Management and Information Sciences

Name of Student	Title of Thesis	Name of Supervisor & Joint Supervisor
Bidisha Mahanta	A Study on Gender Gap, Women Empowerment and Human Development among the Below Poverty Line Households in Dibrugarh District of Assam	P. Nayak (Supervisor)
Trailokya Deka	Impact Assessment of Mahatma Gandhi National Rural Employment Guarantee Scheme: A Case Study of Assam	B. Panda (Supervisor)
Rupa Bakor Kharshiing	Participation in Education in India: Trends and Determinants	Veronica Pala (Supervisor)
Bashemphang R. Syiem	A Study of the State of Finance of Autonomous District Councils in Meghalaya	S. Umdor (Supervisor)
Vitosie Vupru	Determinants of the Demand for Housing in Dimapur: A Hedonic Pricing Approach	U. K. De (Supervisor)

Research Fellowships: 13

CSIR-UGC NET: 01

UGC NON-NET: 12

Courses Conducted

Postgraduate: MA

Semester I

Microeconomics Analysis I, Macroeconomics I, Mathematics for Economists, Economics of Growth and Development I, Classical Political Economy.

Semester II

Microeconomics II, Macroeconomics II, Techniques of Statistical Analysis, Economics of Growth and Development II. Open Course: Budgetary Theory and Practice, Econometrics.

Semester III

Historical Perspective of Modern Economics I, International Economics, Industrial Economics. Open Course: Economics of Agriculture, Economy of North-Eastern Region.

Semester IV

Historical Perspective of Modern Economics II, Indian Economic Problems and Policy, Environmental Economics, Labour Economics, Financial Economics.

MPhil/PhD Courses

Research Methodology in Economics, Contemporary Economic Issues, Review of Literature.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised the 19th Annual Conference of the North-Eastern Economic Association and National Seminar on (i) *Entrepreneurship and Campaigns of Skill India, Start-Up India*, and (ii) *Structural Transformation of the North-Eastern Economy* at the Multi-Use

Department of Economics

Convention Hall, NEHU, Shillong (23–24 March 2018): Prof. B. Panda as Convener, and Dr. S. Umdor and Dr. W. Tariang as Co-Conveners.

Prof. B. Panda

Organised (i) two-day national seminar on *Agrarian Crisis, Rural Credit and Employment in the North-East* in collaboration with OKDISCD (Guwahati) at ICSSR-NERC, Shillong (23–24 February 2018), and (ii) one-day seminar on *India's Monetary Policy* in collaboration with the RBI at the Department on 9 November 2017.

Prof. P. Nayak

Organised a two-day Assessors' Orientation Program sponsored by the National Assessment and Accreditation Council (Bengaluru) at NEHU, Shillong (19–20 March 2018). Co-coordinator: Prof. N. Srivastav.

Attended

National

Prof. N. Srivastav

Delivered a key note address at the inaugural session and chaired the first technical session of the UGC-sponsored national seminar on *Rural Non-farm Employment in North-East India* organised by IQAC, Nazira College, Nazira, Sivsagar, Assam (27–28 October 2017).

Presented papers on (i) "Livelihood Pattern and Employment among the Aged People in Rural Nagaland" at the national seminar on *Agrarian Crisis, Rural Credit and Employment in the North-East* organised by OKDISCD (Guwahati) in collaboration with the Department on 23 & 24 February 2018, (ii) "Health Status and Economic Life of the Rural Aged People in North-Eastern Region of India" at the international interdisciplinary seminar on *Human Resource Development in South Asia: Capabilities, Challenges and Prospects* organised by the Department of Economics (Synod College, Shillong) and South Asia Social Science Research Network in Shillong (16–17 March 2018), and (iii) "Income Status and Economic Security of the Rural Aged People in Nagaland" and "Catastrophic Expenditure due to Out-of-Pocket Health Care Payments and Its Determinants in Assam," and also chaired a technical session on "Researcher's Forum" during the 19th Annual Conference-cum-National Seminar of NEEA on *Structural Transformation and Economic Development in North-East India* organised by the Department on 23 & 24 March 2018.

Prof. P. Nayak

Delivered three lectures on "Statistical and Econometric Tools in Research Using Microsoft Excel" at the ICSSR-sponsored workshop at the Department of Economics, Nagaland University, Lumami (25–26 May 2017).

Resource person in the national seminar on *Recent Trends in Financial Research* and chaired a panel discussion on *Goods and Services Tax* organised by the Department of Management (NEHU, Tura) on 23 & 24 November 2017. He also chaired a session on (i) "Demonetization and Digitization of Indian Economy" at a national seminar organised by the Department of Commerce, NEHU, Shillong (27–28 November 2017), and (ii) "Structural Transformation and Economic Development in North-East India" at the 19th Annual Conference-cum-National Seminar of NEEA on *Structural Transformation and Economic Development in North-East India* organised by the Department on 23 & 24 March 2018.

School of Economics, Management and Information Sciences

Prof. B. Mishra

Presented papers on (i) “Public Expenditure and Income Nexus at the Substantial Level Evidence from the State of Assam” with Manoj Talukdar, and (ii) “Fiscal Constraints: Imbalance in Protectionism and Optimum Resource Utilisation Policies in North-Eastern States” with Sammer Ul Hassan, and also chaired a session during the 19th Annual Conference-cum-National Seminar of NEEA on *Structural Transformation and Economic Development in North-East India* organised by the Department on 23 & 24 March 2018.

Prof. U. K. De

Presented papers on (i) “Regional Integration and Trade of India and Bangladesh with ASEAN Countries: An Empirical Investigation” at the national conference on *Inclusive Growth for Sustainable Development* held at Comilla University, Bangladesh (29 March 2018) and also chaired a session of the seminar, (ii) “Road Infrastructure and Agricultural Development: A Policy Intervention in a Backward Economy” at the *Insearch 2017: 4th International Integrative Research Conference on Education, Governance and Development* held at BARD, Comilla, Bangladesh (18–19 December 2017); also chaired a session of the Conference, (iii) “Livelihood of the Forest Dwellers and Degradation of Forest Biodiversity: Evidence from Sariska National Park, India” at the national seminar on *Environmental Issues* held at Vivekananda College for Women, Barisha, Kolkata (6–7 April 2018), and chaired one academic session, (iv) “The Impact of Fiscal Policy Instruments in Reducing Transport Sector Externalities in North-East India: An Analytical Review” with G. Rajbonshi and Christopher P. P. Safuda at the *NEEA 19th Annual Conference* held at NEHU (Shillong) on 23 & 24 March 2018, and chaired one session, (v) “Determinants of Urban Housing Demand: An Empirical Investigation in a North-East Indian Town” with V. Vupru, and (vi) “Urbanization and Transportation: A Study of Shillong City and Its Suburbs” with G. Rajbonshi at the national seminar on *Growth of Unplanned Towns and Cities in the North-Eastern Region of India: Problems and Alleviation Measures* organised by ICSSR-NERC (Shillong) on 20 & 21 November 2017.

Delivered a lecture as a resource person on “Adaptation and Sustainable Agricultural Practice by Small Farmers under Changing Climate: Evidence from India’s North-East” at the national seminar on *Land, Labour and Livelihood: Focus on Development of Marginalised Communities and Social Groups* held at the Indian Statistical Institute, Giridih (30–31 January 2018), and chaired a session. He also chaired a technical session of the international conference on *Sustainable Tourism and Hospitality Marketing: Setting Agenda for Future Research* organised by the Department of Tourism and Hotel Management, NEHU, Shillong (15–17 March 2018).

Prof. Bhagirathi Panda

Delivered a special invited lecture on “Economic Development, Structural Transformation and Rural Non-Farm Employment” at the national conference on *Redefining Development: Rationalization of Indigenous Resources* organised by the Tangkhul Scholars’ Association in Collaboration with Indira Gandhi National Tribal University at Ukhrul, Manipur (30–31 May 2017).

Presented papers on (i) “Act East Policy, India’s North-East and Thailand: Issues in Economic Integration” at the *13th International Conference on Thai Studies* held in Chiangmai, Thailand

Department of Economics

(15–18 July 2017), (ii) “Rural Non-Farm Employment and Economic Development in North-East” at the UGC-sponsored national seminar on *Rural Non-Farm Employment in North-East India* held at Nazira College, Shivsagar, Assam (27 October 2017), and (iii) “Demonetisation, Economic Development and Informal Economy” at the national seminar on *Demonetisation and Digitisation of Indian Economy* organised by the Department of Commerce (NEHU, Shillong) on 28 November 2017. He also chaired the academic session on ‘Plantation Economy of Northeast India’ at the national seminar on *Agrarian Crisis, Rural Credit and Employment in the North-East* held at ICSSR-NERC (NEHU, Shillong) on 23 February 2018.

Dr. P. S. Suresh

Presented papers on (i) “Demonetization and Its Impact on Indian Equity Market: An Event Study Analysis” with S. George at the national seminar on *Demonetization and Digitalization of Indian Economy* organised by the Department of Commerce, NEHU, Shillong (27–28 November 2017), (ii) “Trading Behavior of Investor Categories and Its Impact on Indian Equity Market” at the national conference on *Finance and Applied Economics 2017* organised by the Marathwada Mitra Mandal’s Institute for Management Education Research and Training (Pune) and the Indian Econometric Society, New Delhi, and (iii) “Transition to Cashless Economy and Its Impact on Equity Market in India” at the national seminar on *Transition to Cashless Economy: Priorities, Opportunities and the Modes and Options* organised by Jawaharlal Nehru School of Management Studies, Assam University.

Dr. S. Umdor

Presented papers on (i) “Institutions and Economic Development of Northeast India” at the national seminar on *External Orientation of Northeast India: Possibilities and Roadblocks* organised by the Gauhati University Institute of Northeast India Studies, Guwahati (9–10 February 2018), (ii) “Rural Credit Markets in Northeast India” at the national seminar on *Agrarian Crisis, Rural Credit and Employment in the Northeast* organised by OKDISCD (Guwahati) and the Department on 23 & 24 February 2018, and (iii) “A Temporal Analysis of the Growth of Manufacturing Industries in Northeast India during 1980–81 to 2013–14” at the national seminar on *Structural Transformation and Economic Development in North-East India and Entrepreneurship and Campaigns of Skill India, Make in India* organised by the Department on 23 & 24 February 2018.

Dr. W. Tariang

Presented a paper entitled “Women Entrepreneurs: The Era of New Women” with Elizabeth S. Awom at the 19th Annual Conference-cum-National Seminar of NEEA on *Structural Transformation and Economic Development in North-East India* organised by the Department on 23 & 24 February 2018.

Dr. Deigracia Nongkynrih

Participated and spoke on (i) “Role and Importance of Border Trade: NEI Perspective” at the Delhi Policy Group’s national conference on *Advancing BBIN Sub-Regional Cooperation* organised by the Delhi Policy Group and the Asia Foundation (New Delhi) in New Delhi on 4 & 5 May 2017, (ii) “Regional Cooperation and NEI: Prospects and Problems” at the international seminar on *Cross-Border Connectivity and Inclusive Growth: Issues and Challenges with Special*

Reference to North-Eastern Region organised by Shillong College, Shillong (24–25 August 2017), (iii) “Customary Practices among the Khasi Tribe of Meghalaya in Relation to Land” at the seminar on *Agrarian Crisis, Rural Credit and Employment in North-East* organised by OKDISCD (Guwahati) and the Department and on 23 & 24 February 2018, and (iv) “Economic Diversification in Rural Meghalaya” at the 19th Annual Conference-cum-National Seminar of NEEA on *Structural Transformation and Economic Development in North-East India* organised by the Department on 23 & 24 March 2018.

Dr. Darishisha War Thangkhiew

Presented a paper on “Employment and Main Economic Activities in the Informal Sector: A Study of the States in North-Eastern India” during the 19th Annual Conference-cum-National Seminar of NEEA on *Structural Transformation and Economic Development in North-East India* organised by the Department on 23 & 24 February 2018.

Dr. Veronica Pala

Presented papers on (i) “The Challenge of Employment in the North-Eastern Region of India” at the national seminar on *Agrarian Crisis, Rural Credit and Employment in the North-East* organised by the OKDISCD (Guwahati) and the Department on 23 & 24 February 2018, and (ii) “Employment and Education in North-East India: Exploring the Great Divide” at the international inter-disciplinary seminar on *Human Resource Development in South Asia: Capabilities, Challenges and Prospects* organised by Synod College, Shillong and South Asia Social Science Research Network India Chapter at Synod College, Shillong (16–17 March 2018).

Publications

Published in India

- Basumatary, N., Panda, B. (2017). Inquiry into nexus between economic development and governance in North-East India. *Asian Journal of Research in Social Sciences and Humanities*, 7(5): 305–324.
- De, U. K., Pal, M. (2017). A generalized measure of diversity: Application to longitudinal data on crop-groups in North-East India. *Journal of the Indian Society of Agricultural Statistics*, 71(3): 253–263.
- De, U. K., Vupru, V. (2017). Location and neighbourhood conditions for housing choice and its rental value: Empirical examination in an urban area of Northeast India. *International Journal of Housing Markets and Analysis*, 10(4): 519–538.
- George, S., Suresh, P. S. (2018). Linear dependency, market size and liquidity: An assessment of the Indian equity market. *Pacific Business Review International*, 10(8): 91–99.
- Hassan, S. U., Mishra, B. (2017). Growth, efficiency and productivity of government expenditure in the state of Jammu and Kashmir. *The Journal of Economics*, 116: 260–276.
- Hassan, S. U., Mishra, B. (2017). Does demography matters in growth of government expenditure? A case study of Jammu and Kashmir (India) with co-integration approach. *Journal of Public Administration, Finance and Law*, 11: 61–74.
- Hassan, S. U., Mishra, B. (2017). Does infrastructure matters in government spending? A case study of Jammu and Kashmir (India) with co-integration approach. *Journal of Infrastructure*

Department of Economics

Development, 9(2): 1–16.

- Hassan, S. U., Mishra, B. (2018). Spending mechanism and population dimensions: An econometric approach. *Asian Journal of Management Applications and Research*, 8(1): 342–355.
- Kumar, D., Suresh, P. S. (2017). An overview of non-banking financial companies in India. *International Journal of Recent Scientific Research*, 8(8): 16876–16890.
- Kumar, D., Suresh, P. S. (2017). Financial performance of non-banking financial companies in India: An econometric study. *International Journal of Recent Scientific Research*, 8(7):18510–18517.
- Panda, B. (2017). Rural employment diversification in North-East India: An analysis. *Journal of Rural Development*, 36(2): 163–180.
- Shadap, A. M. W. K., Pala, V. (2017). Nutritional intake and consumption pattern in the states of Himachal Pradesh and Meghalaya. *The NEHU Journal*, XV(2): 15–28.
- Tariang, W., Thomas, E. D. (2018). Poverty and inequality in the matrilineal society of Meghalaya in the North-Eastern region of India. *Forum for Social Economics*, <https://doi.org/10.1080/07360932.2018.1441047>.
- Thangkhiew, D. W. (2017). Determinants of dividend behaviour in Indian iron and steel industry. *EPRA International Journal of Economic and Business Review*, 5(11): 125–128.
- Umdor, S. (2017). State of finances of the autonomous district councils in Meghalaya. *Social Change and Development*, 14(2): 12–26.
- Vupru, V., De, U. K. (2017). Hedonic method in house pricing analysis: A critical review. *EPRA International Journal of Economic and Business Review*, 5(11): 77–85.

Books/Book Chapters

- De, U. K. (2017). Changing weather pattern in Sub-Himalayan North-East India and interrelations among the weather variables. In: *Global Change, Ecosystems, Sustainability*. P. Mukhopadhyay, N. Nawn and K. Das (Eds). Sage Publication, p. 101–115.
- Dkhar, D. S., De, U. K., Mishra, B. (2017). Impact of public agricultural expenditure on economic growth of Meghalaya. In: *Agricultural Development: Technology and Policy*. R. Singh, A. Yumnam, A. Roy and A. Choudhury (Eds.). Biotech Books, New Delhi, p. 371–387.
- Sekar, H. R., Kshetrimayum, O., Nongkynrih, D. (2017). *Dynamics of Employment and Socio-Economic Reality: A Study of Children in Hazardous Occupations in East and West Jaintia Hills District of Meghalaya*. V. V. Giri National Labour Institute, Noida, ISBN: 978-93-82902-57-7.
- Thomas, C. J., Nongkynrih, D. (2018). North-East of India and BIMSTEC: A reality check. In: *Twenty Years of BIMSTEC: Promoting Regional Cooperation and Integration in the Bay of Bengal Region*. Prabir De (Ed.). KW Publishers, New Delhi, Chapter 11, p.193–211.

Published Abroad

- De, U. K., Bodosa, K. (2017). Adaptability of farmers in Assam towards extreme climate effects: An empirical investigation. In: *Inequality, Poverty and Development in India: Focus on the North-Eastern Region*. U. K. De, M. Pal and P. Bharati (Eds.). Springer Nature Singapore Pte Ltd, p. 465–500.

- De, U. K., Pal, M., Bharati, P., editors. (2018). *Issues on Health and Healthcare in India: Focus on the North-Eastern Region*. Springer Nature Singapore Pte Ltd, ISBN: 978-981-10-6103-5.
- Hassan, S. U., Mishra, B. (2018). Institutional arrangements and fiscal performance of conflict regions: An Indian case study. In: *Global Encyclopaedia of Public Administration, Public Policy and Governance*. A. Farazmand (Ed.). Springer, Switzerland, Chapter 558, p. 3537–3552.
- Pala, V., Dubey, A. (2017). Poverty and nutrition in the North-Eastern region of India. In: *Rethinking Economic Development in Northeast India: The Emerging Dynamics*. Deepak K. Mishra and Vandana Upadhyay (Eds.). Routledge, London and New York, Chapter 5, p. 97–135.
- Panda, B. (2017). Act East Policy and North-East India: The role of transactions cost. In: *Mainstreaming the Northeast in India's Look and Act East Policy*. Atul Sarma and S. Choudhury, (Eds). Palgrave Macmillan, Singapore, Chapter 7, p. 159–174.
- Panda, B. (2017). Act East Policy, India's North-East and Thailand: Issues in economic integration. In: *Globalized Thailand? Connectivity, Conflict and Conundrums of Thai Studies*. Faculty of Social Sciences, Chiang Mai University, Chiang Mai, Thailand, Vol.3, p. 1191–1201.

Funds Received from Agencies including NEHU/UGC

₹1.80 lakhs from NEHU as a Non-Plan Grant

Research Projects

Ongoing: 3

Title of Project	PI/CO-PI	Funding Agency	₹ in lakhs
Identifying Pathways out of Durable Inequalities	V. Pala (Co-PI) Prof. A. Dubey (PI), ICSSR, New Delhi CSRD, JNU; Dr. K. K. Mishra (Co-PI), BHU; Prof. R. Pandey (Co-PI), BHU; Dr. G. Sridevi, UH (Co-PI)		40.00
Act East Policy, Entrepreneurial Efficiency and Transactions Costs	B. Panda (PI)	Ministry of External Affairs	4.90
Needs Assessment Survey for Nogtra and Shella Villages	Sumarbin Umdor	Lafarge Umiam Mining Pvt Ltd (LUMPL)	3.10

Completed: 2

Socio-Economic Status and Working Conditions of Female Domestic Workers in Shillong	D. Nongkynrih	ICSSR-NERC	1.50
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Department of Economics

Quality of Higher Education in India: A Study of Internal and External Quality Assurance at the Institutional Level	D. Nongkynrih (Team Member)	NUEPA, New Delhi	4.20
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Academic Collaborations

Prof. B. Panda

Collaborated with the Tata Institute of Social Sciences (Mumbai) for a research project entitled *Technical Quality And Economic Assessment of The Category B Assests Under MGNREGA in Sikkim*.

Honours/Awards/Recognitions

Prof. U. K. De

Visiting Scientist at the Indian Statistical Institute, Kolkata, from 20 January 2017 to 6 February 2018.

Dr. W. Tariang

Visiting Fellow at the Department of Economics, University of Calcutta, from 18 to 23 September 2017.

Other Activities

Prof. B. Mishra

Participated as a resource person and panellist in a panel discussion on “Goods and Services Tax” organised by the Department of Management, NEHU, Shillong (23–24 November 2017).

Prof. P. Nayak

Delivered a lecture on “Common Mistakes Committed while Writing a PhD Thesis” organised by the Department of Management (NEHU, Tura Campus) on 19 June 2017.

Prof. U. K. De

Delivered an invited lecture on “Crop Diversity Pattern, Regional Convergence and Climate Change Adaptation in North-Eastern Part of India” on 18 December 2017 at the Department of Economics, Comilla University, Bangladesh.

Prof. Bhagirathi Panda

Attended (i) national stakeholders brainstorming session of the NITI Aayog, New Delhi, and made a submission on how NEHU can help in this regard (17 May 2017), (ii) participated in the ELLTA conference on *Perspectives on Leadership, Learning* organised by AIT, Thailand in Bangkok on 25 July 2017, (iii) participated as an invited expert in the ILO-MOLE Regional Consultation on *Drafting of National Policy for Regulation of Private Employment Agencies* organised by ILO at Hotel Poiniuk (Shillong) on 6 December 2017, and (iv) moderated a panel

School of Economics, Management and Information Sciences

discussion on *Infrastructure and Economic Development in North-East India at the 19th Annual Conference of North-East Economic Association* organised by the Department on 23 & 24 March 2018.

Delivered a lecture on “Role of Gender in Economic Development in North-East India” during the short-term course in *Gender Sensitization* for college and university teachers, organised by UGC-HRDC, NEHU, Shillong (25 May 2017).

Dr. S. Umdor

Resource person in (i) 42nd Orientation Programme, (15 January to 11 February 2018), (ii) 43rd Orientation Programme (19 February to 18 March 2018), (iii) Refresher course in *Tribal Studies* (22 January to 11 February 2018) organised by UGC-HRDC (NEHU), (iv) One-week UGC-HRDC training programme on *Stress Management for Teachers* (March 2018).

Dr. Deigracia Nongkynrih

Delivered lectures on (i) “Data Collection and Literature Review” during the 40th Orientation Programme at UGC-HRDC, NEHU, Shillong (24 April to 21 May 2017), (ii) “Literature Review and Regional and Sub-Regional Cooperation” during the 41st Orientation Programme organised by UGC-HRDC, NEHU, Shillong (22 May to 18 June 2017), (iii) “Writing a Research/Project on Professional Development of Teachers in Higher Education” at UGC-HRDC, NEHU, Shillong (19 June to 9 July 2017).



DEPARTMENT OF JOURNALISM AND MASS COMMUNICATION

Head : Dr. Kamaljit Chirom

Telephone : 0364-272-3401

E-mail : kchirom@nehu.ac.in

Faculty: 3

Designation	Name and Qualification	Specialization
Assistant Professor (3)	Kamaljit Chirom, PhD (MU)	Film Studies, Communication Research, Culture and Communication
	N. Barath, MPhil (HCU)	Print History, Media and Culture Studies, Development communication
	Karen L. Donoghue, MA (SMU)	Television Studies, New Media, Media Representation

Thrust Areas of Research

Film Studies, Culture and Media, Television, New Media, Print Culture, Development Communication, Media Representation.

Brief Statement of Academic Activities

The Department is running the MA (Journalism and Mass Communication) and the first batch of students passed out in 2016. The Department is also engaged in other academic activities like lectures from invitees, film festivals, photo exhibition programmes, visits to media or media-related institutions and organizations.

Students' Profile

Enrolment Capacity: MA (Journalism and Mass Communication)—20

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	12	10	03	16		03	16	06	22

Degree Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	13	07	01	17		02	17	03	20

Courses Conducted

Postgraduate: MA (Journalism and Mass Communication)

Semester I

Mass Communication: Theory and Principles, History and Growth of Print Media, Print Journalism —Reporting and Editing (Theory and Practical)—Basic Photography (Theory and Practical).

School of Economics, Management and Information Sciences

Semester II

Film Studies (Open), Radio Production (Theory and Practical), Television Studies, Communication Research.

Semester III

Media and Gender (Open), Media, Culture and Society (Open), Political Communication (Open), Advertising and Public Relations, Internship, Dissertation.

Semester IV

Media Law and Ethics, Film Production, Media Management, Communication for Development.

Seminars/Conferences/Symposia/Workshops

Organised

Karen L. Donoghue

Coordinator for a photo exhibition titled “Playlist” and creative arts event entitled “Box Art” held at NEHU, Shillong (7–8 November 2017).

Dr. Kamaljit Chirom

Co-ordinated a photography workshop which was held in collaboration with Canon India on 24 & 25 August 2017 in the Department.

Attended

Dr. Kamaljit Chirom

Presented a paper titled “Conflict and Trauma in ‘Mami Sami’” at the international seminar on *Narratives of Violence and Terror in South Asia* organised by the Department of English (NEHU, Shillong) in collaboration with NEC (Shillong) and ICSSR-NERC (Shillong) from 16 to 18 November 2017.

Karen L. Donoghue

Presented a paper titled “Social Media and Alternative Forms of Representation” at the interdisciplinary contemporary research in *Humanities, Social Sciences and Management Studies* organised by the Department of Humanities and Social Sciences, National Institute of Technology, Meghalaya (21–22 July 2017).

Publications

Published in India

Chirom, K. (2017). Proppian analysis of the Manipuri film Olangthagee Wangmadasoo. *International Journal of Communication*, 27(1): 89–95.

Chirom, K. (2017). Vishal Bhardwaj’s adaptation of William Shakespeare’s Hamlet: A Study of the plot and characters. *Creative Forum*, 30(1-2): 81–88.

Donoghue, K. (2017). Media literacy. *Communication Today*, 19(4): 40–50.



DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

Head : Prof. Moses M. Naga
Telephone : 0364-272-3148/3142(O)
E-mail : mosesmnaga@gmail.com
Faculty: 6

Designation	Name and Qualification	Specialization
Professor (1)	Moses M. Naga, MLISc & PhD (NEHU)	Application of Management Concepts and Management Principles in Libraries and Information Centres, Information Literacy
Associate Professor (1)	Bikika Laloo, MLISc (NEHU), PhD (Gauhati)	User Studies, Collection Development, Library and Information Science Education, Professional Development Activities in Librarianship
Assistant Professors (4)	Paokholun Hangsing, MLISc (Delhi), PhD (NEHU)	Media Content Analysis, Digital Libraries, Library Consortia, LIS Education and Professional Competencies
	Jacqueline Jeane Thabah, MLISc & PhD (NEHU)	Knowledge Organisation, Research Methodology, Competency Studies of Library and Information Professionals
	Jiarlimon Khongtim, MLISc, PGDCA (NEHU)	Computer Applications, Research Methodology
	S. Ravikumar, MSc in LIS (Madras), PhD (Mizoram)	Scientometrics, Information Retrieval, Library Software

Thrust Area of Research

The thrust areas of teaching and research of the Department are Knowledge Organisation, Information Storage and Retrieval, Information/Knowledge Management, Information Literacy, Reading Habits of Students, Tapping, Preservation and Conservation of Indigenous Knowledge of North-East India, Users' Needs and their Information Seeking Behaviour, Computer Applications and Applications of Information Communication Technology in Managing Libraries and Information Centres, Digital Libraries, Information Management with special reference to centrally sponsored Rural/Urban Development Schemes in North-East India.

Brief Statement of Academic Activities

The Department remained vibrant and active throughout the year under report. Most of its faculty and PhD scholars were academically productive in terms of attendance and paper presentations at seminars and conferences as well as publications in journals of national and international

School of Economics, Management and Information Sciences

repute. The Department could produce four PhD scholars during the year under report. The faculty members have contributed towards various academic activities, such as seminars, conferences, refresher courses and summer schools.

Students' Profile

Enrolment Capacity: MLISc—30, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MLISc	09	21		29		01	23	07	30
PhD	01	03		04			04		04

Degree Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MLISc	15	13	01	26		01	24	04	28
PhD	04 *	01		02		03	01	04	05

*Two international students

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Khrawbok Nongrang	Research Output of Faculty Members of North-Eastern Hill University (NEHU): A Bibliometric Study of Periodical Literature (2000 to 2010)	Bikika Laloo
Lendina	Information Communication on Rural Development Programmes to the Villagers in Mokokchung District of Nagaland: An Impact Assessment	Moses M. Naga
Chimezie Patrick Uzuegbu	Impact of Information Literacy on Cassava Farming: A Case Study of Farmers from Umuala and Umuokoroukwu Villages under Umuahia South Local Government Area in Abia State of Nigeria	Moses M. Naga
Zawng Hkawng	Impact of Information Literacy on Reading Habits of Students: A Study of Kachin Theological College in Myanmar and Eastern Theological College of Jorhat in India	Moses M. Naga

Placement of Students: 13

1. Streamfullnes Khongjee, Assistant Librarian, NERIE, Meghalaya.
2. Antonio Marak, Assistant Librarian, Martin Luther Christian University, Shillong.
3. P. Amos, Guest lecturer, Library and Information Science, NEHU, Shillong.

Department of Library and Information Science

4. Chapun Sumnyan, Deputy Librarian-cum-Information Officer, Govt of Arunachal Pradesh.
5. Mebansharailang Kharsyntiew, Library Assistant, Women's College, Shillong.
6. Meban Diengdoh, Grade-III Librarian, CIPET, Imphal.
7. Larity Kharkamni, Library Assistant, Mawlai Presbyterian Collage, Nongkwar, Shillong.
8. Hanadashisha War, Librarian, Shillong Bar Association, Shillong.
9. Lambha Suting, Librarian, Ri-Bhoi Synod College, Umsning.
10. Mantok Konyak, Librarian, Eastern Christian College, Dimapur.
11. Melinda Pohti, Assistant Librarian, Shillong Club, Shillong.
12. Bhanbemo T. Paton, Librarian, College of Nursing, CISHR, Dimapur.
13. Joel Valte, Library Assistant, Grace Bible College, Churachandpur, Manipur.

Research Fellowships: 11

UGC NET JRF/SRF: 2

UGC NON-NET: 8

NFHE of ST: 1

Courses conducted

Post Graduate: MLISc

Semester I

Foundations of Library and Information Science, Knowledge Organization I (Theory), Knowledge Organization I (Practice), Information Sources and Services, Foundation of Computer Application.

Semester II

System Analysis and Design, Knowledge Organisation II (Theory), Knowledge Organisation II (Practice), Library Software Package (Theory and Practice), Library Housekeeping Operations.

Semester III

Information Retrieval, Research Methodology, Collection Development, Database Management System, Information Communication Technology.

Semester IV

Management of Library and Information Systems, Digital Libraries, E-Learning and Content management System (Theory and Practice), Information Sources and Services (Practice) Dissertation.

PhD Courses

Research Methodology in Library and Information Science, Advance in Knowledge Management and Organizational Studies, Advance in Library and Information Management, Trends in Libraries and Librarianship, Advances in Information System Studies, Review of Literature.

Fieldwork/Educational Tour of Students

Teacher-in-Charge: Dr. S. Ravikumar

Institutions Visited: Central Library, Goa University, Goa; National Institute of Oceanography

School of Economics, Management and Information Sciences

CSIR Lab; Central Library, IIT Bombay; Central Library, Tata Institute of Social Science; Central Library, International Institute of Population studies; Library, SNDT Women University; Asiatic Society Library, Mumbai

Duration of Tour: 12 days (21 March to 1 April 2018)

Purpose of Tour: To collect vital information on the activities, services and facilities provided by the libraries visited and submit a complete Study Tour Report to be evaluated by an external expert during the 2nd Semester Examinations.

Seminars/Conferences/Symposia/Workshops

Attended

Prof. Moses M. Naga

Attended and presented a paper entitled “Impact of Information Literacy on Reading Habits of Students: A Study of Eastern Theological College of Jorhat in India” at the international conference on *Social Science and Management* held in Kyoto, Japan (9–11 May 2017).

Dr. Bikika Laloo

Chaired a session of the international conference on *Library Beyond Borders: Innovative Trends, Issues and Challenges in Knowledge Dissemination* organised by the Department of Library Services, Christian Medical College, Vellore (18–19 August 2017). Delivered an invited lecture at the international seminar on *Digital Humanities and Digital Societies in the Contemporary World* (DHDS 2018) organised by the Department of Library and Information Science, University of Calcutta, Kolkata (18–19 January 2018).

Publications

Published in India

Khongtim, J., Naga, Moses M. (2017). A survey on the information literacy skills of school students studying in Phudmuri Presbyterian secondary school of Shillong. *International Journal of Library and Information Studies*, 7(3): 152–160.

Khongtim, J., Naga, Moses M. (2017). Reading habits of school students: A survey of Phudmuri Presbyterian secondary school of Shillong. *International Journal of Innovative Research in Technology*, 4(3):181–190.

Naga, Moses M., Hangsing, P., Gohain, H. K. (2017). Agricultural information system in India: Its concept, growth and development. *Asian Journal of Multidimensional Research*, 6(8): 91–100.

Ravi Kumar, S. (2017). More the tweets more the citations: Do altmetric variables contribute to citations? *SRELS Journal of Information Management*, 54(4): 183–186.

Ravi Kumar, S., Jyoti Hazarika, H. (2017). Use of RFID technology in college libraries: An approach to circulation, tracking, inventorying, and security of library materials. *International Journal of Library Science and Information Management*, 3(2): 2454–910.

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Department of Library and Information Science

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Thabab, J. J., Hazarika, H. J. (2017). Information need and information seeking behaviour of college teachers in Morigaon district: A case study. *Indian Journal of Information Sources and Services*, 7(2): 22–28.

Published Abroad

Laloo, B., Sumnyan, C. (2017). Collection development in Tawang monastery libraries. *Collection Building*, 36(2): 77–88.

Ravikumar, S., Khonglam, B. (2018). Tweets of an article and its citation: An altmetric study of most prolific authors. *Lib. Phil. Pract.*, <https://digitalcommons.unl.edu/libphilprac>.

Singh, A. J., Ravikumar, S. (2018). Flow of business newspaper information in scholarly publications: A study on the Wall Street Journal Newspaper indexed in Web of Science. *Library Philosophy and Practice*, <https://digitalcommons.unl.edu/libphilprac>.

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Book Chapters/Proceedings

Jastone, K. P., Naga, Moses M. (2017). Herbal traditional practices of the Poumai Nagas. In: *Proceedings of the 1st International Conference on Transforming Library*. S. K. Singh *et al* (Eds.). MRB Publishers, Guwahati, p. 471–479.

Laloo, B. (2017). Inclusion of internship in library and information science curriculum: A model proposal. In: *Proceedings of the 1st International Conference on Transforming Library*. S. K. Singh *et al* (Eds.). MRB Publishers, Guwahati, p. 353–359.

Uzuegbu, C. P., Naga, Moses M. (2017). Librarianship at a crossroad: Mapping ways to sustain the profession in developing countries. In: *Comparative Librarianship*. N. Lahkar, D. Deka and B. Barman (Eds.). Gauhati University, Guwahati, p. 8–20.

Honours/Awards/Recognitions

Dr. Bikika Laloo

Brandon Lytan and Bikika Laloo's paper on "Information Seeking Behaviour of Transgender Individuals: Are Academic Libraries in Shillong Ready to Serve?" was awarded the best paper by the Library and Information Science Society for Asia and the Pacific at the international conference on *Library Beyond Borders: Innovative Trends, Issues and Challenges in Knowledge Dissemination* organised by the Department of Library Services, Christian Medical College, Vellore (18–19 August 2017).

Prof. Moses M. Naga

His paper along with C. P. Uzuegbu on "Librarianship without Borders: Taking Library Collection to the Doorsteps of Print Illiterates and Technophobic Publics in Developing Countries" was

School of Economics, Management and Information Sciences

awarded the best paper at the 1st International *Conference on Transforming Library*, organised by the Central Institute of Technology (Kokrajhar) and Gauhati University in 2017.

Other Activities

Prof Moses M Naga

Member of (i) Academic Council of ICFAI University, Nagaland, (ii) UGC Expert Committee for evaluation of proposals from college teachers, and (iii) Institutional Advisory Board and Departmental Advisory Board of NCERT (New Delhi). He is also a Consulting Editor and reviewer for the *Epao*, a peer reviewed *international Journal of Library and Information Science* (Manipur Library Association Imphal) and the *Ebonyi*, a peer reviewed journal (Nigerian Library Association (Nigeria)).

Dr. Bikika Laloo

Delivered a lecture during the orientation programme at the Department of Library and Information Science, USTM, Byrnihat (6 September 2017). She was also a peer reviewer for the *Annual Journal of Library and Information Science Research*.

Dr. Jacqueline J. Thabab

Consultant of a major project of the Shillong College on *Digitization of Threshold Knowledge of Meghalaya*.

Dr. P. Hangsing

Consultant of a major project of the Shillong College on *Digitization of Threshold Knowledge of Meghalaya*.

Dr. S. Ravikumar

Delivered lectures on (i) “Digital Library” and “Referencing” during the 42nd Orientation Programme organised by UGC-HRDC, NEHU (1 February 2018), and (ii) “Literature Collection Using Bibliographic Databases” during a winter school organised by UGC-HRDC (NEHU) on 20 March 2018.



DEPARTMENT OF MANAGEMENT (TURA CAMPUS)

Head : Prof. J. U. Ahmed
Telephone : 03651-224566(0)/9436316065(M)
E-mail : jaynaluahmed@yahoo.co.in

Faculty: 10

Designation	Name and Qualification	Specialization
Professor (2)	G. Singaiah, MCom (Andhra), PhD (Utkal)	Cross Cultural Management, Marketing and Entrepreneurship Development
	J. U. Ahmed, MCom, PhD (Assam)	Finance, Banking and Statistical Methods
Associate Professor (2)	A. Bhattacharjee, MCom, PhD (Gauhati)	Human Resource Management and Development, Economics, Rural Marketing and Entrepreneurship Development
	K. C. Biswal, MCom (BU), PhD (Berhampur)	Accounting and Finance, Management Information System and E-commerce, Microfinance
Assistant Professor (6)	D. Bhagat, MBA (Assam Agri Univ), PhD (Gauhati)	Agri-Business Management, Supply Chain Management
	Kh. Devananda Singh, MBA (IGNOU), PhD (Manipur)	Accounting and Finance, Entrepreneurship and Agricultural Finance
	S. B. A. Mazumder, MBA (Assam)	Marketing and Finance
	S. L. S. Akoijam, MBA (Amity), PhD (Manipur)	International Business and Marketing
	Thrinadha Rao Bandaru, MBA & PhD (Pondicherry)	Tourism, Human Resource Management and International Business
	Bimal Deb Nath, MBA (Devi Ahilya), PhD (NEHU)	Information Technology, E-commerce and Data analysis

Thrust Areas of Research

The thrust areas of the Department are entrepreneurship development, small business management, cross-cultural management, international business, tourism management, supply chain management, micro-finance and rural credit management, business process re-engineering, agri-business, e-commerce, corporate finance, bank finance, portfolio management, information technology and social marketing.

Brief Statement of Academic Activities

During the period under report, the faculty members published books and research papers in various national and international journals and edited books. They also participated and presented papers in a number of national and international seminars and conferences. The faculty members also organised seminars/workshop/symposiums/conferences/MDPs and participated in FDPs, refresher courses, and orientation programmes. To boost the supply chain management education in the region, the North-Eastern Region Chapter of the Institute for Supply Management (NERC-ISM): An affiliate of ISM (USA), which was started in the Department on 5 April 2013, has carried out its activities by increasing its membership and partners with Dr. Deepak Bhagat as President. The Department has also published one issue of the *International Journal of Applied Management Research* with Prof. J. U. Ahmed as Chief Editor and Dr. Deepak Bhagat as Managing Editor.

Students' Profile

Enrolment Capacity: MBA-General—33, MBA-Services—10, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MBA General	18	14	04	09		19	07	25	32
MBA Services	05	06	02	04		05	04	07	11
PhD	06	03		02		07	02	07	09

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MBA General	26	14	01	30	07	02	30	10	40
MBA Services	05	03	01	04	01	02	04	04	08
PhD	02				02			02	02

Placement of Students: 10

1. Abinash Baruah, Territory Sales Manager, Bharti Airtel Limited.
2. Darshana Duarah, Store Manager, Bharti Airtel Limited.
3. Indranuj Tamuli, Customer Service Officer, Axis Bank.
4. Subhasish Sarmah, Assistant Officer Trainee, Power System Operation Corporation Limited.
5. Shraddha Saikia, Customer Service Officer, Axis Bank.
6. Sonika Gogoi, Personal Banker, HDFC Bank.

Department of Management (Tura Campus)

7. Satabdi Sarma Puzari, Personal Banker, HDFC Bank.
8. Pompy Deka, Personal Banker, HDFC Bank.
9. Kuldeep Shah, Trainee Sales Officer, Oppo Mobiles Keteki Private Limited.
10. Karabi Baro, Trainee Sales Officer, Oppo Mobiles Keteki Private Limited.
11. Saddam Hussain, Trainee Sales Officer, Oppo Mobiles Keteki Private Limited.
12. Mandeep Rangsha, Trainee Sales Officer, Oppo Mobiles Keteki Private Limited.
13. Dipjyoti Das, Trainee Sales Officer, Oppo Mobiles Keteki Private Limited.

Courses Conducted

Postgraduate: MBA (General) and MBA (Service Management)

MBA (General)

The Department offers thirty-two courses for the MBA programme, out of which twenty are core courses and one project work equivalent to two courses. Besides these, ten special courses, five each from two specialisation groups are to be pursued. The dual specialisation courses are based on four functional areas of management, viz., Financial Management, Marketing Management, Human Resource Management and Agri-Business Management.

MBA (Service Management)

The Department offers thirty-two courses for MBA (Service Management), out of which twenty are core courses and one project work equivalent to two courses. Besides these, ten special courses, five from any one of the functional areas and five from any one of the sartorial areas are to be pursued. The specialisation courses are based on four functional areas of management, viz., Finance, Marketing Management, Human Resource Management and Agri-Business Management; and three sartorial areas of Management, viz., Banking and Insurance, NGO Management, and Tourism Management.

PhD Courses

Business Research Methods, Management Thoughts and Thinkers, Emerging Issues in Business.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised the following events: (i) National seminar on *Entrepreneurship: The Rural Perspectives* on 27 & 28 April 2017 with Dr. Kh. Devananda Singh as Coordinator, (ii) ICSSR-sponsored 2-week workshop on *Enhancement of Capacities of Researchers in Social Sciences Research Areas: An Attempt for Transformation in Research Attitude and Aptitude* during 5–18 May 2017 with Prof. G. Singaih and Dr. T. Rao Bandaru as Director and Co-Director of the programme, respectively, (iii) HR Conclave, SYNERGOS 2017 was held on 20 May 2017: co-ordinated by Dr. A. Bhattacharjee, (iv) Two-day long workshop on *Effective Analysis of Case Study in Business and Management* on 15 & 16 June 2017 in which Dr. Deepak Bhagat was Director and Dr. Sunildro L. S. Akoijam was Coordinator, (v) Management Development Programme (MDP) on *Managing Organisational Change* was organised by the Department on 15 & 16 June 2017 with Dr. Deepak Bhagat as Director and Dr. S. L. S.

School of Economics, Management and Information Sciences

Akoijam as Coordinator, (vi) International seminar on *Human Resource Management and Development in the Digital Age* on 23 & 24 June 2017 with Dr. Abhigyan Bhattacharjee as Coordinator, (vii) One-day Pre-Eureka workshop on *Entrepreneurship* on 16 October 2017 in collaboration with IIT, Bombay: Dr. Sunildro L. S. Akoijam coordinated the programme, (viii) National seminar on *Recent Trends in Financial Research* on 23 & 24 November 2017: Dr. K. C. Biswal coordinated the programme, (ix) Entrepreneurship Awareness Camps held in Guwahati during 7–22 February 2018 with Dr. Abhigyan Bhattacharjee as Coordinator, and (x) Faculty Development Programme on *Entrepreneurship* held in Guwahati from 1 to 14 March 2018 with Dr. Abhigyan Bhattacharjee as Coordinator, (xi) Orientation Programme on *Business Management* from 22 March to 12 April 2018 with Dr. Abhigyan Bhattacharjee as Coordinator.

Attended

Prof. J. U. Ahmed

Presented the following papers: (i) “Customer’s Satisfaction towards Innovative Services of Meghalaya Rural Bank,” and (ii) “Economic Disparity among Rural People of West Garo Hills and East Garo Hills Districts” at the national conference on *Think Global Act Local: Contemporary Sustainable Business Practices and Development* organised by the North-Eastern Management Association in collaboration with the University of Science and Technology, Meghalaya (10–11 October 2017).

Dr. A. Bhattacharjee

Presented the following papers: (i) “Status of Microfinance in Meghalaya” at the national conference on *Roadmap for Inclusive and Sustainable Economy* (RISE 2018) organised by the Department of Management and Humanities (NIT, Hamirpur) on 3 & 4 February 2018, (ii) “Make in India-Competitive Advantage for Northeast India” at the international youth symposium organised by B. K. School of Business Management (Gujarat University, Ahmadabad) in association with the International Youth Fellowship (South Korea) on 30 & 31 January 2018 (Awarded the Best Paper), (iii) “Exploring the Indigenous Dokra Technology and Artefacts: Case Study of Dariapur and Bikana Villages of West Bengal” at the 2nd North-East India Commerce and Management Association national conference on *Sustainable Rural Livelihood: Emerging Dimensions* organised by the Department of Commerce (Rajiv Gandhi University) on 10 & 11 November 2017, (iv) “Indo-Bangladesh Border Trade: A Case Study of Kalaichar Border Haat in South West Garo Hills, Meghalaya” and “Indo-Bangla Border Trade: A Case Study of Dawki Land Custom Station of Jaintia Hills, Meghalaya” at the two-day international seminar on *Cross Border Connectivity and Inclusive Growth: Issues and Challenges with Special Reference to North-Eastern Region* organised by Shillong College on 24 & 25 August 2017, (v) “Trade Facilitation in the Border Regions of Indo-Bangladesh: A Socio-Economic Dimensional Study” at the international conference on *Interplay of Economics, Politics and Society on Development of a Nation* (ICIEPS 2017) organised by the Niche Institute of Management and Technology (Thimphu) in collaboration with the Indian Economic Association and Foundation for Evidence Based Development in India, an affiliate of Oxford Evidence and Interventions (Oxford, U.K.), held at Royal Thimphu College, Royal

Department of Management (Tura Campus)

University of Bhutan, Thimphu (1–2 July 2017), (vi) “Restructuring the Skill to Enhance the Employability of Graduates in the Digital Age,” “Digitalization: Its Importance for Effective CSR Communication” and “Digital Eloquence: A Bridge to Reach the People of Meghalaya” at the international seminar on *Human Resource Management and Development in the Digital Age* organised by the Department on 23 & 24 June 2017, (vii) “Strategic Human Resource Management in Education System: An Exploration of Colleges in Meghalaya” and “Job Satisfaction Trends amongst Academics of Central Universities of North-East India” at the national seminar on *Emerging Trends in Business & Economic Development in India with Reference to North-Eastern Region* organised by the Department of Business Administration, University of Science and Technology (Meghalaya) in association with the Department of Business Administration (Tezpur University) on 19 & 20 May 2017, and (viii) “Rural Entrepreneurship as an Instrument for Sustainable Livelihood: A Study over Garo Hills Region of Meghalaya” at the national seminar on *Entrepreneurship: The Rural Perspectives* organised by the Department on 27 & 28 April 2017.

Dr. K. C. Biswal

Presented papers on (i) “Relationship between Dividend Payout Policy and Market Share Prices: A Study on Selected Banking Companies in India” at the national seminar on *Emerging Trends in Business Economic Development in India with Reference to North-Eastern Region* held at USTM Campus (Meghalaya) on 19 & 20 May 2017, (ii) “Long Term Solvency (Leverage) Analysis of Selected Cement Companies in Meghalaya: An Empirical Study” at the international conference on *Interdisciplinary Contemporary Research in Humanities, Social Sciences and Management Studies* (COIN 2017) held at NIT (Meghalaya) on 21 & 22 July 2017, (iii) “Impact of Working Capital Management on Profitability in Select Cement Companies of Meghalaya,” “An Empirical Study of the Profitability Position of Selected Cement Companies in Meghalaya,” “A study on Corporate Saving and Its Determinants in Power Generating Companies in India with Special Reference to Select Private Sector” and “Effect of Dividend Announcement on Share Price Behaviour of Selected Indian Companies” at the national seminar on *Recent Trends in Financial Research* organised by the Department on 23 & 24 November 2017, (iv) “Impact of Working Capital Practices of Select Cement Companies in Meghalaya” at the international conference on *Multi-Disciplinary Applications in Knowledge Economy* (MAKE 2017) organised by SIKSHA ‘O’ ANUSANDHAN University, Bhubaneswar, Odisha (29–30 December 2017), (v) “A Study on Corporate Saving and Corporate Performance in Power Generating Companies in India with Reference to Select Private Sector” at the international management convention on *Creating Smart Organizations: Redefining Business* organised by the Asian School of Business Management, Bhubaneswar (Odisha) from 11 to 13 January 2018, (vi) “Financial Institutional Excellence for Economic Growth” at the international seminar on *Institutional Excellence for Economic Growth* organised by the P. G. Department of Commerce, (Utkal University) on 28 & 29 January 2018, and (vii) “Efficiency Management of Industrial Sector in Meghalaya” at the national seminar on *Economic Policy: Issues and Challenges* organised by the School of Commerce (Revenshaw University, Cuttack) as part of the 38th Odisha Commerce Conference (4–5 February 2018).

Dr. D. Bhagat

Presented papers on (i) “Attitude Formation of Generation Y Consumers towards Ethical Products: A Case Study in Rwanda” at the national conference on *Business and Management: Changing Dynamics* organised by the Department of Management (Sikkim University) on 20 & 21 April 2017, (ii) “Role of Emotional Intelligence on Perceived Stress of Women Agripreneurs” at the national seminar on *Entrepreneurship: The Rural Perspectives* organised by the Department on 27 & 28 April 2017, (iii) “Role of Emotional Intelligence on Entrepreneurial Behaviour” at the national seminar on *Building an Effective Support System for Entrepreneurial Growth in North-East India* organised by the Department of Commerce (Gauhati University) on 12 & 13 May 2017, (iv) “Predictors of Intention Formation towards Purchase of Ethical Products” at the national seminar on *Emerging Trends in Business and Economic Development in India with Reference to North-Eastern Region* organised by the Department of Business Administration (Tezpur University) on 19 & 20 May 2017, and (v) “Examining Intention: Behaviour Gap towards Purchase of Ethical Products in Rwanda” at the 1st National Conference of North-Eastern Management Association (NEMA) organised by NEMA and USTM, Meghalaya (10–11 October 2017).

Dr. Kh. Devananda Singh

Presented papers on (i) “Information and Communication Technology (ICT) in Hotel Industry: An Investigation in Tura, Meghalaya” at the international conference on *Sustainable Tourism and Hospitality Marketing: Setting Agenda for Future Research* organised by the Department of Tourism and Hotel Management (NEHU, Shillong) from 15 to 17 March 2018, (ii) “Organisational Climate and Job Performance in Indian Oil Corporation Ltd: An Exploration in Digboi Refinery” at the national conference on *Think Global Act Local: Contemporary Sustainable Business Practices and Development* organised by NEMA in collaboration with the University of Science and Technology (UST, Meghalaya) on 10 & 11 October 2017, (iii) “Socio-economic Status and Entrepreneurial Traits of Rural Bamboo Based Entrepreneurs in Chandel District, Manipur” at the national conference on *Promoting Business Opportunities in North-Eastern India and India's Act East Policy* organised by MIMS (Manipur University, Imphal) and XLRI (Jamshedpur) on 15 & 16 November 2017, (iv) “Assessing Organisational Climate in Hotels: An Evaluation in Tura, Meghalaya” at the national conference on *Emerging Trends in Business and Economic Development in India with Reference to North-Eastern Region* organised by the Department of Business Administration (UST, Meghalaya) in association with the Department of Business Administration, Tezpur University (18–20 May 2017), (v) “Assessing the Impact of e-marketing in Hotel Industry: An Analysis in Tura, Meghalaya” at the international seminar on *Human Resource Management and Development in the Digital Age* organised by the Department on 23 & 24 June 2017, and (vi) “Employees’ Commitment to Indian Oil Corporation Ltd: An Evaluation in Digboi Refinery” at the international seminar on *Human Resource Management and Development in the Digital Age* organised by the Department on 23 & 24 June 2017.

Ms. Sultana B. Abida Mazumder

Presented a paper on “International Migrant Remittances: Their Role and Impact” at the international conference on *Finance for Sustainable Development* organised by the

Department of Management (Tura Campus)

Department of Finance (University of Chittagong) on 15 March 2018.

Dr. Sunildro L. S. Akoijam

Presented the following papers: (i) “Reaching the Unreached through Science and Technology” organised by the Indian Science Congress Association (16–20 March 2018), (ii) “Supply Chain Management Practices: A Study of Select Food Processing Units in Manipur” at the international conference on *Youth For Global Change: Initiatives for a Sustainable Development* organised by FMDP Cell, BK School of Business Management and IYF, South Korea (30–31 January 2018), (iii) “Challenges to Rural Livelihood Practices: A Comparative Study among Garos and Non-Garos Grocers and Hawkers in West Garo Hills” at the international conference on *Sustainability and Business* organised by the Indian Institute of Management (Kolkata) on 10 & 11 January 2018, (iv) “Challenges of Logistics in Food Processing Industry: A Study of Select Food Processing Units in Manipur” at the national conference on *Promoting Business Opportunities in North-Eastern India and India’s Act East Policy* organised by MIMS (Manipur University) and XLRI (Jamshedpur) on 15 & 16 November 2017, (v) “Online Shopping Behaviour of Graduate Students: A Paradigm Shift from Brick to Click” at the national conference on *Think Global, Act Local: Contemporary Sustainable Business Practices and Developments* organised by NEMA on 10 & 11 October 2017, (vi) “A Study on the Customer Buying Behaviour of University Students on e-Commerce” at the international conference on *Business Research* organised by the Department of Commerce (SRM University) on 26 September 2017, (vii) “Branding of Tourist Destinations: Recent Trends and Strategies” at the international conference on *Business Management and Legal Studies* organised by the Global Research and Development Service in collaboration with the Global Association for Humanities and Social Sciences Research, Bali, Indonesia (10–11 July 2017), (viii) “A Study on Employee Engagement during Probationary Period of Recently Passed out University Students Serving in Organizations” at the international conference on *Human Resource Management and Development in The Digital Age* organised by the Department and sponsored by ICSSR, New Delhi (23–24 June 2017), and (ix) “Rural Entrepreneurship in Garo Hills: Problems and Prospects” at the national conference on *Entrepreneurship: The Rural Perspectives* organised by the Department on 3 & 4 April 2017.

Publications

The Department has published one issue of the *International Journal of Applied Management Research* (IJAMR; ISSN: 2347-2839) with Prof. G. Singaiah as Chief Editor and Dr. Deepak Bhagat as Managing Editor. The journal is a bi-annual, peer-reviewed international journal focusing on management and allied areas.

Published in India

- Akoijam, S. L. S. (2017). Sustainable livelihood business strategies of village women: A case study of WWAGS in Manipur. *Asian Journal of Management*, 8(3): 516–522.
- Biswal, K. C., Lyngdoh, Y. (2017). A study on effectiveness of inventory in working capital management of select cement companies in Meghalaya. *Journal of Business and Management*, 9(7): 41–48.

- Biswal, K. C., Lyngdoh, Y. (2017). A study on long-term solvency (Leverage) analysis of select cement companies in Meghalaya. *International Journal of Humanities and Social Science Invention*, 6(10): 75–86.
- Biswal, K. C., Lyngdoh, Y. (2017). A study on the liquidity management of select cement companies of Meghalaya. *Shrinkhla EK Shodhparak*, 4(10): 1–10.
- Biswal, K. C., Narzary, D. (2017). Dividend announcement and share price behaviour: A study of selected companies in India. *International Journal of Management Studies*, 2(04): 20–34.
- Denyse, M., Bhagat, D. (2017). Examining the Ajzen's predictors of intention formation towards purchase of ethical products in Rwanda. *Journal of Social Sciences*, 53(1): 1–12.
- Dutta, S., Singh, K. D. (2017). A dimensional measurement of organizational climate in Indian Oil Corporation Ltd., Digboi refinery, Assam. *International Journal of Research in Commerce, Economics & Management*, 7(12): 31–34.
- Marak, R. B., Bhattacharjee, A. (2017). Influence of technology on the educators' classroom teaching: Evidences from the plus two schools of Meghalaya. *International Journal of Human Resources Management*, 6(4): 17–28.
- Mazumder, S. B. (2017). Remittances: A review. *PRAYAS: An International Journal of Multi Disciplinary Studies*, 4(1): 26–55.

Books

- Akoijam, S. L. S., Panchal, N., Singh, W. C., editors. (2017). *Business and Competitive Advantage*. Ruby Press & Co., New Delhi, ISBN: 978-81-933788-1-6.
- Biswal, K. C., editor. (2017). *Micro Finance: Issues and Challenges in New Era*. Himalaya Publishing House, Mumbai, ISBN: 978-93-5273-318-7.
- Biswal, K. C. (2017). *Micro Finance: Theory and Practices*. Himalaya Publishing House, Mumbai, ISBN: 978-93-5273-567-9.
- Bhattacharjee, A., editor. (2018). *Human Resource Management and Development in the Digital Age: Some Sector Specific Perspectives*. Mittal Publications, New Delhi, ISBN: 81-8324-893-4.
- Bhattacharjee, A., editor. (2018). *Digital Impact on Human Resources Practices: Texts and Cases*. Mittal Publications, New Delhi, ISBN: 81-8324-893-4.

Book Chapters/Proceedings

- Akoijam, S. L. S., Sangma, A. G. (2017). Destination marketing of tourist spots: A study of Garo Hills in Meghalaya, India. In: *Proceedings of the International Conference on Knowledge Transfer and Transformation: Global and Local Business for Competitiveness and Social Justice*. Kathmandu, Nepal, 549–561.
- Barman, M., Chakrabarty, M., Bhattacharjee, A. (2018). Health and educational scenario of the tea plantation workers in the present digital age. In: *Human Resource Management and Development in the Digital Age: Some Sectoral Perspectives*. Abhigyan Bhattacharjee (Eds). Mittal Publications, New Delhi, p.179–196.
- Bhagat, D., Denyse, M. (2017). The myth of the ethical consumer: A critical analysis. In: *Business and*

Department of Management (Tura Campus)

- Competitive Advantage*. S. L. S. Akoija, N. Panchal and W. C. Singh (Eds.). Ruby Press & Co., New Delhi, p.177–192.
- Biswal, K. C., Narzary, D. (2017). Status of micro finance in North-East India: An empirical study. In: *Micro Finance: Issues and Challenges in New Era*. K. C. Biswal (Ed.). Himalaya Publishing House, Mumbai, p.182–196.
- Biswal, K. C., Sangma, J. T., Marak, M. M. (2017). Economic empowerment through self-help groups in East Garo Hills district of Meghalaya: A case study of Songsak Block. In: *Micro Finance: Issues and Challenges in New Era*. K. C. Biswal (Ed.). Himalaya Publishing House, Mumbai, p. 38–47.
- Biswal, K. C., Chanda, M. (2017). Degree of financial inclusion among rural households: An empirical detection in Dalu region. In: *Micro Finance: Issues and Challenges in New Era*. K. C. Biswal (Ed.). Himalaya Publishing House, Mumbai, p. 86–94.
- Brahma, K. D., Akoijam, S. L. S. (2017). A study on Gossaigaon Brahma Sewa Ashram and its contributions in rural development. In: *Micro Finance: Theory and Practices*. K. C. Biswal (Ed.). Himalaya Publishing House, Mumbai, p. 27–32.
- Marak, D. B., Bhattacharjee, A. (2018). Facets of digital capability factors for undergraduate students, teachers and college administrators in Meghalaya. In: *Digital Impact on Human Resources Practices: Texts and Cases*. Abhigyan Bhattacharjee (Ed.). Mittal Publications, New Delhi, p.187–194.
- Mazumder, S. B. (2018). International migrant remittances: Their role and impact. In: *Finance for Sustainable Development*. M. S. Jahur and S. M. Uddin (Eds.). Faculty of Business Administration, University of Chittagong, p. 167–181.
- Rao, T. B. (2017). Andhra Pradesh tourism development corporation: An overview. In: *Service Management Theory and Practices*. K. C. Biswal and G. Singaiah (Eds.). Himalaya Publishing House, Mumbai. p. 42–51.
- Sarkar, L., Deb Nath, B. (2018). A study on Amazon trained e-marketing specialist (ATES) program for SMES in the digital age. In: *Human Resource Management and Development in the Digital Age-Some Sector Specific Perspectives*. A. Bhattacharjee (Ed.). Mittal Publications, New Delhi, p. 197–202.
- Singh, M., Bhattacharjee, A. (2018). Impact of digital teaching on job satisfaction: A micro level study. In: *Human Resource Management and Development in the Digital Age: Some Sectoral Perspectives*. Abhigyan Bhattacharjee (Ed.). Mittal Publications, New Delhi, p. 137–152.
- Singh, M., Sharma, A., Bhattacharjee, A. (2017). An assessment on sustainable livelihood promotion through integrated basin development programme (IBDLP), Meghalaya. In: *Micro Finance Theory and Practices*. K. C. Biswal (Ed.). Himalaya Publishing House, Mumbai, p.133–137.
- Singh, T. S., Akoijam, S. L. S. (2018). Supply chain management practices: A study of select food processing units in Manipur. In: *Business Ecosystem: Interplay of Key Dimensions*. Panchal, N.

School of Economics, Management and Information Sciences

(Eds.). Himalaya Publishers, Mumbai, p. 157–172.

Tiwari, S., Bhagat, D. (2017). Determinants of occupational stress in health care professionals: A critical review. In: *Management in Current Scenario*. M. Barua, S. Goswami and S. Ahmed (Eds.). Global Publishing House, Bhubaneswar, p. 45–58.

Research Projects

Ongoing: 5

Title of Project	PI/CO-PI	Funding Agency	₹ in lakhs
A Diagnostic Study on Financial Structure of Tea Estates of Barak Valley of Assam	J. U. Ahmed	ICSSR, New Delhi	6.00
Dynamics of Cross-Border Trade and Assessment of the Socio-Economic Impact on the Tribal Populace of Border Regions of Meghalaya	Abhigyan Bhattacharjee	ICSSR, New Delhi	8.00
Local Market Research on Agriculture Commodities in LAMP Cluster at Garo Hills, Meghalaya	Abhigyan Bhattacharjee	MBMA, Govt of Meghalaya	6.05
An Evaluation of Micro Finance Scheme in Garo Hills of Meghalaya (A study on Select SHGs in Three Districts of Garo Hills)	K.C.Biswal	ICSSR, NEW Delhi	15.00
A Comparative Study on Income and Employment Pattern in Patrilineal and Matrilineal Societies of Rural North-East India: A Socio-Economic Assessment	Deepak Bhagat	ICSSR, New Delhi	8.00

Other Activities

Prof. G. Singaiah

Delivered lecture on “Entrepreneurship” at Jiwaji University, Gwalior (October 2017). As Member of NAAC Peer Team, he visited Maharashtra in November 2017. Delivered lecture on “Cross Cultural Management” at Bangalore University (27–28 December 2017). Delivered a lecture on “Theoretical Understanding of Management” at Mizoram University (March 2018).

Prof. J. U. Ahmed

Chaired a technical session at (i) international conference on *Finance for Sustainable Growth and Development* organised by the Department of Finance (Chittagong University, Bangladesh) as part of their Silver Jubilee (15–16 March 2018), and served as a resource person, (ii) national seminar on *Emerging Trends in Business and Economic Development in India with Reference to North-Eastern Region* organised jointly by the Department of Business Administration

Department of Management (Tura Campus)

(USTM) and the Department of Business Administration (Tezpur University) from 9 to 20 May 2017, and (iii) national seminar on *Entrepreneurship and Sustainable Development* held at the Department of Commerce, Assam University, Silchar (28 March 2018).

Resource person in (i) national seminar on *Emerging Trends in Business and Economic Development in India with Reference to North-Eastern Region* organised jointly by the Department of Business Administration (USTM) and the Department of Business Administration (Tezpur University) from 9 to 20 May 2017, (ii) international seminar on *Enabling Research Capacity in Management Science* at Patuakali Science and Technology University, Bangladesh (23 August 2017), and presented a paper on “Capacity Building and Conducting Quality Research,” and (iii) national seminar on *Entrepreneurship and Sustainable Development* held at the Department of Commerce (Assam University, Silchar) on 28 March 2018, and delivered the key note address.

Dr. Abhigyan Bhattacharjee

Participated in a two-week capacity building programme on *Enhancement of Capacities of Researchers in Social Research Areas: An Attempt for Transformation in Research Attitude and Aptitude* organised by the Department and sponsored by ICSSR (New Delhi) from 5 to 18 May 2017.

Chaired a technical session of a national conference on *Roadmap for Inclusive and Sustainable Economy* at NIT Hamirpur (3–4 February 2018). Served as a resource person in a training programme on *Agribusiness Promotion for CEOs, Directors and Members of Producer Organisations* organised by BAKDIL (Tura) and NABARD (Tura) from 22 to 24 February 2018.

Dr. K. C. Biswal

Participated in a two-week capacity building programme on *Enhancement of Capacities of Researchers in Social Research Areas: An Attempt for Transformation in Research Attitude and Aptitude* organised by the Department and sponsored by the ICSSR (New Delhi) from 5 to 18 May 2017.

Delivered a key note address on “Entrepreneurial Competency of Young Generation in North-East India” at the national conference on *Business History* organised by the Department of History and Archaeology (NEHU, Tura) on 26 March 2018.

Dr. D. Bhagat

Participated in (i) two-week capacity building programme on *Enhancement of Capacities of Researchers in Social Research Areas: An Attempt for Transformation in Research Attitude and Aptitude* organised by the Department and sponsored by the ICSSR (New Delhi) from 5 to 18 May 2017, and (ii) faculty development programme organised by the Entrepreneurship Development Institute of India (Ahmedabad) at the Department from 1 to 14 March 2018. Acted as a resource person in a training programme on *Agribusiness Promotion for CEOs, Directors and Members of Producer Organisations* organised by BAKDIL (Tura) and NABARD

School of Economics, Management and Information Sciences

(Tura) from 22 to 24 February 2018.

Reviewer for the *Journal of Business Theory and Practice*, *International Journal of Business and Management*.

Dr. Kh. Devananda Singh

Delivered an invited talk as resource person on “The role of MIS in Rural Enterprise Development” to the students of MRD (University of Science and Technology, Meghalaya) on 25 November 2017.

Ms. Sultana B. A. Mazumder

Participated in (i) capacity building programme for social science faculty members on *Enhancement of Capacities of Researchers in Social Science Research Areas: An Attempt for Transformation in Research Attitudes and Aptitudes* organised by the Department from 5 to 18 May 2017, and (ii) faculty development programme on *Entrepreneurship Development* sponsored by NSTEDB (Government of India) and organised by the Department from 1 to 14 March 2018.

Dr. Sunildro L. S. Akoijam

Completed a faculty development programme on *Entrepreneurship* organised by the Entrepreneurship Institute of India, Ahmedabad (1–14 March 2018).

Dr. T. R. Bandaru

Resource person in (i) one-day workshop for the youths of Williamnagar town sponsored by the Deputy Commissioner (East Garo Hills) and organised by the A•chik Tourism Society (Tura) on 27 March 2018, (ii) two-week faculty development programme on *Financial Econometrics: Theory and Applications* and delivered a lecture on “Hands on MS Excel for Data Analysis” at AICTE, organised by the Department of Management, Madanapalle Institute of Technology and Sciences, Chittoor (11–23 December 2017), and (iii) ten-day research methodology programme for research scholar sponsored by ICSSR (Shillong) and organised by the Department from 16 to 26 April 2017.

Dr. Bimal Deb Nath

Completed the eight-week course on *Introduction to Data Analytics NPTEL* held at IIT Madras July–September 2017), and (ii) faculty development programme on *Entrepreneurship Development* sponsored by NSTEDB, Government of India, and organised by the Department from 1 to 14 March 2018.



DEPARTMENT OF TOURISM AND HOTEL MANAGEMENT

Head : Dr. Punit Gautam
Telephone : 09436565987
E-mail : pg20120301@rediffmail.com

Faculty: 4

Designation	Name and Qualification	Specialization
Associate Professor (2)	Punit Gautam, MTA, DPhil	Tour Packaging, Eco and Sustainable Tourism, Tourism Impacts
	Saurabh Kumar Dixit, MTM, PhD	Hospitality/Tourism Management, Consumer Behaviour, Gastronomic Tourism, Tourism Marketing
Assistant Professor (2)	Benjamin F. Lyngdoh, MCom, PhD	Accountancy and Finance
	Sharad Kumar Kulshreshtha, MTA, PhD	MICE Tourism, Events Management, Tourism and Service Marketing, Rural and Sustainable Tourism, Emerging Concepts of Tourism

Thrust Areas of Research

Hospitality and Tourism Studies in General, Sustainable Tourism, Entrepreneurship, Emerging Tourism Trends, Tourism Service Marketing and Tourism Promotion in Region through a Synthesis of the Socio-Economic Systems, Culture, Practices and Processes in Particular.

Brief Statement of Academic Activities

The Department is offering the postgraduate programme in Tourism and Travel Management (MTTM) and a PhD degree in Tourism and Hotel Management.

Students' Profile

Enrolment Capacity: MTTM—30, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MTTM	29	24		48		05	43	10	53
PhD	09	05	01	08		05	08	06	14

Research Fellowships: 13

CSIR-UGC-NET	UGC NON-NET	National Fellowship for Higher Education	Maulana Azad Minority Fellowship
04	07	01	01

Fieldwork/Educational Tour of Students

Twenty-five students went for adventure-cum-field tour to Sikkim.

Teacher-in-Charge: Dr. Punit Gautam, Ms. Sarina Lyngdoh and Ms. Virginia

Places/Institutions Visited: RMC, Mcleod Ganj, Dharamshala, Kakeri

Duration of Tour: 15 days (7–22 May 2018)

Purpose of Tour: To provide exposure of established tourist destination and train them in various adventure activities.

Courses Conducted

Postgraduate: MTTM (Master of Tourism and Travel Management)

Semester I

Principles and Practices of Tourism, Principles of Management and Organizational Behaviour, Hotel Operations and Management, Tourism Geography, Business Communication, Economics for Tourism, Tourism Products of India, Human Resource Management.

Semester II

Travel Agency and Tour Operations Management, Tourism Marketing, Transport Operations and Linkages, Accommodation Management, Accounting and Finance for Tourism and Hotel Business, Research Methodology, Event Management, Legal and Regulatory Framework of Tourism.

Semester III

Tour Guiding and Escorting, Food and Beverage Management, Society and Culture of North-East India, Information Technology for Tourism and Hotel Business.

Specialisation

Tourism Management: Aviation Management, Tour Packaging Management.

Hotel Management: Rooms Division Management, Revenue and Yield Management.

Tourism Marketing: Tourist Behaviour, Selling and Negotiation Skills.

Tourism Entrepreneurship: Tourism and Hotel entrepreneurship, Small Business Management.

Semester IV

Tourism Products of North-East India, Destination Planning and Management, Internship.

Specialisation

Tourism Management: MICE Management, Sustainable Tourism.

Hotel Management: Property Planning and Management, Quality Management.

Tourism Marketing: Destination Marketing and Branding, Customer Relationship Management.

Tourism Entrepreneurship: Business Plan Development, Social Entrepreneurship.

PhD Courses

Research Methodology, Contemporary Issues in Tourism and Hospitality Management, Literature

Department of Tourism and Hotel Management

Review and Presentation.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised an international conference on *Sustainable Tourism and Hospitality Marketing: Setting Agenda for Future Research* (15–17 March 2018) with S. K. Dixit as Convener and P. Gautam as Co-Convener.

Attended

Dr. S. K. Dixit

Delivered a lecture on “Indigenous Cuisine and Gastronomic Tourism: Evidence from Meghalaya (India)” at the 4th UNWTO World Forum on Gastronomy Tourism from 30 May to 1 June 2018 at the Hotel Intercontinental, Bangkok, Thailand.

Dr. B. F. Lyngdoh

Presented papers entitled: (i) “Tourism Impact and Its Sustainability” at the seminar on *Sustainable Tourism: Striking a Socio-economic and Environmental Balance*, Department of Sociology, Synod College, Shillong (4–5 September 2017), (ii) “Superstructure and Business Practices of Tourism-Related Microenterprise: The Two Limits of Think Global Act Local Paradox” at the seminar on *Think Global Act local: Contemporary Sustainable Business Practices and Development*, North-Eastern Management Association and USTM on 10 & 11 October 2017, (iii) “Sustainable Tourism Challenge: A Case Narration of Mawlynnong, Meghalaya” at the seminar on *Sustainable Rural Livelihoods: Emerging Dimensions* organised by the North-East India Commerce and Management Association and the Department of Commerce, Rajiv Gandhi University (10–11 November 2017), and (iv) “Cause-effect Relationship of Tourism-Related Microenterprise Socio-Economic Outcomes” at the conference on *Innovations, Creativity and Sustainability in Tourism, Aviation and Hospitality Industry*, University Institute of Tourism and Hospitality Management, Chandigarh University (6–7 April 2017).

Dr. S. K. Kulshreshtha

Co-chaired a technical session of the two-day national seminar on *Agribusiness and Carbon Management* organised by the Department of Management, Mizoram University Aizawl, Mizoram (30–31 October 2017).

Publications/Research Papers

Published in India

Lyngdoh, B. F. (2017). Tourism-related entrepreneurship centric socio-economic development of Meghalaya, India. *Journal of Trade and Management*, 1: 1–15.

Published Abroad

Dixit, S. K. (2018). Arctic tourism experiences: Production, consumption and sustainability (Book Review). *Journal of Ecotourism*, doi: 10.1080/14724049.2018.1465257.

Dixit, S. K. (2018). The Routledge handbook of hospitality studies (Book Review). *Hospitality and Society*, 8(1): 99–102.

Books/Book Chapters

Dixit, S. K., editor. (2017). *Emerging Paradigms of Hospitality and Tourism: Marketing Perspectives*. DPS Publications, New Delhi, ISBN: 978-81-928994-2-8.

Dixit, S. K., editor. (2018). *Proceedings of STHMCON 2018: International Conference on Sustainable Tourism and Hospitality Marketing: Setting Agenda for Future Research* held on March 15 to 17, 2018, E Book ISBN: 978-93-5300-591-7.

Gautam, P. (2017). *A Study of Motivation, Expectation and Satisfaction of Tourists with Relation to Some Selected Destinations in Himachal Pradesh*. DPS Bharti Publications, New Delhi, ISBN: 978-81-33475-2-2.

Kulshreshtha, S. K. (2018). Carbon management practices in travel, tourism and hotel industry in India. In: *Agri-Business and Carbon Management*. A. K. Singh and L. Renthlei (Eds.). Mittal Publications, New Delhi, Chapter 8.

Kulshreshtha, S. K., Kumar, A. (2018). Carbon Mitigation Policy for Classified Hotels of North-East India. In: *Agri-Business and Carbon Management*. Amit Kumar Singh Lalhmingliana Renthlei (Eds.). Mittal Publications, New Delhi Chapter 8, p. 77–100.

Kulshreshtha, S. K., Kumar, A. (2018). Digitalisation of HR practices in tourism and hotel industry in India. In: *Human Resource Management and Development of Digital Age: Some Sector Specific Perspectives*. Abhigyan Bhattacharjee (Ed.). Mittal Publications, New Delhi, Chapter 20, p. 265–286.

Kulshreshtha, S. K., Kumar, A. (2018). Exploring the potential of wine tourism in Meghalaya. In: *Prospects and Challenges Business and Competitive Advantages Creating and Sustaining Ideas to Solve Contemporary Issues in Recent Era Specific Perspectives*. S. L. S. Akoijam, N. Panchal, W.C. Singh (Eds.). Ruby Press Co. Publications, New Delhi, p. 34–56.

Lyngdoh, B. F. (2017). Cause-effect relationship of tourism-related microenterprise socio-economic outcomes. In: *Tourism and Hospitality: Innovations, Opportunities and Challenges*. S. Walia and M. Sharma (Eds.). Bharti Publications, New Delhi, p. 18–41.

Lyngdoh, B. F. (2017). Prospects and challenges of tourism-related entrepreneurship in North-East India: A strategic emphasis. In: *Emerging Paradigms of Hospitality and Tourism: Marketing Perspectives*. S. K. Dixit (Ed.). DPS Publishers, Delhi, p. 327–344.

Lyngdoh, B. F. (2017). Sustainable tourism challenge: A case narration of Mawlynnong, Meghalaya. In: *Sustainable Rural Livelihood: Emerging Dimensions*. S. K. Jena, O. Padung and P. Modi (Eds.). Excel Publishers, New Delhi, p. 220–233.

Lyngdoh, B. F. (2017). Workforce analytics of best practices of tourism-related microenterprise of Meghalaya. In: *Human Resource Management and Development in the Digital Age*. A. Bhattacharjee (Ed.). Mittal Publications, New Delhi, p. 169–178.

Department of Tourism and Hotel Management

Research Projects

Ongoing: 1

Title of Project	PI/CO-PI	Funding Agency	₹ in lakhs
Study of Service Quality, Satisfaction and the Intent to Return among Tourists Visiting the Leading Hotels of Guwahati (Assam) and Shillong (Meghalaya)	Saurabh Kumar Dixit	UGC, New Delhi	9.70

Honours/Award/Recognitions

Dr. S. K. Dixit

Member of the Editorial Boards of the *European Journal of Sustainability*, *Universal Journal of Management*, *Journal of Tourism: Studies and Research in Tourism*, *Journal ECOFORUM*, *Science Journal of Economics*, *Ottoman: Journal of Tourism and Management Research*, *Tourism and Travelling*.

Nominated as India's representative at the Advisory Council of the World Gastronomy Institute, Spain.

Other Activities

Dr. S. K. Dixit

Reviewer for the *International Journal of Contemporary Hospitality Management*, *Anatolia: An International Journal of Tourism and Hospitality Research*, *TOURISMOS: An International Multidisciplinary Refereed Journal of Tourism*, *Journal of Agricultural Sciences*—an open access refereed journal.

Dr. S. K. Kulshreshtha

Organised the Parytan Parv Association meeting with the India Tourism Office (Shillong under the Ministry of Tourism) and the Government of India on 31 October 2017.



SCHOOL OF EDUCATION

Dean : Prof. S. M. Sungoh
Telephone : 0364-2723590/2723591(O)
E-mail : deaneducation.nehu@gmail.com

The School of Education is comprised of three departments/centres, namely Department of Education (both on Shillong and Tura Campuses), Department of Adult and Continuing Education, Centre for Distance Education and Centre for Science Education. The Department of Education conducts the MA (Education) and PhD programmes both at Shillong and Tura Campuses, while the MEd programme is being conducted only at Shillong Campus. The Department of Adult and Continuing Education, besides various kinds of training and extension activities, offers both MA and PhD programmes in Adult and Continuing Education. The Centre for Distance Education offers various courses through distance mode, *viz.*, BEd (Special Education), PG Diploma in Special Education, PG Diploma in Entrepreneurship, Certificate and General Course in Floriculture, and Foundation Course on Education of Children with Disabilities. The Centre for Science and Education mainly concentrates on research and extension activities. It also works for the popularization of science in North-East India.



DEPARTMENT OF ADULT AND CONTINUING EDUCATION

Dean : Prof. E. Jyrwa
Telephone : 0364-2723328(O)/2726028(R)/9436302933(M)
E-mail : drejyrwa@rediffmail.com

Faculty: 7

Designation	Name and Qualification	Specialization
Professor (2)	E. Jyrwa, MPhil & PhD (NEHU)	National, Regional and International Perspective of Adult Education, Philosophy of Adult Education, Rural Development
	B. P. Sahu, MSW & PhD (Kurukshetra)	Human Resource Development, PMIR Group Work in Adult Education, Disaster Management
Assistant Professor (1)	J. Mawthoh, MA & PhD (NEHU)	Environmental Education Disaster Management, Research Methodology,
	Entrepreneurship and Skill Development	MICE Tourism, Events Management, Tourism and Service Marketing, Rural and Sustainable Tourism, Emerging Concepts of Tourism
Assistant Professor (4)	W. S. Myllemngap, MA & MPhil (NEHU)	Policies and Programmes of Adult Education in India, Material Development in Vernacular Language for Non-Formal Education Intervention
	E. Syngkon, MA & PhD (NEHU)	Population Education, Adult Psychology, Women Education, Research Methodology
	J. I. Rapphap, MSW (Mumbai)	Guidance and Counselling, Inclusive Education, Disaster Management, Community Organization and Development
	N. S. Devi, MSc (NEHU)	Rural Development, Extension Education, Communication methods in Adult Education

Thrust Areas of Research

Literacy, Post-Literacy and Continuing Education, Study on Women SHG, Women Empowerment Entrepreneurship, Child Protection, Street Vendors, Accredited Social Health Activist, Guidance and Counselling, Mass Media, Vocational Training, Skill Development, Family Life Education, Rural Tourism, Challenged/Differently Abled, Environment, Social Security.

School of Education

Brief Statement of Academic Activities

The Department of Adult and Continuing Education is offering courses for the MA and PhD programmes. The current intake capacity for MA is 40.

Lifelong Learning and Skill Development has emerged as a key component in the field of Adult and Continuing Education. Keeping this in view, the Department has widened its scope to cover multidisciplinary subjects. The students admitted to this Department are drawn from various academic disciplines. The teachers in the Department make effort to utilize new techniques of teaching by supplementing lectures with slides presentation, group discussions and exposure trips. The Department offers Open Courses on Extension Education, Rural Development, and Human Resource Development. The Department also introduced a core paper on Disaster Management, which is a relevant subject in this contemporary world. In addition, the students are taught to develop literary materials, such as posters and booklets for the neo-literates on various components of Adult Education in local dialect. These materials can be used for the benefit of the neo-literates at the grass-root level. The Department is also involved in field outreach and extension programmes besides teaching and research.

Students' Profile

Enrolment Capacity: MA—40, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	08	32		40			40		40
PhD	03	05		08			08		08

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	09	24		33			33		33
PhD	02	01		01	01	01*	01	02	03

*International scholar

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Alemu Abota Adare	Evaluation of Vocational Training Programme in Government Institutions, Shillong	Prof. E. Jyrwa
Jacinta I. Rapthap	Empowerment of Tribal Women through Self Help groups in Ri-Bhoi District of Meghalaya: An Adult Education Perspective	Prof. B. P. Sahu
Thodam Sumon Singh	Impact of Post Literacy Programme on Adult Learners in Imphal, East District of Manipur	Dr. J. Mawthoh

Department of Adult and Continuing Education

Placement of Students: 5

1. Miss. Iadalang Sohshang was appointed School Teacher, Meghalaya.
2. Miss. Sophiana Marwein was appointed Primary School Teacher, Meghalaya.
3. Mr. Mekyson Rani was employed as a Football Coach at Tyrsad Village, Meghalaya.
4. Mr. Robin Dohdong worked as a Chef at Cottage Café, Shillong.
5. Mr. Alemu Adare Abota was appointed Assistant Professor in Adis Ababa University, Ethiopia.

Research Fellowships: 11

UGC NET JRF: 2

UGC NET SRF: 2

UGC-Non-NET: 7

Fieldwork/Educational Tour of Students

Teacher-in-Charge: Dr. J. I. Rapthap

Places/Institutions Visited: Roilang Vocational Training Centre, Jyoti Sroat Inclusive School and Centre for the Hearing Impaired

Duration of Tour: One day (9 March 2018)

Purpose of Tour: To understand the practical problems and abilities of the challenged children by way of observing and interacting and to be more sensitive toward the challenged children.

Teacher-in-Charge: Mrs. N.S. Devi

Places/Institutions Visited: Deen Dayal Upadhy Kaushal Vikas Kendra (Skill Development Centre) Wahäajer, Jaintia Hills District, Meghalaya

Duration of Tour: Three days (25–27 May 2017)

Purpose of Tour: To develop entrepreneurial skills of the 2nd & 4th Semester students, and to attend the regional workshop on *Promotion of Bamboo for Wood and Health Food*.

Teacher-in-Charge: Dr. W. Myllemngap, Dr. J. I. Rapthap and Mrs. N. S. Devi

Places/Institutions Visited: Deen Dayal Upadhy Kaushal Vikas Kendra (Skill Development Centre) Wahäajer, Jaintia Hills District, Meghalaya

Duration of Tour: One day (27 May 2017)

Purpose of Tour: To get knowledge and insight of the rich tribal indigenous cultures.

Teacher-in-Charge: Prof. B. P. Sahu and Dr. W. Myllemngap

Places/Institutions Visited: Ahmedabad and Vadodara

Duration of Tour: 12 days (10–22 January 2018)

Purpose of Tour: To enable the students to get an insight into the various continuing education courses and self-supporting courses offered by the Department.

School of Education

Courses Conducted

Postgraduate: MA

Semester I

Introduction to Adult and Continuing Education, Psychology of Adults, Methods and communication in Adult Education, Policies and Programmes of Adult Education in India, Group Work in Adult and Continuing Education.

Semester II

National and International Perspective of Adult Education, Environmental Education, Research Methodology, Inclusive Education, Extension Education.

Semester III

Guidance and Counselling, Women Education, Management of Non-Governmental Organizations, Human Resource Development, Rural Development.

Semester IV

Population and Development, Community Organization and Community Development, Entrepreneurship and Skill Development, Material Development in Vernacular Language for Non-Formal Education Intervention, Disaster Management.

PhD Courses

Research Methodology, Adult and Continuing Education Practices, Literature Review and Seminar Presentation.

Seminars/Conferences/Symposia/Workshops

Attended

Prof. B. P. Sahu

Acted as resource person and delivered a lecture on “Professional Code of Ethics of a Teacher” at a national workshop organised by the Department of Education, Arunachal University (November 17–18, 2017).

Mrs. N. S. Devi

Attended and presented a paper on “Rural Local Governance and Political Empowerment of Women: The Case of Valley Region of Manipur” at the international conference on *Advances in English Studies, Women Empowerment, Business, Humanities and Social Sciences 2017* held at Carmel College of Arts, Science and Commerce for Women, Goa (December 28–30, 2017).

Publications

Book

Sahu, B. P. (2017). *Drug Abuse*. Lakshi Publishers & Distributors, New Delhi, ISBN: 978-93-82120-87-2.

Book Chapter

Jyrwa, E. (2017). Social responsibility of higher education institution problem and strategies. In: *Community Engagement of the Higher Education Institutions Status, Contours and Strategies*. P. Adinarayana Reddy, Bjarne Waghler and D. Uma Devi (Eds.). Publishing Company, New Delhi, p. 249–255.

Department of Adult and Continuing Education



DEPARTMENT OF EDUCATION

Head : Prof. C. Nongbri
Telephone : 0364-2723340(O)/0364-2723346(O)/09436102123(M)
E-mail : hodedu@nehu.ac.in
Faculty: 10

Designation	Name and Qualification	Specialization
Professor (2)	S. M. Sungoh, MPhil & PhD (NEHU)	Teacher Education, Teaching at Tertiary Level, Measurement and Evaluation, Educational Psychology, Guidance and Counseling, Research Methodology
	C. Nongbri, MEd & PhD (NEHU)	Educational Management and Change, Curriculum Development and Instruction, System of Teacher Education in India and Educational System in India
Associate Professor (2)	Ibadani Syiem, MA & PhD (NEHU)	Psychology of Education, Early Childhood Education, Guidance and Counseling, Environmental Education, Research Methodology
	B. Bazeley Kharbiryimhai, MA (Edn) & PhD (NEHU)	Educational Technology, Philosophy of Education, Research Methods, Curriculum Development, Educational Testing and Evaluation, Higher Education, Economics of Education
Assistant Professor (6)	Yodida Bhutia,* MEd (Mangalore), PhD (NEHU)	Mental Health Education, Educational Technology, Educational Psychology, Educational Testing and Evaluation and Research Methodology in Education
	Rihunlang Rymbai, MEd & PhD (NEHU)	Teacher Education, Science Education, Methods of Teaching, Environmental Education
	Ashok Kumar, MPhil (Edn) & PhD (AP)	Educational Psychology, Sociology of Education, Educational Testing
	Vandana, MEd & PhD (BHU)	Research Method in Education, Sociology of Education, Psychology of Education
	Euodia B. Myrthong, MA (Edn) & PhD (NEHU)	Educational Psychology, Guidance & Counselling, Educational Research
	Naraginti Amareswaran,**	Educational Technology, ICT in Education

*On lien to Sikkim University, **On UGC Research Leave

School of Education

Thrust Areas of Research

1. System of Education in the North-East
2. Test Construction
3. Teacher Education
4. Educational Psychology
5. Environmental Education

Brief Statement of Academic Activities

The Department of Education is offering courses for the MA, MEd and PhD programmes. The Department admitted 48 Students to the MA programme and 20 into the MEd programme. At present, the MEd programme is enhanced to two-year course comprising four semesters as per the NCTE Regulations, 2014. The current intake capacity for MA is 48 and for MEd 50.

Students' Profile

Enrolment Capacity: MA—48, MEd—22, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	05	45	04	40	02	04	40	10	50
MEd	01	21		20		02	18	04	22
PhD	03	09		11		01	07	05	12

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	03	45		48			40	08	48
MEd	04	16		19		01	18	02	20
PhD	02	12		12		02	09	05	14

*International student

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Balensha Dora Nongrum	A Study of Creativity and Self-Concept in Relation to Mathematics Achievement of Upper Primary School Students in East Khasi Hills District of Meghalaya	Dr. B. B. Kharbiryumbai
Ms. Bhalang Sungoh	A Study in Anxiety Reactions to Frustration and Depression among Secondary School Students of Jaintia Hills in Meghalaya	Dr. Y. Bhutia

Department of Education

Ms. Jasmine B.A. Sangma	Effectiveness of Pre-Service Elementary Teacher Education Programme on the Teaching Competency and Attitude towards Teaching of the Student Teachers of DIETs in Meghalaya	Prof. P. K. Gupta
Ms. Rihunlang Rymbai	Positive Emotions in Relation to Personality Traits of NEHU Post Graduate Students in Shillong Campus	Prof. S. M. Sungoh
Mr. S. Isias	Construction and Standardization of Multiple Intelligences Test for Secondary School Students	Prof. S. M. Sungoh
Ms. Carol Sungoh	Construction and Standardization of General Scholastic Aptitude Test (GSAT) for Class X Students of Meghalaya	Prof. P. K. Gupta
Ms. Susan Wandaphishisha Lyngdoh	Construction and Standardization of Teacher's Attitude Scale towards Constructivist Approach in Teaching	Prof. S. M. Sungoh
Ms. Christina Lalengkimi Murray	Progress and Problems of Girls' Secondary Education: A Study in Southern Mizoram	Dr. A. Kumar
Ms. Nar Maya Subba	A Study of Elementary Education in the State of Sikkim	Dr. Y. Bhutia
Ms. Issabella Eva Kharpran	A Study of Mental Health and Adjustment of High and Low Achievers at Class X Level in East Khasi Hills District of Meghalaya	Prof. P. K. Gupta
Ms. Rashmi Mili	A Study of the Academic Achievement in Relation to Academic Anxiety and Academic Motivation of Secondary School Students of Lower Assam	Prof. P. K. Gupta
Ms. Ramellind Kynta	Construction and Standardization of Scientific Reasoning Ability Test (SRAT) for Class X Students in Selected Districts of Meghalaya	Prof. P. K. Gupta
Mr. Allwyn Mendoz	Effect of Different Genres of Music on Attention Span, Motor Activity and Task-related Behaviour among Secondary School Students of Lower Subansari District of Arunachal Pradesh	Prof. S. M. Sungoh

School of Education

Placement of Students: 3

1. Baiaieit Nongrum, Assistant Professor St. Francis D'Asisi College, Nongstoin, Meghalaya.
2. Arthelbakor Nongrang, Assistant Professor, Khatsawphra College, Mairang, Meghalaya.
3. Joytimary Lyngdoh, Assistant Professor, J. J. M. Nichols Roy College, Shillong, Meghalaya.

Research Fellowships: 34

CSIR-UGC-NET	UGC NON-NET	National Fellowship for Higher Education	Maulana Azad Minority Fellowship	ICSSR	ICCR
07	15	07	01	01	03

Courses Conducted

Postgraduate: MA (Education)

Semester I

Philosophy of Education, Psychology of Education, Educational Management and Change, Research Methodology in Education (I & II).

Semester II

Curriculum Development and Instruction, Sociology of Education, Educational Testing and Evaluation, Environmental Education, Mental Health Education.

Semester III

Educational Technology, Comparative Education, Early Childhood Education, Teacher Education, Special Education.

Semester IV

Laboratory Practical, Higher Education in India, Guidance and Counseling, Methods of Teaching at Tertiary Level, Economics of Education.

MEd

Semester I

Introduction to Educational Studies, System of Teacher Education in India, Psychology of Learning and Development, Research Method I, Research Method II, Development of Communication Skills.

Semester II

Theory and Practice of Teaching, Educational Testing, Teacher Education Programmes, Internship in DIET's/CTE's for Four weeks, Academic Writing and Presentation, Mental Health Education.

Semester III

Education in Philosophical Perspective, *Elective*: Development of Elementary Education, Development

Department of Education

of Secondary and Higher Secondary Education, *Optional*: ICT in Education, Inclusive Education, Educational Planning and Finance, Early Childhood Education, Dissertation, Historical Development of Education in India, Curriculum Development.

Semester IV

Educational in Social Perspective, *Elective*: Management of Elementary Education, Management of Secondary and Higher Secondary Education, *Optional*: Experimental Education, Guidance and Counseling, Women's Education, Environmental Education, Dissertation.

PhD Courses

Research Methodology, Data Analysis and Computer Applications and Review of Related Literature.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised a panel discussion-cum-quiz programme on *National Education Day* on the theme of *Dr. Abdul Kalam (Ex-President of India) Contribution towards Education* on 14 November 2017 at the Old Guest House (NEHU) with Dr. B. B. Kharbiryumbai as Coordinator.

An international conference on *Recent Advances in Educational Psychology* on 15 & 16 March 2018 at the Old Guest House (NEHU) with Dr. I. Syiem as Organizing Secretary.

Attended

Prof. S. M. Sungoh

Delivered lectures on (i) "Research Methodology" at the national workshop on *Research Methodology* organised by the Research and Publication Cell (Shillong College) in collaboration with IQAC, Shillong (8–9 June 2017), (ii) "Testing and Evaluation" at the workshop-cum-training programme on *Testing and Evaluation for Languages of North-Region* organised by the Linguistic Department (NEHU) in collaboration with ICSSR, Shillong (19–23 September 2017), and (iii) "Tools of Social Science Research" at the workshop on *Research Methodology in Social Sciences for the Research Scholars and Faculty Members* organised by ICSSR-NERC (Shillong) on 6 December 2017.

Prof. C. Nongbri

Presented papers on (i) "Quality of Pre-Primary Teacher and Teacher Education Programme in Meghalaya" and (ii) "Inclusive Education: An Analysis of the Policies in the Implementation of Children with Special Needs" during the 24th Annual Conference-cum-National Seminar of the North-East India Education Society (NEIES) organised by the Department of Education, Rajiv Gandhi University (23–24 November 2017), and (iii) "Curriculum Adaptation at Jyoti Sroat Inclusive School: An Analysis" at the international conference on *Recent Trends in Educational Psychology* organised by the Department on March 15 & 16, 2018.

Dr. I. Syiem

Presented papers on (i) "Empathy and Human Rights" and (ii) "Effects of Conflicts on Education: A Global Perspective" at the national seminar on *Human Rights and Global Challenges*

School of Education

organised by IQAC (Guwahati College) in collaboration with UNESCO on 21 May 2017, (iii) “Ecotourism and Sustainable Development: A Study of Mawlyngbna” at the national seminar on *Sustainable Tourism: Striking a Socio-Economic and Environmental Balance* organised by the Department of Sociology (Synod College Shillong) on 5 September 2017, (iv) “Skill Development and Training: A Case Study of ITI” (Industrial Training Institute, Rynjah, Shillong) and (v) “Status of Elementary Education Reforms in Mizoram” at the NEIES 24th Annual Conference-cum-National Seminar on *Reforming Indian Education System* organised by the Department of Education (Rajiv Gandhi University) on 23 & 24 November 2017, (vi) “Philosophical Thoughts of Vivekananda for Personality Development of Students” at the national seminar on *Philosophy of Swami Vivekananda* organised by the Department of Philosophy (NEHU, Shillong) on 21 November 2017, (vii) “Social Intelligence and Its Role in Lifelong Learning and Success,” (viii) “Attitude of Teacher Educators towards the Two-Year Bed Programme in Manipur,” (ix) “Teachers Professional Ethics and Its Implications,” and (x) “Study Habits among Secondary School Students in Ri-Bhoi District of Meghalaya” at the international conference on *Recent Advances in Educational Psychology* organised by the Department on 15 & 16 March 2018.

Dr. B. B. Kharbirymbai

Presented papers titled (i) “Sampling Techniques in Research” at the national workshop on *Research Methodology* organised by the Research Innovation and Publication Cell and IQAC (Shillong College) as part of the Diamond Jubilee Celebration on June 12, 2017, (ii) “Effects of Teachers Stress and Coping Strategies in Higher Education” at the COIN 2017 two-day international conference on *Interdisciplinary Contemporary Research in Humanities, Social Sciences and Management Studies* organised by the Department of Humanities (Social Sciences, NIT, Meghalaya) on 22 July 2017, and also chaired a session of the conference on 21 July 2017, (iii) “Socio-cultural Communication among the Khasis in Today’s Society” at the national seminar on *Oral Culture: People, Poetics and Performance* organised by the Department of Cultural and Creative Studies (NEHU) on 22 August 2017, (iv) “Globalization and Cross Border Higher Education in India with Special Reference to Meghalaya” at the two-day international seminar on *Cross Border Connectivity and Inclusive Growth: Possibilities and Challenges with Special Reference to the North-Eastern Region* organised by Shillong College on 24 August 2017, (v) “Future Challenges of Higher Education in India with Special Reference to Meghalaya” at the national seminar on *Future of Higher Education: Economic and Social Contexts* organised by NUEPA (New Delhi) on 7 September 2017, (vi) “Reforms at the Higher Education Sector: Respond to New Challenges” at the 24th NEIES Annual Conference-cum-National Seminar on *Reforming Indian Education System* conducted by the Department of Education (Rajiv Gandhi University) on November 23, 2017, and (vi) “Green Marketing and Green Tourism: An Eye Opener in Meghalaya” at the international conference on *Sustainable Tourism and Hospitality Marketing: Setting Agenda for Future Research* (STHMCN 2018) organised by the Department of Tourism and Hotel Management (NEHU) on March 15, 2018.

She also presented four papers on (i) “Coping with Emotions and Stress among Teachers in Higher Education,” (ii) “Academic Motivation of Under Graduate Students,” (iii) “Pro-Environmental

Department of Education

Behaviour of Higher Secondary School Students in East Khasi Hills District, Meghalaya,” and (iv) “Level of Educational Aspiration of Academic Achievement of Secondary School Students in Jaintia Hills, Meghalaya: A Correlational Study” at the international conference on *Recent Advances on Psychology of Education* organised by the Department on 15 & 16 March 2018.

Dr. Rihunlang Rymbai

Presented papers on (i) “Contemporary and Interdisciplinary: Representation of Research in Education” at the two-day international conference on *Interdisciplinarity: Contemporary Research in Humanities, Social Sciences and Management Studies* (COIN 2017) organised by the Department of Humanities and Social Sciences (NIT, Meghalaya) on 21 July 2017, (ii) “Oral Narrative: The Story Telling Approach of Khasi Mothers” at the two-day national seminar on *Oral Culture: People, Poetics and Performance* organised by the Department of Culture and Creative Studies (NEHU, Shillong) on 23 August 2017, (iii) “Cross Border Connectivity: Inclusive Growth through Education” at a 2-day international seminar on *Cross Border Connectivity and Inclusive Growth: Possibilities and Challenges with Special Reference to the North-Eastern States* organised by Shillong College on 24 & 25 August 2017, (iv) “Best Practices of Tourism Stakeholders for Sustainable Tourism: A Collective Case Study at a 2-day national seminar on *Sustainable Tourism: Striking a Socio-Economic and Environmental Balance* conducted by the Department of Sociology (Synod College, Shillong) on 4 & 5 September 2017, (v) “Philosophy of Man-Making Education: Explanation and Interpretation of Character Strengths and Virtues” at the three-day national seminar on *Philosophy of Swami Vivekananda* organised by the Department of Philosophy (NEHU) from 21 to 23 November 2017, (vi) “Academic Reform in School Education: A Study of Self-Concept” at the NEIES 24th Annual Conference-cum-National Seminar on *Reforming Indian Education System* organised by the Department of Education (Rajiv Gandhi University) on 23 & 24 November 2017, and (vii) “Happiness and Psychological Well-being among the Research Scholars of NEHU” and “Work Engagement of Women Teachers in Colleges in Darjeeling Hills” at the international conference on *Recent Advances in Educational Psychology* organised by the Department on 15 & 16 March 2018.

Dr. Ashok Kumar

Presented papers entitled (i) “Social and Educational Exclusion of Scheduled Tribes in India: Status, Attainments and Disparities” at the ICSSR-sponsored national seminar on *Trends and Educational Opportunities of Scheduled Tribes on India* organised by the University College of Education (Adikavi Nannaya University) on 12 April 2017, (ii) “Social Constructivist Pedagogy as an Essential Reform in Education” at the NEIES 24th Annual Conference-cum-National Seminar on *Reforming Indian Education System* organised by the Department of Education (Rajiv Gandhi University) on 23 & 24 November 2017, (iii) “Social Intelligence and Academic Achievement of Higher Secondary Students in East Khasi Hills District, Meghalaya,” (iv) “Relevance of Social Constructivist Model in Teaching” and (v) “Teacher Effectiveness in Relation to Work Motivation of Secondary School Teachers in Jaintia Hills District” at

School of Education

the international conference on *Recent Advances in Educational Psychology* organised by the Department on 15 & 16 March 2018.

Dr. Vandana

Presented papers on (i) “Influence of Classroom Climate on Achievement of Primary Students” at the NEIES 24th Annual Conference-cum-National Seminar on *Reforming Indian Education System* organised by the Department of Education (Rajiv Gandhi University) on 23 & 24 November 2017, (ii) “Learning Mathematics Ethno-Mathematically: An Experience of Primary Students of Ukhrul District of Manipur” at the national seminar on *Mathematics Education* organised by NERIE, (Shillong) on December 22, 2017, and (iii) “Barriers to Utilization of Mental Health Services by Women: A Cross-Cultural Analysis” at the international conference on *Recent Advances in Educational Psychology* organised by the Department on 15 & 16 March 2018.

Dr. Euodia Bahun Myrthong

Presented papers on (i) “Need for Interdisciplinary Research in Education for Quality Development” at the international seminar on *Interdisciplinary: Contemporary Research in Humanities, Social Sciences and Management Studies* (COIN 2017), NIT Meghalaya (July 21, 2017), (ii) “Role of Education in Developing Human Resources in Border Areas of Meghalaya” at the international seminar on *Cross Border Connectivity and Inclusive Growth-Possibilities and Challenges with Special Reference to the North-Eastern Region* held on August 25, 2017 at Shillong College, (iii) “Developing Teacher’s Social-Emotional Competency for Optimism Classroom Participation” at the national seminar on *Reforming Indian Education System* organised by Rajiv Gandhi University (Itanagar) on November 24, 2017, (v) “Educational Aspiration and Stress of Rural Secondary School Students in Ri-Bhoi District of Meghalaya,” (vi) “Academic Pressure on Mental Health of Students: A Reflection” and (vii) “Preparing Teacher-Educators a Two-Year MEd Programme: An Evaluation” at the international conference on *Recent Advances in Educational Psychology* organised by the Department on 15 & 16 March 2018, and (viii) “Computer Attitude in Relation to the Personal Values of Student-Teacher in Shillong” at the national seminar on *Emerging Trends and Innovations in Teacher Education* organised by Sikkim University (Gangtok) on March 23, 2018.

Dr. N. Amareswaran

Presented papers on (i) “Philosophical Thoughts of Vivekananda for Personality Development of Students” at the three-day national seminar on the *Philosophy of Swami Vivekananda* organised by the Department of Philosophy (NEHU, Shillong) from 21 to 23 August 2017, (ii) “Role of Education in Cross Border Connectivity with Special Reference to North-East India” at the two-day international conference on *Cross Border Connectivity and Inclusive Growth: Possibilities and Challenges with Special Reference to the North-Eastern Region* organised by Shillong College on 24 & 25 August 2017, (iii) “Role of RTI in Transparent Administration with Special Reference to Higher Education” at the national seminar on *Emerging Trends in Public Administration* hosted by the Department of Public Administration, MVS Govt Degree and PG College at Mahabubnagar on September 7, 2017, (iv) “Educational Thoughts

Department of Education

of Gandhi for Happy and Healthy Life in the 21st Century” at a national discussion meet on *Gandhian Educational Ideas in Policy Perspective: Relevance, Challenges and Prospects* organised by the Department of Education Policy (NUEPA, New Delhi) from 3 to 5 October 2017, (v) “Need of Administrative Reforms in Teacher Education in Nagaland” at the NEIES 24th Annual Conference-cum-National Seminar on *Reforming Indian Education System* organised by the Department of Education (Rajiv Gandhi University) on 23 & 24 November 2017, (vi) “Massive Open Online Courses (MOOCs): A Platform for Lifelong Learning” at the national seminar on *Role of Universities in Lifelong Learning: Need for Paradigm Shift* organised by the Department of Adult and Continuing Education (S.V. University, Tirupati) on 12 & 13 December 2017, (vii) “Constructivism and ICT in Education” at the national workshop on *Constructivist Approach of Teaching and Learning* organised by the Department of Education (MGAHV, Wardha) from 30 January to 1 February 2018, (viii) “Role of English in Professional Development of Teachers” and “English: A Tool for Share and Care of People from North-East India” at the 23rd International Conference of NELTA held at Galaxy Public School (Kathmandu) from 15 to 17 February 2018, and (ix) “Teacher Education in Nagaland” at the national seminar on *Emerging Trends and Innovations in Teacher Education* organised by the Department of Education (Sikkim University, Gangtok) on 22 & 23 March 2018.

He also presented four papers at the international conference on *Recent Advances in Educational Psychology* organised by the Department on 15 & 16 March 2018: (i) Attitude of Student-Teacher towards the Use of ICT in Learning Process, (ii) “Bhagavad Gita: An Encyclopedia of Mental Health Education, (iii) Attitude of Students towards Physical Education Programme, and (iv) Attitude of Student-Teachers towards Teaching Profession in Meghalaya.

Publications

Published in India

Amareswaran, N. (2018). Educational thoughts of Gandhi for happy and healthy life in the 21st century. *International Journal of Creative Research and Thought*, 6(1): 1469–1484.

Amareswaran, N. (2018). Mental health in Mahabharata: Need to know for peaceful life with special reference to North-East India. *Edu World: A Peer Reviewed Journal of Education & Humanities*, VIII(3): 277–283.

Amareswaran, N. (2018). Policy to practice towards inclusive education with special reference to children with special needs (CWSN). *International Journal of Creative Research and Thought*, 6(1): 1453–1468.

Amareswaran, N. (2018). Practice of moral education in real life. *International Journal of Creative Research and Thought*, 6(1): 1446–1452.

Amareswaran, N. (2018). Role of education in cross border connectivity and inclusive growth with special reference to North-East India. *International Journal of Creative Research and Thought*, 6(1): 1484–1493.

School of Education

- Amareswaran, N. (2017). Past, present and future of teacher education. *Society & Change*, XI (1): 17–25.
- Amareswaran, N., Nongbri, C. (2014). Mental health in Mahabharata: Needs to know for peaceful life with special reference to North-East India. *Edu World: A Peer Reviewed Journal of Education & Humanities*, VIII(3): 277–283.
- Anal, R. S., Amareswaran, N. (2017). Assessment of information and communication technology (ICT) syllabus for BEd programme in Manipur. *Education Plus: A Peer Reviewed Journal*, VI (1): 8.
- Kapfo, M. U., Amareswaran, N. (2017). Physical education programmes for secondary school students in Nagaland. *Education Plus: A Peer Reviewed Journal*, VI(1): 59–65.
- Kerketta, A., Nongbri, C. (2017). In-Service training programmes under Sarva Shiksha Abhiyan (SSA) and the impact on classroom teaching learning. *Imperial Journal of Interdisciplinary Research*, 3(8): 1–4.
- Kharbirymbai, B. B. (2017). Future of higher education in India. *International Journal of Innovative Education*, 5(2): 1–5.
- Kharbirymbai, B. B. (2017). Effects of teachers stress and coping strategies in higher education. *International Journal of Education and Humanities*, 7(1): 228–231.
- Kharbirymbai, B. B. (2017). Examining policies in higher education and RUSA. *International Journal of Education and Humanities*, 6(1): 1–8.
- Kharbirymbai, B. B. (2017). Globalization and privatization: How does it impact higher education? *International Journal of Education and Times*, 6(1): 216–225.
- Kharbirymbai, B. B. (2017). Higher education in India: Macro and micro perspectives. *International Journal of Education and Humanities*, 6(1): 49–55.
- Kharbirymbai, B. B. (2017). Reforming higher Education in the North-East with special reference to Meghalaya. *International Journal of Education and Humanities*, 8(1): 254–259.
- Kharbirymbai, B. B. (2018). Towards excellence in higher education. *International Journal of Innovative Education*, 5(1): 1–5.
- Kharbirymbai, B. B., Dkhar, B. (2017). Level of educational aspiration among secondary school students in Jaintia Hills, Meghalaya. *International Journal for Research and Development*, 5: 40–43.
- Kharbirymbai, B. B., Dkhar, B. (2017). School environment in relation to academic achievement of secondary school students in Jaintia Hills, Meghalaya. *Recent Educational and Psychological Researches*, 6(3): 1–5.
- Kharbirymbai, B. B., Lapasam, R. (2017). Attitude of Jaintia Hills secondary school teachers towards teaching profession. *International Journal of Education & Psychological Research*, 6(1): 26–30.

Department of Education

- Kharbiryumbai, B. B., Sangma, E. (2017). Study of vocational maturity of students in relation to their academic achievement. *Recent Educational and Psychological Researches*, 6(3): 28–32.
- Kharluni, L., Rymbai, R. (2017). Value of spirit of nationality (VSN) of class IX students of Ribhoi district of Meghalaya, India. *Cognitive Discourses International Multidisciplinary Journal*, 4(5): 12–17.
- Kichu, T., Amareswaran, N. (2017). Entrepreneurship through educational institutions. *Education Plus: A Peer Reviewed Journal*, VI(1): 98–106.
- Kikon, E. A., Amareswaran, N. (2017). Quality indicators for teacher education. *Education Plus: A Peer Reviewed Journal*, VI(1): 45–58.
- Kumar, A. E., Rumba, D. (2017). Social constructivist strategies and practices in teacher education. *International Journal of Multidisciplinary Educational Research*, 6(8:5): 142–155.
- Rymbai, R., Kharluni, L. (2017). Social competence of secondary school students in Ri-Bhoi District of Meghalaya. *International Journal of Recent Research in Social Sciences and Humanities*, 4(3): 1–4.
- Sawian, E., Amareswaran, N. (2017). Need of music education in Meghalaya. *Education Plus: A Peer Reviewed Journal*, VI(1): 66–71.
- Syiem, I., Jedidah, K. (2017). Conflicts in secondary schools in Kenya, a perspective of students' leaders. *Online International Interdisciplinary Research Journal*, 7 (Spl. Issue 1): 219–223.
- Syiem, I., Nongrum, L. (2017). Achievement motivation and academic achievement among higher secondary students of Shillong town. *Recent Educational and Psychological Researches*, (1):17–20.
- Syiem, I., Toi, R. J. (2017). Adjustment among government and private secondary school students of Jaintia Hills District. *Recent Educational and Psychological Researches*, 1: 37–40.
- Zadeng, S. L., Syiem, I. (2017). A study of the profile of elementary school teachers in Mizoram. *Recent Educational and Psychological Researches*, 6(2): 11–16.
- Zadeng, S. L., Syiem, I. (2017). Infrastructural facilities of elementary schools in Mizoram. *Online International Interdisciplinary Research Journal*, 7(6): 212–219.

Books

Published in India

- Amareswaran, N., Pannerselvam, S. K. (2016). *Academic Adjustment and Moral Values*. Radical Publication, New Delhi.
- Kharbiryumbai, B. B., Nongbri, C., editors. (2018). *Quality of Higher Education in North-East India*. Eastern Book House (EBH), Guwahati, ISBN: 978-93-86-302-373.
- Nongbri, C., editor. (2017). *Proceedings of North-East India Education Society on the Twenty Third Annual Conference*. Ri Khasi Enterprise, Shillong.

School of Education

Published Abroad

Amareswaran, N., Warjri, A. K. (2018). *Scientific Attitude of Secondary School Students in Shillong*. Lap-Lambert Academic Publishing, Germany.

Amareswaran, N., Diengdoh, M. (2018). *Attitude of D.El.Ed. Student Teachers towards Teaching Profession in Meghalaya*. Lap-Lambert Academic Publishing, Germany.

Books/Book Chapters/Proceedings

Achievement motivation and academic achievement among college students of Shillong. In: *Quality of Higher Education in North-East India*. B. B. Kharbiryumbai and C. Nongbri (Eds.). EBH Publishers, Guwahati, Chapter 10, p. 81–88.

Amareswaran, N. (2018). Attitude of student teachers towards information and communication technology (ICT) in teacher education. In: *Teacher Education: Quality Indicators*. L. Zeliang, R. N. Babu and N. Chuba (Eds.). APH Publication, New Delhi, p. 227–234.

Amareswaran, N. (2018). Role of RTI in transparent administration with special reference to higher education. In: *Emerging Trends in Public Administration*. G. Naik (Ed.). GNV Publication, Hyderabad, p. 35–41.

Ashok Kumar, E. (2017). Social and educational exclusion of scheduled tribes in India: Status, attainments and disparities. In: *Trends and Educational Opportunities of Scheduled Tribes in India*. R. V. S. Dora (Ed.). Roshan Pub, Vishakapatnam, Chapter 47, p. 370–382.

Kharbiryumbai, B. B. (2017). Empowering women through ICT: Empowerment entails acquiring knowledge, fostering self-confidence, expansion of choices, participation in decision making and improving access to and control over resources. In: *Proceedings of North-East India Education Society on the Twenty Third Annual Conference*. C. Nongbri (Ed.). Ri-Khasi Enterprise, Shillong, Chapter 5, p. 49–59.

Kharbiryumbai, B. B. (2018). Green marketing and green tourism: An eye opener in Meghalaya. In: *Proceedings of the International Conference on Sustainable Tourism and Hospitality Marketing: Setting Agenda for Future Research*. Saurabh Kumar Dixit (Ed.). Department of Tourism and Hotel Management, NEHU, Shillong, p. 54.

Kharbiryumbai, B. B. (2018). RUSA - For quality higher education in India. In: *Quality of Higher Education in North-East India*. B. B. Kharbiryumbai and C. Nongbri (Eds.). EBH Publishers, Guwahati, Chapter 29, p. 250–258.

Kharbiryumbai, B. B. (2018). Study on social maturity in relation to their academic achievement of college students of West Garo Hills in Meghalaya. In: *Quality of Higher Education in North-East India*. B. B. Kharbiryumbai and C. Nongbri (Eds.). EBH Publishers, Guwahati, Chapter 14, p. 118–122.

Kharbiryumbai, B. B., Tariang, A. (2017). Computer assisted instruction (CAI). In: *Proceedings of North-East India Education Society on the Twenty-Third Annual Conference*. C. Nongbri (Ed.).

Department of Education

- Ri-Khasi Enterprise, Shillong, Chapter 2, p. 1–19.
- Kichu, T., Amareswaran, N. (2018). Higher education in Nagaland. In: *Quality of Higher Education in North-East India*. B. B. Kharbiryumbai and C. Nongbri (Eds.). EPH Publication, Guwahati, p.110–117.
- Kikon, A. E., Amareswaran, N. (2018). Teacher education in Nagaland. In: *Quality of Higher Education in North-East India*. B. B. Kharbiryumbai and C. Nongbri (Eds.). EPH Publication, Guwahati, p. 61–68.
- Kumar, A., Kharluni, L. (2017). Privatization of higher education in India: Pros and cons. In: *Proceedings of North-East India Education Society on the Twenty-Third Annual Conference*. C. Nongbri (Ed.). Ri-Khasi Enterprise, Shillong, Chapter 17, p. 250–270.
- Myrthong, E. B. (2018). Internship programme for quality teachers. In: *Teacher Education Issues and Challenges*. R. N. Babu, N. Chuba and L. Zeliang (Eds.). APH Publication, New Delhi, Chapter 4, p. 24–28.
- Myrthong, E. B., Lamare, T. (2017). Interest and learning. In: *Insight Education*. R. Safiqur (Ed.). Unity Foundation, Guwahati, Chapter 6.1, p. 83–86.
- Nongbri, C., Kar, D. (2017). Stress among teachers and their management. In: *Mental Health Education*. Y. Bhutia (Ed.). Overseas Press India private Ltd., New Delhi, Chapter 20, p. 187–194.
- Rymbai, R. Sungoh, S. M. (2018). Teacher quality in higher education: The need of the hour. In: *Quality of Higher Education in North-East India*. B. B. Kharbiryumbai and C. Nongbri (Eds.). EBH Publishers, Guwahati, Chapter 9, p. 102–109.
- Rymbai, R., Sungoh, S. M. (2017). Enhancing quality in higher education: Through New Education Policy 2015 in the making. In: *Proceedings of North-East India Education Society on the Twenty-Third Annual Conference*. C. Nongbri (Ed.). Ri-Khasi Enterprise, Shillong, Chapter 14, p. 201–215.
- Rymbai, R., Sungoh, S. M. (2017). Positive psychology: A new approach to promote mental health. In: *Mental Health Education*. Y. Bhutia (Ed.). Overseas Press India Private Ltd, New Delhi, Chapter 9, p. 75–84.
- Syiem, I. (2017). Creativity. In: *Insight Education*. S. Rahman (Ed.). Unity Education Foundation, Guwahati, Chapter 9, p. 142–146.
- Syiem, I. (2017). Emotional intelligence: Why it matters to tourism? In: *Emerging Paradigms of Hospitality and Tourism, Marketing Perspectives*. S. K. Dixit (Ed.). DPS Publications, New Delhi, Chapter 26, p. 378–384.
- Syiem, I. (2017). Empathy and human rights. In: *Human Rights and Global Challenges*. S. Rahman and G. C. Deka (Eds.). Jagaran Sahitya Prakashan, Guwahati, Chapter 2, p. 8–11.

School of Education

Syiem, I., Nongrum, L. (2017). Study habits of higher secondary students of Shillong in relation to academic achievement. In: *Insight Education*. S. Rahman (Ed.). Unity Education Foundation, Gauhati, Chapter 9, p. 94–100.

Toi, R. J., Nongrum, L., Syiem, I. (2017). Reaction to frustration and emotional intelligence of secondary school students of Shillong, Meghalaya. In: *Mental Health Education*. Y. Bhutia (Ed.). Overseas Press India private Ltd, New Delhi, Chapter, p. 115–124.

Research Projects

Ongoing: 2

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Exclusion of Scheduled Tribes from Secondary Education in Meghalaya	Dr. Ashok Kumar Erigala	ICSSR, New Delhi	8.00
A Critical Analysis of Problems of North-East People with Special Reference to the Role of Education	Dr. Amareswaran	UGC, New Delhi	24.00

Completed: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Crime against Women and Children-Socio-Psychological Study	Prof S.M. Sungoh	Government of Meghalaya	15.97

Honours/Awards/Recognitions

Prof. S. M. Sungoh

Member of NAAC assignment to Sai College of Education, Jadia Nawanshahr (SBS Nagar), Doaba, Punjab (13–14 October 2017).

Prof. C. Nongbri

Member of the Meghalaya Board of School Education (MBOSE).

Dr. I. Syiem

Member of the Editorial Board of *An Interdisciplinary Journal in Social Sciences* (Peer reviewed international journal of St. Claret College, Ziro India, ISSN: 2349-400X).

Dr. R. Rymbai

Awarded the Degree of Doctor of Philosophy (PhD) in Education for the thesis titled “Positive Emotions in relation to Personality Traits of NEHU Postgraduate Students in Shillong Campus.”

Department of Education

Awarded the Certificate of Caliber for completing a PhD (Education) at the Mait Shaphrang Excellence Award 2017 by the Khasi Students' Union (Mawlai Circle).

Other Activities

Prof. S. M. Sungoh

Delivered as a resource person on (i) "Micro Teaching" at the 40th Orientation Programme organised by UGC-HRDC (NEHU, Shillong) from 11 to 23 May 2017, (ii) "Micro Teaching" at the 41st Orientation Programme conducted by UGC-HRDC, NEHU (22–26 May 2017), (iii) "Effective Teaching: Meaning and Planning" and "Classroom Management: How do I Manage My Classroom? Sharing Experiences and Writing a Note on the Same" during the Extended Contact Programme for *Postgraduate Diploma in Higher Education* organised by IGNOU (Regional Centre, Shillong) on 23 May 2017, (iv) "Role of IQAC in Quality Enhancement in Higher Education Institutions (HEIs)" organised by Synod College (Shillong) on 21 April 2017, (v) "Methods of Inquiry," "Hypothesis" and "Preparation of Questionnaire and Data Collection" during a short-term course in *Research Methodology* organised by UGC-HRDC, NEHU, (vi) "Women and Health" and "Stress Management" at UGC-HRDC summer school organised by UGC-HRDC (NEHU) on August 23, 2017, (vii) "Tool Development" at the workshop on *Tool Development* for School Dropout organised by the Government of Meghalaya at DSEL (5 December 2017), (ix) "Micro Teaching" during the 42nd Orientation Programme organised by UGC-HRDC, NEHU (15–18 January 2018), (x) "Tribal Identity" at the UGC-HRDC winter school on *Tribals* conducted by UGC-HRDC (NEHU) on 22 December 2018, (xi) "Micro Teaching" during the 43rd Orientation Programme organised by UGC-HRDC, NEHU (19 January to 28 February 2018), (xii) "Stress Management" at the three-day workshop organised by UGC-HRDC (NEHU) on March 5, 2018, and (xiii) "Tool Construction" at a winter school organised by UGC-HRDC (NEHU) on March 20, 2018. She also judged a programme of the student conference on *Environment, Forest, Climate Change and Disaster Management* organised by NERIES on November 2 & 3, 2017.

Prof. C. Nongbri

Delivered lectures on (i) "Curriculum Development at the Higher Education Level" (two lectures) during the 40th Orientation Programme organised by UGC-HRDC, NEHU, Shillong (May 15, 2017), (ii) "The Changing Role of UGC from Inception to the Present Time" at the Extended Contact Programme for *Postgraduate Diploma in Higher Education* organised by IGNOU (Shillong) on 23 May 2017, (iii) "Reforming Higher Education in the North-East with Special Reference to Meghalaya" on *Reforming Higher Education in the North-East* organised by the Meghalaya Tribal Teachers Association (MeTA), NEHU, Shillong (26 May, 2017), (iv) "Curriculum Development at the Higher Education Level" (two lectures) during the 41st Orientation Programme (General) for college and university teachers organised by UGC-HRDC, NEHU (June 7, 2017), and (v) "Curriculum Development at the Higher Education Level" (two lectures) at the 42nd and 43rd Orientation Programmes organised by UGC-HRDC (NEHU) on 1 February 2018 and 12 March 2018, respectively. She also chaired a technical

School of Education

session of the NEIES 24th Annual Conference-cum-National Seminar organised by the Department of Education (Rajiv Gandhi University, Itanagar) on 23 & 24 November 2017.

Dr. I. Syiem

Delivered two lectures as a resource person on the topics “Is Delivering a Good Lecture Important?” and “Effective Teaching” during the Extended Contact Programme for *Postgraduate Diploma in Higher Education* organised by IGNOU (Shillong) on 25 May 2017, (ii) “Empathy” during the 40th Orientation programme for College and University Teachers conducted by UGC-HRDC, NEHU (18 May 2017), (iii) “Empathy” during the summer school on *Professional Development of Teachers in Higher Education for College and University Teachers*, organised by UGC-HRDC, NEHU (20 June 2017), and (iv) “Research Methodology” at the training of resource persons for the States of Mizoram & Meghalaya (Phase II of PAC 25.38) organised by NERIE-NCERT (Umiam, Shillong) on 19 February 2018.

Judged the inter-college debate on the motion of *Education System in India is Favourable for Employment* organised by Shillong Commerce College (Shillong) on 11 November 2017.

Dr. B. B. Kharbirymbai

Delivered lectures on (i) “Examining Policies in Higher Education and RUSA,” “Globalization and Higher Education: How does It Impact Higher Education?” “Higher Education in India Micro and Macro Perspectives” and “What is Professionalism in Teaching? Can API Scores Contribute to Professionalism? How?” during the Extended Contact Programme for *Post-graduate Diploma in Higher Education* conducted by IGNOU (Shillong) on 25 May 2017, (ii) “Sampling Techniques” at the IQAC programme organised by IQAC Cell (Shillong College) on 11 June 2017, (iii) “Life Skills in Teaching Learning” at the 41st Orientation Programme organised by the UGC-HRDC (NEHU) on 12 June 2017, (iv) “Reforming Higher Education in the North-East with Special Reference to Meghalaya” on *Reforming Higher Education* in the North-East organised by MeTTA (NEHU) on 26 May 2017, (v) Presented a research report at the institutional level organised by CPRHE/NUEPA (New Delhi) on 6 & 7 September 2017, (vi) “Education of the Tribes (Indigenous People in India)” at a refresher course in tribal studies on *Tribal Studies: Life, Culture and Development* for college and university teachers organised by UGC-HRDC (NEHU) on 31 January 2018, (vii) “Micro Teaching Skills in Teaching Learning Process” organised by USTM (Baridua, Meghalaya) on 23 March 2018, and (viii) “ICT in Higher Education” during the 42nd Orientation Programme for college and university teachers organised by UGC-HRDC, NEHU (15 January to 11 February 2018).

Dr. Rihunlang Rymbai

Delivered lectures on (i) “Personality Development and Self-confidence Building” at the event of special guest lecture held at Thomas Jones Synod College (Jowai) on 10 April 2017, (ii) “Developing Reflective Assessment Task for Students of Different Disciplines” at the Extended Contact Programme (ECP) for *Post-graduate Diploma in Higher Education* organised by IGNOU (Shillong) on May 24, 2017, (iii) “Development of Activity Based Teacher’s Handbook in Science

Department of Education

for the State of Arunachal Pradesh at Secondary Level” during the phase 1 developmental programme at NERIE, NCERT (18–22 September 2017), and (iv) “Development of Activity Based Teacher’s Handbook in Science for the State of Arunachal Pradesh at Secondary Level” during the phase 2 developmental programme at NERIE, NCERT (5–9 March 2018).

Dr. Ashok Kumar

Delivered a lecture and chaired a session on “Educational Status of Scheduled Tribes in India” at the national seminar on *Trends and Educational Opportunities of Scheduled Tribes in India* organised by the University College of Education (Adikavi Nannaya University) on 12 April 2017.

Dr. E. B. Myrthong

Delivered lectures on (i) “Developing Four Interactive Strategies for Classroom Interaction” for postgraduate and diploma in higher education at IGNOU (Shillong) on 23 May 2017, (ii) “Children with Learning Disability” and “Inter-disciplinary Approach” organised by the Kendriya Vidyalaya (NEHU, Shillong) on 15 June 2017, (iii) “Child Psychology” and “Child’s Rights” organised by the Kendriya Vidyalaya (NEHU, Shillong) on 13 February 2018, and (iv) Chaired a session on “Emerging Trends and Innovations in Teacher Education” at the national seminar on *Emerging Trends and Innovations in Teacher Education* at Sikkim University (Gangtok) on 23 March 2018.

Dr. N. Amareswaran

Completed (i) MOOC course in preparing for university at the University of East Anglia (UK) in August 2017, (ii) MOOC course in Developing Your Research Project at the University of Southampton (UK) in September 2017, (iii) Refresher course in *Teacher Educators* organised by HRDC (GNDU, Amritsar) from 24 October to 13 November 2017, (iv) Co-chaired a session at the national seminar on *Role of Universities in Lifelong Learning: Need for Paradigm Shift* organised by the Department of Adult and Continuing Education (Tirupati, Andhra Pradesh) on 12 & 13 December 2017, and (v) Delivered a talk on “Attitude, Knowledge and Skills towards Healthy Environment” at a seminar on *Contemporary Environmental Issues and Concerns* held on 12 March 2018 at Science Seminar Hall (NEHU, Shillong), and acted as a member in the focus group discussion.

School of Education



DEPARTMENT OF EDUCATION (TURA CAMPUS)

Head : Dr. (Mrs.) Nikme S. C. Momin
Telephone : 09436315571
E-mail : edntcnehu@gmail.com

Faculty: 4

Designation	Name and Qualification	Specialization
Associate Professor (2)	Nikme S. C. Momin, MA & PhD (NEHU)	Educational Psychology, Teacher Education and Environmental Education
	B. C. Das, MPhil (DAV), PhD (BHU)	Educational Technology, Teacher Education, Research Methodology
Assistant Professor (2)	S. C. Subudhi, MPhil & PhD (Kurukshetra)	Research Methodology and Statistics, Special Education
	J. V. Madhusudan, MPhil & PhD (Gulbarga)	Sociology of Education, Early Childhood Education and Higher Education in India

Thrust Areas of Research

Educational Psychology, Educational Management and Change, Curriculum Development and Instruction, Value and Peace Education, Environmental Education, Teacher Education and Methods of Teaching, Special Education and Inclusive Education, Early Childhood Education and Elementary Education, Higher Education and Comparative Education.

Brief Statement of Academic Activities

The Department of Education on Tura Campus was established in August 2001. Since then, it has been offering the MA and PhD Programmes in Education. Besides regular teaching and research works, the Department has conducted seminars in which students give presentation of papers on various topics.

The Department is also engaged in research project works funded by UGC and ICSSR (New Delhi), and ICSSR (NEHU, Shillong). The Department has a well-established Psychological Laboratory with adequate number of psychological tests and equipment where students conduct tests and experiment as part of their course works.

Students' Profile

Enrolment Capacity: MA—30, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	03	27		28		02	28	02	30
PhD	01	01		02			01	01	02

Department of Education (Tura Campus)

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	03	25		26	01	01	26	02	28
PhD	01	01		02			01	01	02

Name of Student	Title of Thesis	Name of Supervisor & Joint Supervisor
Ms. Tilla Vinter B. Marak	A Study of Child Rearing Practices among Tribals in West Garo Hills District of Meghalaya	Dr. J. V. Madhusudan
Mr. Zacharias Tirkey	A Study of the Opinion of Participants and Resource Persons towards Orientation Programmes and Refresher Courses of Selected Academic Staff Colleges in North-Eastern Region of India	Dr. Siba Charan Subudhi
Mr. Challang R. Marak	A Study of the Managerial Creativity of the Heads of Primary Schools in Selected Districts of Garo Hills	Dr. J. V. Madhusudan

Courses Conducted

Postgraduate: MA

Semester I

Philosophy of Education, Psychology of Education, Educational Management and Change, and Research Methodology in Education (I & II).

Semester II

Curriculum Development and Instruction, Sociology of Education, Educational Testing and Evaluation, Environmental Education and Mental Health Education.

Semester III

Educational Technology, Comparative Education, Early Childhood Education, Teacher Education, Education for the Gifted and the Creative and Special Education.

Semester IV

Laboratory Practical, Higher Education in India, Guidance and Counseling, Education for the Physically and the Cognitively Challenged, Methods of Teaching at Tertiary Level and Economics of Education.

PhD Courses

Research Methodology, Data Analysis and Computer Application, Review of Related Literature.

Seminars/Conferences/Symposia/Workshops

Attended

Dr. Nikme S. C. Momin

Presented papers on (i) “Critical Thinking” at a professional development workshop organised by Loyola College (Williamnagar, Meghalaya) on 7 April 2017 at NEHU (Tura), (ii) “Lesson from the 21st Century Skills and a Call for Deeper Learning Competencies in Schools of Meghalaya” and “Structured Learning Problem Behaviour amongst the Secondary School Students of Meghalaya” at the NEIES 24th Annual Conference-cum-National Seminar organised by the Department of Education (Rajiv Gandhi University) on 23 & 24 November 2017, and (iii) “21st Century Learning Skills: Focus on Teacher’s Role in Developing Students’ Learning Skills and Shaping and Moulding of Students’ Lives in the 21st Century” at a professional development programme for teachers of Loyola College (Williamnagar) on 9 March 2018.

Presented papers by co-author on (i) “CoRT Thinking Strategy for Higher Education Students,” (ii) “Reforming Indian Education System,” (ii) “Are Students at the Undergraduate Level of Education Career Ready,” (iii) “Reforming Indian Education System,” and (iv) “Effectiveness of Reading Comprehension Package in Terms of Reading Comprehension of Class IX Students of Tura” at the NEIES 24th Annual Conference-cum-National Seminar organised by the Department of Education (Rajiv Gandhi University) on 23 & 24 November 2017, (v) “Building Comprehension Skills through the Development of Multiple Reading Dimensions,” and (vi) “Enhancing Creative Skills through Breadth Thinking Tools” at the international conference on *Recent Advances in Educational Psychology* organised by the Department of Education (NEHU, Shillong) on 15 & 16 March 2018.

Dr. S. C. Subudhi

Presented papers on (i) “Vocational Education in North-East India” at the national conference on *Vision—2025 Connecting North-East through Open and Distance Learning* at IGNOU (Jorhat, Assam) on 8 & 9 July 2017, (ii) “What is Wrong with Today’s Teacher Education in India? Implication towards Structural Changes in Language Education” at the national seminar on *Skill Development in Teacher Education* at the Department of Education (Sri Lal Bahadur Rastriya Sanskrit Vidyapeetha, New Delhi) held from 14 to 16 March 2018, and (iii) “Teacher Education in India? Implication towards Structural Changes” at the national seminar on *Emerging Trends and Innovations in Teacher Education* held on 22 & 23 March 2018 at the Department of Education, Sikkim University, Gangtok.

Publications

Published in India

- Das, B. C. (2017). Problems of staff training in the academic colleges in India. *Staff and Educational Development International*, 21: 93–104.
- Das, B. C. (2017). Professional training in the academic staff colleges in India. *EDUTRACKS*, 21: 26–39.

Department of Education (Tura Campus)

Subudhi, S. C. (2017). Vocational education needs to come back in North-East India. *Social Science Journal*, V: 7–15.

Books

Subudhi, S. C. (2017). *Mental Health of Special Children in North-East India*. Lakshi Publisher & Distributor, New Delhi, ISBN: 978-93-82120-69-8.

Subudhi, S. C. (2017). *Education for Deaf: Concept to Practice*. Ansh Book International, New Delhi, ISBN: 978-81-934461-1-9.

Research Projects

Ongoing: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Study of Domestic Violence in Relation to Demographic Variables of Rural Women in Meghalaya	S.C. Subudhi	ICSSR, New Delhi	8.00

Other Activities

Dr. S. C. Subudhi

Delivered four lectures on (i) “Research Methodology” as a resource person in a *Research Methodology Training Programme for Research Scholars* organised by ICSSR at the Department of Management (NEHU, Tura) from 8 to 20 April 2017, (ii) four lectures at a training programme on *Effective Curriculum Transaction of Science Subject by Various Strategies to Class V Students of North-Garo Hills District of Meghalaya* hosted by DIET (Resubelpara) on 4 May 2017, and four lectures on 1 & 18 July 2017, (iii) four lectures at a workshop on *Developing Different Techniques and Skills for Teaching at Different Stages of an Individual* for secondary school teachers organised by the College of Teacher Education (Tura) from 24 to 29 July 2017, and (iv) three lectures at a workshop on *Techniques and Devices on Evaluation* for secondary school teachers organised by the College of Teacher Education (Tura) from 31 July to 5 August 2017.



CENTRE FOR DISTANCE EDUCATION

Head : Prof. R. N. Rai
Telephone : 0364-2226822/2228705(O)/9436303111 (M)
E-mail : rnrai1957@yahoo.co.in

Faculty: 2

Designation	Name and Qualification	Specialization
Professor	R. N. Rai, MA, PhD	Teacher Education, Teaching at Tertiary Level, Measurement and Evaluation, Educational Psychology, Guidance and Counseling, Research Methodology
Assistant Professor	R. C. Pandey, MA, PhD	Experimental Psychology and Statistics

Thrust Areas of Research

The thrust area of the Centre is to offer General, Certificate, Diploma, and Degree Courses in distance mode to all those who have for some reasons or others been deprived of formal education and are seeking higher education irrespective of age or region. The Centre offers Degree, Diploma and Certificate Courses through distance mode relevant to the region.

Brief Statement of Academic Activities

The Centre for Distance Education (CDE) has been selected as the only nodal agency of the Rehabilitation Council of India (New Delhi) to spread the teaching and learning on disability areas in the entire North-Eastern Region through the distance mode. In the disability areas, the Centre presently offers the Foundation Course on Education of Children with Disability (FC-SEDE). The programme coordinators and counselors have been exposed to the new techniques of distance mode of education through orientation programmes.

The Centre is hosting the IGNOU Study Centre, which offers the Master's and Bachelor's degrees, Diploma and Certificate Programmes to students of different categories. More than 1200 distance learners are enrolled under this Study Centre.

Students' Profile

Enrolment Capacity: BEd-SEDE—60, FC-SEDE—300

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
FC-SEDE	78	173	05	220	12	14	133	118	251

Centre for Distance Education

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
BEd-SEDE	23	34	01	31	09	16	24	33	57
FC-SEDE	36	115	04	132	07	08	74	77	151

Placement of Students

Successful students of Disability Programmes are placed under SSA and special schools of the North-East Region and all over the country. The students have also joined various NGOs to cater for the needs of the challenged population, which is a sizable number in the North-Eastern Region.

Courses Conducted

Foundation Course on Education of Children with Disabilities (FC-SEDE)

Developing Broad Positive Perception of Children with Disabilities and Intervention Measures, Understanding Education for the Children with Disabilities, Understanding of Early Childhood Development and Intervention of Children with Disabilities, Development of Adaptive Skills, Assistive Devices and Special Therapies for Children with Disabilities, Basic Training for Teaching Children with Special Needs.

BEd-Special Education (BEd-SEDE)

BEd-SEDE 1st Year

Theory: Education in Emerging Indian society, Educational Psychology, Introduction to Disability, Teaching of English/Hindi/regional Language, Introduction to Education of Visually Impaired Children/Identification and Assessment of Persons with Mental Retardation/Foundation of Education for the Hearing Impaired.

Practical: Core Training in Teaching Skill, Psychology Practical, Basic Computer Operation, Adaptive Skills, Aids and Appliances, Training in Visual Impairment, Mental Retardation and Hearing Impairment, Teaching Practice in English/Hindi/Regional Language, Teaching Practice in Inclusive School.

BEd-SEDE 2nd Year

Theory: Educational Planning and Management, Curriculum Designing and Research, Teaching of Science/Teaching of Mathematics/Teaching of Social Studies, Educational Perspective of Visual Impairment, Instructional Methods, Mental Retardation: Its Multidisciplinary Aspects, Curriculum and Teaching Strategies, Aural and Oral Rehabilitation of the Hearing Impaired, Methodology of Teaching Language and other Subjects to Hearing Impaired.

Practical: Work Experience/Art Education, Co-Curricular and Extracurricular Activities, Project Work in Visual Impairment, Training on Equipment Related to Visual Impairment, Project Work

School of Education

in Mental Retardation, Training on Equipment Related to Mental Retardation, Project work in Hearing Impairment, Training on Equipment Related to Hearing Impairment.

Postgraduate Professional Diploma in Special Education: PGPD-SEDE

Introduction to Disabilities

Three Specialized Theory Courses in any one optional Disability Area: Visual Impairment, Mental Retardation, Hearing Impairment.

Practical Courses in any one opted Disability Area: Visual Impairment, Mental Retardation, Hearing Impairment.

Seminars/Conferences/Symposia/Workshops

Attended

Prof. R. N. Rai

Chaired a scientific session of the InSPA international conference on *School Psychology: School Counselling and Skill Development* held at the Department of Studies of Psychology, University of Mysore, Mysuru (9–11 November 2017). He also chaired a scientific session of the international conference of the Indian Academy of Applied Psychology (IAAP) on *Organization, Work and Well-being* organised by the Department of Applied Psychology, Pondicherry University (16–18 March 2018).

Publications

Book Chapters/Proceedings

Rai, R. N. (2016). Psycho-social intervention among intellectually disabled children in Shillong. In: *Psychology and Society Today Contemporary Researches*. Manovaigyanik Parikshan Sanstha, Varanasi, p.14–36.

Academic Collaborations

The Centre is conducting the FC-SEDE course in collaboration with the Rehabilitation Council of India, New Delhi.

Honours/Awards/Recognitions

R. N. Rai was awarded the InSPA-P. K. Subbaraja Trust Best Performance Award during the 7th InSPA International Conference at the University of Mysore, Mysuru (9–11 November 2017) for valuable services and contributions to promotion of School Psychology in India.

Other Activities

Prof. R. N. Rai

Delivered lectures at NEIGRIMS for the BSc Nursing 1st Year Students from July 2017 to February 2018.



CENTRE FOR SCIENCE EDUCATION

Head : Prof. P. K. Patra
Telephone : 0364-272-2953/0364-272 2951
E-mail : : pkpatranehu@gmail.com
Faculty: 3

Designation	Name and Qualification	Specialization
Professor (3)	Debashis Bhattacharjee, PhD (Warsaw)	Number Theory (Arithmetical Functions)
	P. K. Patra, PhD (NEHU)	High Energy Physics/Nanophysics
	M. S. Bisht, PhD (Delhi)	Biological and Environmental Sciences

Thrust Areas of Research

Number Theory (Arithmetical Functions), High Energy Physics/Nanophysics, Biological and Environmental Sciences.

Brief Statement of Academic Activities

The Centre is mainly involved in research activities in the areas of Number Theory, Nanophysics, and Biological and Environmental Sciences. The objective of the Centre is to develop scientific temper in the areas of mathematics, physics, biology, environment and other science and technology areas among the students and community at large.

Seminars/Conferences/Symposia/Workshops

Organised

The Centre organised a regional workshop on *Promotion of Bamboo for Wood and Health Food* at the Deen Dayal Upadhaya Kaushal Vikas Kendra (Skill Development Centre) Wahiajer, West Jaintia Hills District, Jowai (May 25–27, 2017) with Prof. M. S. Bisht as Organiser.

Publications

Published Abroad

- Lyngdoh Mawphlang, B. R. K. L., Patra, P. K. (2017). Analytical expressions for deflection and strain energy of a cantilevered carbon nanotube using nonlocal continuum models. *Advance Science Engineering and Medicine*, 9: 420–425.
- Rai, D. P., Sandeep Shankar, A., Patra, P. K., Thapa, R. K. (2017). Electronic and magnetic properties of Fe atomic chain and Fe atomic plane: An ab-initio study. *International Journal of Nanoscience*, 16(3): 1–6.
- Joshi, H., Rai, D. P., Sandeep Shankar, A., Patra, P. K., Thapa, R. K. (2017). A comparative study of electronic and thermoelectric properties of bulk, 2D sheet and 1D wire of Silicon: An ab-initio study. *International Journal of Nanoelectronics and Materials*, 10: 93–100.

School of Education

Nirmala, C., Bisht, M. S. (2017). Bamboo: A prospective ingredient for functional food and nutraceuticals. *Bamboo Journal*, 30: 82–99.

Books/Book Chapters

Lyngdoh Mawphlang, B. R. K. L., Patra, P. K. (2017). Expression for strain energy of a simply supported carbon nanotube using nonlocal continuum models. In: *Recent Advances in Physics Research and Its Relevance*. S. Chutia and S. Saikia (Eds.). Excel India Publishers, New Delhi, p. 210–214.

Patra, P. K., Thapa, R. K. (2018). *Group Theory and Its Applications*. Narosa Publishing House, New Delhi, ISBN: 978-81-8487-426-6.

Research Projects

Ongoing: 2

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Technology Development for Making Boards from Waste Pine Needles	M. S. Bisht (PI)	SCSTD, Govt of Meghalaya	8.19
Technology Development for Bamboo-Plastic-Board from Waste Plastic and Bamboo Strips	M. S. Bisht (PI)	SCSTD, Govt of Meghalaya	10.91

Completed: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Bamboo Shoot as a Functional Food and Nutraceutical: Extraction of Bioactive Compounds from Juvenile Shoots for Commercial Exploitation and Socio-Economic Development of the Region	Prof. M. S. Bisht (Co-PI)	Department of Biotechnology (DBT)	14.38

Academic Collaborations

Prof. P. K. Patra

Collaborated with Prof. R. K. Thapa, Physics Department, Mizoram University and Dr. D. P. Rai, Physics Department, Pachhunga University College, Aizawl, Mizoram.

Prof. M. S. Bisht

Collaborated with Prof. C. Nirmala, Department of Botany, Panjab University, Chandigarh and Prof. Kananbala Sarangthem, Department of Life Sciences, Manipur University, Canchipur, Manipur.

Other Activities

Prof. P. K. Patra

Delivered lectures on (i) “CNT a New Class of Materials” (November 15, 2017), (ii) “Synthesis and Characterization of CNT” (November 15, 2017), and (iii) “Theoretical Development of CNT” (two lectures on November 20, 2018) during the UGC-HRDC refresher course in *Nanoscience and Nanotechnology*, NEHU (13 November to 3 December 2018).

Prof. M. S. Bisht

Technical Committee Member for the 11th World Bamboo Congress, Xalapa, Veracruz Mexico, August 14–18, 2017.

Prof. D. Bhattacharjee

Taught the MSc 4th Semester Course (Operations Research) (MTHC 413) and 1st Semester Course (Application of Mathematics in Environmental Studies) (MTHC 105) in the Department of Mathematics (NEHU, Shillong) as a guest faculty during sessions February to July 2017 and August to December 2017, respectively.

III



SCHOOL OF HUMANITIES

Dean : Prof. B. K. Agarwala
Telephone : 0364-2723551(O)/ 9436111478(M)
E-mail : binodkagarwala@gmail.com

The School of Humanities has five departments on Shillong Campus, namely English, Philosophy, Khasi, Linguistics and Hindi; and two Departments on Tura Campus, *viz.*, English and Garo. All the departments conducted both MA and PhD programmes during 2017–18. Some departments like Khasi, Linguistics and Hindi also conducted the MPhil programme during the year. Faculty members of the School were actively involved in teaching, guiding research and other academic activities. Each department has its own identified thrust areas of research. Many faculty members of the School have produced a large number of research papers in professional journals and contributed chapters to a number of books. They have also edited and written books and presented papers at seminars and conferences. A number of faculty members have been invited as resource persons as well as to chair sessions at seminars, conferences, workshops and refresher courses within and outside NEHU. Some departments also organised study tours for students taking them to various places in the country and organised seminars. The School has made progress in diverse research fields.



DEPARTMENT OF ENGLISH

Dean : Prof. Sukalpa Bhattacharjee
Telephone : 0364-2723503(O)/9436703957(M)
E-mail : bsukalpa@hotmail.com

Faculty: 3

Designation	Name and Qualification	Specialization
Professor (7)	Esther Syiem, MPhil & PhD (NEHU)	American Literature, Indian Writing in English, Folklore Studies
	Moon Moon Mazumdar, PhD (NEHU), DDE (IGNOU)	Shakespeare Studies, British Fiction, Postcolonial Literature and Tagore Studies
	Sukalpa Bhattacharjee, MPhil & PhD (NEHU)	Critical Theory, Postcolonial Literatures and Gender Studies
	Mala Renganathan, MPhil (Pondicherry), PhD (Madurai Kamaraj)	Drama, Theatre Studies, Indian Writing in English, Terrorism and South Asian Studies, Tagore Studies
	Utpala G. Sewa, MPhil & PhD (NEHU)	British Poetry and Diasporic Writing
	Jyotirmoy Prodhani, MA (Pune) PhD (NEHU)	Theatre and Performance, Translation, North-East Studies and Dalit Literature
	Kynpham Sing Nongkynrih, MA & PhD (NEHU)	World Poetry in English Translation, Poetry, Northeast Poetry, Classical Criticism
Associate Professor (3)	Nobonita Ganguly, MA (NEHU)	Modernist Fiction, Women's Writing, Dalit Literature and British Fiction
	Nola Syiem, MA (NEHU), MPhil (Delhi)	16 th and 17 th British Drama
	Rabindra Singh Ngangom, MA (NEHU)	Indian Poetry in English, Northeast Poetry in English, World Literature in English Translation
Assistant-Professor (4)	Lang Kupa K. War, MA (NEHU)	Modern Fiction, Postcolonial literature and Visual Studies
	Suranjana Choudhury, MPhil (Jadavpur), PhD (Calcutta)	Women's Writing, South Asian Literature, Partition Narratives, British Fiction
	Rimi Nath, MA & PhD (Gauhati)	Indian Writing in English, Partition Narratives, Postcolonial Studies, Migration and Diaspora Studies and South Asian Literature
	Somjyoti Mridha, MA & MPhil (JNU)	Indian Writing in English, Literatures of Kashmir Conflict

School of Humanities

Thrust Areas of Research

The thrust areas of research are New Literatures in English particularly South Asian Diasporic Fiction in English, Literature in English and in Translation from North-East India, Comparative Literature constituting various literatures in translation, Theories of Gender and Culture Studies, Ethnic and Cultural Studies and Theatre, with special focus on the theatre traditions of Europe, America and India in general and North-East India in particular.

Brief Statement of Academic Activities

The Department offers both MA and PhD programmes. Faculty members of the Department are actively engaged in teaching and research relating to the thrust areas. The Department had contributed 18 publications, including one edited book and those published in journals and edited volumes. Forty-six students got their MA degree, and one student completed a PhD degree. The Department organised one workshop, one national seminar, one international seminar, and one refresher course.

The Department collaborated with a team from the US Consulate, Kolkata United States-India Education Foundation, in organising the “Education US Programme” on 11 May 2017 in the Department with Prof. Mala Renganathan as Coordinator. The Department also conducted a theatre performance, Kanya Tor (an adaptation of Rabindranath Tagore’s short story), by Ashok Nagar Natyamukh from Kolkata in collaboration with the National School of Drama at NEHU on 16 October 2017 with Prof. Jyotirmoy Prodhani as Coordinator.

Students’ Profile

Enrolment Capacity: MA—53, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	10	42	01	46	01	04	29	23	52
PhD	02	04	01	02		03		06	06

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	10	36		42		04	31	15	46
PhD		01		01			01		01

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Persara Lyngdoh	Text and Intertext in the Selected Novels of Orhan Pamuk	Prof. Sukalpa Bhattacharjee

Department of English

Research Fellowships: 13

UGC Non-NET: 12

UGC-Post Doctoral: 01

Courses Conducted

Postgraduate: MA

Semester I

Poetry I, Fiction I, Drama I, Literary Theory and Criticism I, American Literature I.

Semester II

Poetry II, Fiction II, Drama II, Literary Theory and Criticism II, Commonwealth Literature (Option A), World Literature in Translation (Option B).

Semester III

Poetry III, Shakespeare I, Literary Theory and Criticism III, American Literature II (Option A), Modern Indian Drama (Option B), Indian Fiction in Translation (Option A), Women's Writing (Option B).

Semester IV

Fiction III, Drama III, Shakespeare II, Literary Theory and Criticism IV, Environment and Indian Writing in English.

MPhil/PhD Courses

Research Methodology (4 Credits), Research Writing and Presentation (4 Credits), Option D: The Literature of North-East India (4 Credits), Option G: India in Twentieth Century Narratives: English Writings and Translations (4 Credits).

Revised Syllabi Effective from August 2017

Semester I

Poetry (Chaucer to Pope), Fiction (19th Century to the Beginning of the 20th Century), Drama (Renaissance to Restoration), Classical Literary Theory and Criticism, Nineteenth Century American Literature.

Semester II

Poetry (Blake to Browning), Fiction (Early Twentieth Century to Mid-Twentieth Century), Environment & Indian Writing in English, The Beginnings of English Literary Criticism, World Literature in Translation (Option A), South Asian Literature (Option B), Modern Indian Drama (Option C).

Semester III

Poetry (Yeats to Duffy), Shakespeare I, Literary Theory and Criticism: Romantic Age to Structuralism, Contemporary Indian Fiction in Translation (Option A), Women and Travel (Option B), Drama in Performance (Option C), Women's Writings (Option A), River Narratives from India (Option B), Literature from India's North-East (Option C).

Semester IV

Fiction: Late Twentieth Century and Beyond, Contemporary American Literature (Option A), Postcolonial Literatures (Option B), Shakespeare II, Contemporary Theory, Modern Drama.

School of Humanities

M.Phil/Ph.D. Courses

Research Methodology (4 Credits), Research Writing and Presentation (4 Credits), Option D-The Literature of North-East India (4 Credits).

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised (i) National workshop on *Cinema and Society: A National Workshop on Film Appreciation* from 15 May to 20 May 2017 in collaboration with the Shillong Forum for English Studies and ICSSR-NERC. Coordinator: Prof. Jyotirmoy Prodhani, (ii) National seminar/symposium on *Translating Contemporary Indian Drama to commemorate International Translation Day* on 30 September 2017 in collaboration with the Sahitya Akademi, and Prof. Mala Renganathan was the Coordinator, and (iii) International seminar on *Narratives of Violence and Terror in South Asia* from 16 to 18 November 2017 sponsored by NEC, ICSSR-NERC and the Shillong Forum for English Studies with Prof. Mala Renganathan as Coordinator.

The Department also conducted a refresher course in *Literatures, Languages and Cultures: South Asia in Comparative Perspective* from 19 March to 7 April 2018 with Dr. Suranjana Choudhury and Mr. Lang Kupar K. War as Coordinators.

Attended

Prof. Esther Syiem

Delivered a lecture on “Preserving the Oral Narratives of the Khasis” at the plenary session of the two-day international conference on *Interdisciplinarity: Contemporary Research in Humanities, Social Sciences and Management Studies* organised by the Department of Humanities and Social Sciences, NIT (Meghalaya) on 21 and 22 July 2017.

Chaired a session of the international seminar on *Narratives of Violence and Terror* organised by the Department in collaboration with NEC and ICSSR-NERC, Shillong (17–18 November 2017). She also chaired the inaugural session of the regional seminar on *175 Years of Written Khasi Literature* organised by the Sahitya Akademi and St. Edmund's College, Shillong (14–15 December 2017).

Panellist in a panel discussion at the national symposium/seminar on *Translating Contemporary Indian Drama* on 30 September 2017 organised by the Department in collaboration with the Sahitya Akademi (New Delhi).

Prof. Moon Moon Mazumdar

Presented papers entitled “The Politics of Representation in Select Works of Fiction from India's Northeast” at the national seminar on *Indian Literature and Social Development* organised jointly by IAS and the Sahitya Akademi at Shimla (5–7 April 2017). Delivered a plenary lecture on “The Poetic and the Popular ‘Contingent’ in the Novels of Amit Chaudhuri and Chetan Bhagat” at the two-day national seminar on *Decoding The New in New English Literature: Theory and Praxis* organised by the Department of English, Rajiv Gandhi University, Arunachal Pradesh (14–15 September 2017), and chaired three sessions of the seminar. She

Department of English

also chaired two sessions of the international seminar on *David Thoreau and Indian Thought* held at Gurukul Mahila Arts and Commerce College, Porbandar, and presented a paper on “Indian and American Transcendentalism: Convergences and Contradictions” (17 February 2018).

Prof. Sukalpa Bhattacharjee

Presented papers on (i) “Orality and Gendered Resistance” at the national conference on *Oral Cultures: People, Poetics, Performance* on 23 August 2017 organised by the Department of Cultural and Creative Studies (NEHU) in collaboration with INTACH (New Delhi) and IGRMS, Bhopal, (ii) “Emotion as Agency: A Feminist Perspective” at the international conference on *Emotions of Cultures/Cultures of Emotions: Comparative Perspectives* held at the University of Western Australia in Perth (Australia) from 11 to 13 December 2017, and (iii) “Gendering Religion: A Feminist Perspective” at the UGC-SAP national seminar on *Religious Beliefs and Practices: A Cross-Cultural Study of Societies of Northeast India* organised by the Department of History (NEHU) and sponsored by ICSSR-NERC (8–9 March 2018).

Delivered an invited lecture on “Gender Justice” as a resource person at a gender workshop organised by St. Mary’s College (Shillong) on 11 April 2017. She also chaired an academic session of the international conference on *Narratives of Violence and Terror in South Asia* organised by the Department in collaboration with ICSSR-NERC and NEC on 7 November 2017.

Prof. Mala Renganathan

Presented a paper as delegate on “The Question of Academic Integrity and Plagiarism: An Analysis” at the international seminar on *Ethical Challenges and Contemporary Issues in Creative Research: Uniformity Vs Creativity* organised by Lady Keane College, Shillong.

Panellist in a panel discussion of the national symposium/seminar on *Translating Contemporary Indian Drama* organised by the Department in collaboration with the Sahitya Akademi, New Delhi (30 September 2017).

Prof. Jyotirmoy Prodhani

Delivered a keynote address at the national seminar on *Indigenous Voice(s) in Assamese Fiction* at Assam University (Diphu campus) organised by the Department of Assamese on 13 & 14 March 2018, and chaired an academic session of the seminar. She also delivered a lecture on “From Orature to Narrative: Koch Rajbanshi Literature” at the national workshop on *Oral Literature* organised by MAKIAS (Kolkata) at the NIRD, Guwahati (18 February 2018).

Prof. Kynpham Sing Nongkynrih

Presented a paper on “Tribal Literature in Northeast India” and read self-composed poems in the *Literary Commons! Writing Australia India in the Asian Century* organised by Monash University, Melbourne (1–5 April 2016).

Dr. Suranjana Choudhury

Presented papers on (i) “Displacement and Its Remnants: A Select Study of Partition Memoirs from Bengal” at the international conference on *Narratives of Displacement* held at the University of London on 28 & 29 October 2017, and (ii) “The Politics and Poetics of Gendered Exile in Nirbashito” at the national conference on *Humanities and Social Sciences* (NCHSS 2017) organised by the Department of Humanities and Social Science, NIT, Raipur (26 November 2017).

Delivered an invited talk on “Experiences of Non-belonging: Reading Select Women Memoirs from Bengal” at the two-day international symposium on *Recent Research Trends in Gender Studies* organised by the Department of Humanities and Social Sciences, NIT, Meghalaya (17–18 March 2018), and chaired a session of the seminar.

Somjyoti Mridha

Presented papers on (i) “Gendered Narratives of Kashmir Conflict: A Study of Kashmiri Women’s Narratives” at the two-day international conference on *Interdisciplinarity: Contemporary Research in Humanities, Social Sciences and Management Studies*, NIT (Shillong) held on 21 & 22 July 2017, and (ii) “State Terror in the Kashmiri Context: A Study of Narratives from Kashmir” at the international seminar on *Narratives of Violence and Terror in South Asia* organised by the Department from 16 to 18 November 2017.

Publications

Published in India

- Dutta, B., Choudhury, S. (2017). The forgotten partitions of Northeast India and its lingering legacies. *Café Dissensus*, <https://cafedissensus.com/2017/08/15/the-forgotten-partitions-of-northeast-india-and-its-lingering-legacies/>.
- Nath, R. (2017). A reading of Mohsin Hamid’s *The Reluctant Fundamentalist* and Bapsi Sidhwa’s *An American Brat* through the lens of cultural citizenship. *Literaria: Annual Journal of the Department of English* (Gurucharan College, Assam), V: 31–41.
- Nath, R. (2017). Nameri (poem). *Coldnoon: International Journal of Travel Writing and Travelling Cultures*, 11 June 2017 (np).
- Nongkynrih, K. S. (2017). Where lies the greatness of Soso Tham’s poetry: A dialogue. *Ka Thwet Jingstad: Quest for Knowledge*, 3(3): 85–96.
- Prodhani, J. (2017). Critical theory is most useful when it is critical: An interview with Simon Gikandi. *Journal of Contemporary Thought*, 43: 135–145.
- Prodhani, J., Das, S. (2017). Cycle of violence and Ratan Thiyam’s *Chakravyuha*: A Girardian reading. *Man and Society*, XIV: 71–81.
- Renganathan, M. (2017). Articulations of terror from contemporary literary texts: A gender perspective. *English Forum: Journal of Department of English* (Gauhati University), 5: (np).

Books/Book Chapters

- Bhattacharjee, S. (2017). Rethinking sources for gender history: Some texts and contexts. In: *Rethinking Gender History: Essays on Northeast India and Beyond*. Manorama Sharma (Ed.).

Department of English

- DVS Publishers, Guwahati and New Delhi, Chapter 12, p. 261–286.
- Bhattacharjee, S. (2017). Body-reparation-invention: Cixous and Derrida on feminine writing. In: *Philosophy, Language and the Political: Poststructuralism in Perspective*. Franson Manjali and Marc Crépon (Eds.). Aakar Books, New Delhi, Chapter 13, p. 193–203.
- Wanniang, B. *et al.* (2017). Approaches to translation: A brief outline. In: *Translation Transcending Boundaries*. B. Wanniang, M. N. Bhattacharjee, A. Nongbri and L. D. Marak (Eds.). EBH Publishers, Guwahati, p. 1–4.
- Wanniang, B. *et al.* (2017). Translation in the oral tradition and the issues thereof. In: *Translation Transcending Boundaries*. B. Wanniang, M. N. Bhattacharjee, A. Nongbri and L. D. Marak (Eds.). EBH Publishers, Guwahati, p. 16–23.
- Renganathan, M., joint editor. (2017). *PRISM: English Course Book for BCom Students*. CUP Foundation Books, New Delhi.
- Prodhani, J. (2018). Interlinkages and the cosmopolitan spaces in the narratives of India's Northeast. In: *Cosmopolitan Spaces: Indian Literatures and the Counterpoints of Modernity*. Malashri Lal (Ed.). Sahitya Akademi, New Delhi, Chapter 13, p. 189–199.
- Nongkynrih, K. S. (2018). Sundori. In: *100 Great Indian Poems*. Abhay K. (Ed.). Bloomsbury, New Delhi, p. 81.
- Ngangom, R. S. (2017). Native land. In: *The Himalayan Arc*. Namita Gokhale (Ed.). Harper Collins India, Noida, (np).

Book Reviews

- Choudhury, S. (2017). Book review: Amitava Kumar's *The Lovers*. *Café Dissensus*, <https://cafedissensusblog.com/2017/09/13/book-review-amitava-kumars-the-lovers/>.
- Choudhury, S. (2018). Book review: Jeet Thayil's *the book of chocolate saints*. *Café Dissensus*, <https://cafedissensusblog.com/?s=jeet+thayil>.

Research Projects

Ongoing: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Gendering Terrorism in South Asian Narratives in the post 9/11 Era: A Select Study of Indian-Pakistani-Afghan and Srilankan Writings in English	Prof. Mala Renganathan	UGC, New Delhi	12.80

Honours/Awards/Recognitions

Prof. Mala Renganathan

Fulbright Campus Representative, US Consulate's Education Programme.

Other Activities

Prof. Esther Syiem

Delivered two lectures on "Kamala Das as a Feminist Poet" and "Gender Sensitization" during the UGC-HRDC short-term course, NEHU, Shillong (21–26 August 2017). She also participated and read out self-composed poems at the Indo-Spanish Women Writer's Meet on *Sounds of Silence Mystic Poetry from Spain and India* organised by Casa de la India (India House in Spain, New Delhi) at Tijara Fort (Rajasthan) from 26 to 28 October 2017.

Delivered two lectures on "Folk Literature of the Tribes" during a refresher course in *Tribal Studies: Life, Culture and Development* organised by UGC-HRDC, NEHU (22 January to 11 February 2018). She also delivered a lecture on "Overview of African-American Literature" during the UGC-HRDC orientation programme, NEHU (15 January to 11 February 2018).

Prof. Sukalpa Bhattacharjee

Delivered the following lectures: (i) "Gender Society and Identity" during the 40th Orientation Programme for college and university teachers organised by UGC-HRDC, NEHU (4 May 2017), (ii) "Gender Justice" during the 41st Orientation Programme organised by UGC-HRDC, NEHU (7 June 2017), (iii) "Skill for Unequal Encounters" at the summer school on *Professional Development of Teachers in Higher Education* for college and university teachers organised by UGC-HRDC (NEHU) on 4 July 2017, (iv) "Gender, Society and Identity" during the 42nd UGC-HRDC Orientation Programme for university and college teachers (15 January to 11 February 2018), (v) "Gender Justice" during the 43rd Orientation Programme organised by UGC-HRDC, NEHU (13 March 2018), (vi) "Translation as Transcreation" during the UGC-HRDC winter school for university and college teachers (19 March to 8 April 2018), and (vii) Two lectures on "Literary Categories in South Asia" during the UGC-sponsored refresher course in English and comparative literature on the theme *Literatures, Languages and Cultures: South-Asia in Comparative Perspective* (19 March 2018 to 8 April 2018).

Participated in a panel discussion on "Partition and Borders in the Northeast" during the annual festival of *Zubaan entitled Cultures of Peace* at the Asian Confluence Shillong, organised by Zubaan Publishers (New Delhi) on 14 October 2017.

Advisory Board Member, Women's Studies Centre, Dibrugarh University, Assam. She was also a reviewer for the *Indian Journal for Gender Studies* (SAGE Journals), *Asian Ethnicity* (Taylor & Francis), and *Literaria: An Annual Journal of the Department of English*, Gurucharan College (Assam).

Prof. Mala Renganathan

Delivered an inaugural lecture on "A Research Exploration of the Understudied Dramatic Aesthetics of Rabindranath Tagore" during the university program for celebration of Rabindra Jayanti at Assam University (9 May 2017). She also delivered a lecture on "Reflections of Terror

Department of English

in South Asian Women's Writing" during a refresher course in *Comparative Literature in South Asia* organised by the Department on 24 March 2018.

Reviewer of the Anthem Press for individual research book proposals in September-October 2017.

Prof. Jyotirmoy Prodhani

Delivered lectures on (i) "Tibet and the North-East" (ii) "Tripura: Kokborok Language and Literature" and (iii) "Koch Rajbanshi Oral Literature and Micro Writings" during a refresher course in *English* at Gauhati University (4–5 March 2018).

Reviewer for the *GUINES Journal of Gauhati University Institute of North-East Studies* (Gauhati University). Member, Research Advisory Board, Tripura University, Agartala, Tripura.

Rabindra Singh Ngangom

Panellist in the discussion on "Northeast Literature in English" at a national literature festival organised by ICAFI University (Mizoram) on 16 February 2018, and (ii) "Emerging Trends in Contemporary Literatures of the Northeast" at a national Northeast literature conference organised by Sikkim Government College on 9 & 10 March 2018.

Read self-composed poems in the session "Lyrics of Our Times" at the Brahmaputra literary festival (Guwahati) organised by NBT on 9 February 2018.

Dr. Rimi Nath

Delivered two lectures on "Modern Indian poetry" to the students of MA English literature at the English and Foreign Languages University (Shillong) on 22 November 2017. Also read out self-composed poems at the panel of "Poetry of the Hills" in a literary and cultural festival organised by Penguin Random House (India) on 9 December 2017 in Shillong.

Reviewer for the *Journal of South Asian Diaspora* (Taylor and Francis Group) in September, 2017.

Completed a GIAN course on *Religion, Ideologies and Nationalism in South Asia* at the National Institute of Technology (Silchar) held from 23 to 28 October 2017.

Somjyoti Mridha

Completed a GIAN course on *Religion, Ideologies and Nationalism in South Asia* at the National Institute of Technology (Silchar) held from 23 to 28 October 2017.



DEPARTMENT OF ENGLISH (TURA CAMPUS)

Head : Prof. Sujata Gurudev
Telephone : 9436592455
E-mail : englishtura.nehu@gmail.com

Faculty: 6

Designation	Name and Qualification	Specialization
Professor (1)	Esther Syiem, MPhil & PhD (NEHU)	American Literature, Indian Writing in English, Folklore Studies
Associate Professor (2)	Dwijen Sharma, MPhil & PhD (Dibrugarh)	Indian English Literature, Literary and Cultural Theory
	Ramona M. Sangma, MA & PhD (NEHU)	Postcolonial Literature, Literary Theory and Criticism, Ethno-Literature
Assistant Professor (3)	Jova C. Marak, MA & PhD (NEHU)	Indian Writing in English, Women Writings, Ethno-Literature
	Namrata Pathak, MPhil & PhD (EFLU)	British and Continental Drama, Literary Theory and Criticism, Gender Studies
	L. K. Gracy, MA & PhD (NEHU)	British Fiction, British Poetry

Thrust Areas of Research

Ecology and Literature, Cultural Studies and Ethnic Literature, Translation Studies, Dalit and Marginal Literature, Indian English Writings, Postcolonial Literature, Women and Gender Studies, Theatre Studies, Western Literary Theory and Indian Poetics.

Brief Statement of Academic Activities

The Department offers the MA and PhD programmes in English Literature with an emphasis on the thrust areas. The Department has published a peer reviewed research journal *Protocol: Journal of Translation, Creative and Critical Writings* since 2007 funded by the ICSSR, New Delhi. At present, Dr. Ramona Sangma served as Editor and Dr. Jova C. Marak and Dr L. K. Gracy as Co-Editors. The Journal caters to researchers and authors from the region and the country with emphasis on translation from regional languages to English, creative writings and critical studies.

Student seminar has been introduced in the Department to orient the Master's level students towards advanced research. Regular seminars on progress of PhD scholars are held in the Department. Scholars and professionals from areas of mass media, graphic design, anthropology, and film studies are invited to the Department to present their talks and interact with the students. The Department also has a students' Wall Magazine, a Film Club and a Drama Society.

Department of English (Tura Campus)

Students' Profile

Enrolment Capacity: MA—33, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	08	25		30	01	02	28	05	33

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	09	22	01	25	02	03	23	08	31
PhD	01	03		02	01	01	02	02	04

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Sanatombi K. Sangma	Transformation Myths: A Study of Garo Narrative	Dr. Angela R. W. Ingty
Jena G. Momin	Dynamics of Anger and Its Representation in Select Works of John Osbourne, Kingsley Amis and Alan Sillitoe	Dr. Ramona Sangma
Bonani Chakrabarty	The Legacy of Ayn Rand: A Critical Study of Her Objectivism, Capitalism and Ethics	Prof. Sujata Gurudev
Lohit Kumar Ray	Violence, Angst and the Female Body: A Select Study of Partition Novels by Women	Dr. JovaMarak

Research Fellowships: 9

UGC JRF: 1

NEHU Non-NET Fellowship: 8

Courses Conducted

Postgraduate: MA

Semester I

Poetry (Chaucer to Pope), Fiction (19th Century to Beginning of 20th Century), Drama (Renaissance to Restoration), Classical Literary Theory and Criticism, 19th Century American Literature.

Semester II

Poetry (Blake to Browning), Fiction (Early Twentieth Century to Mid-Twentieth Century), Environment and Indian Writing in English, The Beginnings of English Literary Criticism, World Literature in Translation (Option A), South Asian Literature (Option B), Modern Indian Drama (Option C).

Semester III

Poetry III, Shakespeare I, Literary Theory and Criticism III, American Literature II (Option A),

School of Humanities

Modern Indian Drama (Option B), Indian Fiction in Translation (Option A), Women's Writing (Option B).

Semester IV

Fiction: Late Twentieth Century and Beyond, Contemporary American Literature (Option A), Postcolonial Literatures (Option B), Shakespeare II, Contemporary Theory, Modern Drama.

MPhil/PhD Courses

Research Methodology (4 Credits), Research Writing and Presentation (4 Credits), Option D: The Literature of North-East India (4 Credits).

Educational Tour of Students

Teacher-in-Charge: Dr. Dokatchi Ch. Marak

Places/Institutions Visited: Kolkata and Kerela

Duration of Tour: 15 Days

Purpose of Tour: The main objective of such excursions is to provide the students with exposure to the diversity and vastness of our country; it helps in promoting inter-cultural dialogue and harmony.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised (i) Twelve-day NSD workshop in February 2018 with Dr. Namrata Pathak and Dr. L. K. Gracy as Co-coordinators, (ii) One-day outreach programme of professional development workshop for lecturers of Loyola College on 5 June 2018 at Williamnagar, and (iii) Sahitya Akademi-sponsored translation workshop from Garo into English in collaboration with the Department of Garo from 29 to 31 May 2018.

Attended

Prof. Sujata Gurudev

Chaired (i) 6th technical session devoted to "Cultural History and Traditional Knowledge" at the national conference on *Perspectives on Material Cultures in Northeast India* organised by the Department of History and Archaeology (NEHU, Tura) on 23 March 2018, and (ii) 4th technical session of the national seminar on *Business History: Problem of Unemployment and Assessment of Entrepreneurial Competencies in North-East India* organised by the Department of History and Archaeology (NEHU, Tura) on 27 March 2018.

Delivered a lecture on "Translation and the Problems of Translation" at the Sahitya Akademi-sponsored translation workshop from Garo into English organised by the Departments of English and Garo (NEHU, Tura) on 29 May 2018.

Dr. Dwijen Sharma

Chaired (i) 1st technical session of the national seminar on *Emerging Trends in Women's Writing in India* held at Rangapara College (Assam) on 27 October 2017, (ii) 5th technical session devoted to "Cultural History and Traditional Knowledge" at the national conference on *Perspectives on*

Department of English (Tura Campus)

Material Cultures in Northeast India organised by the Department of History and Archaeology (NEHU, Tura) on 23 March 2018, and (iii) 5th technical session on “Cultural History and Traditional Knowledge” at the national seminar on *Business History: Problem of Unemployment and Assessment of Entrepreneurial Competencies in North-East India* organised by the Department of History and Archaeology (NEHU, Tura) on 27 March 2018.

Dr. Ramona M. Sangma

Presented papers titled (i) “The Garo Woman and the Institution of Marriage down the Ages” at the national seminar on *Women and Urbanity in North-East India through the Lens of Cultural Memory* organised by the Department of Cultural Studies, Tezpur University (27–28 November 2017), and (ii) “The Myth of Balpakram” at the national seminar on *Tribal and Oral Literature: Present Scenario* organised by the Sahitya Akademi, New Delhi (22–23 March 2018).

Dr. Namrata Pathak

Acted as a panellist during the Guwahati Grand Poetry Festival (February 20–21, 2018) and moderated the third veritable verses session on *North-East Poetry in Translation* dedicated to the memory of the late Nalinidhar Bhattacharjya.

Dr. L. K. Gracy

Participated as a resource person/translator in a three-day Garo-English translation workshop organised by the Sahitya Akademi in collaboration with the Departments of English and Garo (NEHU, Tura) from 29 to 31 May 2018.

Publications

Published in India

- Pathak, N. (2018). “Death” and “Violence” in Mitra Phukan’s Writings: Unraveling an aesthetics of pain in the collector’s wife and hope. *Contemporary Literary Review India*, 5(2): 64–82.
- Pathak, N. (2018). Plays of Ratan Thiyam and H. Kanhailal: Some critical thoughts. *Drishti: The Sight*, VII(I): 12–19.
- Sharma, D. (2017). Oral literature: A note on some interpretative strategies. *Apperception: Journal of the Department of English, Visva-Bharati, Santiniketan*, VIII: 106–113.
- Sharma, D., Anish, S. (2017). Animalization of women and feminization of nature: Reading a few advertisements. *Literaria*, 7(1-2): 257–269.
- Sharma, D., Anish, S. (2017). Celebrating silence and otherness: A reading of Kavita Kane’s Lanka’s Princess and Anand Neelakantan’s Asura: Tale of the vanquished. *Daath Voyage*(e-journal), 2(2): 73–82.
- Sharma, D., Anish, S. (2018). Indian women, changing roles and advertisements: Setting new stereotypes. *The Critique*, VIII-XIV: 42–51.
- Sharma, D., Marak, P. C. (2017). Women’s body and capitalist space: A reading of Mahasweta’s Douloti the Bountiful. *Srotaswini*, III: 26–32.

Book Chapter

- Sharma, D. (2017). The Mahout songs of Gauripur Estate: An inquiry. In: *Revisiting Orality in North-*

School of Humanities

East India. Deepak Basumatary and Z. Khiangte (Eds.). MRB Publishers, Guwahati, p. 17–30.

Honours/Awards/Recognitions

Dr. Namrata Pathak

Selected for the Associateship Award of the UGC Inter-University Centre for Humanities and Social Sciences for the year 2018 at the Indian Institute of Advanced Study, Shimla.

Other Activities

Prof. Sujata Gurudev

Delivered an extension lecture on “Women’s Empowerment at the Indigenous Koch Sabha” on NEHU Foundation Day with extension lectures by Prof. K.C. Baral and Dr. Arjuman Ara. She also delivered a lecture on “Research Methodology” at Loyola College (Williamnagar) as part of the extension programme of the Department on 4 June 2018. Acted as a resource person in an awareness programme for student’s election at NEHU (Tura) on 10 October 2017.

Dr. Dwijen Sharma

Delivered two lectures on “Gender Studies and Assamese Fiction” at a refresher course in *Assamese Literature, Language and Culture* organised by the Academic Staff College (Gauhati University) on 12 September 2017, (ii) “Indian Intellectual Tradition: From Gandhi to Khilnani” at Lanka Mahavidyalaya (Hojai, Assam) on 21 April 2018, and (iii) “Research and Innovative Ideas” at Loyola College, Williamnagar, as part of the extension programme on 4 June 2018.

Dr. Ramona M. Sangma

Correspondent of the NEHU News Bulletin.

Dr. Namrata Pathak

Completed the orientation programme (OP-113) at UGC-HRDC of Gauhati University held from 21 August to 17 September 2017.

Delivered a lecture on “Student Participation and Leadership Skills” at awareness programme for student’s election at NEHU (Tura) on 10 October 2017, and (ii) “Curriculum Transaction” at Loyola College (Williamnagar) as part of the extension programme of the Department on 4 June 2018. She acted as a resource person at one-day sensitization programme on *Leadership Role of Women under RUSA Euty Programme* held on 9 April 2018 at College of Teacher Education, Rongkhon, Tura.

Dr. L. K. Gracy

Participated as a resource person/translator at a three-day Garo-English translation workshop organised by the Sahitya Akademi in collaboration with the Departments of English and Garo (NEHU, Tura) from 29 to 31 May 2018.

Editor, *Duramong*, Campus Magazine of NEHU, Tura Campus.



DEPARTMENT OF GARO (TURA CAMPUS)

Head : Dr. Fameline K. Marak
Telephone : 03651-223107
Fax : 03651-223953
E-mail : fkmarak@gmail.com, garodeptnehu@gmail.com

Faculty: 4

Designation	Name and Qualification	Specialization
Associate Professor (1)	Fameline K. Marak, MA & PhD (NEHU)	Traditional and Modern Poetry, Folk Literature and A•chik folklore
	Jacqueline R. Marak, MEd (Utkal) PhD (NEHU)	Traditional and Modern Poetry, Folk Literature and A•chik folklore
Assistant Professor (3)	Dokatchi Ch. Marak, MA & PhD (NEHU)	Linguistics
	Crystal Cornelious D. Marak, MA (NEHU)	Fictional Linguistics

Thrust Areas of Research

The thrust areas of the Department include A•chik Literature, Language, Folklore, Literature in Translation, Environmental Studies, and World Literature including Indian Writings in English.

Brief Statement of Academic Activities

The Department offers both MA and PhD programmes. Seminars and workshops are conducted regularly in the Department. Visiting Professors/Fellows and scholars are invited from other universities for special lectures on selected topics, such as oral narrative, literary theory and criticism, research methodology, and theory of translation. The Department also organizes remedial classes annually on relevant topics, such as English grammar, translation, letter drafting, rhetoric and prosody, English pronunciation and phonetic transcription, etc. At present, the Department is running with one Associate Professor, three Assistant Professors, and three Guest Lecturers. During the year under report, thirty-three students were admitted to the MA programme, and twenty-nine students completed their MA degree. Faculty members of the Department published several articles in journals, magazines and souvenirs.

Students' Profile

Enrolment Capacity: MA–33, PhD–Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	11	22		33		33			33
PhD	02			02		02			02

School of Humanities

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	10	19		26		03	26	03	29
PhD		01		01			01		01

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Amanda Aski Macdonald Momin	Lexical Semantic Study of A•we	Dr. Dokatchi Ch. Marak (Supervisor)

Research Fellowships

UGC-Non Net: 3

Fieldwork/Educational Tour of Students

Fieldwork of the 4th Semester Students

Teacher-in-Charge: Colnat B. Marak, Guest Lecturer

Places/Institutions Visited: Balpakram National Park, Wakso Chiring, Menggokol, Mite Dingrik and Siju Cave, South Garo Hills, Meghalaya

Duration of the Tour/Trip: 5 days (4–8 April 2017)

Purpose of Tour: The purpose of the fieldwork was to collect field materials for the assignment in connection with a compulsory course in Folklore II.

Educational Tour of 3rd Semester Students

Teacher-in-Charge: Dr. Dokatchi Ch. Marak

Places/Institutions Visited: Kanyakumari, Thiruvananthapuram, Ernakulam, Cochin, Kolkata (Mahabalipuram Cave Temple, Vatakottai Fort, Thirparappu Falls, Swami Vivekananda Rock Temple, Crafts and Antique Museum, Jew Town, Art Gallery)

Duration of the Tour/Trip: 11 days (15–25 January 2018)

Purpose of Tour: The purpose of the academic tour was to make the students learn about the diverse culture traditions and geographical aspects of India. Visiting museums, art galleries and historical places helps them know the background of the people, their way of life as well as the history of those places.

Courses Conducted

Postgraduate: MA

Semester I

History of Garo Language and Literature, Poetry-I-Sacrificial Rites and Invocations, Drama I, Linguistics I, Environmental Studies.

Department of Garo (Tura Campus)

Semester II

Fiction I, Literature in Translation, Prose I, Linguistics II, Linguistics III.

Semester III

Literary Theory and Criticism, Epic as a Literary Genre, Drama II, Linguistics IV, Folklore I.

Semester IV

Poetry II, Folklore II, Tragedy as a Literary Genre, Indian Literature in English, Modern Poetry.

PhD Courses

Research Methodology, Seminar Paper: Literature Review and Research Paper and Presentation, Literary Themes, Literary Theory and Criticism, Language and Folklore.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised (i) Writers' Meet in collaboration with the A•chik Literature Society (NEHU, Tura) on 27 October 2017, and (ii) Seminar on *International Mother Language Day* in collaboration with the A•chik Literature Society on 21 February 2018.

C. C. D. Marak was the Organizing Secretary of the A•chik Literature Society Workshop on *Chigring, Flutes, Dotdrong, Dimchrang and Dama* in Tura (1–10 December 2016).

Attended

Dr. Jacqueline R. Marak

Attended as a resource person in a professional development workshop of Loyala College on 7 April 2017. She also chaired a session of the All India Poetess Conference and took part in a panel discussion on the topic of "Identity" at the Meghalaya Poetess Conference held in Shillong from 11 to 12 September 2017.

Presented a self-composed poem on "A•chik Ma•ambi" at the Meghalaya Poetess Conference (Shillong) from 11 to 12 September 2017. Also presented papers on (i) "Principal Mites and Deties of the Garos" at a seminar on *The Importance of Collection and Compilation of Oral Literature in the Garo Hills of Meghalaya* organised by the Directorate of Arts and Culture (Shillong) on 9 December 2017 at the District Auditorium in Tura, and (ii) Seminar papers on the two novels: *Khalsin Aro Sonatchi* and *Sing-kam* during International Mother Language Day organised by the Department in collaboration with the A•chik Literature Society on 21 February 2018.

Dr. Dokatchi Ch. Marak

Participated as a resource person at the All India Poetess Conference and took part in a panel discussion on the topic "Identity" at the Meghalaya Poetess Conference held on 11 & 12 September 2017 in Shillong.

Presented a paper at the seminar on *The Importance of Collection and Compilation of Oral Literature in the Garo Hills of Meghalaya* organised by the Directorate of Arts and Culture (Shillong) on 9 December 2017 at the District Auditorium in Tura. Also chaired and presented a paper at a seminar on *The Garo and Its Cognate Languages* organised by the Department in collaboration

School of Humanities

with the A•chik Literature Society on International Mother Language Day, 21 February 2018.

Crystal Cornelious D. Marak

Presented a self-composed poem on *Lekka Do•reng* at the Writers' Meet 2017 organised by the Department jointly with the A•chik Literature Society in Tura on 27 October 2017.

Presented papers on (i) "Agalmaka" at the seminar on *The Importance of Collection and Compilation of Oral Literature in the Garo Hills of Meghalaya* organised by the Directorate of Arts and Culture (Meghalaya) on 9 December 2017 at the District Auditorium in Tura, and (ii) "Reonikochimonggimingolporangaromitamburingni samrangarodo•o-matrangnibimingrang" on International Mother Language Day organised by the Department in collaboration with the A•chik Literature Society (21 February 2018).

Publications

Published in India

Marak, C. C. D. (2017). *History of the A•chiks* .and the Garo Hills as reflected in the novels of Prabodh M. Sangma. *Manaviki: A Journal of Humanities and Social Sciences*, IX(1): 7–12.

Book

Marak, Fameline, Marak, K. *et al.* (2017). *The Medong Kaa Ceremony*. MRB Publishers (India), Guwahati.

Research Projects

Ongoing: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Text Books Translation for Adult Education from Hindi to Garo Language (2 books) under a Project SRC, NEHU, Shillong Project	F. K. Marak	SRC, NEHU, Shillong	NA

Other Activities

Prof. Fameline K. Marak

Served as a judge of the Meghalaya Poetry Competition (Poetry on Garo section) organised by the All India Poetess Conference, Meghalaya Chapter (2013–2017), and different events/competitions during the Varsity Week programmes 2017, NEHU (Tura).

Member of the Committee to look into issues pertaining to MIL (Garo) at the Secondary and Higher Secondary Levels; Committee Member of the General Council for the Society for Promotion of Arts and Cultural Enrichment (Meghalaya), and Member of MBOSE Textbook Review Committee-2017 for the Garo (MIL/Elective) Classes XI-XII.

Dr. Jacqueline R. Marak

Completed the "Capacity Building Programme on Enhancement of Capacities of Researchers in

Department of Garo (Tura Campus)

Social Science Research Areas” organised by the Department of Management from 5 May to 18 May 2017 on NEHU Tura Campus.

Served as a judge of the *Meghalaya Poetry Competition* (Poetry on Garo section) organised by the All India Poetess Conference, Meghalaya Chapter. Member of Governing Body, Mason Phillips Academy, Tura.

Dr. Dokatchi Ch. Marak

Completed the “Capacity Building Programme on Enhancement of Capacities of Researchers in Social Science Research Areas” organised by the Department of Management from 5 to 18 May 2017 on NEHU Tura Campus.

Convener of the Board of Scrutiny, A•chik Literature Society, Tura (2015–17), Member of Editorial Board, *Nokdangni Ripeng*, Tura; Member, *Protocol: Journal of Translation, Creative and Critical Writings*, Department of English (NEHU, Tura).

Crystal Cornelious D. Marak

Completed the “Capacity Building Programme on Enhancement of Capacities of Researchers in Social Science Research Areas” organised by the Department of Management from 5 to 18 May 2017 at NEHU Tura Campus.

Secretary of the A•chik Literature Society (Tura), Member of Editorial Board, *Duramong Annual Magazine*, NEHU (Tura); Member, MBOSE Textbook Review Committee-2017 for the Garo (MIL/Elective) Classes XI–XII. Served as a judge in different events/competitions during the Varsity Week programmes 2017, NEHU (Tura).



DEPARTMENT OF HINDI

Head : Prof. M. P. Pandey
Telephone : 0364-2723514/2723515(O)/9436163149(M)
E-mail : hodhin@nehu.ac.in, mppnehu@yahoo.co.in

Faculty: 4

Designation	Name and Qualification	Specialization
Professor (2)	M. P. Pandey, MA & PhD (Kashi Vidyapeeth)	Criticism and Poetics
Assistant Professor (3)	D. K. Choubey, MA (Gauhati), PhD (Manipur)	Medieval Literature and Comparative Study
	Dokatchi Ch. Marak, MA & PhD (NEHU)	Linguistics
	Crystal Cornelious D. Marak, MA (NEHU)	Fictional Linguistics

Thrust Areas of Research

Modern Hindi Literature and Comparative Study

Brief Statement of Academic Activities

The Department offers the MA, MPhil and PhD programmes. Thirty-one students completed their MA degree. Eight PhD and nine MPhil students were awarded their PhD and MPhil degrees. During the academic year many academic activities were initiated, including one national seminar and ten lectures delivered by eminent Hindi scholars. The active participation of research scholars in these activities added a lot to their research work. The national seminar was organised on the topic of “Hindi ka Vaishvik Pridrishya aur Purvottar Bharat” with financial assistance of the Uttar Pradesh Bhasha Sansthan, Lucknow—a prime institute in the field of Hindi Literature and general literature.

The learned scholars of Hindi literature like Prof. Rameshwar Mishra from Vishwabharti, Prof. Nand Kishor Pandey, Director of Kendriya Hindi Sansthan (Agra); Shri Kittipong Boonkerd from the Department of South Asian Language, Faculty of Art, Chulalongkorn University, Bangkok, Thailand; and others visited the Department and interacted with the students.

During the academic session, the Department engaged one Guest Lecturer to fulfill the requirement for teaching in MA Courses. The Wall Magazine ‘KHUBLEI’ has been published by the Department since 01.04.2015 for students and scholars. Faculty members of the Department have published fifteen articles and one book chapter.

Department of Hindi

Students' Profile

Enrolment Capacity: MA—55, MPhil—10, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	05	32	01	06		30	07	30	37
MPhil	02	06		04		04	03	05	08
PhD	01	02		01		02	01	02	03

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	01	30	01	13		17	08	23	31
MPhil	06	03		03		06	01	08	09
PhD	04	04		02		06		08	08

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Mrs. Jashna Borah	Kabirdas evam Srimant Shankardev ke Kavya mein Abhivyakt Vicharon ka Tulnatmak Adhyayan	Prof. D. K. Choubey
Mr. Dinesh Shahu	Hindi ke Chhayavad evam Asamiya ke Ramanyasvad ka Tulnatmak Adhyayan	Prof. D. K. Choubey
Mrs. Khumtia Debbarma	Swatantryottar Hindi Upnyason mein Abhivyakt Janjatiya Samaj: Ek Vishleshnatmak Adhyayan	Prof. D. K. Choubey
Mr. Mohit Mishra	Swatantryottar Hindi Lekhikaon ke Natkon mein Stri-Prashn	Prof. D. K. Choubey
Mr. Brijendra Kumar	Hindi Sahitya ke Vikas mein Prayag ki Sahityik Patrkariya ka Yogdan (Biswin Sadi ke Vishesh Sandarbh mein)	Dr. H. K. Mishra
Mrs. Athokpam Sumita Chanu	Samkaleen Hindi Kahani mein Abhivyakta Bal-Jeewan	Dr. B. P. Tripathi
Mrs. Uma Devi	Samkaleen Hindi Dalit Katha-Lekhan mein Stri	Prof. M. P. Pandey
Mr. Soumya Ranjan Dash	Swatantryottar Hindi Sahitya ki Pragatisheel Chetnaevam Samanatar Hindi Cinema: Antarsambandhon ki Khoj	Prof. M. P. Pandey

School of Humanities

Research Fellowships

CSIR-UGC-NET: 03

UGC Non-Net: 24

Courses conducted

Postgraduate: MA

Semester I

Hindi Bhasha evam Uska Vikash, Bhartiya Kavyashastra I, Aadhunik Kavya (Chhayavad tak) evam Paryavaran Parak Kavya, Hindi Gadya Sahitya I (Natak evam Nibandh), Aadikalin Hindi Sahitya ka Itihas.

Semester II

Bhaktikalin Kavya, Bhartiya Kavyashastra II, Hindi Gadya Sahitya II (Upanyas evam Kahani), Aadikalin Kavya, Prayojanmoolak Hindi.

Semester III

Hindi Sahitya ka Madhayakal, Ritikaleen Kavya, Hindi Natak, Anuvad-Sidhant evam Vyawhar, Lok Sahitya.

Semester IV

Hindi Sahitya ka Aadhunikkal, Chhayavadottar Kavya, Paschatya Sahityalochana evam Hindi Aalochana, Bhasha Vigyan, Hindi Nibandh.

MPhil/PhDCourses

Anusandhan ki Pravidhi aur Prakriya, Hindi Sahitya ki Vaicharik Prishthbhoomi, Sangosthi evam Samiksha.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised a two-day national seminar on *Hindi ka Vaishwik Paridrishya aur Purvottar Bharat* with financial assistance from the Uttar Pradesh Bhasha Sansthan (Lucknow) from 9 to 10 March 2018 at the Old Guest House, NEHU. The Department organised 10 lectures as detailed below:

Name	Institution	Date	Topic
Prof. Rameshwar Mishra	Vishwa Bharti, Santiniketan	05.06.2017	Bhartiya Sahitya evam Sanskriti
Prof. Shakuntla Mishra	Vishwa Bharti, Santiniketan	05.06.2017	Ravindranath Thakur aur Prakriti
Prof. Nand Kishor Pandey	Director, Kendriya Hindi Sansthan, Agara	08.06.2017	Hindi mein Rojgar ke Awasar evam Rastriya Ekikaran mein Hindi ki Bhumika

Department of Hindi

Dr. Pragya Rawat	Bhopal	29.06.2017	Samkalin Samaj mein Kavita ki Bhumika evam Kavya Path
Prof. Awadhesh Pradhan	BHU, Varanasi	29.06.2017	Hindi mein Shodhkidisha evam Dasha
Prof. Satyakam	IGNOU	05.09.2017	Sahitya aur Bhartiyata
Sri Kittipong Bukard	Chulalongkorn University, Bangkok	31.10.2017	Tailan mein Hindi ki Isthiti
Prof. Purn Singh Das	Delhi University	14.11.2017	Vyavharik Bhasha Vigyan
Prof. Sorapneni Shesharatnam	Andhra University Vishakhapatnam	13.02.2018	Dinkarka Kavya evam Samkaleen Kavita
Dr. Sumer Singh	RMK, Kurukshra Vishwavidyalaya, Hariyana	01.03.2018	Hindi ka Akhil Bhartiya Swaroop

Dr. H. K. Mishra

Coordinator of the two-day national seminar on *Hindi ka Vaishwik Paridrishya aur Purvottar Bharat* held in the Department from 9 to 10 March 2018.

Attended

Prof. D. K. Choubey

Presented papers and chaired sessions of (i) national seminar on *Rashtriya Ekta mein Hindi ki Bhumika* organised by the Meghalaya Rashtra Bhasha Prachar Samitee and the Assam Rashtra Bhasha Prachar Samitee on 10 June 2017 in Guwahati, (ii) three-day national seminar on *Purvottar Bharat ki Bhashaon ke Liya Lipi Chayanka Vikalp* organised by the Central Institute of Hindi (Agra) on 13 August 2017 at D. N. College, Itanagar, (iii) three-day international seminar on *Mizo Ramayanevam Mizoram ke Samaj ka Antah Sambandh: Ek Anushilan* organised by the Ayodhya Sodh Sansthan (Govt of Uttar Pradesh) and the Department of Hindi (Tezpur University) on 20 November 2017, and (iv) two-day national seminar on *Assam mein Vaishnav Bhakti Andolan* organised by the Central Institute of Hindi (Agra) and the Department of Hindi Manipur University on 29 March 2018 in Imphal.

Delivered a key note address and chaired a session of the two-day national seminar on *Hindi aur Asamiya Sahitya mein Stri ki Bhumika* organised by Hojai College on 24 & 25 June 2017. He also chaired a session of the two-day national seminar on *Aadhunik Kavita aur Gajanan Madhav Muktibodh* organised by the Alumni Association and the Department of Hindi (Guwahati University) on 9 September 2017 at Guwahati.

Prof. M. P. Pandey

Chaired a function of the Hindi Diwas organised by the Ministry of Environment and Forest (Shillong) on 13 September 2017, and delivered a lecture on "Role of Hindi for National Integration." He also chaired a function of the Hindi Diwas organised by the Accountant

School of Humanities

General Office (Shillong) on 14 September 2017, and delivered a lecture on “Use of Hindi as Official Language.”

Delivered a key note address on “Trilateral Hindi: India, Myanmar and Thailand” at the Vishwa Hindi Diwas Program at the Department of South Asian Language, Chulalongkorn University (Bangkok) on 10 January 2018.

Presented papers on (i) “Hindi evamusaki Boliyan: Sandarbh Bhjpurī” at the international seminar on *Hindi Bhasha: Parampara, Prayogevam Sambhavna* organised by Vidya Shri Nyas on 13 & 14 January 2018 at Varanasi, and (ii) “Purvottar Bharat aur Usake Sanritik Aayam” at a national seminar organised by Baba Saheb Bhimrao Ambedkar University (Lucknow) on 18 & 19 January 2018.

Dr. H. K. Mishra

Presented papers on (i) “Hindi evam Anya Bharatiya Bhashaon mein Rashtra, Samajevam Sanskriti” at a national seminar organised by Baba Saheb Bhimrao Ambedkar University, Lucknow (18–19 January 2018), (ii) “Tradition and Socio-Cultural Ethos of North-East India” at a national seminar organised by Gauhati University (Guwahati) on 10 & 11 February 2018, (iii) “Vasudhaiva Kutumbakam” at an international seminar organised by Shaikshik Foundation (Delhi) on 24 February 2018, and (iv) “Rashtriya Chetana ke Unnayak Kavi: Maithili Sharan Gupta” at a national seminar organised J. L. Nehru P. G. College (Barabanki, U.P.) on 25 & 26 February 2018.

Publications

Published in India

- Choubey, D. K. (2017). Asomiya Samkaleen Katha Sahitya: Swarup Vivechan. *Samanvaya Purvottar*, Issue IV: 37–46.
- Choubey, D. K. (2017). Lok Gathayen evam Asamiya Malitayen. *Samanvaya Purvottar*, Issue I-II: 32: 8–12.
- Choubey, D. K. (2017). Lok Gathon ke Pariprekshya mein Asamiya Malitayen. *Madai*, Issue 31: 232–235.
- Choubey, D. K. (2017). Prakriti evam Kavivar Ravindra Nath ke Kavya. *Chintan Srijan*, 15(1): 107–111.
- Mishra, H. K. (2017). Hindi Sahityetihas Punarlekhan ki Aawashyakata. *Madhurakshar*, p. 47–50.
- Mishra, H. K. (2018). Hindi Natak aur Rangmanch. *Jankriti e-Magazine*, 3(34-35): 175–180.
- Mishra, H. K. (2017). Kafan: Murda Samaj ki Aawaran Katha. *Pustak Warta*, Issue 71-72: 23–27.
- Mishra, H. K. (2017). Pathalochan: Prakriti evam Pravidhi. *Nehu Jyoti*, Issue I: 17–23.
- Tripathi, B. P. (2017). Purvottar ki Bhashayi Mansikta aur Hindi. *Antimjan*, p. 82–85.
- Tripathi, B. P. (2017). Faintesi ki Abhinav Bhoomika. *Abhinav Kadam*, Issue 36-37: 130–139.
- Tripathi, B. P. (2017). Hindi Sahitya ka Bazarkal. *Vibhomswar*, p. 44–48.
- Tripathi, B. P. (2017). Jeeviton ki Advitiya Sambhavna hai Prithvi. *Pustakvarta*, Issue 71-72: 31–33.

Department of Hindi

Tripathi, B. P. (2017). Kavitate Pran Par Bhashaki Prabhusatta. *Duniya Indinon*, p. 42–45.

Tripathi, B. P. (2017). Naisargik Yatharth Par Kala ka Atirikt Bojh. *Duniya Indinon*, p. 40–42.

Tripathi, B. P. (2017). Sakh Khota Samman. *Duniya Indinon*, p. 46–48.

Book Chapters

Tripathi, B. P. (2017). Manushya ki Vikritiyon ke Bhavishyadrasta, Muktibodh. In: *Ek Mulyankan*. Dinesh Kumar (Ed.). Samyik book, New Delhi, p. 234–243.

Honours/Awards/Recognitions

Prof. D. K. Choubey

Member of the Grants Committee of the Central Hindi Directorate, MHRD, Delhi, (ii) Member of the Inspection Team of Volunteer Hindi Institutes of North-East constituted by the Central Hindi Directorate, MHRD, Delhi.

Other Activities

Prof. D. K. Choubey

Delivered lectures on (i) “Use of Simple and Easy Hindi in Official Work” on 8 August 2017 in the Office of the Accountant General (Shillong), (ii) “Importance of Official Language Hindi” organised by the Hindi Cell, NEIGRIMS (14 September 2017), (iii) “Importance of Hindi as Contact Language” organised by the English and Foreign Languages University (Shillong Centre) on 22 September 2017, (iv) “Research Methodology and Hindi” organised by the Department of Hindi (Sikkim University, Gangtok) on 25 September 2017, and (v) “The Literature and Socio-culture of North-East Region” organised by the Department of Hindi (H. S. G. University, Sagar) on 30 January 2018. He was also a resource person in a workshop on *Implementation of Official Language Hindi* organised by NIELIT (Shillong) on 12 September 2017. Editor of the *NEHU Jyoti Annual Magazine* of Hindi Cell, Issue I, August, 2017. Member of the Rashtriya Puraskar Selection Committee of the Central Hindi Institute, MHRD, Agra.

Dr. H. K. Mishra

Delivered a lecture as Chief Guest on (i) “The Importance of Sanskrit Language” on 7 August 2017 at Non-Formal Sanskrit Education, Shillong, (ii) “Vocation of Closing Ceremony of Sanskrit Saptah” on 10 August 2017 at Kendriya Vidyalaya (NEHU), and (iii) “Vocation of Hindi Diwas” on 14 September 2017 at PG Study Centre, Central Agriculture, Umiam, Shillong.



DEPARTMENT OF KHASI

Head : Prof. Streamlet Dkhar
Telephone : 0364-2723301
E-mail : s.dkhar@rediffmail.com

Faculty: 4

Designation	Name and Qualification	Specialization
Professor (3)	B. War, MPhil (Delhi), PhD (London)	Linguistics and Translation
	S. Dkhar, MPhil & PhD (NEHU)	Khasi Drama
	A. Kharmalki, MPhil & PhD (NEHU)	Linguistics and Translation
Associate Professor (1)	D. R. L. Nonglait, MPhil & PhD (NEHU)	Literary Criticism and Khasi Fiction
Assistant Professor (2)	B. Bairo, MA & PhD (NEHU)	Fiction
	M. M. Khymdeit, MPhil (GU), PhD (NEHU)	Poetry
	Crystal Cornelious D. Marak, MA (NEHU)	Fictional Linguistics

Thrust Areas of Research

The thrust areas of the Department include Khasi Literature, Literature in Translation, Environmental Awareness in Khasi Literature, Khasi Literary Theory and Criticism and Folklore in Khasi Literature.

Brief Statement of Academic Activities

The Department offers the MA, MPhil and PhD programmes. Faculty members are actively engaged in teaching and research on the above thrust areas. Fifty students completed their MA degree, eight students MPhil degree, and one student PhD degree. Faculty members of the Department have published three books and eleven papers in journals, book chapters and proceedings. The Department also organised seminars, lectures and other events relating to the Khasi language and culture.

Students' Profile

Enrolment Capacity: MA—52, MPhil/PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	09	43		52			52		52
PhD	01	04		05			05		05

Department of Khasi

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	06	44		50			50		50
MPhil	01	07		08			08		08
PhD	01	01		02			02		02

Students Awarded MPhil Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Successfully Nongrem Regn. No. 502 of 03.03.2015	Ka Shillong bad ki Kor Pathai Jingtip ha ki Haiku jong u Kynpham Sing Nongkynrih: Ka Bishar Bniah	Prof. B. War
Ms. Toroilang Malngiang Regn. No. 505 of 03.03.2015	Ka Sain Pyrkhat Mariang u H.Onderson Mawrie, u L.H.Pde, bad u K. Dhirendro Ramsiej: Ka Jingpule lyngba ka Bishar Sawkun Mariang (Ecocriticism)	Prof. A. Kharmalki
Ms. Badahunshisha Jana Regn. No. 509 of 03.03.2015	Ka Jingpynmong ia ka Jingmut Jingpyrkhat kumba ka Paw ha ki Khana Lyngkot: Ka Bishar Bniah	Dr. B. Bairo
Ms. Evaliza Khongsit Regn. No. 510 of 03.03.2015	Ka Jingsngewsyier ban Duh noh ia la ka Tynrai: Ka Bishar Bniah ia ki Poim u Kynpham Sing Nongkynrih	Dr. M. M. Khyndeit
Mr. Robertstar Lyngdoh Regn. No. 511 of 03.03.2015	Ka Kynthei ha ka Synshar ka Bishar ha ki Sawangka ka Kut Iapngar bad ka Latympang: Ka Bishar Bniah	Dr. M. M. Khyndeit
Ms. Maybecalljane Marbaniang Regn.No.508 of 03.03.2015	Ka Kwah-Rhah, ka Jingiakhing bad ka Jingjynjar ha u Doktor Phastos: Ka Bishar Bniah	Dr. B. Bairo
Ms. Banrihun Marthong Regn. No. 507 of 03.03.2015	Ka Pait-lieng ha ki Longiing Longsem: Ka Bishar Bniah ia ki Nobel u Phrikson Kharshiiing	Dr. D. R. L. Nonglait
Ms. Elizabeth Shylla Regn. No. 506 of 03.03.2015	U Kpa ha ki Nobel jong ki Nongthoh Kynthei: Ka Bishar Bniah ia ki Nobel Kan Sa Wan, Sangsot U Kpa Ka Iing, bad Tang Maphi namar Jongnga	Dr. D. R. L. Nonglait

School of Humanities

Student Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Joyfully Sawkmie	Ka Phangkren Halor Ka Imlang Sahlang Ha ki Nobel Khasi: Ka Bishar Bniah	Dr. D. R. L. Nonglait

Educational Tour of Students

Teacher-in-Charge: Guest Faculty, Shri Robertstar Lyngdoh

Places/Institutions Visited: Mawphanlur, Mawthadraishan Block in West Khasi Hills District

Duration of Tour: One day (4 November 2017)

Purpose of Tour: In connection with the Course on Culture in Khasi Literature I.

Courses Conducted

Postgraduate: MA

Semester I

Khasi Linguistics I, Khasi Poetry I, Khasi Drama I, Khasi Fiction I, Literary Theory and Criticism I.

Semester II

Khasi Linguistics II, Literary Theory and Criticism II, Khasi Drama II, Literature in Translation I, Khasi Poetry II.

Semester III

Khasi Linguistics III, Literary Theory and Criticism III, Culture in Khasi Literature I, Khasi Fiction II, Literature in Translation II.

Semester IV

Khasi Linguistics IV, Khasi Fiction III, Environmental Awareness in Khasi Literature and Poetry-III, Culture in Khasi Literature II, Literary Theory and Criticism IV.

MPhil/PhD Courses

Research Methodology, Seminar Papers, Literary Theory and Criticism/Emerging Trends in Khasi Literature/Translation and Khasi Literature.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised the following events: (i) Workshop-cum-intensive training in *Documentation and Description of Tribal and Endangered Languages of North-East India* in collaboration with the Central Institute of Indian Languages (Mysore) from 7 to 11 August 2017 at NEHU Campus, Shillong, (ii) One-day programme on *Markhmat Bad U Nongthoh* (Meet the Author) on 25 September 2017 at Science Seminar Hall, NEHU, Shillong, and (iii) Workshop on *Research on U Tirot Singh, the Freedom Fighter* as part of the celebration of the Fourth Krem Tirot Festival in collaboration with the Mairang Civil Sub-Division on 4 November 2017 at Nongkhlaw, West Khasi Hills. Coordinator: Prof. S. Dkhar.

Department of Khasi

Prof. S. Dkhar

Organised the Seventh Meghalaya Poetry Competition 2017-cum-NE Poetry Festival held on 11 & 12 September 2017 in collaboration with the AIPC, Meghalaya Chapter, at St Edmund's College Auditorium Shillong.

Coordinator of the regional seminar on the *Importance of Collection and Compilation of Oral Literature in the Khasi Hills of Meghalaya* organised by the Directorate of Arts and Culture on 30 November 2017 at the Arts and Culture Hall, Shillong.

Dr. M. M. Khymdeit

Local Coordinator of the workshop-cum-intensive training programme on *Documentation and Description of Tribal and Endangered Languages of North-East India* organised by the Central Institute of Indian Languages (Mysore) and the Department from 7 to 11 August 2017.

Attended

Prof. B. War

Chaired a session of the seminar on *Ka Jingsynshar Nongwei bad ka Jingktah jong ka ia ki Riti Dustur Khasi kumba ka Paw ha ka Litereshor Khasi (Colonial Rule and Its Impact on Khasi Customs and Traditions as Reflected in Khasi Literature)* organised by the Khasi Authors' Society in collaboration with the Khasi Hills Autonomous District Council and the Office of the Deputy Commissioner, East Khasi Hills, Shillong (24 April 2017). She also chaired a session of the international seminar on *Narratives of Violence and Terror in South Asia* organised by the Department of English (NEHU) in collaboration with NEC and ICSSR-NERC on 17 November 2017.

Attended as Chief Guest and presented a speech on "The Importance of the Written Form in Uniting a Community" during the inter-college debate on *Ki Dak Thoh: Ka Jinglong Kawei ka Jaitbynriew (Khasi Alphabet: Uniting the Community)* organised by the Department of Khasi, Shillong College (22 June 2017). Attended and delivered a lecture on "Austro-Asiatic Linguistics" at the workshop-cum-training programme in *Documentation and Description of Tribal and Endangered Languages in North-East India* organised by the Department and the Central Institute of Indian Languages (Mysore) from 7 to 11 August 2017 at NEHU, Shillong.

Prof. S. Dkhar

Presented the following papers: (i) "Promotion of Language and Literature through Translation" and read out a self-composed short story entitled "Deceived by the Machine" and a Bangla version was read out by Ms. Falguni Chakraborty at the Uttar-Purba Katha Sahitya Utsav 2017, organised by SROT: A Literary Magazine in association with the Sahitya Akademi (New Delhi) and others in Agartala on 11 June 2017, and was also a special guest of the Utsav, (ii) four self-composed poems and translated versions in Hindi by Jean S. Dkhar "Kavi Sammelan/ Mushairah/Poets Meet" to celebrate the 75th Year of the Quit India Movement organised by NEHU, Faculty Club, M.P. Pandey and others at the Old Guest House (26 August 2017), (iii) "Creative Writing: Understanding Fiction with Special Reference to Short Story Writings" at a workshop on *Creative Writing* organised by BBS College, Shillong (23 September 2017), (iv) "Status of Women in Matrilineal Society with Special Emphasis to Meghalaya" at the

the training workshop on *Legal Awareness and Women Rights for the Government Officers* organised by the Meghalaya Administrative Training Institute on 24 October 2017 at MATI Conference Hall, Shillong, (v) “Autobiography in Khasi Literature: An Analysis” at the national literary symposium on *Indian Autobiography Literature* organised by the Central Hindi Directorate (MHRD) in collaboration with the Aegis of the Universal Hindi Communications Centre (Aizawl) at UHCC Assembly Hall, Aizawl (25–26 October 2017), (vi) four self-composed poems at the multilingual session of the *Meghalaya Nepali Sahitya Sammelan* to commemorate the 109th Birth Anniversary of Laxmi Prasad Devkota organised by the Meghalaya Nepali Sahitya Sammelan on 29 October 2017 at Babu Mani Singh Auditorium, Shillong (vii) “Endless Challenges of Women Exploitation and Indian Literature with Special Reference to Northeast” and presented self-composed poems during the multi-lingual session of the 17th National Mega Convention of the All India Poetess Conference organised by the AIPC Punjab in collaboration with the Punjab Arts Council in Chandigarh (November 9–11, 2017), and also delivered a speech during the inaugural function as Secretary General, (viii) Self-composed folk poems by performing the folk songs entitled “U Maw Nguid Brierw, and “Ka Jingud Ka Sohlyngngem” and other poems entitled “Truth,” “Tears of Blood” and a Hindi translated poem “Kiw” at the national seminar on *Tribal Literature in India: Nature and Traditions* organised by the Sahitya Akademi in Mumbai (24–25 November 2017), (ix) “Ka Saiñdur ki Khana Parom ïa ki Myllung Khasi ha ki Poim shaphang ‘U Sier Lapalang’ bad ‘Ka Sohlyngngem’ Katkum ki Myllung Bapher” at a regional seminar on the *Importance of Collection and Compilation of Oral Literature in the Khasi Hills of Meghalaya* organised by the Directorate of Arts and Culture, Shillong (30 November 2017), and also chaired the inaugural function of the seminar, (x) “Ka Jingroi Jingsan ka Sawangka Khasi Naduh Basdang haduh 1975” at the seminar on *175 Years of Khasi Written Literature* organised by the Sahitya Akademi and St. Edmund’s College, Shillong (14–15 December 2017), and (xi) “A Brief History of Folk Literature Documentation, Retelling and Research Works Carried Out in Meghalaya with Special Reference to Khasi” at the national seminar on *Indian Folklore History: Reading Region* organised by the Department of Gujarati (Folklore) from 8 to 10 March 2018 at N. S. Patel Arts College, Gujarat.

Chaired a session of the seminar on *Ka Jingsynshar Nongwei Bad Ka Jingktah Jong Ka ïa ki Riti Dustur Khasi Kumba ka Paw ha ka Literature Khasi* as part of the celebration of the 175th Year of Khasi Language and Literature organised by the Khasi Auhors’ Society at the Don Bosco Youth Centre (Shillong) on 22 April 2017. She also chaired a parallel session of the international conference on *Linguistic Landscaping* organised by the Department of Linguistics (NEHU) on 22 June 2017 at the Cluster Classroom.

Guest of honour in the *Uttar-Purba Kavi Samelan 2017* organised by SROT: A Literary Magazine in association with the Sahitya Akademi (New Delhi) and others in Agartala (10 June 2017), and delivered a speech on “The History of Khasi Written Language and Its Relation to Bangla Script.” She was also the Chief Guest at the inaugural function of the 13th Literary Conference of the Manipuri Sahitya Parishad organised by the Manipuri Sahitya Parishad (Meghalaya) on 7 October 2017 at Bhangia Parishad (Shillong), and spoke on “The Importance of Tribal

Department of Khasi

Literature through Multidisciplinary Approach” and presented three self-composed poems: “In Search,” “The Corrupt” and “Who Are We” during the multilingual poetry reading session.

Delivered keynote addresses on (i) “The Contribution of Tribal Writers of India with Special Reference to North-East” at the All India Women Tribal Writers’ Meet organised by the Sahitya Akademi in association with the Jharkhandi Bhasha Sahitya Sanskriti Akhra in Ranchi on 7 September 2017, and (ii) a speech on “Poetry as a Tool for Peace and Unity” and read out self-composed poems on “Religion,” “Truth” and “Love” at the South Asian Literature and Culture Summit 2018 organised by the Association for South Asian Literature and Culture at Pirganj in Bangladesh (14 March 2018). She was also a resource person in the Poets’ Meet to celebrate the Birthday of eminent poet Sharkar Mahbub organised by the Anyodhatra Sahitya Sansad on 16 March 2018 at the Institute of Engineering Dhaka, Bangladesh.

Prof. A. Kharmalki

Delivered a lecture on “Testing and Evaluation” at the workshop-cum-training programme on *Testing and Evaluation for Languages of North-East Region* organised by the Department of Linguistics (NEHU) from 19 to 23 September 2017, (ii) “Ka Jingpyndonkam ia ka Ktien ia ka Thoh ka Tar” at the symposium on *Ka Khasi kum ka Ktien Pdeng u Hynniewtre* organised by St. Anthony’s College, Byndihati Campus, East Jaintia Hills (18 November 2017), and (iii) chaired a technical session of the one-day symposium on *The Beginning of Written Khasi Language and Literature* organised by the Department on 28 February 2018 at NEC.

Dr. D. R. L. Nonglait

Chaired (i) Session of the symposium on *The Beginning of Written Khasi Language and Literature* organised by the Department on 28 February 2017, (ii) Inaugural session of a seminar on *Ka Jingsynshar Nongwei bad ka Jingktah jong ka ia ki Riti Dustur Khasi kumba ka Paw ha ka Litereshor Khasi* organised by the Khasi Authors’ Society on 22 April 2017 at the Don Bosco Youth Centre, Laitumkhrach, Shillong, (iii) Inaugural session of a rally on *Pyneh Rngiew ia ka Ktien Khasi* organised by the Khasi Authors’ Society on 5 May 2017 at Jaiauw Shyiaip Durbar Hall (Shillong), and the second session at Students’ Field, Jaiauw, Shillong, (iv) Session of the symposium on *Ka Thoh ka Pule ka Sdang na u ABK* organised by the Khasi Authors’ Society on 2 September 2017 at Nabon Sawian Memorial Secondary School, Mawmluh, Sohra, and (v) Sessions of a seminar on *Haba Im ka Ktien ka Jaitbynriew ka Im* organised by the Khasi Authors’ Society on 16 September 2017 at Science Seminar Hall, NEHU.

Resource person in a one-day workshop on *U Tirot Sing the Freedom Fighter* organised by the Office of the Sub-Divisional Officer (Civil) of Mairang in collaboration with the Department on 4 November 2017 at Nongkhlaw.

Dr. M. M. Khymdeit

Presented a paper on “The Role of National Service Scheme in Enriching and Protecting the Environment” at the one-day seminar on *Contemporary Environmental Issues* organised by the NSS Unit of NEHU in collaboration with the ENVIS RP Centre, NEHU, Shillong (12 March 2018).

Publications

- Bairo, B. (2017). Ka batai pynshai ia ka khana lyngkot “Ka Pipa Amontillado.” *Ka Thwet Jingstad (Quest for Knowledge)*, 3(3): 39–42.
- Khymdeit, M. M. (2017). Ka khana-parom bad ka literashor: Ka bishar bniah ia ka sawangka Ka Nam jong ka Esther Syiem. *Ka Thwet Jingstad (Quest for Knowledge)*, 3(3): 43–48.
- Nonglait, D. R. L. (2017). Biblical reflection on homosexuality. *The PCI Herald*, 1(3): 6–16.
- War, B. (2017). Ka jingsdang jong ka jingpule halor ka ktien Khasi. *Ka Thwet Jingstad (Quest for Knowledge)*, 3(3): np.

Books

- Dkhar, S. (2017). *U Raikut, Revised Edition*. Eses Plus Publications, Shillong, ISBN: 978-81-904740-6-1.
- Dkhar, S. et al. editors. (2017). *Silver Jubilee Souvenir of Meghalaya Women's Alliance*. Meghalaya Women's Alliance, Shillong.
- Nonglait, D. R. L. (2017). *Shisong La Ki Matti: Ka Thymmei u Thomas Jones bad Kiwei de ki Jingthoh Bishar Bniah*. Panima Publishing Corporation, New Delhi.

Book Chapters/Proceedings

- Dkhar, S. (2017). La Shet Ka Kor. In: *Sarad Smaranika 2017*. Subhadeep Bhattacharjee (Ed.). Relief & Rehabilitation Colony Welfare Society, Shillong, (np).
- Dkhar, S. (2017). Jingtngen. In: *Silver Jubilee Souvenir of Meghalaya Women's Alliance*. Streamlet Dkhar, Rebekah Tham, T. K. Kharbamon and Amena Passah (Eds.). MWA, Shillong, p. 77.
- Dkhar, S. (2017). Khasi Megalithic culture: A study from gender perspective. In: *Orality: The Quest for Meanings*. Z. Khiangte (Ed.). Partridge India, p. 289–295.
- Dkhar, S. (2017). Ka Thei Donburom. In: *Silver Jubilee Souvenir of Meghalaya Women's Alliance*. Streamlet Dkhar, Rebekah Tham, T. K. Kharbamon and Amena Passah (Eds.). MWA, Shillong, p. 59.
- Dkhar, S. (2017). Ki Snap Ka Folklore bad Kolshor ha ki Sawangka Khasi (Elements of Folklore and Culture in Khasi Drama). In: *Silver Jubilee Souvenir of Meghalaya Women's Alliance*. Streamlet Dkhar, Rebekah Tham, T. K. Kharbamon and Amena Passah (Eds.). MWA, Shillong, p. 65–71.
- Dkhar, S. (2017). Nga Bynñiaw and Jingdum ia Nga Ka Ap (Self-composed poems in Khasi) In: *Sarad Smaranika 2017*. Subhadeep Bhattacharjee (Ed.). Relief and Rehabilitation Colony Welfare Society, Shillong, (np).
- Dkhar, S. (2017). Report of the 16th National Convention of All India Poetess Conference, Meghalaya. In: *17th International Poetess Conference, Punjab 2017 Souvenir*. Simrat Sumera (Ed.). AIPC, Punjab and Punjab Arts Council, Chandigarh, p. 21–27.
- War, B. (2017). Independent pronouns, pronominal clitics and agreement markers in Khasi. In: *Syntactic Typology: Language Contact and Convergence*. Shailendra Kumar Singh and Saralin A. Lyngdoh (Eds.). EBH Publishers (India), Guwahati, Chapter 1, p. 1–14.

Department of Khasi

Book Forewords

- Dkhar, S. (2017). Foreword. In: Kumne Ki Sngi Ka Skola (Ka Saiñparom: Ka Novel) “Ka Lamkhmat” authored by Andreas Sun, p. x-xii.
- Dkhar, S. (2017). Message. In: 17th International Poetess Conference, Punjab 2017 Souvenir. Simrat Sumera (Ed.). AIPC, Punjab and Punjab Arts Council, Chandigarh (np).
- Dkhar, S. (2017). Foreword. In: Ki Mat Pashat Jingmut ia Ka Thwei Ki Jingsngew a collection of poems by Tisha Dkhar, (np).

Honours/Awards/Recognitions

Prof. S. Dkhar

Awarded the (i) SROT SAMMAN in the North-East Katha Sahitya Utsav (North-East Prose Literary Festival) held on 11 June 2017 at Rabindra Shatabarshiki Bhavan, Agartala, Tripura organised by SROT with the Sahitya Akademi, New Delhi, Kabitaghar, Kusum, Uddipta Sangrahashala and Banglabhasha, (ii) 2nd InWENA Award 2017 by ENFRA Media Pvt Ltd & ENRTIA Foundation in the category “India’s Persona of the Decade-Grassroot Impact and Social Sphere of North-Eastern Region for the Significant Contribution in Khasi Language, Literature, Art, and Culture at the National and International Level” held on 15 September 2017 at the New Delhi Institute of Management, (iii) Good Will Ambassador of AIPC for bringing lingual harmony through poetry and women empowerment held on 10 November 2017 in Chandigarh by founder President of AIPC Prof. Lari Azad, and (iv) Honarium Crest for the special contribution to Khasi literature held on 16 March 2018 at the Institute of Engineering Dhaka during the “Poets’ Meet as part of the birthday celebration of Eminent Poet Sharkar Mahub” given by Anyodhatra Sahitya Sansad, Dhaka.

Prof. S. Dkhar was awarded U Kiang Nangbah National Award 2016–18 along with a cheque of ₹50,000 for contribution to the Khasi literature by Ramnika Foundation on 31 March 2018 at Mandi House, New Delhi. She was also honoured and felicitated as eminent Khasi Poet, Dramatist and Playwright by the Association for Asian Culture and Literature at the South Asian Culture and Literature Summit 2018 on 14 March 2018 at Pirganj in Bangladesh.

Advisory Board Member of the Association for South Asian Culture and Literature, Bangladesh, 2018–19; Editorial Board Member of JHSS, an international peer reviewed journal; President of Ka Thiar Lyngwiar Dpei Society, a socio-cultural organization to preserve Khasi culture, literature and folk theatre. She was also a member of the Review Committee for the NCERT book on North-East India People, History and Culture, NCERT, New Delhi, ISBN: 978-93-5007-839-6.

Prof. B. War

Member of the Main Committee for inclusion of the Khasi Language in the 8th Schedule of the Constitution of India, Arts and Culture Department, Government of Meghalaya. President of the Society for Khasi Studies (Shillong), and the Founder President of the Shillong Academic Society.

Dr. M. M. Khyndeit

Editor of *Ka Thwet Jingstad (Quest for Knowledge)*, a research journal with ISSN accreditation published

School of Humanities

by the Society for Khasi Studies, Shillong. Joint Secretary of the Tribal Literary Forum of India.

Dr. B. Bairo

Member of the Editorial Board of *Ka Thwet Jingstad (Quest for Knowledge)*, a research journal with ISSN accreditation published by the Society for Khasi Studies, Shillong. Secretary of the Society for Khasi Studies, Shillong.

Other Activities

Prof. B. War

Delivered two lectures on “Strategies and Problems of Literary Translation” during a winter school organised by UGC-HRDC (NEHU) on 23 March 2018. She was also a resource person in a special lecture on “Khasi Orthography” organised by the Department of Khasi (St. Anthony’s College, Shillong) on 8 September 2017.

Coordinator of Committee on Preservation and Promotion of Endangered Languages, NEHU, Shillong, (ii) President, Managing Committee, Lummawbah Government Lower Primary School, Lummawbah, Shillong, (iii) Secretary, Board of Trust, Shon Roy Basan Secondary School, Lummawbah, Shillong, and (iv) Member of the Board of Studies, The English and Foreign Languages University, Shillong.

Prof. S. Dkhar

Delivered a speech as (i) Chief Guest on “Importance of Education in the Present Day” at the 14th Foundation Day of Kelian Memorial Secondary School (Shillong) on 10 May 2017, (ii) Special Guest on “Service to Humanity and the Need to Love and Care for the Physically Challenged” and felicitated the NGOs who worked for the disabled during the celebration of the 65th Year of Khasi Hills Autonomous District Council held on 27 June 2017 at Soso Tham Auditorium, Shillong, (iii) Chief Guest on “The Importance of Research on Language and Culture and the Need to Document and Enrich Khasi Language through Terminologies Found in the Different Language Varieties” at a book release function “Ka Longwiar Dongpaw (Ki Lngam) written by H. Witting Mawson on 24 June 2017 at Nongstoin College (Meghalaya), (iv) Guest of Honour on “The Need of Quality Education in the Present Day” at the inauguration function of Khadsawphra College (Mairang) on 30 June 2017. She was also Special Guest at the inaugural function of the celebration of the 182nd Death Anniversary of U Tirot Sing Syiemlieh organised by the Syiem Dorbar of Hima Nongkhlaw on 17 July 2017 at Mairang Krem Tirot. She also delivered speeches on (i) “Ka Jingdonkam ban Pynneh Pynsah ia ki Matti jong ki Longshuwa da kaba Buh ha ki Jingthoh” at the book launch of (L) Jor Manik Syiem entitled *Ka Jingiathuhkhana Pateng Shaphang ki Syiem Jong ka Hima Myllem Nadeh 1830 haduh 1960* held on 1 November 2017 at Jaia Langsnig (Shillong), and (ii) “Sharing My Experiences as an Author/Poet” during the award function ceremony as a recipient of U Kiang Nangbah National Award 2016–18 for the contribution to tribal literature organised by Ramnika Foundation on 31 March 2018 at Mandi House, New Delhi.

Delivered a powerpoint presentation as a resource person on self-written book *U Raikut* at special programmes on (i) “Face to Face with the Author” for the students and teachers of the Khasi Department of Thomas Jones College (Jowai) on 19 September 2017, and (ii) “Meet the Author” for the students and teachers of the Khasi Department of St. Mary’s College (Shillong) held on 21 September 2017.

Panel of judges in (i) Cultural programme for inter-school and college traditional song and dancing

Department of Khasi

competition during the celebration of the 182nd Death Anniversary of U Tirot Sing Syiemlieh organised by the Syiem Dorbar of Hima Nongkhlaw at Mairang Krem Tirot (17 July 2017), (ii) “Poetry Competition” as part of the 175th Year Celebration of Khasi Language to Promote Khasi Literature organised by Khasi Authors’ Society on 19 August 2017 at Government Boys’ Higher Secondary School, Shillong, (iii) Poetry Competition on the occasion of the 77th Death Anniversary of Soso Tham on the theme “Ka Imlang Sahlang” organised by the HYC of Mawlai Mawdatbaki Circle at Shillong Polytechnic (18 December 2017), and spoke on the contribution of Poet Laureate Soso Tham at the valedictory function, and (iv) Debate Competition on the occasion of the 77th Death Anniversary of Soso Tham organised by the KSU of Mawlai Circle and NEHU Unit on 18 December 2017 at Science Seminar Hall, NEHU.

Chaired the book release function *The Role of Labour Corps during World War I* written by Sylvanus Lamare held on 8 May 2017 at the Auditorium of St. Edmund’s College, Shillong. She also chaired the inaugural function and one multilingual poetry session organised by the AIPC (Meghalaya Chapter) at St Edmund’s College Auditorium Shillong (11–12 September 2017).

Prof. A. Kharmalki

Chief Guest at the book lunch titled “Ki Phangkren Halor ka Imlang Sahlang ha ki Nobel Khasi: Ka Bishar Bniah” on 20 May 2017 at Khasi National Dorbar Hall, Shillong. She was also a resource person in reviewing the *Learning Outcomes*—materials prepared by NCERT, New Delhi—from 23 to 25 July 2017.

Delivered a lecture on “Translation: The Scope and Challenges” at the Department of English, Synod College, Shillong (29 November 2017).

Dr. M. M. Khymdeit

Completed a short-term course in Gender Sensitization at UGC-HRDC of NEHU held from 21 to 26 August 2017, and a refresher course in *English and Comparative Literature* at UGC-HRDC, NEHU (19 March to 8 April 2018). He presented a paper on “U Victor G. Bareh kum u Myllung” at a programme *Im ka Kyrteing Sah ka Nam* organised by the Department of Khasi, Lady Keane College, Shillong (5 March 2018).

Judged the Thomas Jones debate competition on “Ka Jingwan u Phareng ka Kyntiew ia ka Jaitbynriew” organised by the Department of Khasi, Synod College, Shillong (22 June 2017).

Dr. B. Bairo

Completed a summer school (Equivalent to one refresh course/orientation programme) organised by UGC-HRDC of NEHU from 19 June to 9 July 2017, and also completed a short-term course in *Gender Sensitization* conducted by UGC-HRDC of NEHU from 21 to 26 August 2017.

Served as a judge in the Fr. Joseph Bacchiarello memorial inter-college debate competition organised by the Department of Khasi, St. Anthony’s College, Shillong.



DEPARTMENT OF LINGUISTICS

Head : Prof. Shailendra Kumar Singh
Telephone : 0364-272-3310(O)/91-09863279254(M)
E-mail : toksingh@rediffmail.com, toksinghnehu@gmail.com

Faculty: 5

Designation	Name and Qualification	Specialization
Professor (1)	Shailendra Kumar Singh, MPhil & PhD (Hyderabad)	New Linguistics World Order, Alternative-Sociolinguistics Translation, Deep Multilingualism, North-East India Linguistics and Linguistic Landscaping
Associate Professor (1)	Umarani Pappuswamy, MPhil (Bharathiar), PhD (Mysore)	Computational Linguistics, Typology, Semantics, Intelligent Tutoring Systems, Artificial Intelligence in Education, Cognitive Linguistics, Dialogue Systems and Discourse Analysis
Assistant Professor (3)	Saralin A. Lyngdoh, MPhil & PhD (Delhi)	Syntax, Typology, Linguistic Structures of South Asian Languages, Language Ideology, Eco-Linguistics, Austro-Asiatic Linguistics, Language Conflicts and Resolution Studies
	Barika Khyriem, MA (NEHU), MPhil (Delhi)	Phonetics and Phonology, Dialectology, Sociolinguistics, Austro-Asiatic Linguistics
	Bijoy L. Dhanwar, MA (NEHU), MPhil (Hyderabad)	Tibeto-Burman Linguistics, Typology, Syntax, Lexicography, Historical Linguistics

Thrust Areas of Research

The thrust area of the Department is to research in the numerous Tibeto-Burman and Austro-Asiatic languages/dialects of North-East India and build up expertise for field work, data analysis, and descriptive linguistics by training students through MA, MPhil and PhD programmes. The Department has also given emphasis on Phonetics and Phonology, Morphology, Syntax, Semantics and Pragmatics, Lexicography, Computational Linguistics, Translation, Field Methods, Language Education, Ethnolinguistics, Sociolinguistics, Languages of North-East India, and Language Ideology to provide a wide option for the students of Linguistics.

Brief Statement of Academic Activities

The Department admitted forty-five students to the MA programme, eight students for the MPhil programme and four PhD students during the current year. Twenty-four students successfully completed their MA programme. The Department organised a series of programmes, including an international conference and two workshops.

Department of Linguistics

Students' Profile

Enrolment Capacity: MA–45, PhD–Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	05	40		43		02	30	15	45
MPhil	01	07		04	01	03	03	05	08
PhD	01	03		04			04		04

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	09	16		23		02	17	08	25
MPhil		05		04		01	05		05

Research Fellowship: 20

CSIR-UGC NET: 6

UGC NON-NET: 12

NFHE for ST: 2

Field Trip/Educational Tour of Students

Field Trip of Students: 3rd Semester students

Teacher-in-Charge: Dr. B. L. Dhanwar

Places Visited: Balat Area, East Khasi Hill District

Duration of the Trip: 2 days (9 to 10 November 2017)

Purpose: Fieldwork Training as a compulsory part of the curriculum for the MA programme.
Study Tour of 3rd Semester Students.

Teacher-in-Charge: Prof. S. K. Singh

Places Visited: Chennai, Trivandrum, Goa and Mumbai

Duration of the Trip: 18–21 Jan 2018 (13 Days)

Purpose: To expose the students to technological equipment, artificial intelligence, machine translation and corpus development.

Courses Conducted

Postgraduate: MA

Semester I

General Linguistics, Morphology, Syntax I, Phonetics and Phonology and Socio-Linguistics.

Semester II

Semantics and Pragmatics, Ethnolinguistics, Advanced Syntax, Lexicology and Lexicography, Advanced Sociolinguistics.

School of Humanities

Semester III

Structure of Austro-Asiatic Languages, Field Methods, Linguistic Structure of South Asian Languages, Language Planning and Policy, Language of N.E. India and Language Ideology.

Semester IV

Generative Phonology, Historical and Comparative Linguistics, Psycholinguistics, Translation Theory and Practice, Language Conflict and Resolution Studies.

MPhil/PhD Courses

Research Methodology, Current Trends in Linguistics, Current Trends in North-East Linguistics and Advances in Natural Language Processing (Optional 1, 2 & 3), Seminar Paper.

Seminars/Conferences/Symposia/Workshops

Organised

International conference on *Linguistics Landscaping* organised by the Department in collaboration with NEC and CSSR-NER from 21 to 23 June 2016.

National conference on *Revisiting Indology Sanskrit in India* organised by the Department in collaboration with ICSSR-NER from 18 to 19 September 2017.

Workshop on *Language Testing and Evaluation* organised by the Department in collaboration with CIIL (Mysore) from 18 to 19 September 2017.

Dr. S. A. Lyngdoh

Coordinated an orientation programme-cum-workshop for North-East Language Teachers' Training on *Testing and Evaluation* organised by CIIL (Mysore) from 18 to 19 September 2017.

Attended

Prof. S. K. Singh

Presented papers entitled (i) "Linguistic Habitat of North-East India: Revitalization and Sustainability of Languages" at the national conference on *Revitalization of Heritage Languages and Culture* organised by the Sahitya Akademi (Delhi) and Amity University, Haryana (27–28 March 2018), (ii) "Bharat ki Bhasha Paristhiti" at the national conference on **भारतीय भाषाओं की एकात्मता और वैज्ञानिकता** held from 14 to 15 March 2018 at Dr. Hari Singh Gaur University, Sagar, (iii) "Hindi Bhasha Aur Purvotar Bharat" at the national conference on *Hindi ka Rastriya Pridrishya Aur Purvotar Bharat* held from 9 to 10 March 2018 at NEHU, Shillong, (iv) "Linguistic and Cultural Diversity in NEI" at the national symposium on *Tradition and Socio-cultural Ethos of North-East India* held from 10 to 11 February 2018 at Gauhati University, (v) "Linguistic Habitat of India" at the national conference on *The Language Situation in India in the 21st Century* held from 14 to 15 February 2018 at ISDL, Thiruvananthapuram, (vi) "Linguistic Landscaping in India: A Case of Dimapur, Nagaland" with Swuli H. Sema at the international conference on *Linguistic Landscaping* held from 21 to 23 June 2017 at NEHU, Shillong, (vii) "Sanskritization of Linguistic Landscaping" at the national conference on *Revisiting Indology and Sanskrit in India* held from 18 to 19 September 2017 at NEHU, Shillong, and (viii) "Inclusion of Minority Languages in School Education"

Department of Linguistics

held from 12 to 16 June 2017 at a national workshop programme on *Orientation of KRPs of North-East on Social Inclusion at Secondary Stage* at NERIE, Umiam.

Dr. S. A. Lyngdoh

Presented papers on (i) “Khasi Media and Linguistic Landscaping: A Semiotic Analysis” at the international conference on *Linguistics Landscaping* organised by the Department from 21 to 23 June 2017. She was also a resource person in the workshop on *Translation of Resource Materials on Adolescents Education* organised by NERIE (Umiam) from 7 to 8 March 2018.

Barika Khyriem

Presented a paper titled “Ka Ktien: Ka Atiar ka Jinglong Kawei ka Jaitbynriew” at the seminar on *Ka Jinglong Kawei ka Jaitbynriew* organised by the Department of Khasi (Jaintia Eastern College, Khliehriat) on 8 December 2017.

Publications

Published in India

Shukla, P., Singh, S. K. (2018). Linguistic landscaping in India: With special reference to South Mumbai. *Transframe*, 3(4): 13–23.

Books/Book Chapters

Singh, S. K. Lyngdoh, S. A., Khyriem, B., editors. (2017). *A Glimpse of Some of the Austro-Asiatic Languages in India*. Eastern Book House, Guwahati, ISBN: 97893 86302007.

Khyriem, B. (2017). An overview of Amsotai phonology. In: *A Glimpse of Some of the Austro-Asiatic Languages in India*. S. K. Singh, S. A. Lyngdoh and B. Khyriem (Eds.). Eastern Book House, Guwahati, Chapter 2, p. 7–20.

Lyngdoh, S. A. (2017). Pohchnong and Pohskur: The linguistic distinction of the Pnar: A preliminary study. In: *A Glimpse of Some of the Austro-Asiatic Languages in India*. S. K. Singh, S. A. Lyngdoh and B. Khyriem (Eds.). Eastern Book House, Guwahati, Chapter 7, p. 62–66.

Lyngdoh, S. A. (2017). Verb phrase in Amsotai. In: *A Glimpse of Some of the Austro-Asiatic Languages in India*. S. K. Singh, S. A. Lyngdoh and B. Khyriem (Eds.). Eastern Book House, Guwahati, Chapter 6, p. 52–61.

Singh, S. K., Shallam, G. (2017). Towards new translation strategies between Mon Khmer and Indo Aryan: A case study of Khasi. In: *A Glimpse of Some of the Austro-Asiatic Languages in India*. S. K. Singh, S. A. Lyngdoh and B. Khyriem (Eds.). Eastern Book House, Guwahati, Chapter 15, p. 125–137.

School of Humanities

Research Projects

Ongoing: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
LLCCHB	Prof. S. K. Singh	ICSSR	14

Completed: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
EILMT	Prof. S. K. Singh	MIT	78

Prof. S. K. Singh

Presented a papers on (i) “Purvotar me hindi ke vividh rup” at the national Conference on **पूर्वोत्तरभारतकीभाषाएँ: संरक्षणएवंसंवर्धन** held from 11 to 13 August 2017 at Itanagar, and (ii) “Meghalaya me hindi bhasha sahitya ki dasha-disha” at the international conference on **हिन्दीतरप्रांतोंएवंदिशोंमेंहिन्दीभाषासाहित्यःदशा-दशि, भारतीयवदियामंदरिएवंभारतीयसंस्कृतिसंसद** held from 5 to 7 January 2018.

Dr. S. A. Lyngdoh

Delivered a lecture on “Developing Minority Languages” during the training of teachers on *Teaching Learning in Multilingual Class at the Primary Level for North-East* organised by NERIE (Umiam) from 23 to 27 October 2017, and (ii) “The Principles of (English) Grammar and Their Applications: The Common Errors” as a resource person during the UGC-HRDC winter school held from 19 March to 8 April 2018.



DEPARTMENT OF PHILOSOPHY

Head : Prof. X. P. Mao
Telephone : 0364-272-3552
E-mail : hodphi@nehu.ac.in

Faculty: 8

Designation	Name and Qualification	Specialization
Professor (3)	Binod Kumar Agarwala, MPhil (Delhi), PhD (Lucknow)	Social and Political Philosophy, Ethics, Hermeneutics, Kant, Gadamer
	Vanlalnghak, MA (NEHU), PhD (IIT Kanpur)	Philosophy of Culture, Moral Philosophy, Analytic Philosophy
	Xavier P. Mao, MPhil (Delhi), MLett (Sydney), PhD, (NEHU)	Existentialism, Ethics
Associate Professor (2)	Prasenjit Biswas, MA & PhD (NEHU)	Phenomenology and Continental Philosophy, Philosophy of Mind, Philosophy of Tribes of NE India
	Laxminanrayan Lenka, MPhil & PhD (Hyderabad)	Analytic Philosophy, Philosophical Anthropology, Philosophy of Wittgenstein, Speech Acts, Western Epistemology
Assistant Professor (3)	E. Richard Tongper, MPhil & PhD (NEHU)	Philosophy of Religion, Philosophical Theology, Applied Ethics, Gandhian Philosophy
	Basil Pohlong, MA & PhD (NEHU)	Philosophy of Religion, Philosophical Anthropology, Philosophy of Culture, Ethics
	Uttam A. Sharma, MA (Manipur)	Logic and Epistemology

Thrust Areas of Research

Philosophy of culture with special reference to the tribal thought of the North-Eastern Region.

Brief Statement of Academic Activities

The Department offers both MA and PhD programmes. Thirty-seven students completed their MA degree, and three students got a PhD degree. Faculty members of the Department are actively engaged in teaching and research programmes. They contributed a number of publications published in journals and book volumes, and participated in many seminars, conferences by chairing or presenting papers.

School of Humanities

Students' Profile

Enrolment Capacity: MA–57, PhD–Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	22	35		55		02	32	25	57
PhD	03	04	01	05	01		02	05	07

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	08	29		35	01	01	30	07	37
PhD	02	01				03		03	03

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Kakoli Bezbaruah	Sankaracarya's Commentary on the Bhagavad Gita: A Critical Study	Prof. B. K. Agarwala
Aribam Uttam Sharma	Alternate Rationality: An Investigation into Its Possibility and Silence	Prof. Vanlalnghak
Amiya Dey	Environmental Crisis and Moral Responsibility	Dr. B. Pohlong

Research Fellowships: 27

CSIR-UGC-NET	UGC NON-NET	National Fellowship for Higher Education	ICPR Fellowship
04	17	03	03

Educational Tour of Students

Teacher-in-Charge: Prof. Xavier P. Mao

Places Visited: Gujarat, Rajasthan and Delhi

Duration of the Trip: 19 days (28 December 2017 to 15 January 2018)

Purpose: To attend the Asian Philosophical Conference and Indian Philosophical Congress at Surat.

Courses Conducted

Postgraduate: MA

Semester I

Indian Metaphysics, Western Metaphysics, Symbolic Logic, Philosophy of Religion, Indian Philosophy of Language I.

Department of Philosophy

Semester II

Ethics and Environment, Indian Epistemology, Western Epistemology, Indian Moral Philosophy, Indian Philosophy of Language II.

Semester III

Philosophy of Social Sciences, Phenomenology and Existentialism, Philosophy of Post Modernism I, Analytic Philosophy, Contemporary Philosophy of Religion, Tribal Thought and Culture.

Semester IV

Modernism and Responses, Philosophy of Culture, Philosophy of Post-Modernism II, Western Moral Philosophy, Applied Ethics, Philosophy of Wittgenstein.

PhD Courses

Research Methodology, Seminar Paper, Philosophy of Culture and Religion.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised the NEHU-sponsored national seminar on *Philosophy of Swami Vivekananda* in the Department from 21 to 23 November 2017 with Dr. L. Lenka as Coordinator and Dr. B. Pohlong and Dr. A. U. Sharma as Joint Coordinators.

Dr. Prasenjit Biswas

Organised the Indian Council of Philosophical Research-sponsored workshop on *Husserl's Texts* at the Indian Council of Philosophical Research, New Delhi (1–10 April 2017).

Attended

Prof. B. K. Agarwala

Presented papers on (i) “Reflections on Possibility of Peace on the Basis of Dharma in the Bhagavatgita” at the national seminar on *Conflict Transformation and Dharma of Peace Building: Contemporary Relevance in North-East India* organised by Lady Keane College (Shillong) on 16–18 May 2017, (ii) “PāṇiniSūtra 1.454—‘Svatantrahkartā Revisited: A Note on Samskr̥ta Vaiyākaranas’ Comments” at the national conference on *Revisiting Indology and Sanskrit in India* organised by the Department in collaboration with ICSSR-ERC (Shillong) from 21 to 23 September 2017, and (iii) “From Our Point of a Hermeneutic Approach to the Nature Anthropological Understanding” at the international seminar on *Ethical Challenges and Contemporary Issues in Creative Research: Uniformity VS Creativity* held at Lady Keane College (Shillong) from 19 to 20 February 2018.

Delivered a keynote address on “Devaluation of Authority of Veda by Vivekananda” at the national seminar on *Philosophy of Swami Vivekananda* held in the Department from the 21 to 23 November 2017.

Prof. Vanlalnghak

Attended and presided over an academic session of the national seminar on *Philosophy of Swami Vivekananda* organised by the Department from 21 to 23 November 2017.

Prof. X. P. Mao

Presented papers entitled (i) “On the origin of the Nagas” at the national seminar organised by

School of Humanities

Japhis Christian College, Nagaland (2 March 2018), (ii) “Moral Philosophy Versus Morality” at the international seminar organised by Lady Keane College, Shillong (19–20 February 2018), (iii) “Economics Versus Philosophy of Economics” at the Asian Philosophy Conference held from 3 to 4 January 2018 in Surat, and (iv) “Philosophical Methodology” at a symposium organised by the Indian Philosophical Congress in Surat on 6 January 2018. He also chaired a session of the national seminar on *Ananda Mimamsa-II* organised by the Indian Council of Philosophical Research at Udasina Karshris Ashram, Mathura (4–6 March 2018).

Dr. Prasenjit Biswas

Presented papers on (i) “Possibility of Forked Pathways of Ontology: Superposition and Collapse and Vice-Versa in an Aporia of Emerging Nothingness” at the international colloquium on *What is Physical Reality?* held at the Centre for Philosophy of Science, University of Lisbon, Lisbon (October 16–18, 2017), (ii) “Hindutva Emotions” at the international conference on *History of Emotions* held at the University of Western Australia, Perth (11–13 December 2017), and (iii) “Cosmopolitanism at the National Borders: Indo-Bangladesh Case” during the 17th IVR International Congress on *Philosophy of Law* held at the University of Lisbon, Portugal (15–19 May 2018).

Dr. B. Pohlong

Presented papers entitled (i) “Peace and Dialogue: Search for Method” during the national seminar on *Conflict Transformation and Dharma of Peace Building: Contemporary Relevance in North-East India* organised by the Department of Philosophy, Lady Keane College, Shillong (16–18 May 2017), and (ii) “Dynamic Unity in Religious Pluralism” at the national seminar on *The Philosophy of Swami Vivekananda* organised by the Department from 21 to 23 November 2017.

Publications

Published in India

- Agarwala, B. K. (2017). Does the word ‘Svatantra’ in Sanskrit mean ‘Independent? An error in understanding *Panini Sūtra* 1.4.54—*Svatantrahkartā*. *Indian Philosophical Quarterly*, 43(1-4): 41–64.
- Agarwala, B. K. (2017). Why modern mind finds it difficult to understand classical Indian thinking. *Dialogue*, 18(4): 66–80.
- Agarwala, B. K. (2017). The *Anugātā* as a gloss on the *Bhagavadgītā*-Part II: Comparison of a few themes in the two texts. *Journal of Indian Council of Philosophical Research*, 34(1): 51–73.
- Agarwala, B. K. (2017). The conception of *Jñāna* and its relation to Karma in the *Bhagavadgītā*. *Madhya Bharati*, 72: 157–190.
- Agarwala, B. K. (2017). The political frame of the *Bhagavadgītā*. *Dialogue*, 19(2): 123–142.
- Agarwala, B. K. (2017). The significance of the first verse of the *Bhagavadgītā*. *Jijñāsā*, IV: 17–38.
- Lenka, L. (2017). Knowing one’s own self: An analysis of Vivekananda’s approach to one’s identity. *Journal of Indian Council of Philosophical Research*, doi <https://doi.org/10.1007/s40961-017-0130-x>.
- Lenka, L. (2017). Actual and hypothetical instances of closure failures. *Indian Journal of Analytic*

Department of Philosophy

Philosophy (Utkal University), VI(I): 21–26.

Mao, X. P. (2017). Philosophizing in India. *Research Journal of Philosophy* (Bongaigaon College), V, 2016–17.

Sharma, A. U. (2018). The burden of names. *Yendai*, <http://yendai.org/roots/the-burden-of-names/>

Sharma, A. U. (2018). A Consequence of the Negation of Strong Goldbach Conjecture. *HAL Archives*, <http://hal.archives-ertes.fr/hal-01765644/document>.

Books/Book Chapters

Agarwala, B. K. (2017). The ontology of humanities and social sciences: A Gadamerian perspective. In: *Pathways of Creative Research: Towards a Festival of Dialogues*. Ananta Kumar Giri (Ed.). Primus Books, New Delhi, p. 313–349.

Biswas, P. (2018). Are we in for post-humanist humanities? In: *The Place of Humanities in Our Universities*. Mrinal Miri (Ed.) Routledge, London, Chapter 7, p. 96–133.

Biswas, P. (2017). Aporias of ethics: Looking at the “Wholly Other.” In: *Philosophy, Language and the Political Perspectives in Poststructuralism*. Franson Manjali and Marc Crepon (Eds.). Aakar Books, New Delhi, Chapter 11, p.161–74.

Biswas, P. (2017). Sociality and subjectivity: An ontological return to the other. In: *Pathways of Creative Research: Towards a Festival of Dialogues*. Ananta Kumar Giri (Ed.). Primus, New Delhi, Chapter 25, p. 325–41.

Lenka, L. (2017). The PLA-based philosophical anthropology: In: *Interrogating the Self*. Purbayan Jha and S. C. Roy (Eds.). Levant Books, Kolkata, p. 69–78.

Vanlalnghak, (2017). *The Hmar Customary Laws (The Code of Hmar Customs), Translated into English*. Hmar Supreme House (Hmar Inpui) Meghalaya Region, Shillong.

Other Activities

Prof. B. K. Agarwala

Member of the School of Board of Humanities, Dr. H. S. Gour Central University, Sagar, M.P.

Prof. X. P. Mao

Delivered lectures on (i) “Justice” on 4 May 2017 at St. Mary’s College, Shillong, (ii) “Development of Tribal Languages” on 24 May 2017 at Kohima, (iii) “Social Information” at Naga Students’ Federation on 1 June 2017 in Mokukchung, (iv) “A. C. Dutta Memorial lecture” on 20 July 2017, (v) “Dharma and World Peace: A Critical Study” during 24–27 August 2017, (vi) “Higher Education” during the Golden Jubilee Celebration of Christian Higher Secondary School, Dimapur (14–15 September 2017), and (vii) “Philosophy of Religion” on 14 March 2018 at Calcutta University. He also delivered two lectures during the training of the trainers’ workshop organised by Rajiv Gandhi University (Chennai) on 20 September 2017 at Guwahati.

IV



SCHOOL OF HUMAN AND ENVIRONMENTAL SCIENCES

Dean : Prof. Debendra Kumar Nayak (Till 5 January 2018)
Prof. R. Khongsdier (Since 6 January 2018)
Telephone : 0364-2723221(O)/9863022193(M)
Fax : 0364-2550040
E-mail : rkhongsdier@nehu.ac.in

The School of Human and Environmental Sciences has five departments, namely Anthropology, Environmental Studies, Geography, Horticulture, and Rural Development and Agricultural Production. These departments are involved in a wide variety of research and academic activities with a view to improving the social and economic conditions and welfare of the people of the hill areas in North-East India. All the departments offer postgraduate programmes under the Choice Based Credit System as well as the PhD programmes. The Department of Geography also offers a self-financed Postgraduate Diploma in Geo-informatics, while the Department of Rural Development and Agricultural Production conducts the MPhil programme as well. Three of the five departments have conducted field work and study tours for the postgraduate students.

During the current year, 159 students were enrolled for postgraduate programmes and 17 students were admitted to the PhD programme. As many as 118 students were awarded a Master's degree and 18 research scholars were awarded their PhD degree, while 15 more received an MPhil degree. Faculty members of the School published 73 research papers in journals of national and international repute. They also published 4 books and contributed 23 book chapters. In addition, the departments under the School completed 5 research projects; while 23 research projects—including one international project—are ongoing. One department, namely Department of Geography, is being supported under UGC-SAP-DRS-III and DST-FIST programmes. Faculty members of the departments were also involved in organising seminars, conferences, workshops and symposia. Several collaborative research programmes had been undertaken across the departments during the year under report. International academic collaborations have been initiated with the University of Alaska, Syracuse University, USA; Tel-Aviv University, Israel; Semmelweis University, Budapest, Hungary; NTU, Singapore; RFBR, Moscow, CAIAG, Kyrgyzstan; universities and academia in Poland and Japan.



DEPARTMENT OF ANTHROPOLOGY

Head : Prof. Lucy Zehol
Telephone : 0364-2723105(O)/9436118429(M)
E-mail : hodant@nehu.ac.in

Faculty: 11

Designation	Name and Qualification	Specialization
Professor (5)	T. B. Subba, MPhil & PhD (N. Bengal)—On lien as Vice-Chancellor of Sikkim University till 16 October 2017	Cultural Anthropology (Migration, Development, Diaspora)
	H. Lamin, MPhil & PhD (NEHU) (On lien as Pro-Vice Chancellor)	Cultural Anthropology (Medical Anthropology and Economic Anthropology)
	R. Khongsdier, MPhil & PhD (NEHU)	Biological Anthropology (Health and Nutrition, Demography and Population Genetics)
	L. T. V. Zehol, MPhil & PhD (NEHU)	Cultural Anthropology (Ethnicity, Development, Anthropology of Women and Gender)
	D. K. Limbu, MPhil & PhD (NEHU)	Biological Anthropology (Population Genetics, Dental Anthropology, Demography)
Associate Professor (3)	V. Pakyntein, MA (NEHU), MPhil (Delhi)	Cultural Anthropology (Matrilineality, Gender Issues and Socio-Cultural Change)
	B. Langstieh, MSc (NEHU), PhD (ISI, Calcutta)	Biological Anthropology (Anthropogenetics, Molecular Anthropology, Demography, Human Ecology, Aging, RCH)
	G. Ranjan, MA & PhD (Lucknow)	Cultural Anthropology (Tribal Development, Ethnography, Literary Anthropology, Anthropology of Politics)
Assistant Professor (3)	J. W. Dkhar, MPhil & PhD (NEHU)	Biological Anthropology (Growth and Nutrition)
	Q. Marak, MA (Gauhati), PhD (NEHU)	Archaeological Anthropology (Food Studies, Material Culture, Archaeology of Northeast India)
	S. Ghosh, MSc & PhD (Delhi)	Biological Anthropology (Human Adaptation and Physiology)

Thrust Areas of Research

The Department trains and creates expertise in Cultural and Biological Anthropology. It is the only Anthropology Department in North-East India with equal strength of faculty in these two major fields of anthropology. Its mission is to contribute to the betterment and well-being of society, particularly in North-East India, by carrying out researches on biological aspects (such as population genetics, human growth and nutrition, nutritional anthropometry, demography, reproductive and child health) and socio-cultural aspects (like identity and ethnicity, development, women and gender issues, ethno medicine, food, and socio-cultural change).

Brief Statement of Academic Activities

The Department offers specialization in Cultural and Biological Anthropology with broad orientation to Archeology and Linguistic Anthropology. It enrolled thirty students for the MA/MSc programmes and five students for the PhD programme during the current year. Twenty-seven students completed their MA/MSc and five students were awarded a PhD degree.

The Department is collaborating one international project on “A Dental Morphometric Examination of the Distinctiveness and Affinities of Austro-Asiatic- and Tibeto-Burman-speaking Ethnic Groups of South Asia” with Dr. Brian E. Hemphill of the Department of Anthropology, University of Alaska, USA. The Department is also undertaking two projects titled “Pattern of Hearing Loss and Inheritance among Rural Population of Pynursla Block, Meghalaya” sponsored by NEIGRIHMS/ICMR, and “Documentation of Endangered Material Culture of the Garos of Meghalaya” in collaboration with the Anthropological Survey of India, Ministry of Culture and Tourism, Government of India, North-East Regional Centre, Shillong.

The faculty of the Department published twenty-nine publications, including three books during the year under report. The Department organised: (i) Symposium on State Politics in Northeast India sponsored by the Nehru Memorial Museum and Library on March 13–14, 2018 in Social Science Conference Room of the University, (ii) Four-day hands-on national workshop on *Disease Modeling and Public Health Analytics* from 2 to 5 May 2017 in collaboration with the Human Genetics Unit of the Indian Statistical Institute (Kolkata) and (iii) Three-day hands-on national workshop on *Human Disease and Public Health Analytics* in collaboration with the Human Genetics Unit of the Indian Statistical Institute (Kolkata) with Dr. B. Langstieh as Convenor (7–10 December 2017).

Students' Profile

Enrolment Capacity: MA—30, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA/MSc	09	21		24		06	04	26	30
PhD	01	04		05			01	04	05

Department of Anthropology

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA/MSc	06	19		25			05	20	25
PhD	02	03		03		02	01	04	05

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Rashmi Upadhyay	Nepalese Migrant Workers in the Coal Mines of Jaintia Hill Meghalaya: Risk Remittance and Return to Nepal	Dr. G. Ranjan
Ms. A. Kapesa	Traditional Political Institutions and Development: A Study on a Mao Naga Village of Manipur	Dr. G. Ranjan
Mr. Jelle J.P Wouters	State Democracy and Development in Nagaland	Prof T. B. Subba and Prof H. Lamin (Joint Supervisor)
Ms. Longshibeni N. Kithan	Water and Culture among the Lotha Nagas of Wokha District, Nagaland	Prof. L. Zehol
Mr. Bhaboklang Sohkhlet	A Comparative Study of Some Aspects of Human adaptation among the Monpas of Arunachal Pradesh	Prof. R. Khongsdier

Placement of Students: 4

Four PhD Students were appointed Assistant Professors, namely Dr. Chunthuiiu Kamei through Manipur Education Service in Imphal, Manipur; Dr. Asui Nsarangbe Women's College, Shillong, Meghalaya; Dr. James Haokip in the Department of Anthropology, Sikkim University, Sikkim; Dr. Chintu Sanju B. Marak in the Department of Anthropology, Tura United Christian Academy, Tura, Meghalaya.

Research Fellowships: 5

CSIR-UGC-NET: 1

UGC NON-NET: 4

Fieldwork/Educational Tour of Students

Fieldwork Teacher-in-Charge: Dr. S. Ghosh

Places Visited: Gogamukh, Dhemaji, District Assam

Duration of Tour: 21 Days (10–31 January 2018)

School of Human and Environmental Sciences

Purpose of Tour: To conduct the ethnographic fieldwork for students' dissertation.

Courses Conducted

Postgraduate: MA/MSc

Semester I

Introduction to Anthropology, Archaeological Anthropology, Biological Anthropology, Social and Cultural Anthropology, Linguistic Anthropology.

Semester II

Palaeo-anthropology, Prehistoric Cultures, Material Culture and Museum Method, Human Ecology and Adaptation (Open), Anthropology of North-East India (Open).

Semester III

Anthropology of India, Medical Anthropology, Field Work Methods and Techniques, Demography, Anthropology of Gender (Open), Human Genetics, Practical in Biological Anthropology I, Human Growth and Body Composition (Open).

Semester IV

Theories in Anthropology, Development Anthropology, Economic Anthropology, Biostatistics, Dissertation and *Viva-Voce*, Biocultural Anthropology, Dental Anthropology, Practical in Biological Anthropology II.

PhD Courses

Research Methodology in Anthropology, Recent Developments in Social and Cultural Anthropology, Advanced Studies in Biological Anthropology, Review of Literature and Seminar.

Seminars/Conferences/Symposia/Workshops

Organised

Prof. T. B. Subba

Organised a symposium on *State Politics in Northeast India* sponsored by the Nehru Memorial Museum and Library (New Delhi) on 13 & 14 March 2018 in the Social Science Conference Room of the University.

Dr. Langstieh

Organised and convened (i) four-day hands-onnational workshop on *Disease Modeling and Public Health Analytics* in collaboration with the Human Genetics Unit, Indian Statistical Institute, Kolkata (2–5 May 2017), and (ii) three-day hands-onnational workshop on *Human Disease and Public Health Analytics* in collaboration with the Human Genetics Unit, Indian Statistical Institute, Kolkata (7–10 December 2017).

Attended

Abroad

Prof. T. B. Subba

Presented a paper titled “Tibetan Refugees in India” at the international workshop on *Human Sustainability* held at the Hakubi Center for Advanced Research, Kyoto University, Japan (8–11 May 2017).

Department of Anthropology

Delivered (i) keynote address on “Sustaining Cultural and Linguistic Diversity in South Asia: Some Suggestions from Anthropological Perspectives” at the 13th International Conference on *South Asian Languages and Literature* hosted by the CIIL (Mysore) and Indian Institute of Language Studies at CIIL, Mysore (8 January 2018), (ii) plenary lecture titled “Northeast India in Anthropological Perspective” at the Indian Anthropological Congress on *Changing Facets of Human Biology and Culture: Prospects for Development* held on 22 February 2018 at Gauhati University, and (iii) two lectures on “Ethnomethodology” at the workshop on *Research Methodology* organised by ICSSR-NERC (Shillong) on 7 December 2017.

Prof. R. Khongsdier

Delivered the inauguration address at the national seminar on *Contemporary Environmental Issues and Concerns* organised by the NSS Unit of NEHU in collaboration with the ENVIS RP Centre, NEHU, Shillong (12 March 2018).

Prof. D. K. Limbu

Presented paper on (i) “Prevalence of Dental Caries among the Garos of Garo Hills, Meghalaya” at a two-day national seminar organised by the Department of Anthropology, Rajiv Gandhi University, in collaboration with IGRMS (Bhopal) on 17 & 18 March 2017, and (ii) “Socio-economic Proximate of Fertility among the Khasis of Meghalaya” at the international conference on *Indigenous People, Human Security and Sustainable Development: Emerging Challenges in the Present Global Context* organised by the Commission on Human Rights and others from 19 to 21 January 2018.

Dr. B. T. Langstieh

Delivered a lecture on “Molecular Anthropology in Northeast India” at the Association for DNA Fingerprinting Technology Silver Jubilee Convention and International Symposium on *Biodiversity and Biobanking* (BIODIVERSE 2018) at IIT, Guwahati (27–29 January 2018).

Dr. S. Ghosh

Presented a paper titled “Exhaled Nitric Oxide in Relation to High Altitude Hypoxia: Comparisons of Two Diverse Populations from Peru and Northeast India” at the national seminar on *Anthropology, Health and Development: Trends and Future Perspectives* organised by the Department of Anthropology, University of Delhi, Delhi (20–21 February 2018).

Publications

Published in India

- Khamu, S., Langstieh, B. T. (2018). Depression and related factors among the elderly Chakhesang population. *Indian Journal of Gerontology*, 32(1): 7–20.
- Lalnuneng, A., Khongsdier, R. (2017). Rural-urban differences in hypertension among the Hmars of Manipur in Northeast India. *The Anthropologist*, 28(3): 173–183.
- Limbu, D.K., Marak, M. M. (2018). A genetic study among the Garos of Asanang village, West Garo Hills District, Meghalaya. *Thar Journal*, 1(1): 1–15.
- Pakymtein, V. (2018). Gender relations in Khasi-Pnar matrilineal kinship. *The Asian Man*, 11(1): 50–57.

Tangvah, K., Marak, Q. (2015). The making of Nungbi Ham: A study of Nungbi pottery of Manipur, India. *Humankind*, 11: 145–64.

Published abroad

Ghosh, S. (2017). Chronic energy deficiency in relation to morbidity and socio-economic factors: Case study of a tribal population of India. *Collegium Antropologicum*, 41(4): 327–334.

Books

Subba, T. B. (2017). *Migration, Inner Line Permit and Armed Forces Special Powers Act in Northeast India: A Ring-side View*. Fifth Jayashree Roy Memorial Lecture, North-East India Studies Programme, JNU, New Delhi, p.1–12.

Marak, Q., Bhuyan, G., Meitei, A. M., Sangma, T. D. (2017). *Misimagre: A Prehistoric Factory Site from Garo Hills, Meghalaya*. RIP, New Delhi, ISBN: 978-93-86138-99-6.

Ghosh, S., Limbu D. K., editors. (2017). *Readings in Biological Anthropology*. B. R. Publishing Corporation, New Delhi, ISBN: 9789386223869.

Book Chapters

Das, A., Vereczkei, A., Kotyuk, E., Szekely, A., Sasvari-Szekely, M., Barta, C., Langstieh, B. T. (2017). Single nucleotide polymorphism of serotonin receptor (HTR1B and HTR2A) associated with aggression (using STAXI-2 and RPQ assessments) among the Khasi, Hmar and Bengali settlers of Shillong, Meghalaya. In: *Readings in Biological Anthropology*. S. Ghosh and D. K. Limbu (Eds.). B. R. Publishing Corporation, New Delhi, Chapter 7, p. 89–111.

Dkhar, J. W, Neeta Devi, R. K. (2018). Prevalence of underweight, overweight and stunted conditions among urban Meitei adolescent boys of Imphal West District Manipur. In: *Reading in Biological Anthropology*. S. Ghosh and D. K. Limbu (Eds.). B. R. Publication, Delhi, p. 195–206.

Hoineilam, K., Langstieh, B. T. (2017). Effect of demographic characteristics on child health: A study among the Thadou-Kuki of Senapati District, Manipur. In: *Child Health in India*. B. Das, M. Talukdar and A. J. Bharali (Eds.). Omsons Publications, New Delhi, Chapter 15, p. 145–157.

Lalnuneng, A., Khongsdier, R. (2017). The effects of the interaction of household income with age and sex on BMI among the Pnars of Nangbah village in Jaintia Hills of Meghalaya. In: *Reading in Biological Anthropology*. S. Ghosh and D. K. Limbu (Eds.). B. R. Publication, Delhi, Chapter 8, p. 195–206.

Limbu, D. K. (2017). A brief review of physical anthropology in North-East India. In: *Social Science Researches in North-East India: Challenges and Pathways*. K. Jose and B. Das (Eds.). DVS Publishers, Guwahati, Chapter 8, p.176–186.

Limbu, D. K., Syngkon, H. (2017). Influence of socio-economic factors on infant and child mortality among the Pnars of Jaintia Hills District, Meghalaya. In: *People of North-East India: Bio-Cultural Dimensions*. R. Khongsdier and S. Sengupta (Eds.). Kalpaz Publications, New Delhi, Chapter 11, p. 172–182.

Limbu, D. K., Khual, G. K., Syngkon, H. (2017). Influence of biosocial factors on child mortality among the Jaintias of Jaintia Hills District, Meghalaya. In: *Child Health in India*. B. Das, M.

Department of Anthropology

- Talukdar and A. J. Bharali (Eds.). Omsons Publication, New Delhi, p. Chapter 10, 87–96.
- Pakyntein, V. (2017). The Khasi-Pnar ideology of peace and conflict resolution. In: *Legal Pluralism and Indian Democracy: Tribal Conflict Resolution Systems in Northeast India*. M. B. Dutta and B. Kakati (Eds.). Routledge India, New Delhi, p. 204–219.
- Zehol, L. (2017). Unraveling native patrilineality: The Zomi experience In: *Linguistic Ecology-Mizoram*. S.K. Singh *et al* (Eds.). EBH Publications, Guwahati, p. 147–152.
- Zehol, L. (2017). What do the gender ideologies in Khasi and Naga societies reveal? In: *Gender Implications of Tribal Customary Law*. M. Pereira *et al* (Eds.). Rawat Publications, Jaipur, p. 33–39.

Fund Received from Agencies including NEHU/UGC

Non-Plan: ₹5.30 lakhs

Research Projects

Ongoing: 3

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Documentation of Endangered Material Culture of the Garos of Meghalaya	Dr. Q. Marak	Anthropological Survey of India	5.00
Pattern of Hearing Loss and Inheritance among Rural Population of Pynursla Block, Meghalaya	Dr. B. Langstieh (Co-PI) & Dr. A. Bhatia, NEIGRIHMS, Shillong	NEIGRIHMS/ICMR	1.90
A Dental Morphometric Examination of the Distinctiveness and Affinities of Austro-Asiatic- and Tibeto-Burman-speaking Ethnic Groups of South Asia	Dr. B. Langstieh (Co-PI) & Dr. Brian E. Hemphill (PI), University of Alaska, Fairbanks, USA.	Fulbright-Nehru Senior Research Fellowship and University of Alaska, USA	5000 US\$

Completed: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Natural Selection and Genes Determining Higher Arterial Oxygen Saturation in Tibetan Monpa	Dr. Sudipta Ghosh (Co-PI)	Syracuse University, Syracuse, New York, USA	5.00

Academic Collaborations

Dr. B. T. Langstieh collaborated with (i) Dr. Brian E. Hemphill (Department of Anthropology, College of Liberal Arts, University of Alaska, USA) on *Dental Morphometric Examination of the Distinctiveness and Affinities of Austro-Asiatic- and Tibeto-Burman-speaking Ethnic Groups of South Asia*, (ii) Dr. Abhijeet Bhatia (ENT Department, NEIGRIHMS, Shillong) on *Pattern of Hearing Loss and Inheritance among Rural Population of Pynursla Block, Meghalaya*, and (iii) Dr. Csaba Barta (Institute of Medical Chemistry, Semmelweis University, Budapest) on *Identification of Risk Factors of Various Addictions*.

Dr. Sudipta Ghosh collaborated with (i) Prof. Tom D. Brutsaert (Department of Anthropology and Exercise Science, Syracuse University, USA) on *High Altitude Hypoxia: Comparison between North-East India and Peru*, (ii) Prof. Gregory Livshits (Department of Anatomy and Anthropology, Tel-Aviv University, Israel) on *Quantitative Genetic Analysis of the Facial Profile between the Santhals and Chuvash: A Comparative Study*, and (iii) Dr. Kamala Ramadoss (Department of Child & Family Studies, David B. Falk College of Sport and Human Dynamics, Syracuse University, USA) on *Diabetes and other Non-Communicable Diseases: A Comparison between Indians in India and USA*.

Ms. V. Pakyntein collaborated with the Meghalaya State Commission for Women (MSCW), Government of Meghalaya on the project: *An Exploratory Study on the Socio-economic Status and Problems of Single Mothers in Meghalaya*.

Honours/Awards/Recognitions

Prof. T. B. Subba

Vice-Chancellor, Sikkim University, Gangtok, Sikkim, and Vice-Chairman, Higher Education Council, Government of Sikkim till 14 October 2017. He was also Chairman of the Board of Governors for the Centre for Computers and Communication Technology, Chisopani, South Sikkim and Advanced Technical Training Centre, Bardang, East Sikkim, till 14 October 2017.

Appointed as Associate Editor, *Brill Encyclopaedia of Religion*, Leiden, The Netherlands.

Prof. R. Khongsdier

Member of (i) Meghalaya State Level Scrutiny Committee for Scheduled Tribes, Government of Meghalaya, and (ii) Meghalaya State Task Force on Minorities.

Member of the Editorial Boards of the *Journal of Life Sciences*, *Indian Journal of Research in Anthropology*, and *the Anthropologist*.

Other Activities

Prof. T. B. Subba

Delivered the 8th Prof. B. M. Das Memorial Lecture on “Relocating Anthropological Studies in India’s Northeast” on 25 January 2018 at Conference Hall, Cotton University, Guwahati. He also delivered the Foundation Day Lecture at the Indira Gandhi Rastriya Manav Sangrahalaya, Bhopal (21–23 March 2018).

Member of (i) Academic Council, Amarkantak National Tribal University, Amarkantak (31 July 2015 to 30 July 2017), (ii) Academic Council, Jawaharlal Nehru University, New Delhi (May 2015 to August 2017), and (iii) Governing Board, ASEAN Study Centre, ICSSR-NERC, NEHU Campus

Department of Anthropology

(Shillong) from August 2016 to October 2017.

Prof. R. Khongsdier

Member of the Board of Postgraduate Studies in Anthropology, Rajiv Gandhi University, Arunachal Pradesh. Member of the Governing Body of the North-Eastern Institute of Ayurveda Homoeopathy, Shillong, and Member of the Interview Board of the Kendriya Vidyalaya Sangathan for the Post of PRT in Northeastern Region held at Kendriya Vidyalaya (NEHU, Shillong) on March 26, 2018.

Prof. L. Zehol

Delivered two invited lectures on “Gender-Conceptual Issues and Schools as Sites of Gender Socialisation/Discrimination” during a training programme on *Orientation of KRPs of North-East States on Social Inclusion at Secondary Stage* organised by NERIE, Umiam (13 June 2017). She also delivered two invited lectures on “Gendered Environment: Seeing Blind Spots in Our Environment” at a refresher course in *Earth Sciences and Geography* at UGC-HRDC (NEHU, Shillong) on 30 June 2017.

Supervisor of ICSSR Postdoctoral Fellowship (PDF/ST) in respect of Dr. Lallianzuali Chhangte on *Mizo Society and Culture: Change and Continuity*.

Dr. B. T. Langstieh

As a resource person delivered lectures at a refresher course in *Earth Sciences and Allied Sciences* conducted by UGC-HRDC (NEHU) on 6 July 2017.

Served as (i) Post-doctoral Supervisor of Dr. Sezolu Khamu, UGC Postdoctoral Fellowship for Women on *Health Dynamics of the Elderly*, and (ii) Joint supervisor of Dr. Arundhuti Das, UGC Dr. D. S. Kothari Postdoctoral Fellowship on *Multidisciplinary Study to Understand Interaction of Substance Use and Stress*. She also served as a reviewer for the *Journal of Indian Anthropological Society*, and Panel on Anthropology, UPSC, New Delhi.

Ms. V. Pakyntein

As a representative of Meghalaya State Commission for Women, she attended the meeting on the recommendations of a study on *Socio-Economic and Political Empowerment of Women in North-Eastern States* organised by the National Commission of Women (NCW) along with the NEC, and hosted by the Meghalaya State Commission for Women at NEC, Shillong (14 November 2017).

Dr. Q. Marak

Wrote 2 units for IGNOU course for Bachelors: Paper 201: Archaeological Anthropology.

Block: Understanding Prehistoric Cultures Unit 2: Prehistoric typology, Unit 3: Cultural Chronology.

Dr. Sudipta Ghosh

Presented an invited talk titled “Adaptation to High Altitude: Comparing Exhaled Nitric Oxide in Populations from Peru and North-East India” at the Department of Anthropology, Kennesaw State University, Georgia, USA (11 April 2017). She also served as a reviewer for the *International Journal of Obesity* and *Journal of Life Sciences*.

Convener of NEHU Extension Lecture on *Situation of Immigrants from the Indian Sub-continent: An Exploratory Study* delivered by Dr. Kamala Ramadoss, Syracuse University, New York, USA (16 November 2017).



DEPARTMENT OF ENVIRONMENTAL STUDIES

Head : Prof. Devesh Walia
Telephone : 0364-272-1150(O)/91-9436163641(M)
E-mail : hodces@nehu.ac.in, deveshwa@gmail.com

Faculty: 11

Designation	Name and Qualification	Specialization
Professor (5)	Lalit Kumar Jha, MSc (Bhagalpur), PhD (LNMU)	Forestry, Forest Laws and Rural Development
	B. K. Tiwari, MSc (Gorakhpur), PhD (NEHU)	Natural Resource Management
	O. P. Singh, MSc & PhD (BHU)	Environmental Monitoring and Remediation of Degraded Ecosystems
	Devesh Walia, MTech (Dr. HSGU), PhD (Gauhati)	Magnetotelluric, GPS, Seismotectonics, Radon Monitoring Studies in NER
	D. Paul, MSc & PhD (NEHU)	IPM, Biopesticides
Associate Professor (1)	S. S. Chaturvedi, MSc (Gorakhpur), PhD (BHU)	Environmental Monitoring & Abetments and Environmental Biology

Thrust Areas of Research

Natural resource management, environmental monitoring and remediation of degraded ecosystems, forest management, forest biodiversity monitoring and management, land reclamation (social/agro forestry) and rural development, forests policy and law, environmental impact assessment, environmental biology, integrated pest management, policy oriented research on forest and environment and watershed management, magnetotelluric studies, global positioning system studies and micro-seismicity, radon activity concentration in the North-Eastern Region, earthquake forecasting research and impact of seismicity on infrastructure.

Brief Statement of Academic Activities

The Department took part in several international and national workshops, seminars, and training programs. It undertook research projects aimed at creating much-needed database for promoting ecologically sound and sustainable development of the hill regions in Northeast India. The Department also contributed towards configuring the deeper crustal structure for understanding crustal evolutionary processes, global positioning system and seismicity of North-East India along with radon activity concentration. The Department received funds from various external funding agencies for strengthening the on-going research and extension activities and for developing laboratories and other infrastructure.

Department of Environmental Studies

The Department also conducted the International Earth Sciences Olympiad (IESO) 2018 Entrance Test on 21 January 2018 at Army Public School (Shillong), and the Mock Drill with special reference to Earthquake Disaster on 6 March 2018 with the help of 1st BN NDRE, Guwahati.

Students' Profile

Enrolment Capacity: MSc—25, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	14	11		23		02	17	08	25
PhD	02	01		01		02		03	03

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	09	16		22		03	19	06	25
PhD	01	01		01		01	01	01	02

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Tiewri Lyngdoh Nonglait	Phytodiversity, Soil Characteristics and Water Budget of Pahamsyeim Microwatershed, Ri Bhoi, Meghalaya	Prof. B. K. Tiwari
Mr. Saumitro Das	Effect of Plant Growth Regulators on Root Proliferation and Vegetative Growth of Stem Cuttings of <i>Taxus baccata</i> L	Prof. L. K. Jha

Research Fellowships: 18

Ugc Non-Net: 13

NFHE: 05

Educational Tour of Students

Teacher-in-Charge: Dr. S. S. Chaturvedi

Places/Institutions Visited: Coimbatore, Udagamandalam and Chennai and many places of academic interest like Grass Forest Museum, GD Naidu Industrial and Scientific Museum, Regional Science Centre and Museum, Botanical Garden, Doddabetta Tea Factory, Doddabetta peak, Ooty Lake, Chocolate Factory, National Museum, Crocodile bank, Vandaluru Zoological Park and many other places

Duration of Tour: 15 days (5–18 January 2018)

School of Human and Environmental Sciences

Purpose of Tour: To understand the importance of the places of visit and their relevance and contribution with special reference to environmental sciences.

Courses Conducted

Postgraduate: MSc

Semester I

Environment, Ecology and Ecosystem Dynamics, Environmental Pollution, Forestry and Water Resources.

Semester II

Environmental Microbiology, Biotechnology and Toxicology, Environmental Impact Assessment and Environmental Policies, Remote Sensing and Geographical Information System, Environmental Law.

Semester III

Disaster Management, Environmental Geoscience and Energy, Environmental Issues and Problems of North-East India, Research Methods, Techniques and Statistical Analysis.

Semester IV

Environmental Economics and Sociology, Forest Management and Biodiversity.

PhD Courses

Research Methodology in Environmental Science, Contemporary Environmental Science.

Seminars/Conferences/Symposia/Workshops

Organised

3rd Meeting of Programme Advisory and Monitoring Committee on *Seismicity and Earthquake Precursors Programme* from 24 to 26 May 2017.

Report sharing workshop on *State of Environment Report of Mizoram-2016* on November 30, 2017 at Aizawl.

National seminar on *Understanding the Earth for Resourcing Future Generations* from 5 to 6 March 2018 at NEHU, Shillong.

Attended

Prof. Devesh Walia

Presented a paper on “Study on Active Tectonics of Shillong Plateau” at a symposium on *Earth Science of the North-East*, NEHU (4 November 2017).

Presented a paper on “Seismotectonics and Assessment of Hazard Cascades with Special Reference to Associated Physico-social Complexities in Shillong Plateau” at the AOGS-EGU Joint Conference on *New Dimensions for Natural Hazards in Asia* held at Tagaytay from 4 to 8 February 2018.

Presented papers on (i) “The Way to Resolve Crustal and Upper Mantle Conductivity Anomalies in Active Regions of the Central Asia” jointly with Ivan Varentsov and Denghai Bai, and (ii) “Active Tectonics in Shillong Plateau” at the 7th International Symposium on *Problems of*

Department of Environmental Studies

Geodynamics and Geoecology of the Intracontinental Orogens at Bishkek from 19 to 23 June 2017.

Publications

Published in India

- Das, S., Jha, L. K. (2018). Effect of physiological age of stem and IBA treatment on rooting of *Taxus baccata*. *Current Botany*, 9: 1–9.
- Das, S., Jha, L. K. (2018). Optimization of conditions for vegetative propagation of *Taxus baccata* by shoot cuttings. *Annals of Plant Sciences*, 7(2): 2081–2087.
- Imotemsu, Jha, L. K. (2017). The ancient monument and archeological sites and remains (Amendment and Validation) Act, 2010 *vis-a-vis* proprietary rights of indigenous people under special provision of the Constitution of India: A case study with special reference to Nagaland. *International Education and Research Journal*, 8(9): 49–52.
- Lamare, R. Eugene, Singh, O. P. (2016). Limestone mining and its environmental implications in Meghalaya, India. *ENVIS Bulletin Himalayan Ecology*, 24: 85–95.
- Lamare, R. Eugene, Singh, O. P. (2017). Changes in soil quality in limestone mining area of Meghalaya, India. *Nature Environment and Pollution Technology*, 16(2): 545–550.
- Marak, A. N. C., Singh, O. P. (2017). Tree plantation is the most favoured CSR activity under environmental sustainability by the companies operating in Meghalaya, India. *Journal of Environmental Research and Development*, 12(2): 225–232.
- Mawrie, B. J., Paul, D. (2017). Analysis of banned organochlorine pesticide residues in fruit and samples from a market in Shillong, Meghalaya, using gas chromatography. *Research Journal of Recent Sciences*, 6(12): 9–11.
- Mawrie, B. J., Paul, D. (2018). Monitoring of banned organochlorine pesticide residues in several food products from a market in Shillong city, India using gas chromatography: Mass spectrometry. *International Journal of Health Sciences & Research*, 8(5): 265–271.
- Mukherjee, S., Chaturvedi, S. S. (2017). Utilization aspect of floral non timber products: A review. *Asian Journal of Multidisciplinary Studies*, 5(4): 161–165.

Proceedings

- Walia, D. (2018). Global climate change: Strategies and modalities. In: *Proceedings of the Earth System Sciences Section, 105th Indian Science Congress*, Imphal, p. 5–21.

School of Human and Environmental Sciences

Research Projects

New: 2

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Study on Mining Affected Areas and Its Impact on Livelihood	Prof. O. P. Singh	Meghalaya Basin Management Agency, Meghalaya	4.89
Rainfall Induced Landslide Hazard and Forecast and Prevention	Prof. Devesh Walia	DST, New Delhi	26.12

Ongoing: 6

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Deep Lithospheric Structure Across the Indo-Myanmar Arc in India Using Magnetotelluric Data	Prof. Devesh Walia	Ministry of Earth Sciences, New Delhi	30.42
Deep Structure of Tectonosphere in the Eastern Himalaya from Joint Electromagnetic and Seismic Soundings: Analysis of Magnetotelluric Responses and Receiver Functions	Prof. Devesh Walia	DST, New Delhi	29.15
Study on Flora and Fauna and Survival in Acidic Water of Kopili Reservoir of Kopili Hydro Electric Plant, Umrongso, Dima Hasao District, Assam with Emphasis on Identification of Endangered Species and a Practical Solution to Their Conservation under Existing Condition of Acidic Water	Prof. O. P. Singh	North-Eastern Electric Power Corporation (NEEPCO) Limited	12.00
Preparation of the State of Environment Report (SoER) for Mizoram	Prof. O. P. Singh (PI), Prof. S. De (Co-PI), Dr. L. Cajee (Co-PI)	Department of Environment & Forests, Government of Mizoram	25.00
Impact of Mining on Water Resources in Jaintia Hills, Meghalaya	Prof. O. P. Singh	Ministry of Water Resources, Government of India, New Delhi	7.99

Department of Environmental Studies

Assessment of Carbon and Carbon Sequestration Potential of Major Land Use Sectors in Meghalaya	Dr. S. S. Chaturvedi (PI), Professor B. K. Tiwari (Co-PI)	Department of Science and Technology, New Delhi	12.76
Completed: 3			
Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Preparation of People's Biodiversity Register (PBRs) Covering 10 Gram Sevak Circles under Khatarshnong Laitkroh C & RD Block in the State of Meghalaya	Prof. B. K. Tiwari	Meghalaya Biodiversity Board, Shillong	13.86
Phytodiversity and Phytosociological Characterization of Sacred Groves of Meghalaya	Prof. B. K. Tiwari	Forest Department, Government of Meghalaya	20.00
Biodiversity Inventorization and Conservation through Assisted Regeneration of RET Species in Limestone Mining Area of Meghalaya Cements Ltd	Prof. D. Paul	Meghalaya Cements Ltd	16.27

Academic Collaborations

Collaborated with (1) Prof. Atul Saxena (Department of Physics, NEHU) on *Seismicity*, (2) Dr. P. Banerjee (Executive Director of Earth Observatory of Singapore) on GPS, (3) Prof. Ivan Varentsov (Director, RFBR, Moscow) on *Magnetotelluric Study*, and (4) Dr. R. Alexander (CAIAG, Bishkek, Kyrgystan) on *Global Positioning System*.

Honours/Awards/Recognitions

Prof. Devesh Walia

Elected as Sectional President of the Earth System Sciences Section, 105th Indian Science Congress, Manipur University, Imphal.

Prof. D. Paul

Member of the State Advisory Committee for monitoring of Plastic Waste Management Rules, 2016, Government of Meghalaya.

Other Activities

Prof. O. P. Singh

Participated as resource person in (i) Workshop on *Adaptation to Climate Change in Meghalaya: Knowledge Sharing and Learning* organised by the Meghalaya Basin Development Authority (MBDA) on 26 April 2017 at Shillong, and (ii) Stakeholders consultation workshop on

School of Human and Environmental Sciences

Supplemental Environmental Assessment for the Proposed 120 MW Lower Kopili Hydropower Project organised by the Assam Power Generation Company Limited (APGCL) on 7 October 2017 in Shillong.

Delivered a talk on “Impact of Climate Change on Natural Resources in the Context of Meghalaya” and delivered a lecture at report sharing workshop on *State of Environment Report of Mizoram-2016* on 30 November 2017 in Aizawl. He also served as a reviewer for the *International Journal of Environmental Research* (Elsevier) and *Journal of Environmental Management* (Elsevier).

Prof. Devesh Walia

Member, Board of Studies, Department of Geology, Nagaland University, Kohima. He is also an Expert Committee Member of the District Level Environment Impact Assessment Authority and Term Review Committee of GSI-NER and Central Geological Planning Board-Group VIII, and Executive Member of the Executive Committee of the Geological Society of India, Bangalore (2016–2019) and the Indian Geophysical Union, Hyderabad (2016–2019).

Delivered the presidential address during the 105th Indian Science Congress (Imphal) in Earth System Sciences Section of the Indian Science Congress Association, Kolkata. He also delivered an invited lecture on “Seismic Disaster Resilience” at Shillong College (Shillong) on 4 April 2017.

Prof. D. Paul

Delivered lectures as a resource person in two-month certificate course on *Solid Waste Management* at Shillong College (Shillong) from 4 to 7 September 2017, and delivered an invited talk on *Electronic Wastes: Management and Recycling Potential* at Shillong College on 30 November 2017. He was also the Chief Guest at the valedictory function of the seminar on *Solid Waste Management: Importance and Entrepreneurial Potential* at Shillong College on 30 November 2017.

Member of the Board of Studies, Department of Environmental Science, Mizoram University and Assam University.



DEPARTMENT OF GEOGRAPHY

Head : Prof. Sunil Kumar De
Telephone : 0364-272-3201/3202
E-mail : hodgeo@nehu.ac.in, desunil@gmail.com

Faculty: 11

Designation	Name and Qualification	Specialization
Professor (4)	B. S. Mipun, MA (JNU), PhD (NEHU)	Agricultural Geography, RS and GIS
	D. K. Nayak, MPhil & PhD (JNU)	Social and Population Geography, Gender and Health Related Issues
	H. J. Syiemlieh, MPhil & PhD (NEHU)	Fluvial and Applied Geomorphology
	Sunil Kumar De, MSc & PhD (Calcutta University)	Geomorphology (Geomorphological Hazards)
Associate Professor (1)	L. Cajee, MPhil & PhD (NEHU)	Environmental Monitoring & Abetments and Environmental Biology
Assistant Professor (2)	P. K. Rynngnga, MPhil & PhD (JNU)	Regional Development, Urban Geography, Remote Sensing and GIS
	S. Purkayastha, MPhil & PhD (NEHU)	Social and Population Geography, Environmental Issues

Thrust Areas of Research

(i) Geomorphology with focus on Regional and Applied Geomorphology, (ii) Environmental studies with focus on Climatology and Climate Change, Water Resources and Hydrology, Biogeography and Biodiversity and Watershed Management Studies, (iii) Regional Development and Regional Planning, (iv) Researches on Social and Cultural Diversity of the Northeastern Region with special focus on Tribal Development, and (v) GIS and Remote Sensing applications in Environment and Land Use Planning.

Brief Statement of Academic Activities

The Department has been supported by UGC-SAP-DRS-III and DST-FIST programmes. Under UGC-SAP-DRS-III three lectures were organised during 2017–2018. The first lecture was given by Dr. Ratan Singh Bisht (Scientist SG EOSG/SEDA, Space Application Centre, ISRO) on “Limb Viewing Hyper Spectral Imager (LiVHYSI) on Board YOUTHSAT: Observations and Results” on 9 May 2017. The second lecture was delivered on 18 May 2017 by Dr. Ashis Sarkar (Former Professor and Head, Department of Geography, Presidency University) on “Application of Statistical Techniques for Geographical Research.” The third series of lectures was given by Dr.

School of Human and Environmental Sciences

Amal Kar (Former Principal Scientist and Head, Division of Natural Resources and Environment, Central Arid Zone Research Institute, Jodhpur) on 27 & 28 March 2018 on (1) Geomorphology of Thar Desert: An Introduction, (2) Measurement of Desertification, and (3) Understanding Climate Change and Its Impact on Environment.

A team of researchers from Japan led by Prof. T. Terao of Kagawa University (our collaborator) visited the Department during their stay for fieldwork. The Department and the Indian Institute of Geomorphologists jointly organised the prestigious 9th International Conference on *Geomorphology* in New Delhi from 6 to 11 November 2017. The Department also runs a self-financed two-semester PG Diploma in Geoinformatics.

Students' Profile

Enrolment Capacity: MA/MSc—39, Diploma—26, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA/MSc	21	17		34		04	26	12	38
PhD	02	05	02	04		01	02	05	07
PGD (Geoinfo)	11	15		13		13	07	19	26

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA/MSc	19	19		32		06	26	12	38
MPhil	07	08	01	06		08	05	10	15
PhD	04	06	02	03		05	02	08	10
PGD (Geoinfo)	16	10	01	16		09	10	16	26

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Mr. Chanchibemo Shiteo	Prospects of Cultural Tourism in Nagaland	Dr. L. Cajee
Ms. Smita Linda	Land-Use Changes in Ranchi City	Dr. P. K. Ryngnga
Mr. Bhogtoram Mawroh	Quantity and Quality of Available Domestic Water in the Cherrapunjee Region of Meghalaya	Prof. H. J. Syiemlieh
Mr. Pankaj Roy	Bank Erosion along the Puthimari River of Assam	Prof. Sunil Kumar De
Mr. Arindam Chattopadhyay	Changes in Geomorphic Landscape of Purba Medinipur Coast, W.B.	Prof. Sunil Kumar De

Department of Geography

Ms. Susmita Bhattacharjee	Urban Growth and Land Use Changes in Silchar Town	Dr. P. K. Rynnga
Mrs. N. Memma Singha	Degradation of Wetlands in Guwahati City: A Case Study of Silsako and Borsala	Prof. B. S. Mipun
Ms. Luna Moni Das	Geomorphic Study of Floods in the Jiya Dhol River Basin of the Brahmaputra Valley	Prof. H. J. Syiemlieh
Ms. Junmoni Begum	Impact of Oil Mining on Agricultural Land-use in Sivasagar District, Assam	Prof. B. S. Mipun
Ms. Ibabet Hynniewta	Types and Pattern of Retailing in Shillong: A Geographical Analysis	Prof. A. C. Mohapatra
Mr. Chanchibemo Shiteo	Prospects of Cultural Tourism in Nagaland	Dr. L. Cajee

Research Fellowships: 35

CSIR-UGC NET	UGC NET	NON- UGC-NET	Malana Azad Minority Fellowship	NFHE	BSR
01	16	08	02	06	02

Fieldwork/Educational Tour of Students

A. Teacher-in-Charge: Dr. P. K. Rynnga, Accompanying Staff: Prof. Sunil Kumar De & Smt. Sisilda Mawlong

Places Visited: Kolkata, Darjeeling and Sikkim

Duration: 3–13 January 2018

Purpose: All India Study Tour under Course No. GEOC 201—Geography of India

B. Teacher-in-Charge: Prof. H. J. Syiemlieh

Places Visited: Adopted village Shangpung, West Jaintia Hills District, Meghalaya

Duration: Ten days from 16 to 22 December 2017

Purpose: Socio-economic and physical survey by the IV Semester MA/MSc students under Course No. GEOC 401—Dissertation.

Courses Conducted

Postgraduate: MA/MSc

Semester I

Geomorphology, Climatology, Economic Geography, Geographical Thought I, Quantitative Techniques in Geography I, Cartography I (Practical).

School of Human and Environmental Sciences

Semester II

Geography of India, Principles of Ecology (Open), Biogeography (Open), Population and Settlement Geography, Geographical Thought II, Quantitative Techniques in Geography II, Cartography II (Practical), Geography of North-East India (Open).

Semester III

Regional Development and Planning, Social and Cultural Geography (Open), Environment and Development (Open), Research Methodology, Computer Aided Cartography (Practical), Remote Sensing and GIS (Practical).

Semester IV

Dissertation, Advanced Geomorphology, Tropical Geomorphology, Environmental Geomorphology, Applied Climatology, Agricultural Geography, Geography of Tourism, Urban Geography, Social Geography, Cultural Geography, Population and Development.

PG Diploma in Geoinformatics

Semester I

Principles of Remote Sensing and GPS, Fundamentals of GIS, Cartography and Geo-Statistics, Geosciences & Image Interpretation, Computer Programming.

Semester II

Digital Image Processing, Spatial Analysis & Modelling, Project, Geoinformatics in Agriculture, Soil & Land Evaluation, Geoinformatics in Regional and Urban Planning, Geoinformatics in Water Resources, Geoinformatics in Disaster Management.

MPhil/PhD Courses

Research Methodology in Geography, Advanced Tools and Techniques in Geographical Researches, Contemporary Geomorphic Issues in Northeast India, Geo-Hydrological Processes of Extreme Humid Tropics, Population, Development and Environment, Remote Sensing and GIS Techniques for Agricultural Geography, Contemporary Issues in Urban Development with Special Reference to India, Geographical Perspectives in Cultural Tourism.

Seminars/Conferences/Symposia/Workshops

Organised

Refresher course in *Earth Sciences, Geography and Allied Disciplines* at UGC-HRDC, NEHU, Shillong (19 June to 9 July 2017). Coordinator: Prof. Sunil Kumar De.

Jointly organised the 9th International Conference on *Geomorphology* at Vigyan Bhawan, New Delhi, India, during 6–11 November 2017, with the Indian Institute of Geomorphologists, Allahabad. Convener: Prof. Sunil Kumar De.

Workshop on *Development and Implementation of a Real-Time Earthquake Loss Information System for Shillong* on 16 October 2017 in collaboration with NORSAR, Scientific Research Institute for Earthquake, Norway. Convener: Dr. P. K. Ryngha.

Department of Geography

Attended

Prof. B. S. Mipun

Presented papers on “Work Participation of Bodo Women in Assam, India” and “Oil-mining and Its Impact on Agricultural Land Use in Assam, India” at the 16th Annual Hawaii International Conference of Arts and Humanities held at Hilton Hawaiian Village in Honolulu, Hawaii (9–11 January 2018). He also chaired a geography technical session on 9 January 2018.

Acted as Guest of Honour and chaired a session of the national seminar on *Natural Resources Management for Sustainable Development and Rural Livelihoods* organised by the Department of Geography, Shaheed Bhagat Singh College, University of Delhi, New Delhi (7–8 December 2016). He also chaired a session of the international conference on *Natural Resources Management for Sustainable Development and Rural Livelihoods* organised by the Department of Geography and Resource Management, Mizoram University, Aizawl (26–28 October 2017).

Delivered a keynote address on “Process of Desertification in India with Special Reference to Assam Using Satellite Data” at the 29th Biennial Conference of the NEIGS-cum-Eleventh International Geographical Union Commission Seminar held at B. Borooah College (Guwahati) from 8 to 10 February 2018. He also chaired a technical session on 9 February 2018.

Prof. D. K. Nayak

Presented papers on (i) “Recapturing ‘Region’ in Geography Teaching and Research” at the national seminar on *Recent Trends in Human Geography* organised by the Department of Geography at Savitribai Phule Pune University (22–23 September 2017), (ii) “Making Human Geography more Humane” at a workshop on syllabus restructuring for paper related to *Human Geography* at the Department of Geography, Savitribai Phule, Pune University (24 September 2017), (iii) “Comparing the Socio-Economic Behaviour of Seasonal Migrants to Non-Migrants: A Study on Selected Villages of Kalahandi District, Odisha” at the 39th IIG Meet and National Conference on *Population, Environment and Sustainable Development*, Ravenshaw University, Cuttack (26–28 December 2017), and chaired a session, (iv) “Exploring Linkages between Environment, Poverty and Human Development and Geography Education: Its Contemporary Relevance” at the XI International Geographical Union Commission Seminar on *Environment and Sustainable Livelihood*, B. Borooah College, Guwahati (February 8–10, 2018), (v) “Understanding Disaster Management through Vulnerability Lens” at the UGC-sponsored DRS-II SAP Seminar on *Disaster Management with Focus on Sub-Himalayan North Bengal*, Department of Geography and Applied Geography, North Bengal University (March 23–24, 2018), and (vi) “The Greying South East Asia” at the national seminar on *Non-traditional Challenges and Prospects of Co-operation in South Asia Region*, Department of Geography, Savitribai Phule Pune University (26–27 March, 2018). He also delivered a lecture on *Geography Education: Its Contemporary Relevance* in the Paramananda Kalita Memorial Panel Discussion of the 29th Biennial Conference of NEIGS held at B. Borooah College, Guwahati (February 8–10, 2018).

School of Human and Environmental Sciences

Prof. Sunil Kumar De

Chaired the technical session on Hydrology and Geomorphology and presented paper on “Planform Asymmetry in Meanders of Lower Disang River, Assam” as co-author at the 39th Annual Meet and Conference of Institute of Indian Geographers on *Population, Environment and Sustainable Development* organised by the Department of Applied Geography, Ravenshaw University, Cuttack (December 26–28, 2017).

Delivered lecture on (i) “A Critical Analysis of Landslide Studies in India and Abroad” and “Environment and Sustainable Livelihood: Some Cases of Concern” as a resource person and chaired the technical session on ‘Natural Hazards and Extreme Events’ at the 29th Biennial Conference of the NEIGS-cum-Eleventh International Geographical Union Commission Seminar on *Environment and Sustainable Livelihood* organised by the Department of Geography, B. Barooah College, Guwahati (8–10 February 2018), and (ii) “Gaps in Integrated Water Resource Management in Tripura: Example of Human Activities on the Changing Morphology of the Haora River, Tripura, India” as a resource person and chaired a technical session of the two-day national seminar on *Environmental Administration: Concepts Issues and Challenges* organised by the Department of Public Administration, Maharaja Bir Bikram University, Agartala (8–10 March 2018).

Dr. P. K. Rynnga

Presented paper on (i) “Social Science: Internet in the use of GIS Technology Grows” at the 3rd International Conference on *Science Technology and Management*, Pune (5 November, 2017), (ii) “Urbanization Process, Trends, Patterns and Its Consequences of Urban Shillong” at the national seminar on *Growth of Unplanned Towns and Cities in the North-Eastern Region of India: Problems and Alleviation* organised by the North-East India Council for Social Science Research, Shillong (20–21 November 2017), and (iii) “Environmental Aspects of Urbanization in Shillong” as presenting author and “Understanding Community Perception and SWOT Analysis to Develop Sustainable Heritage Tourism in Tezpur, Assam” as co-author at the 29th Biennial Conference of the NEIGS-cum-Eleventh International Geographical Union Commission Seminar on *Environment and Sustainable livelihood* organised by B. Barooah College, Guwahati (8–9 February 2018).

Dr. S. Purkayastha

Presented paper titled “Cross-border tourism and India’s North-East” at the international seminar on *Cross Border Connectivity and Inclusive Development* held at Shillong College on 24 & 25 August 2017. She also presented a paper on “Impact of Self-help Groups in Empowering the Rajbangsi Women in Northern Districts of West Bengal” at the 29th Biennial Conference of the NEIGS-cum-Eleventh International Geographical Union Commission Seminar on *Environment and Sustainable Livelihood* organised by B. Barooah College, Guwahati (8–9 February 2018).

Publications

Published in India

- Cajee, L. (2018). Diversity of bamboo species and its utilization in the North-Eastern region of India. *International Journal for Research in Applied Science & Engineering Technology*, 6(3): 3286–3299.
- Cajee, L. (2018). Eco-cultural tourism in Darap village, West Sikkim. *IOSR Journal of Humanities and Social Science*, 23(3): 55–61.
- Cajee, L. (2018). Physical aspects of the Darjeeling Himalaya: Understanding from a geographical perspective. *IOSR Journal of Humanities and Social Science*, 23(3): 66–79.
- Debnath, M., Nayak, D. K. (2017). Migration in West Bengal in the context of Muslim concentrated region since 1971. *Academicia: South Asian Academic Research Journals*, 7(4): 48–58.
- Debnath, M., Sheuli, R., Nayak, D. K. (2017). Rural female out-migration in West Bengal Asian research consortium. *Asian Journal of Research in Social Sciences and Humanities*, 7(5): 206–216.
- Debnath, M., Sheuli, R., Nayak, D. K. (2017). Rural outmigration across agro-climatic regions in West Bengal. *Hill Geographer*, XXXII(2): 59–75.
- Ghosh, K., De, S. K. (2017). Delineation of groundwater potential in Dhalai District, Tripura. *Geographical Review of India*, 79(1): 23–35.
- Gogoi, K. P., Cajee, L. (2018). Potential and problems of avitourism in Maguri Beel. *Research Journal of Arts, Management and Social Sciences*, XVIII: 225–232.
- Gogoi, K. P., Cajee, L. (2018). Tea tourism in Tinsukia, Assam. *Excellence International Journal of Education and Research*, 5(2): 39–43.
- Jamir, W., Cajee, L., Ali, M. A. (2018). Importance of agro based industries for economic development in Assam. *International Journal for Research in Applied Science & Engineering Technology*, 6(3): 79–84.
- Jamir, W., Cajee, L., Ali, M. A. (2018). Agricultural management for sustenance with the growing population in Barpeta district, Assam. *International Journal of Creative Research Thoughts*, 6(1): 350–355.
- Purkayastha, S. (2017). Natural resource base and potential of special tourism in Dzongu, Sikkim. *International Journal of Research in Management and Social Science*, 5(4): 42–49.
- Ryngnga, P. K., Ray, M. (2018). Anthropogenic threats to bio-diversity in Gorumara national park, West Bengal, India. *International Journal of Ecology and Development*, 33(2): 156–165.

Published Abroad

- De, S. K. (2017). Landslides and human interference in Darjiling Himalayas, India. *Revista De Geomorfologie*, 19: 44–57.
- Murata, F., Terao, T., Fujinami, H., Hayashi, T., Asada, H., Matsumoto, J., Syiemlieh, H. J. (2017). Dominant synoptic disturbance in the extreme rainfall at Cherrapunji, Northeast India, based on 104 years of rainfall data (1902–2005). *Journal of Climate*, 30: 8237–8251.

Terao, T., Murata, F., Kiguchi, M., Fukushima, A., Tanoue, M., Ahmed, S., Choudhary, S. A., Syiemlieh, H. J., Cajee, L., Bhagabati, A. K., Bhattacharya, P., Dutta, S., Mahanta, M., Hayashi, T. (2017). Direct validation of TRMM/PR near surface rain over the Northeastern Indian Subcontinent using a Tipping Bucket Raingauge Network. *SOLA*, 13:157–162.

Books/Book Chapters

- De, S. K. (2017). Slope failures in Darjeeling Himalaya, West Bengal. In: *Geomorphosites in India*. V. S. Kale (Ed.). Indian Institute of Geomorphologists, Allahabad, p. 34–36
- Kashmiri, B., De, S. K. (2017). Chaneel planform analysis of lower Dikhou River, Assam. In: *Resources and Challenges in North-East India*. Borthakur L. Saikia and E. A. Huda (Eds.). University of Science and Technology, Meghalaya, p. 77–84.
- Mipun, B. S., Chubawati. (2017). Forest resources for sustainable livelihood of the Ao-Nagas of Longkhum village in Mokokchung. In: *Society and Development Human Geographic Perspectives*. B. K. Kar and A. K. Bhagabati (Eds.). Eastern Book House, Guwahati, p. 23–33.
- Purkayastha, S. (2017). A comparative study on the socio-economic impact of limestone mining by corporate sector and individual limestone miners in and around Shella area, Meghalaya. In: *Environmental Degradation*. K. R. Sinha and Y. B. Nongrum (Eds.). EBH Eastern Book House, Guwahati, p. 72–82.
- Sarkar, S., De, S. K. (2017). Geomorphological field guide book on Darjeeling Himalayas (Series Editor: Amal Kar). Indian Institute of Geomorphologists, Allahabad, p. 1–40.
- Syiemlieh, H. J. (2017). Speleothems of Mawsmi Cave. In: *Geomorphosites in India*. V. S. Kale (Ed.). Indian Institute of Geomorphologists, Allahabad, p. 31–33.

Research Projects

New Projects: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Desertification and Land Degradation Monitoring Vulnerability Assessment	B. S. Mipun	ISRO, GoI	24.94
Rainfall-Runoff-Sediment Response near Uranium Mining Site, Domiasiat	Prof. H. J. Syiemlieh (PI) Prof. S. Singh (Co-PI) Prof. O. P. Singh (Co-PI)	DAE (BRNS), Mumbai	34.38
‘Niangtaser’—A Unique Biodiversity Resource from Ri Bhoi District of Meghalaya	Prof. H. J. Syiemlieh (Co-PI)	Basin Development Agency, Meghalaya	Allocated to Zoology Dept, NEHU

Department of Geography

Academic Collaborations

Indo-Polish collaboration on *Impact of Extreme Rainfall on Soil Properties and Water Resources in NE India*.

Indo-Japan collaboration on Climate Change in South Asia under MoU signed with Kagawa University, Takamatsu, Japan.

Honours/Awards/Recognitions

Prof. Sunil Kumar De was elected Vice-President of the International Association of Geomorphologists (IAG) for 2017–2021.

Other Activities

Prof. B. S. Mipun

Delivered two lectures in each of the 40th (24 April to 21 May 2017), 41st (22 May to 18 June 2017) and 42nd (15 Jan to 11 February 2018) Orientation Programmes organised by UGC-HRDC, NEHU, and (ii) two lectures during the refresher course in *Geography* at UGC-HRDC, NEHU (9 June to 8 July 2017), and two lectures during the UGC-HRDC refresher course in *Tribal Studies*, HRDC, NEHU (7 February 2017).

Prof. D. K. Nayak

Delivered an invited lecture on (i) “Society and Environment” at the Department of Geography, West Bengal State University, Barasat, Kolkata (18 July 2017), and (ii) “Making Geography Relevant: The Case of Social Geography” at the Department of Geography, Diamond Harbour Women’s University, Kolkata (10 March 2018).

Delivered the Satyesh Chakravorty Memorial Lecture on “Commercial Crop Production and Food Security: Lessons from Tribal Areas of the North-East with a Special Focus on Meghalaya” at Burdwan University on 12 March 2018. He also delivered lectures on “Selection of Indicators in Social Science Research” and “Research on Ageing” in ICSSR-sponsored research methodology course held at Burdwan University (5–15 March 2018).

Visiting Professor at the Department of Geography, Panjab University, from 27 August 2017 to 3 September 2017.

Prof. Sunil Kumar De

Delivered lecture on “Disaster Management in the Tropics: Geomorphological Perspectives” as a resource person in the summer course on *Ecosystem based Disaster Risk Reduction in the Tropics* organised by the Faculty of Geography, University of Gadj Mada, Yogyakarta, Indonesia (14–27 August 2017).

Delivered one lecture on “Disaster Management in Tropics” on 7 March 2018 and two lectures on “Disaster Management and Landslides” on 7 March 2018 as a resource person during the UGC-HRDC 42nd Orientation Programme at UGC-HRDC, NEHU. He also delivered two lectures on “Disaster Management and Landslides” as a resource person during the UGC-HRDC refresher course in *Tribal Studies* at UGC-HRDC, NEHU (6 February 2018).

School of Human and Environmental Sciences

Dr. L. Cajee

Resource person on the topic “Semester System and CBCS” on 9 June 2017 at UGC-HRDC, NEHU, Shillong.

Dr. P. K. Rynnga

Resource person in one-day GIS LaB Implementing Committee on 26 March 2018 organised by the State Council of Science, Technology and Environment, Meghalaya.

Dr. S. Purkayastha

Delivered a lecture during a refresher course in *Earth Sciences and Geography* at UGC-HRDC, NEHU (19 June to 8 July 2017).

Dr. Subrata Purkayatha

Executive Committee Member of the National Association of Geographers, India (NAGI) for 2017–2018.



DEPARTMENT OF HORTICULTURE (TURA CAMPUS)

Head : Dr. Sunil Kumar
Telephone : 091-9436221758
E-mail : nehuhort@gmail.com, sunu159@gmail.com

Faculty: 11

Designation	Name and Qualification	Specialization
Professor (1)	C. Perinba Suresh, MSc (Ag) Horticulture (BCKV), PhD (BCKV)	Fruits and Orchard Management, Post-Harvest Technology of Horticultural Crops
Associate Professor (1)	Sunil Kumar, MSc (Ag) Horticulture (BHU), PhD (CCS HAU)	Floriculture
Assistant Professor (3)	Arvind Kumar Chaurasiya, MSc (Ag) Horticulture (NDUAT), PhD (BCKV)	Post-Harvest Technology of Horticultural Crops
	Arindam Barman, MSc Vegetable Science (GBPUA &T)	Vegetable Science
	Yumnam Somi Singh, MSc (Hort) Fruit Science (UAS-Dharwad)	Fruit Science

Thrust Areas of Research

The thrust area includes conservation of genetic biodiversity, sustainable green farming and to adapt to the changing climatic scenario.

Brief Statement of Academic Activities

The utmost priority of the Department is to impart knowledge and education related to Horticulture and allied branches and to serve as a centre for academic excellence in Horticulture. The Department mainly concentrates on multi-disciplinary research and extension works with an aim to improve the aspects of hill horticultural system and to develop technical manpower in the North-Eastern Region in general and Meghalaya state in particular.

Students' Profile

Enrolment Capacity: MSc (Horticulture)—10, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	03	07		10			08	02	10
PhD	00	02		02			02		02

School of Human and Environmental Sciences

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	02	06		07		01	06	02	08

Postgraduate: MSc

Semester I

Propagation and Nursery Management of Horticultural Crops, Protected Cultivation of Horticultural Crops, Organic Horticulture, Post-Harvest Technology of Horticultural Crops, Biotechnology of Horticultural Crops, Basic Statistical Methods in Agriculture.

Semester II

Growth and Development of Horticultural Crops, Tropical and Dry Land Fruit production, Biodiversity and Conservation of Fruit Crops, Production Technology of Warm Season Vegetable Crops, Seed Production Technology of Vegetable Crops, Production Technology of Cut Flowers, Landscaping and Ornamental Garden, Production of Plantation Crops, Library Information & Basic Concepts of Laboratory Techniques.

Semester III

Breeding of Fruit Crops, Breeding of Vegetable Crops, Breeding of Flower Crops and Ornamental plants, Sub-Tropical and Temperate Fruit production, Canopy Management of Fruit Crops, Production Technology of Cool Season Vegetable Crops, Production Technology of Loose Flowers, Turfing and Turf Management, Intellectual Property and Its Application in Agriculture; Processing of Plantation Crops, Spices, Medicinal and Aromatic Crops; Production Technology of Under Exploited Vegetable Crops; Research I (Methodology and Seminar).

Semester IV

Research II (Field Laboratory Analysis), Research III (Data Analysis and Interpretation), Research IV Dissertation.

PhD Courses

Semester I

Research Methodologies in Horticulture, Advances in Production of Fruit Crops, Advances in Growth and Development of Fruit Crops, Advances in Production of Major and Under Utilized Vegetable Crops, Advances in Breeding of Vegetable Crops, Advances in Flower Production, Advances in Breeding of Flower Crops.

Semester II

Advances in Breeding of Fruit Crops, Biotic and Abiotic Stress Management in Vegetable Crops, Advances in Landscaping, Organic Horticulture, Advances in Post-Harvest Technology of Fruit Crops, Advances in Post-Harvest Technology of Vegetable Crops, Advances in Post-Harvest Technology of Flower Crops, Protected Cultivation of Fruit Crops, Protected Cultivation of Vegetable Crops, Protected Cultivation of Flower Crops.

Educational Tour of Students

Teacher-in-Charge: Mr. A Barman

Places/Institutions Visited: Gangtok (Sikkim)

Department of Horticulture (Tura Campus)

Duration of Tour: 7 days

Purpose of Tour: Educational

Seminars/Conferences/Symposia/Workshops

Organised

Prof. C. P. Suresh

Coordinator of the North-East Green Summit held from 1 to 5 December 2017 at Pobitora, Assam.

Dr. Sunil Kumar

Co-organised with the National Steering Committee for the international conference on *Advances in Agricultural and Biodiversity Conservation for Sustainable Development* (ABCD 2017) at the Brahhaspati Bhawan, CCS University, Meerut (October 27–28, 2017). He also co-organised with the Executive Committee the national conference on *Floriculture for Rural and Urban Prosperity in the Scenario of Climate Change* held at the ICAR-National Research Centre for Orchids, Pakyong Sikkim (February 16–18, 2018).

Attended

Prof. C. P. Suresh

Presented papers on (i) “Horticulture for Sustainable Livelihood Development in Northeast India” at the national seminar on *Understanding the Earth for Resourcing Future Generations* organised by the Indian Science Congress (Kolkata) and NEHU on 5–6 March 2018, (ii) “Nutraceutical Potential of Some Wild Edible Fruit Plants in Sikkim, Himalaya, India” at the 4th International conference on *Environment and Ecology* (ICEE 2018) organised by the Department of Zoology, Gauhati University (12–14 February 2018), and (iii) “Effect of Organic Bioformulations on Germination and Seedling Growth of Jackfruit Seeds” at the 4th International Symposium on *Minor Fruits, Medicinal and Aromatic Plants* organised by CHF at Pasighat (December 5–6, 2017) in collaboration with the International Society of Minor Fruits, Medicinal and Aromatic Plants, Sri Lanka.

Chaired a technical session of (i) national seminar on *Entrepreneurship the Rural Perspective* organised by the Department of Management, NEHU, Tura Campus (27–28 April 2017), and (ii) 105th Indian Science Congress held in Manipur from 16 to 20 March 2018 and presented a paper on “Deforestation: Natural Disaster Invited Cause, Effect and Mitigation.”

Dr. Sunil Kumar

Presented papers on (i) “Diversity through Genetic Variability and Correlation on *Chrysanthemum* (*Chrysanthemum morifolium* Ramat) Genotypes” at the international conference on *Advances in Agricultural and Biodiversity Conservation for Sustainable Development* (ABCD 2017) at Brihaspati Bhawan, CCS University, Meerut (October 27–28, 2017), and (ii) “Evaluation of Zinnia Genotypes under West Garo Hills District, Meghalaya” at the national conference on *Floriculture for Rural and Urban Prosperity in the Scenario of Climate Change* at the ICAR-National Research Centre for Orchids, Pakyong, Sikkim (February 16–18, 2018).

Dr. A.K. Chaurasiya

Presented papers entitled “Standardization of Fermented Beverage from Beetroot and Blood fruit” which was awarded the best poster paper at the international conference on *Advances in*

Agricultural and Biodiversity Conservation for Sustainable Development (ABCD 2017) by the Development Society at Brihaspati Bhavan, CCS University, Meerut (27–28 October 2017). He also delivered a lecture in the Technical Session III of the Northeast Green Summit 2017 (December 1–5, 2017) presented by Vibgyor Media Solutions.

Mr. Arindam Barman

Delivered the best oral presentation at the national seminar on *Potential and Prospects of Horticulture in North-Eastern Region* at the Department on 27–28 March 2017. He also delivered a lecture on “DNA Fingerprinting and Its Utilization in the Field of Plant Science” during the training-cum-workshop on *DNA Fingerprinting for Species Identification* organised by the Department during October 18–21, 2016.

Mr. Y. S. Singh

Presented a paper entitled “Integrating Horticulture into the School Education System” at the national seminar on *Re-thinking New Education Policy: Contextualizing the Issues of India's North-Eastern Region* organised by the Department of Education, NEHU, Tura (20–21 March 2016).

Publications

Published in India

- Bhanusree, M. R., Suresh, C. P., Kumar, K. R., Ghosh, S. K., Chakravarty, S. (2018). Physical parameters of banana var. Grand Naine as influenced by different pre-harvest bunch covers. *Green Farming*, 9(1): 88–92.
- Bhutia, K. D., Suresh, C. P., Pala, N.A., Shukla, G., Chakravarty, S. (2018). Nutraceutical potential of some wild edible fruits of Sikkim, Himalaya, India. *Studies on Etho-Medicine*, 12(1&2): 106–112.
- Kumar, S., Dewan, N., Choupoo, A. S., Marak, B. S., Dohling, D. (2018). Genetic variability and correlation in chrysanthemum (*Chrysanthemum morifolium* Ramat) genotypes. *HortFlora Research Spectrum*, 7(1): 33–40.
- Kumar, K. R., Sarkar, R., Suresh, C. P., Bhanusree, M. R., Ghosh, S. K., Sattiraju, M., Chakravarty, S. (2017). Growth, yield and water use efficiency as influence by irrigation scheduling in banana (*Musa spp.*, AAA group) var. Grand Naine during water deficit period in Terai zone of West Bengal. *International Journal of Tropical Agriculture*, 35(2): 245–258.
- Momin, B. C., Kumar, S., Dewan, N., Nongrum, H. B., Marwein, B. (2017). Evaluation of diversity through genetic variability and correlation in gladiolus (*Gladiolus hybrida*) genotypes. *Indian Journal of Agricultural Sciences*, 87(6): 825–33.
- Momin, K. C., Sangma, A. N., Suresh, C. P., Singh, Y. S., Ojha, A., Rao, S. R. (2017). ‘Te. pattang’ [*Haematocarpus validus* (Miers) Bakh. F. ex Forman]: The lesser-known promising fruit of Garo Hills, Meghalaya. *Indian Journal of Plant Genetic Resources*, 30(2): 165–167.
- Sangma, S. M., Kumar, S., Collis, J. P., Momin, B. C. (2017). Performance of *gerbera* (*Gerbera jamesonii* Bolus ex Hooker F) cultivars for growth, flowering and yield characters under naturally ventilated polyhouse. *Journal of Ornamental Horticulture*, 20(3&4): 108–112.

Department of Horticulture (Tura Campus)

- Singh, A. K., Chaurasiya, A. K., Chakraborty, I. (2017). Quality improvement of Bael (*Aegle marmelos* Corr.) candy and storage studies. *NDP Journal of Horticulture and Plant Science*, 1(1): 25–29.
- Singh, A. K., Chaurasiya, A. K., Mitra, S. (2017). Assessment of anti-nutritional changes in elephant foot yam (*Amorphophallus paeoniifolius* Dennst Necolson) cultivar. *Vegetable Science*, 44(2): 57–61.
- Singh, A. K., Chaurasiya, A. K., Mitra, S. (2017). Changes in biochemical composition of stored elephant foot yam (*Amorphophallus paeoniifolius* Dennst Necolson) corms. *Indian Agriculturist*, 61(1 & 2): 5–10.
- Singh, A. K., Chaurasiya, A. K., Mitra, S. (2018). Determination of anti-nutritional changes in elephant foot yam (*Amorphophallus paeoniifolius* Dennst-Necolson) cultivars during storage. *Chemical Science Review and Letters*, 7(25): 19–24.
- Singh, A. K., Chaurasiya, A. K., Mitra, S. (2018). Evaluation of antioxidant properties in elephant foot yam (*Amorphophallus paeoniifolius* Dennst-Necolson) pickles. *International Journal of Chemical Studies*, 6(2): 2852–2857.
- Singh, A. K., Chaurasiya, A. K., Mitra, S. (2018). Oxalate content in elephant foot yam (*Amorphophallus paeoniifolius* Dennst Necolson) dry and frit cubes. *Journal of Pharmacognosy and Phytochemistry*, 7(2): 2905–2909.
- Singh, A., Jaiswal, M., Vibhute, M., Mustafa, M., Kumar, S. (2018). Effect of organic fertilizer vermicompost and micronutrient on growth and yield of banana Cv. *Grand nain*. *International Journal of Current Microbiology and Applied Sciences*, 7 (Spl. Issue): 5079–5083.

Books/Book Chapters

- Chaurasiya, A. K., Rapunga, F. H., Singh, A. K. (2018). Ensuring farmer's status by improving their income through innovative techniques. In: *Technologies for Doubling Farmer's Incomes*. Dr. B. K. Dwivedi *et al* (Eds.). Bioved Research Society, Allahabad, p. 179–184.
- Mani, A, Suresh, C. P. (2017). Climate resilient fruit crops: Possible solution to ensure nutritional security in changing climate scenario. In: *Climate Smart Agriculture*. D. Verma, V. Shedekar, A. Murumkar, R. Sharma, A. kumar, V. Rani, F. Yusuf and B. Parmar (Eds.). Parmar Publishing Depot, Dhanbad, India, p. 52–62.
- Momin, K. C., Suresh, C. P. (2017). Rose. In: *A Handbook of Advanced Production Technology of Some Commercial Flowers*. T. K. Chattopadhyay (Ed.). Kalyani Publishers, New Delhi, p. 1–29.
- Momin, K. C., Suresh, C. P., Singh, Y. S., Momin, B. C. (2018). The promising spices of North-East India: India's flavourful contribution to the world. In: *Indian Spices: The Legacy, Production and Processing of India's Treasured Export*. Amit B. Sharanji (Ed.). Springer, Chapter 4, p. 85–88.
- Sharma, S., Singh, A. K., Singh, S. K., Barman, K., Kumar, S., Nath, V. (2018). Polyamines for preserving post-harvest quality. In: *Emerging Postharvest Treatment of Fruits and Vegetables*. Kalyan Barman, Swati Sharma and Md. Wasim Siddiqui (Eds.). Apple Academic Press and CRC Press, ISBN: 9781771887007.

School of Human and Environmental Sciences

Singh, Y. S., Suresh, C. P., Momin, K. C. (2017). *A Textbook of Horticulture*. Biotech Books, New Delhi, ISBN: 978-81-7622-388-1.

Suresh, C. P. (2017). Climate resilient fruit crops: Possible solution to ensure nutritional security in changing climate scenario. In: *Climate Smart Agriculture*. D. Verma, V. Shedekar, A. Murumkar, R. Sharma, A. kumar, V. Rani, F. Yusuf and B. Parmar (Eds.). Parmar Publishing Depot, p. 52–62.

Thapa, U., Suresh, C.P., Tripathi, P. (2017). *Glimpses of Horticulture*. Agrotech Publishing Academy, Udaipur, ISBN: 978-81-8321-446-9.

Research Projects: 5

Ongoing: 5

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
North-Eastern Hill Banana Development Project	Dr. C. P. Suresh Implementation Officer	NRC, Banana, Thruchirappalli	5.00
Molecular and Morphological Diversity Analysis of Cucurbits of Garo Hills Meghalaya	PI: Arindam Barman	Department of Biotechnology, New Delhi	42.81
Phytochemical and Molecular Characterization, Bioprospecting of Genes, Value Addition and Quality Enrichment of Bamboo Through Plant Tissue Culture Technique from North-East India	PI: Arindam Barman	DST (SERB), New Delhi	30.04
Bio-prospecting of Lactic Cultures from 'North-Eastern Regions' to Develop Functional Fermented Soy Products with Potential Health Benefits	Co-PI: Dr. Arvind Kumar Chaurasiya	DBT Twinning Project, GoI	72.062
Utilization of Novel Biotechnological Tools Using Agro-Waste Products for Livelihood Improvement of Farmers of Meghalaya India	Mentor Scientist: Arindam Barman	DST, New Delhi	18.60

Academic Collaboration

Arindam Barman collaborated with Uttar Banga Krishi Viswavidyalaya of West Bengal on the *DBT Project Molecular and Morphological Diversity Analysis of Cucurbits of Garo Hills Meghalaya*.

Department of Horticulture (Tura Campus)

Honours/Awards/Recognitions

Dr. Sunil Kumar was given the Outstanding Achievement Award-2017 by the Agricultural Technology Development Society (ATDS), Ghaziabad, Uttar Pradesh.

Dr. A. K. Chaurasiya was given the Scientist of the Year Award-2017 by ATDS, Ghaziabad, Uttar Pradesh.

Other Activities

Prof. C. P. Suresh

Member of the Board of Research Studies, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, West Bengal, and Member of the Editorial Board of the *Duramong Magazine*, NEHU, Tura Campus.

Dr. A. K. Chaurasiya

Completed the ICAR-sponsored short course (10 days) on “New Perspectives in Fruit Crops Research” organised by the Department of Fruit Crops, HCJRI, TNAU, Coimbatore (5–14 March 2018).

Dr. Sunil Kumar

Served as Joint Supervisor of Mr. Umesh Chandra, PhD Scholar of Visva Bharati University, Shantiniketan, for his thesis entitled “Response of Various Sett Selection and Organics on the Growth and Productivity of *Cassava* (*Manihot esculenta* Crantz.) under the Garo Hills Condition of Meghalaya.”

Dr. Sunil Kumar

Acted as a resource person at (i) Entrepreneurship Awareness Camp organised by the Placement and Counselling Cell at Tura Campus (March 20–22, 2017), and (ii) Faculty Development Programme organised by the Placement and Counselling Cell and the Department of Management at Tura Campus (1–14 March 2018). He also participated in one-day workshop on *Access to E-resource by Academia* organised by the Central Library at Tura Campus on 21 June 2017.

Chief Guest at a seminar on *Integrated Organic Farming* organised by the District Horticulture Officer (West Garo Hills) at Tura on 7 July 2017, and Member of the Selection Committee for appointment of Teaching Associate at Central Agricultural University, Imphal.

Mr. Arindam Barman

Participated and completed a two-week faculty development programme organised by the Placement and Counselling Cell and the Department of Management at Tura Campus from 1 to 14 March 2018.

Dr. Y. S. Singh

Participated in the three-day national short-term training course on *Introductory Bioinformatics: A Journey from Sequence to Structure* (21–23 March 2018) organised by the Bioinformatics Infrastructure Facility at Tura Campus.



DEPARTMENT OF RURAL DEVELOPMENT AND AGRICULTURAL PRODUCTION (TURA CAMPUS)

Head : Dr. D. C. Kalita
Telephone : 7005473148(M)
E-mail : himalidurga@gmail.com

Faculty: 11

Designation	Name and Qualification	Specialization
Professor (1)	S . C. Srivastava, PhD (AU)	Economics
Associate Professor (1)	D. C. Kalita, PhD (AAU)	Agricultural Economics
Assistant Professor	B. K. Mishra, PhD (BHU)	Dairy and Livestock Management
(3)	B. Mathew, PhD (BCKV)	Fruit and Orchard Management
	L. S. Pereira, PhD (BCKV)	Fruit and Orchard Management

Thrust Areas of Research

The Department concentrates mainly on multi-disciplinary research in different areas of rural development and impact assessment: micro and decentralized planning, local governance, globalization and food security, making of rural products, agronomy, horticulture, and animal sciences.

Brief Statement of Academic Activities

Being multidisciplinary in nature, the Department undertakes both teaching and research in areas concerning rural development, agronomy, horticulture and animal sciences. The Department provides both theoretical and practical exposure to the MSc students in various areas relating to the multidisciplinary PG programme within the stipulated time. The Department offers both MPhil and PhD programmes. In addition, the Department was involved in consultancy, research, seminars and workshops.

Students' Profile

Enrolment Capacity: MSc (RDAP)—46, MPhil/PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	16	30		45		01	38	08	46
MPhil		08		06		02	05	03	08

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	06	16		22			20	02	22
PhD	01			01				01	01

Department of Rural Development and Agricultural Production (Tura Campus)

Students Awarded PhD

Name of Student	Title of Thesis	Name of Supervisor
Mr. Rongsentemjen Ao	Food Security and Standard of Living under Settled and Shifting Cultivation in West Garo Hills District of Meghalaya: A Comparative Study	Dr. D. C. Kalita

Research Fellowships: 13

UGC NON-NET: 10

ICSSR Fellowship: 03

NFHE: 01

Placement of Students: 10

1. Ignatiush Sangma, Cluster Coordinator, Bagmara, South Garo Hills.
2. Winstone Lyndoh, Assistant Project Officer, Mawkynrew Block, East Khasi Hills.
3. Ihunlang Diami, Mobilizer, Institute of Health Science.
4. Valdivia Synrem, Assistant Project Officer, Shella Block, East Khasi Hills.
5. Sammabiang Thabah, DEO, Swacch Bharat Mission, Meghalaya.
6. Alvareen Lynkhai, Master Trainer in SIRD, Meghalaya.
7. Mikewell Khonglam, Master Trainer in SIRD, Meghalaya.
8. Mangha Mary Manjati, Master Trainer in SIRD, Meghalaya.
9. Ibamaian Parionga, Master Trainer in SIRD, Meghalaya.
10. Medonald Lynkhai, Assistant Teacher.

Field Trips

Field trips are integral part of the course curriculum of the Department in which students visit villages to interact with the beneficiaries of various government programmes or organizations/ departments involved in implementation of rural development, horticulture and livestock development programmes. All these visits are assignment oriented and marks are awarded on the basis of the reports prepared by the students.

Courses Conducted

Postgraduate: MSc (RDAP)

Semester I

General Aspects of Rural Development, Introductory Agriculture and Agronomy, Fundamentals of Horticulture, Introduction to Animal Husbandry and Poultry, Soil Conservation and Watershed Management, Computer Application.

Semester II

Rural Development Approaches, Programmes and Policies, Package and Practices of Field Crops, Plant

School of Human and Environmental Sciences

Propagation and Nursery Management, Dairy and Livestock Management, Farm Management, Organic Farming (Open).

Semester III

Basic Statistics and Software Applications, Rural Development Organizations, Institutions and Administration, Production Technologies of Horticultural Crops I, Principles and Practices of Dairy Management, Rural Development Planning and Project Management, Commercial Floriculture and Landscaping, Swine, Goat and Sheep Production, Dairy Farming and Rural Development, Economic Reforms and Rural Development.

Semester IV

Rural Marketing and Entrepreneurship Development, Research Methods, Agricultural Surveying and Leveling, Rural Credit and Micro-finance, Production Technology of Horticultural Crops II, Processing of Livestock Products, IEC and Rural Development, Post-harvest Management of Horticultural Crops, Rabbit, Fishery and Poultry Production, Micro-Enterprise and Non-Farm Sector Development, Protected Cultivation of Horticultural Crops, Indigenous Dairy Products and Soya Milk.

PhD Courses

Research Methodology, General Aspects of Rural Development and Agricultural Production, Rural Development and Sustainable Change (Optional), Horticultural Production and Management (Optional), Animal Production and Management (Optional).

Seminars/Conferences/Symposia/Workshops

Organised

Dr. Binu Mathew organised a two-week training programme on *Horticulture Nursery Management* from 13 to 22 April 2017.

Attended

Dr. B. K. Mishra

Presented papers on (i) “Probiotic Properties of Different *Lactobacillus* sp. Isolated from the Ethnic Fermented Foods of Garo Hills, Meghalaya, India” at the international seminar and workshop on *Fermented Foods: Nutrition, Health Status and Social Well-being* organised by the Society for Women in Science in Developing Countries (OWSD) and Swedish South Asian Network on Fermented Foods at the National Research Center El-Behoos St (Dokki, Cairo) from 13 to 15 November 2017, (ii) “Development of Soy Yogurt and Shelf-Life Study by Analyzing the Antioxidant, Proteolytic and Cholesterol Assimilation Activity of *Lactobacillus* Sp. Isolated from Fermented Foods of Garo Hills, Meghalaya” at the national food conference on *Agriculture and Technology Innovations for Nutritional Security* (NFC 2018) held at the Centre of Food Technology, University of Allahabad, Allahabad (9–10 February 2018), and (iii) “Recent Trends in Fermented Foods and Its Benefit for Human Beings” during the 20th Indian Agricultural Scientists and Farmers’ Congress (IASFC) held at the Bioved Research Institute of Agriculture and Technology, Allahabad (17–18 February 2018).

Publications

Published in India

- Basaiaawmoit, B., Mishra, B. K. (2017). Comparative study of pre-cooked and post-cooked *Tungrymbai*: A fermented soya product of Meghalaya. *International Journal of Food Science and Nutrition*, 3(2): 129–132.
- Basaiaawmoit, B., Mishra, B. K. (2018). Standardization of technology for the preparation of “Tungrymbai” using selected *Lactobacillus* strain. *International Journal of Current Microbiology and Applied Sciences*, 7(3): 2361–2372.
- Chaudhury, K., Kalita, D. C. (2017). Economics of turmeric cultivation in Goalpara District of Assam. *Transient: A Journal of Natural Sciences and Allied Subjects*, VI: 44–51.
- Chaudhury, K., Kalita, D. C. (2017). Impact of cluster approach on turmeric cultivation: A study in Goalpara district Assam. *International Journal of Development Research*, 7(9): 15527–15529.
- Marak, L. C., Pereira, L. S., Chakraborty, R., Majumdar, D. (2018). Diversity of plant pathogens and soil microbes associated with *Emblia officinalis* in Nokrek Biosphere Reserve of Meghalaya. *Environment and Ecology*, 36(1): 1–6.
- Mishra, B. K., Hati, S., Brahma, J., Patel, M., Das, S. (2018). Identification and characterization of yeast strains associated with the fermented rice beverages of Garo Hills, Meghalaya, India. *International Journal of Current Microbiology and Applied Sciences*, 7(2): 3079–3090.
- Mishra, B. K., Hati, S., Das, S., Mishra, S., Mandal, S. (2017). α -galactosidase and β -glucosidase enzyme activity of lactic strains isolated from traditional fermented foods of West Garo Hills, Meghalaya, India. *International Journal of Current Microbiology and Applied Sciences*, 6(4): 1193–1201.
- Murugan, N. B., Mishra, B. K., Paul, B. (2018). Antioxidant and antibacterial evaluation of medicinal plants used in the starter culture (Wanti) of fermented rice beverage in West Garo hills, Meghalaya. *Journal of Pharmacognosy and Phytochemistry*, 7(1): 1669–1674.
- Phaomie, G., Pereira, L. S., Mathew, B. (2017). Diversity of jackfruit (*Artocarpus heterophyllus* Lam.) in Rongram Block of West Garo Hills. *International Journal of Science, Environment and Technology*, 6(3): 1940–1947.
- Saikia, G., Mishra, B. K. (2017). Growth of lactic acid bacteria in milk for the preparation of functional frozen *misti dahl* (sweet curd). *International Journal of Scientific Research in Science and Technology*, 3(8): 22–26.
- Saikia, G., Mishra, B. K. (2017). Standardization of technology for preparation of functional frozen *misti dahi*. *International Journal of Scientific Research in Science and Technology*, 3(8): 219–224.
- Sangma, D. R., Mishra, B. K. (2017). Studies of sensory evaluation and shelf-life of foxtail millet based softy ice-cream. *International Journal of Scientific Research in Science and Technology*, 3(8): 175–184.

School of Human and Environmental Sciences

Research Projects

Ongoing: 3

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Prospecting Lactic Cultures from North-Eastern Region to Develop Functional Fermented Soya Foods with Potential Health Benefits	Dr. B. K. Mishra (PI) Dr. A.K. Chaurasiya (Co-PI)	DBT, GoI	72.06
Development of Technology for the Preparation of Fermented Rice Beverage in Meghalaya and Evaluation of Its Functional Properties	Dr. B. K. Mishra (PI)	DBT, GoI	89.75
<i>In vitro</i> Mass Multiplication and Conservation of Some Endangered Citrus Species of NEH Region of India	Dr. B. Mathew (PI) Dr. L. S. Pereira (Co-PI)	DBT, GoI	122.12

Completed: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Research Study on SHGs and Their Utilization of MNREGA (Consultancy Project)	Dr. D. C. Kalita, J. P. Jaiswal, Dr. B. K. Mishra and Dr. B. Mathew	SRES, Meghalaya	6.40

Academic Collaboration

The Department is collaborating with NIRD (Hyderabad), CAPART (New Delhi) and ICAR (Barapani, Shillong) for *Practical Exposure and Getting Better Seed Varieties for RDAP Farm*. The Department has developed networking with local NGOs, where the 3rd and 4th semester students are resource persons and interact directly with villagers. The Department has also collaborated with Anand Agricultural University (Gujarat) on *DBT Twinning Research Projects*.

Other Activities

Dr. K. C. Kalita

Delivered an address on “Rural Development during the Orientation Programme” at the Department of Rural Development, USTM, Meghalaya (8 September 2017).

Dr. B. K. Mishra

Completed a capacity building programme on *Enhancement of Capacities of Researchers in Social Science Research Areas: An Attempt for Transformation in Research and Aptitude* organised by the Department of Management (Tura Campus) from 5 to 18 May 2017.

Dr. L. S. Pereira

Completed a two-week faculty development programme organised by the Entrepreneurship Development Institute of India (Ahmedabad) and the Department of Management (Tura campus) from 1 to 14 March 2018.



SCHOOL OF LIFE SCIENCES

Dean : Prof. R. Sharma (Till 19 November 2017)
 Prof. B. B. P. Gupta (Since 19 November 2017)
Telephone : 0364-2722001(O)/9436117141(M)
Fax : 0364-2550108
E-mail : deansls@nehu.ac.in

The School of Life Sciences comprises four academic departments, namely Biochemistry, Biotechnology and Bioinformatics, Botany, and Zoology. All the four Departments of the School offer both MSc and PhD programmes. The total strength of the faculty during the period under report was 43 (forty three): 29 Professors, 3 Associate Professors, and 11 Assistant Professors. The broad areas of research in the School include Biodiversity, Bioprospection, Biogerontology, Endocrinology, Cancer Biology, Cell and Molecular Biology, Enzymology, Bioremediation, Nutraceutical value addition, Forest Ecology and Environmental Toxicology. During the year, 21 research scholars of the School were awarded their PhD degree. The faculty of the School organised/attended several conferences/symposia. Many of them delivered invited lectures and chaired sessions at conferences/symposia. The faculty of the School published 53 papers in national and 83 papers in international journals of repute. The faculty members of the School have received large amount of extramural funds from various research funding agencies. The activities of the faculty members have brought recognition and fame to the School. Many faculty members are members of various Project Advisory Councils/Task Forces of the funding agencies. Our faculty also contributed to curriculum development and research activities of other institutions by way of being members of Board of Studies/Academic/Executive Council(s) of various universities in the country.



DEPARTMENT OF BIOCHEMISTRY

Head : Prof. D. Syiem (Till 4 December 2017)
 Prof. A.K. Singh (Since 5 December 2018)

Telephone : 0364-2722101

E-mail : aksingh_nehu@yahoo.co.in

Faculty: 11

Designation	Name and Qualification	Specialization
Professor (6)	A. N. Rai, MSc (BHU), PhD (Dundee, Scotland)	Plant-Microbe Interaction
	R. Sharma, MSc & PhD (BHU)	Biochemistry of Aging
	R. N. Sharan, MSc & PhD (JNU)	Radiation and Cancer Molecular Biology
	D. Syiem, MSc & PhD (NEHU)	Medical Biochemistry, Enzymology, Natural Product
	A. K. Singh, MSc (Gorakhpur), PhD (HCU)	Molecular Microbial Ecology
	M. B. Syiem, MSc & PhD (NEHU)	Cyanobacterial Diversity, Cyanobacterial Biofertilizer and Bioremediation
Associate Professor (4)	P. K. Ambasht, MSc & PhD (BHU)	Enzymology: Enzyme Purification, Kinetics and Immobilization
	L. Kma, MSc & PhD (NEHU)	Cancer and Radiation Countermeasures
	S. Bhan, MSc & PhD (BHU)	Medical Biochemistry, Nano-Biomaterials
	T. Tripathi MSc (Mysore), PhD (JNU)	Molecular and Structural Biophysics

Thrust Areas of Research

1. Medical Biochemistry (Development and Aging, Medicinal Plants, Diabetes, Carcinogenesis and Radiation Biology, Drug Delivery and Tumor Immunology and Neurobiochemistry, Nanobiomaterial).
2. Microbial Biochemistry (Plant-Microbe Interaction, Cyanobacterial Diversity and Nitrogen Fixation, Microbial bioremediation).
3. Protein Chemistry (Enzymology, Molecular Biophysics).

Department of Biochemistry

Brief Statement of Academic Activities

The Department admitted twenty-one students for the MSc degree and six students to the PhD programme. During this period, twenty students had successfully completed their MSc degree and three students got a PhD degree. Research scholars participated and delivered lectures at various seminar/workshops/conference/symposia and gave poster and oral presentations. Faculty members delivered guest lectures in different institutions, presented research papers and delivered invited talks at different seminar/workshops/conference/symposia in India and abroad. The Department hosted Prof. G.B.N. Chainy (Department of Biotechnology, Utkal University) under DBT-NER Visiting Research Professorship.

Students' Profile

Enrolment Capacity: MSc–22, PhD–Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	06	16		18		04	19	03	22
PhD	01	05		03		03	03	03	06

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	06	14		17		03	18	02	20
PhD	01	02		02		01	03		03

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Ibanylla Kynjai Hynniewta Hadem	Dietary and Age-Dependent Regulation of Insulin-like Growth Factor-1 and Its Related Signaling in Mice	Prof. R. Sharma
Mr. Luxembourg Hynniewta	Isolation, Identification and Characterization of Cyanobacteria from Lichens of East-Khasi Hills, Meghalaya	Prof. M. B. Syiem
Ms. Ankita Gupta	Structural and Functional Studies of Glutaredoxin, Thioredoxin and Thioredoxin Glutathione Reductase of the Liver Fluke, <i>Fasciola gigantica</i> Cobbold	Dr. T. Tripathi

Placement of Students

1. Dr. Teikur Majaw, SERB National PDF, School of Life Sciences, JNU, New Delhi (June, 2017).
2. Dr. Ibanylla K. Hadem, SERB National PDF, School of Life Sciences, JNU, New Delhi (October, 2017).

School of Life Sciences

Research Fellowships: 29

CSIR-UGC-	UGC Non-NET	National Fellowship for Higher Education	DRS	DST
02	18	03	02	04

Courses Conducted

Postgraduate: MSc

Semester I

Chemistry and Biomolecules, Enzymology, Intermediary metabolism, Practical.

Semester II

Techniques in Biochemistry, Physiological Chemistry, Microbiology, Practical.

Semester III

Genetics, Medical Biochemistry, Environmental Biochemistry, Nutritional and Clinical Biochemistry, Practical.

Semester IV

Molecular Biology, Immunology, wBioenergetics, Project.

PhD Courses

Research Methodology, Topics in Biochemistry, Review of Literature and Seminar.

Seminars/Conferences/Symposia/Workshops

Organised

Trends in Biochemical Research (TIBR 2018), March 27, 2018, Department of Biochemistry, NEHU, Shillong. Chairman: Prof. R. Sharma, Organising Secretary: Dr. T. Tripathi.

Attended

Prof. R. Sharma

Chaired a session (Symp. I) and presented a paper titled “Dietary Restriction and Healthy Brain Aging” at the 31st Annual Meeting of the Society of Neurochemistry India and national conference on *Advances in Research on Aging and Neurological Disorders* held at CAS in Zoology, Institute of Science, BHU, Varanasi (September 20–22, 2017).

Delivered a keynote address on “Role of Ayurveda in Healthy Aging” at the national seminar on *Role of Ayurveda and Yoga in Health Care Management* held at NEIAH, Shillong (February 22, 2018).

Prof. R. N. Sharan

Delivered invited talks titled (i) “Tobacco and Prospects for Harm Reduction in India” at the international conference on *Reducing Harm, Saving Lives* held in Warsaw, Poland (June 15–17, 2017), (ii) “Scientist’s View on Smoking and Harm Reduction” at the 1st Asian Harm Reduction Forum Meeting held in Jakarta (Indonesia) on 8 & 9 November 2017, and (iii) “The Good, the

Department of Biochemistry

Bad and the Ugly Faces of Areca Nut Mastication” at the WHO-FCTC Workshop on *Areca Nut and Smokeless Tobacco* held at ICMR-NICPR, Noida (November 27–28, 2017).

Chaired a plenary session and delivered a plenary talk on “Molecular Radiobiology: Potentials of Epidemiological and Clinical Applications for Human Welfare” at the 4th Asian Congress of Radiation Research held in Astana, Kazakhstan (August 16–18, 2017).

Dr. L. Kma

Presented a paper titled “Vicenin-2: A Potential Radiosensitizer in Human Non-Small Cell Lung Cancer Cells” at the international conference on *Innovations in Pharma and Biopharma Industry* (ICIPBI 2017), University of Hyderabad, Hyderabad (December 20–22, 2017).

Dr. S. Bhan

Presented a paper titled “Chlorophyllin Suppresses Oxidative Stress and Apoptosis in Hepatocytes of Diabetic Mice” at the international conference on *Innovations in Pharma and Biopharma Industry* (ICIPBI 2017), University of Hyderabad, Hyderabad (December 20–22, 2017).

Dr. Timir Tripathi

Delivered invited lectures (i) “Alternate Pathway to Ascorbic Acid Induced Inhibition of Mycobacterium Tuberculosis” at the national conference on *Protein Structure and Dynamics in Health and Agriculture* held at Jamia Millia Islamia University, New Delhi (November 3–4, 2017), (ii) “Dynamic Thiol-Based Redox Metabolism in the Liver Flukes Offer Novel Targets for Drug Development” at the National Conference SYSCON 2017–18 held at AIIMS, New Delhi (January 11–12, 2018), and (iii) “Structural and Biochemical Insights into Natural Compounds as Inhibitors of *Fasciola gigantica* Thioredoxin Glutathione Reductase” at the international conference on *Cellular and Molecular Biology of Neglected Tropical Diseases* (LAWA 2018) held at Khon Kaen University, Khon Kaen, Thailand (March 20–21, 2018).

Chaired a scientific session and delivered a plenary lecture on “Understanding the Role of Structurally Distant Amino Acids in Modulating the Structure and Activity of Mtb Isocitrate Lyase” at the national conference on *Structural Bioinformatics and Computer Aided Drug Discovery* (SBCAAD 2018) held at Alagappa University, Karaikudi (February 20–21, 2018).

Publications

Published in India

Majaw, T., Sharma, R. (2017). Long-term dietary restriction upregulates activity and expression of renal arginase II in aging mice. *Journal of Biosciences*, 42: 275–283.

Published Abroad

Ahad, R. I. A., Goswami, S., Syiem, M. B. (2017). Biosorption and equilibrium isotherms study of cadmium removal by *Nostoc muscorum* Meg 1: Morphological, physiological and biochemical alterations. *3 Biotech*, 7: 104–115.

Diengdoh, O. L., Syiem, M. B., Pakshirajan, K., Rai, A. N. (2017). Zn²⁺ sequestration by *Nostoc muscorum*: Study of thermodynamics, equilibrium isotherms, and biosorption parameters for the metal. *Environmental Monitoring and Assessment*, 189: 314–326.

- Dkhar, B., Khongsti, K., Thabab, D., Syiem, D., Satyamoorthy, K., Das, B. (2018). Genistein represses PEPCK-C expression in an insulin-independent manner in HepG2 cells and in alloxan-induced diabetic mice. *Journal of Cellular Biochemistry*, 119: 1953–1970.
- Hadem, I. K. H., Sharma, R. (2017). Differential regulation of hippocampal IGF-1-associated signaling proteins by dietary restriction in aging mouse. *Cellular and Molecular Neurobiology*, 37: 985–993.
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- Warjri, S. M., Diengdoh, O. L., Hynniewta, L., Wanniang, W., Syiem, M. B. (2018). Uptake efficiency, equilibrium kinetics and thermodynamics of Zn²⁺ biosorption by a *Nostoc* sp. isolated from Shahlang coal mine in Meghalaya, India. *International Journal of Scientific and Engineering Research*, 9: 748–754.
- Warjri, S. M., Syiem, M. B. (2017). Analysis of biosorption parameters, equilibrium isotherms and thermodynamic studies of chromium (VI) uptake by a *Nostoc* sp. isolated from a coal mining site in Meghalaya, India. *Mine Water and the Environment*, doi: 10.1007/s10230-018-0523-3.

Books/Book Chapters

- Kharwanlang, B. Sharma, R. (2017). Glucocorticoid hormones in aging. In: *Hormones in Ageing and Longevity*. S. I. S. Rattan and R. Sharma (Eds.). Springer International Publishing AG, Switzerland, p. 37–55.
- Rattan, S. I. S., Sharma, R., editors. (2017). *Hormones in Ageing and Longevity*. Springer International Publishing AG, Switzerland, ISBN: 978-331-96-3000-7.

School of Life Sciences

Funds Received from Agencies including NEHU/UGC

NEHU: ₹17,30,000

UGC SAP DRS: ₹13,00,000

Research Projects

New : 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Enhancing Clinical Efficacy of Radiotherapy by Personalized and Precision Radiotherapy (PPRT) Utilizing the Biomarkers of Molecular Biodosimetry	Prof. R. N. Sharan (PI)	International Atomic Energy Agency (IAEA), Vienna	40.00

Ongoing: 4

Mineralization and Biototoxicity Assessment Studies of Selected Surfactant Formulations by Some Advanced Oxidation Processes	Prof. R. N. Sharan (CI)	Board of Research on Nuclear Science, DAE, Mumbai	32.00
Bioprospection of Indigenous Medicinal Plant Species with Anti-Diabetic/Oxidant and Hypolipidemic Properties	Prof. D. Syiem (PI)	Meghalaya Basin Development Authority (MBDA), Govt of Meghalaya	30.80
Deciphering the Molecular Mechanisms Governing the Direct A β Aggregation Inhibition with the Serum Protein Transferrin: Implications For Alzheimer's Disease	Dr. T. Tripathi (PI)	Department of Biotechnology	42.23
Interactions of mRNA Export Factors and Nuclear Pores Characterized and Quantified by Biochemistry, Biophysics and High-Resolution Imaging	Dr. T. Tripathi (PI)	UGC-Israel Science Foundation	210.00

Completed: 3

Study the Effect of Potentilla fulgens L Extract on the (AMP-Activated Protein Kinase) AMPK Pathway –Regulated Metabolism in Induced Diabetic Mice	Prof. D. Syiem (Co-PI)	Department of Biotechnology, Ministry of Science & Technology, New Delhi	13.50
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Department of Biochemistry

Evaluation of the Radiosensitizing Potential of Ocimum sanctum L. and Its Constituent on Human Cancer Cell Line	Dr. L. Kma (PI)	Science & Engineering Research Board, DST, New Delhi.	12.00
Structural and Functional Study of the Unique Parasitic CYP450 in Liver Flukes	Dr. T. Tripathi (PI)	DST-Russian Foundation for Basic Research	24.00

Academic Collaborations

Prof. R. N. Sharan

Collaborated with other 25 scientists from 18 countries for the new clinical coordinated research project on *Enhancing Clinical Efficacy of Radiotherapy by Personalized and Precision Radiotherapy Utilizing the Biomarkers of Molecular Biodosimetry*. He also visited the Institute of Neuroscience and Medicine (INM), Forshungszentrum Jülich (FZ Jülich) in Germany (June 19–23, 2017 and November 6–7, 2017) concerning the on-going research and plans for future collaborative research.

Prof. D. Syiem

Collaborated with (i) Dr. Korkanok Ingkaninam, Department of Pharmaceutical Chemistry and Pharmacognosy, Naresuan University, Thailand, (ii) Prof. Samir Bhattacharya, Visva Bharati University, Santiniketan, India, (iii) Prof. Saroj Ghaskadbi, Department of Zoology, Savitribai Phule Pune University, Pune, India, and (iv) Dr. Parasuraman Jaisankar, Indian Institute of Chemical Biology, Kolkata.

Honours/Awards/Recognitions

Prof. A. N. Rai

Chairman of NAAC Team and visited (i) Islamia College of Science and Technology, Srinagar, Jammu and Kashmir (August 8–9, 2017), (ii) Central University Odisha, Koraput (September 7–9, 2017), and (iii) Maulana Azad Technical University, Kolkata (November 13–15, 2107).

Prof. R. Sharma

Editorial Board Member of the *International Journal of Developmental Neurosciences*, Elsevier, USA; *Frontiers in Genetics of Aging*, Science Park, Switzerland.

Co-chairman of the Task Force on DBT (GoI) Task Force on Neurosciences, and Member of the DBT Task Force for Star College, New Delhi. He was also Committee Member of the Academic and Administrative Audit of Dibrugarh University.

Prof. R. N. Sharan

Re-elected as a Counsellor from India on the Council of the Asian Association of Radiation

School of Life Sciences

Research (AARR) for a 4-year term (2017–2021) during the 7th Council meeting of AARR held in Astana, Kazakhstan (August 16, 2017).

Prof. D. Syiem

Member of the Editorial Board of the journals of *Bio-Science Letters* and *Science Vision*.

Member of the State Level Expert Appraisal Committee for Environmental Impact Assessment, Government of Meghalaya, Shillong.

Prof. A. K. Singh

Editorial Board Member of the *Journal of Advances in Soil Science*.

Prof. M. B. Syiem

Member of NAAC Peer Team for Mednipore College, Mednipore, West Bengal (September 11–12, 2017).

Dr. Timir Tripathi

Elected as Joint Secretary of the Bioinformatics and Drug Discovery Society of India.

Member of the Editorial Board of *Scientific Reports* (Nature Publishing Group) and American Society for Microbiology, USA.

Other Activities

Prof. A. N. Rai

Chief Guest and addressed the participants in (i) NAAC Seminar on *Role of IQAC in Quality Enhancement* Synod College, Shillong (April 21, 2017), (ii) Induction Programme, IMS Ghaziabad (July 10, 2017), (iii) Seminar on *Assessment and Accreditation*, SKM University, Dumka, Jharkhand (July 24–25, 2017), and (iv) Valedictory Function at NAAC Assessors Interaction Programme, Tezpur University, Tezpur (December 15, 2017).

Chairman of Selection Committee, ICAR-National Institute of Abiotic Stress Management (ICAR), Baramati, Maharashtra (January 20, 2018). Member of Selection Committee and Subject Expert in BBA University, Lucknow (September 13, 2017).

Member of the Academic Councils of (i) Mizoram University, Mizoram (August 4, 2017 and December 7, 2017), and (ii) Kashi Vidyapeeth, Varanasi (October 8, 2017).

Delivered invited lecture on (i) “Quality Assurance Issues in Higher Education” at Principals’ Conference, IQAC/HRDC NEHU, Shillong (May 24, 2017), (ii) “Higher Education: Policy and Excellence” at UGC-HRDC summer school, Shillong (July 4, 2017), (iii) “Research Trends in Biosciences” at IASST, Guwahati (December 20, 2017), and (iv) “Symbiotic Cyanobacteria” at the National Institute of Abiotic Stress Management, Baramati, Maharashtra (January 20, 2018).

Prof. R. Sharma

Delivered lectures on “Why Do We Age? How to Age Healthily” during the 41st Orientation Programme of UGC-HRDC, NEHU (June 13, 2017), (ii) “Geroscience: Challenges and Emerging Concepts” and “Indian Academies: Excellent Platform for Promotion of Science and Technology” at UGC-HRDC, Gauhati University, Guwahati (October 27, 2017), and (iii) “CBCS in Semester System and Exam Reforms” during the 42nd Orientation Programme of

Department of Biochemistry

UGC-HRDC, NEHU, Shillong (February 07, 2018).

As Member of the Executive Committee he attended the 28th Mid-Term Meeting of the Indian Academy of Sciences, Bengaluru (June 30 to July 01, 2017).

Prof. R. N. Sharan

Member of the Research Advisory Committee of Mizoram University, Aizwal (2016–19). He is also Director, Design Innovation Center at NEHU, Shillong (December 15, 2016 onwards).

Participated in the international panel discussion on “Validating the Science behind Tobacco Harm Reduction” at the First Asian Harm Reduction Forum Meeting held in Jakarta, Indonesia (November 8–9, 2017). Delivered a lecture under the auspices of NASI titled “Cancer Basics and Its Tobacco Connection” to commemorate World No Tobacco Day at MeCL Secondary School, Sumer (June 7, 2017). He also delivered a talk on “Enhancing Clinical Efficacy of Radiotherapy by Personalized and Precision Radiotherapy (PPRT): Exploiting Biomarkers of Molecular Biodosimetry,” and presented a plan of work for the 1st year of the RCM at the 1st Research Coordination Meeting of the new clinical coordinated research project on *Enhancing Clinical Efficacy of Radiotherapy by Personalised and Precision Radiotherapy Utilizing the Biomarkers of Molecular Biodosimetry* held at IAEA Headquarters, Vienna, Austria (30 October to 3 November 2017).

Prof. D. Syiem

Delivered lectures as invited speaker titled (i) “The Importance of Medicinal Plants in Today’s World” in Herbal Confluence held at NEHU, Shillong (April 6, 2017), (ii) “How Big Is Big and How Small Is Small” at a popularizing science programme held at Nongstoin, Meghalaya (November 29, 2017), and (iii) “Diabetes” during the 42nd Orientation Programme of UGC-HRDC, NEHU (February 9, 2018).

Member of Research Advisory Board of the North-East Cancer Hospital and Research Institute Jorabat, Guwahati, Assam, and Member of the Board of Studies in the North-Eastern Institute of Ayurveda Homoeopathy (NEIAH), Shillong. He was also a Founding Member and President of the NEHU Alumni Association, Shillong.

Reviewer for the *BMC Complementary and Alternative Medicine Journal*, Springer Nature.

Prof. A. K. Singh

Reviewer for the *Journal of Hazardous Materials, Polycyclic Aromatic Compounds*.

Prof. M. B. Syiem

Reviewer for the *Journal of Hazardous Materials; CLEAN: Soil, Air, Water; Journal of Phytoremediation, International Biodeterioration and Biodegradation, Korean Journal of Chemical Engineering, 3 Biotech.*

Member of Selection Committee for Assistant lecturer posts in Plant Biochemistry and Microbiology in Central Agricultural University, Manipur.

Dr. P. K. Ambasht

Lectures delivered on (i) “Enzyme Immobilization” at Jharkhand Raksha Shakti University, Ranchi

School of Life Sciences

(April 18, 2017), (ii) “Enzymes: An Insight” in the Department of Philosophy, NEHU, Shillong (June 7, 2017), and (iii) “Mechanism of Enzyme Action” at the School of Biotechnology, Institute of Science, BHU, Varanasi (January 9–10, 2018).

Member of the National Advisory Committee and Local Organising Committee of the Indian Science Congress Association, Shillong Chapter (March 5–6, 2018).

Reviewer for the *Journal of Plant Biochemistry and Biotechnology*, *Journal of Proteins and Proteomics*, *NEHU Journal*.

Dr. L. Kma

Hosted the Inaugural Programme of Deen Dayal Upadhyaya Community College for Skill Development and B. Voc. (NEHU) and Deen Dayal Kausal Vikas Kendra (Skill Development Centre (NEHU) held at Wahiajer, West Jaintia Hills District (May 25, 2017).

Delivered lectures at (i) Consultation workshop on *Meghalaya State Youth Policy* at State Convention Centre, Shillong (April 3–4, 2017), (ii) Training programme on *Life Skills, Personality Development, Leadership and Career Guidance* at Thomas Jones Synod College, Jowai (August 22–26, 2017), (iii) Inter-college solo singing competition at St. Mary’s College, Shillong (November 25, 2017), (iv) Awareness programme on *Health Issues* at Lawsohtun, Shillong (March 24, 2018), (v) State level observation of International Youth Day 2017 at St. Edmund’s College, Shillong (August 12, 2017), and (vi) St. Anne’s Secondary School, Mawtawar, Shillong (February 22, 2018). He also delivered a keynote address at a seminar on *Cyber Crime* held at Nabon Women’s Synod College, Shillong (November 7, 2017).

Dr. S. Bhan

Successfully completed a refresher course in *Nano Science and Nanotechnology* (Interdisciplinary) conducted by UGC-HRDC, NEHU, Shillong (November 13 to December 3, 2017).

Dr. Timir Tripathi

Reviewer for the *Biochimica et Biophysica Acta*, *The Journal of Physical Chemistry*, *Scientific Reports*, *Molecular and Cellular Biochemistry*, *Biochimie*, *Oncotarget*, *International Journal of Biological Macromolecules*, *PLoS ONE*, *Parasitology International*, *BMC Genomics*, *Journal of Biomolecular Structure and Dynamics*.



DEPARTMENT OF BIOTECHNOLOGY AND BIOINFORMATICS

Head : Professor S. Rama Rao
Telephone : 0364-272-2401/2402/2404
E-mail : hodbthbic@nehu.ac.in, biotechnologynehu@gmail.com, srrao@nehu.ac.in

Faculty: 11

Designation	Name and Qualification	Specialization
Professor (4)	Anupam Chatterjee, MSc (Burdwan), PhD (BHU)	Genetics and Molecular Biology
	S. Rama Rao, MSc & PhD (Jodhpur)	Plant Cellular and Molecular Genetics
	Kripamoy Aguan, MSc (IARI), PhD (Birmingham)	Genetics and Molecular Biology
	S. R. Joshi, MSc & PhD (NEHU)	Microbiology
Associate Professor (3)	Suktilang Majaw, MSc (Tezpur), PhD (NEHU)	Biochemistry
	Atanu Bhattacharjee, MSc (NEHU), MSc (Annamalai), PhD (NEHU)	Bioinformatics and Microbiology
	Neha Chaurasia, MSc & PhD (BHU)	Environmental Biotechnology

Thrust Areas of Research

1. Molecular Genetics
2. Microbiology

Brief Statement of Academic Activities

The Department of Biotechnology and Bioinformatics started in 2005. It offers both postgraduate (MSc) and PhD programmes. North-Eastern Region of India is the hotspot of biodiversity which riches in flora and fauna. The Department envisions for the development of bio-resources, its exploration, conservation and sustainable utilization coupled with the need of trained manpower in biotechnology, and bioinformatics network. Therefore, the Department is providing training and research environment with the latest information in their respective fields and bringing them closer to the rest of the world as far as scientific advancements are concerned. Based on the overall academic objectives of the Department and its faculty's potential, the Department was considered for financial support for "MSc Biotechnology" by the Department of Biotechnology, Government of India. Six batches of MSc students have completed their MSc degree and some of them have

School of Life Sciences

already joined in different IITs, IMTECH, AIIMS, IISc, and others for their PhD degree, while many others have joined different National Biotech Companies. While giving importance to the global scenario, the Department also lays emphasis on regional priorities in research and development incorporated into its programme. This programme is intended to develop, acquire and maintain the modern state-of-the art in teaching, training, research, databases and software development related to biologically rich resources of the North-Eastern Region of India, which could ultimately contribute towards socio-economic development of the people in the region. The Department has been receiving adequate extramural-financial support from various Central Government agencies, which include Special Assistance program of UGC (SAP), phase I and II programs of DST-FIST, besides regular support from DBT for teaching and research programs. The extramural support in the form of projects also comes from DBT, ICAR, DST, UGC, DAE-BRNS, OIL, NEC, DRDO, etc., which are received by faculty members.

Students' Profile

Enrolment Capacity: MSc—24, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	08	16	02	10	03	09	11	13	24
PhD	06	05		07		04	04	07	11

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	09	11	01	13	02	04	14	06	20
PhD	03	01		01		03	01	03	04

Students Awarded PhD

Name of Student	Title of Thesis	Name of Supervisor
Mr. Roohollah Sobhani	Students on Enzyme Inhibitors Related to Alzheimer's Disease in Some Plants from North-East India	Prof. Kripamoy Aguan
Mr. Animos Lamare	Molecular Characterization of Musa Species (Musaceae) with Special Emphasis on Section Eumusa from Meghalaya	Prof. S. Rama Rao
Ms. Romita Thounaojam	Studies on Interaction between EFHCI and PDHC and Its Physiological Significance in Epilepsy	Prof. Kripamoy Aguan

Department of Biotechnology and Bioinformatics

Mr. Atanu Banerjee	Characterization of Specific Chromosome Arms by Loss of Heterozygosity and Influence of Single Nucleotide Polymorphism of Certain DNA Repair Gens in Oral and Esophageal Cancer Samples	Prof. Anupam Chatterjee
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Placement of Students: 11

Name of Student	Placement
Mr. Zachariah Benette L Sunn	Trainee, Biotech Consortium India Limited
Ms. Maitreyee Das	Trainee, Biotech Consortium India Limited
Mr. Bankerlang Kharumnuid	Trainee, Biotech Consortium India Limited
Mr. Joidevivreson Mawlein	Research Assistant, CMJ Breweries, Meghalaya
Mr. Khrawpyrkhat Nongrum	Research Assistant, CMJ Breweries, Meghalaya
Ms. Mehzabin Rahman	Project Assistant, NEIGRIMS
Ms. Ernieca Lyngdoh Nongbri	Project Assistant, Assam Agriculture University
Ms. Ibanrisuk Wankhar	Project Assistant, NEHU
Ms. Rimeka Shisha Kharbudon	Project Assistant, NEHU
Ms. Vanita Lyngdoh	Project Assistant, NEHU
Mr. Bunshah Lyngdoh Mawphlang	Project Assistant, NEHU

Research fellowships:15

CSIR-UGC-NET: 04

CSIR-UGC-GATE: 04

UGC-Non-NET: 08

Courses Conducted

Postgraduate: MSc

Semester I

Cell Biology & Genetics, Biomolecules, Microbiology.

Semester II

Molecular Biology, Immunology, Microbial Technology.

Semester III

Animal Cell Science and Technology, Genetic Engineering, Plant Biotechnology.

Semester IV

Bioprocess Engineering & Technology, Environmental Biotechnology, Molecular Genetics, Applied Microbiology.

The Department offers open courses on Microbial Technology, Applied Molecular Genetics,

School of Life Sciences

Bioinformatics in Molecular and Cellular Biology under CBCS in the MSc 2nd and 3rd semesters.

PhD Courses

Research Methodology (School Level), Biotechnology in Medicine, Agriculture and Microbiology (Department Level), Review of literature (Department Level).

Seminars/Conferences/Symposia/Workshops

Organised

Prof. S. R. Rao

Organised DBT Project Network Programme Review Meeting held on 26 & 27 September 2017 at the Department.

Attended

Prof. A. Chatterjee

Chaired a session and delivered an invited lecture at the Indo-French Conference on *Recent Advances in Genome Integrity and Plasticity* held at IISc, Bangalore (4–5 December 2017).

Prof. S. R. Rao

Presented a paper on “Biotechnology and Its Application for Improvement of Horticultural Plants” at the one-day seminar on *Sustainable Utilization of Biodiversity in Biotechnology* organised by the Department of Biotechnology, St. Xavier’s College, Burdwan, West Bengal (January 6, 2018). He also co-chaired a session of the one-day national seminar on *Himalayan Plant Diversity: Taxonomy, Conservation and Sustainable Utilization* organised the Botanical Survey of India (BSI, Shillong), NEHU, East Himalayan Society for Spermatophyte Taxonomy (EHSST) and North Bengal University, Siliguri (March 8–9, 2018).

Presented the following papers jointly with:

- (i) D. R. Wahlang and S. Goel on “Cytogenetical and Molecular Evaluation of Diploids and Autotetraploids of *Vigna radiata* (L) Wilczek and *V. mungo* (L) Hepper” at the 40th All India Botanical Conference of the Indian Botanical Society and National Symposium on *Evaluation and Conservation of Plant Germplasm* organised by the Department of Botany, Punjabi University, Patiala (September 15–17, 2017).
- (ii) J. M. Lamo on “Studies on Species Relationships of the Genus *Curcuma* L.: A Cytogenetical and Molecular Treatise” at the 27th Annual Conference of the Indian Association for Angiosperm Taxonomy and International Symposium on *Plant Systematics Priorities and Challenges* organised by the Delhi University Botanical Society (DUBS), Department of Botany, University of Delhi, Delhi (November 10–12, 2017).
- (iii) D. R. Wahlang, J. M. Lamo and M. Hynniewta on “Molecular and Cytogenetical Approaches for Genetic Diversity Analysis of Wild and Cultivated Species with Medicinal Importance from North-East India” at the international symposium on *Biodiversity of Medicinal Plants and Orchids: Emerging Trends and Challenges* held at the Department of Botany and Microbiology, Acharya Nagarjuna University, AP (February 9–11, 2018).

Department of Biotechnology and Bioinformatics

- (iv) S. P. Devi on “Heterochromatin Distribution Pattern and Cytological Analysis to Evaluate Genetic Fidelity of Micropropagated Plants of Pitcher Plant (*Nepenthes khasiana* Hook F.)” at the national symposium on *Plant Biotechnology: Recent Trends in Plant Propagation, Genetic Improvement and Industrial Applications* held at Arid Forest Research Institute (AFRI), Jodhpur, Rajasthan (February 16–18, 2018).
- (v) M. Hynniewta and R. Khedasana on “Modern Approaches for Understanding Diversity in the Genera Citrus and Cucumis from North-East India: A Cytogenetical and Phylogenetical Treatise” at the one-day national seminar on *Himalayan Plant Diversity: Taxonomy, Conservation and Sustainable Utilization* organised by BSI (Shillong), NEHU, EHSST and North Bengal University, Siliguri (March 8–9, 2018).

Delivered an invited lecture on “Cellular and Molecular Genetic Studies to Unravel Inter- and Intra-Specific Relationships in Some Horticultural Plants of North-East India” at the 27th Annual Conference of Indian Association for Angiosperm Taxonomy and International Symposium on *Plant Systematics Priorities and Challenges* organised by DUBS, Department of Botany, University of Delhi, Delhi (November 10–12, 2017). He also delivered a lecture and demonstrated a practical on “Cytogenetics in Species Delineation and Phylogeny” at the workshop on *Integrative Taxonomy* organised by the Department of Environmental Studies, Delhi University, Delhi (November 14–23, 2017).

Prof. K. Aguan

Delivered an invited lecture on “Biotechnology in Resourcing Future Generations” at the national seminar on *Understanding the Earth for Resourcing Future Generations*, NEHU (5–6 March 2018).

Dr. Atanu Bhattacharjee

Presented a paper on “Structure-based Virtual Screening Approach for Identification of Potential Inhibitor(s) against Soluble Epoxide Hydrolase: A Promising Drug Target for Cardiovascular Diseases” at IIT Madras-Tokyo Tech Joint Symposium on *Frontiers in Bioinformatics: Large Scale Data Analysis, Resources and Drug Design* held at IIT, Madras (10–11 November 2017).

Publications

Published in India

- Borthakur, M., Gogoi, J., Joshi, S. R. (2017). Macro and microfungi mediated synthesis of silver nanoparticles and its applications. *ADB Journal of Engineering Technology*, 6(1), http://journals.dbuniversity.ac.in/ojs/index.php/AJET/article/download/317/pdf_52.
- Borthakur, M., Joshi, S. R. (2017). Pigskin poison earthball mushroom of Meghalaya: An identification paradox. *The NEHU Journal*, XIII(1): 65–78.
- Hynniewta, M., Kharshandi, B., Pala, S., Malik, S. K., Rao, S. R. (2018). Comparative analysis in CMA banding pattern between wild and cultivated citrus species of North-East India. *Acta Scientific Agriculture*, 2: 45–49.
- Lamo, J. M., Rao, S. R. (2017). Curcumas as genetic resources with medical importance. *The*

NEHU Journal, 13(1): 25–30.

Upadhyay, S., Khyriem, A. B., Bhattacharya, P., Bhattacharjee, A., Joshi, S. R. (2018). High-level aminoglycoside resistance in *acinetobacterbaumannii* recovered from intensive care unit patients in Northeastern India. *Indian Journal of Medical Microbiology*, 36: 43–48.

Published Abroad

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Book Chapters

- Bhattacharjee, K., Joshi, S. R. (2018). Lithic bacteria, a lesser known group in biomining arena. In: *Microbial Cell Factories*. Deepansh Sharma and Baljeet Singh Saharan (Eds.). Taylor & Francis Group, CRC Press, Florida, USA, p. 51–68.
- Joshi S. R., Biswas, K. (2017). Enterococci prevalent in processed food products: From probiotics to food safety. In: *Mining of Microbial Wealth and Meta Genomics*. V. Kalia, Y. Shouche, H. Purohit and P. Rahi (Eds.). Springer, Singapore, p. 287–299.

Department of Biotechnology and Bioinformatics

Funds Received from Agencies including NEHU/UGC (₹ in lakhs)

NON- PLAN	: 9.55
DBT MSc Teaching	: 28.51
DBT	: 1460.14
DST	: 67.60
CSIR	: 16.05
NEC	: 39.0
UGC-SAP	: 9.20
MoFE	: 10.26

Research Projects

New : 5

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Virtual National Oral Cancer Institute (Multi Institutional Project)	Prof. A. Chatterjee	DBT, Govt of India	721.70*
Whole Genome and Transcriptome Changes as a Consequence of Allo and Autopolyploidy in Vigna L: Phase II (Multi-Institutional Project)	Prof. S. R. Rao	DBT, Govt of India	333.00*
Diversity and Molecular Characterization of Microsymbiont: Legume Association in Meghalaya and Nagaland for Developing Consortia of Microsymbionts with Wide Host Range (Multi-Institutional Project)	Prof. S. R. Rao	DBT, Govt of India	214.00*
Integrating Herbal Medicine of NER with Contemporary Approaches to Develop Therapeutic Strategies for Metabolic Syndrome	Dr. Atanu Bhattacharjee	DBT, Govt of India	21.36

School of Life Sciences

Elucidation of Mechanism of Action and Anti-Cancer Activity of Novel Iminoenamine Derivatives to Treat Androgen Independent Prostate Cancer	Dr. Atanu Bhattacharjee	DBT, Govt of India	44.60
*Sanctioned for three years (2018–2021)			
Ongoing: 7			
Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Association Between the Loss of Tumor Suppressor Genes and Deregulation of Mad2 Expression in Raw Areca-Nut Induced Cancer Samples	Prof. A. Chatterjee	DST, Govt of India	36.60
miRNA Mutation in Epilepsy-an Exploration Study	Prof. K. Aguan	DBT, Govt of India	2.50
Technology Development, Management and Long-Term Monitoring of Shifting Cultivation and Coal Mining in North-Eastern India	Prof. S. R. Joshi	Ministry of Environment, Forests and Climate Change	10.26
Metagenomic and Functional characterization of Soy-Based Fermented Foods of Northeastern Region	Prof. S. R. Joshi	DBT, Govt of India	24.10
Establishment of Culture Collection Centre in Northeast Region of India Phase II	Prof. S. R. Joshi	DBT, Govt of India	14.37
Study of Antiobesity Property of Root Extract of Potentillafulgens, a Known Anti-Diabetic Medicinal Plant Available in Meghalaya	Dr. S. Majaw	SERB, DST, New Delhi	16.00
Study the Effect of Potentillafulgens L. Extract on the AMP-Activated Protein Kinase) AMPK Pathway-Regulated Metabolism in Induced-Diabetic Mice	Dr. Suktilang Majaw (PI) & Prof. D. Syiem (Co-PI)	DBT, Govt of India	6.10

Department of Biotechnology and Bioinformatics

Completed: 4

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Network Programme for Enrichment and Update of Plant Chromosome Database for Spermatophyte and Archegoniate	Prof. S. R.Rao	DBT, Govt of India	26.95
Impact Assessment of Jhumming on Native Plants and Soil Microbiota And Restoration of Sustainable Jhum Agro-Ecosystem in Northeast India	Dr. S. R. Joshi	DBT, Govt of India	51.46
Remediation of Produced Water from NE Oil Field by Microbial and Membrane Intervention with Modeling of an Affluent Unit for the Recovery of Usable Water	Dr. Suktilang Majaw	DBT, Govt of India (Twinning programme)	0.19
Molecular Basis of Toxicity Analysis of Locally Used Alphamethrin on Cyanobacteria and Algae in Soil Microflora of Meghalaya	Dr. Neha Chaurasia	DST-SERB	15.00

Academic Collaborations

Laboratory research with Prof. A. K. Das (Department of Biotechnology, IIT, Kharagpur) in the field of *Design of Inhibitors for Protein: Protein Interactions Involved in Various Diseases*.

Prof. A. Chatterjee

Collaborated with Tezpur University (Tezpur) on the project—*Evaluation of Toxicity and Anticancer Potentiality of Synthetic Compounds*.

Prof. S. R. Rao

Collaborated with Dr. Jagdish Gupta K (National Institute of Plant Genome Research, Delhi) for the project—*Biological Control of Invasive Legume Species: An NER Case Study*.

Prof. S. R. Joshi

Collaborated with Dr. K. Kiran (National Agri-Biotech Institute: A DBT Institute, Punjab) for the project—*Metagenomic and Functional Characterisation of Soybean Fermented Foods of Northeast India*.

School of Life Sciences

Dr. Atanu Bhattacharjee

Collaborated with Dr. Kanury Rao (Drug Discovery Research Centre, Gurgaon) and Dr. H. Tag (Rajiv Gandhi University) on *Integrating Herbal Medicine of NER with Contemporary Approaches to Develop Therapeutic Strategies for Metabolic Syndrome*. He also collaborated with Prof. S. Kabilan (Department of Chemistry, Annamalai University) and Prof. M. Ramanathan (PSG College of Pharmacy, Coimbatore) on *Elucidation of Mechanism of Action and Anti-Cancer Activity of Novel Iminoenamine Derivatives to Treat Androgen Independent Prostate Cancer*.

Honours/Awards/ Recognitions

Prof. A. Chatterjee

Awarded the UICC-ICRETT-ICR/16/509949 Fellowship for one month duration (29 May to 29 June 2017) at Case Western Reserve University, Cleveland, USA. He was also a Member of the Task Force, DBT (New Delhi) and NCCS (Pune).

Prof. S. R. Joshi

Task Force Member, SERB, Department of Science and Technology, Govt of India.

Dr. Atanu Bhattacharjee

Appointed Editorial Board Member of the *Journal of Enzymology and Metabolism*.

Other Activities

Patents filed on *Method for Lead Removal by Bioflocculant from a Bacterium to Treat Wastewater* (S.R. Joshi, Debajit Kalita, Macmilan Nongkhlaw).

Prof. A. Chatterjee

Delivered an invited lecture during the 37th IACR Convention 2018 held at the Bose Institute, Salt Lake, Kolkata (23–25 February 2018). He also delivered a popular scientific lecture under NASI Local Chapter programme at different schools in Mizoram and Silchar.

Prof. S. R. Rao

Delivered an invited lecture on (i) “Biotechnological innovations in Plant Science” at Maharajah’s College, Vizianagram, Andhra Pradesh (November 25, 2017), and (ii) “Bio-Technological Advances in Plant Sciences: An Overview” at P. B. Siddhartha College of Arts and Science, Siddhartha Nagar, Andhra Pradesh (January 24, 2018).

Prof. K. Aguan

Reviewer for the *Journal of European Neurology*, *Journal of Evidence-Based Complementary and Alternative Medicine*, and *Journal of Ethnopharmacology*.

Prof. S. R. Joshi

Member of Board of Studies of Northeast Institute of Ayurveda and Homeopathy (Meghalaya).

Delivered the following lectures: (i) “Career Exhibition-cum-Conference for Secondary and Higher Secondary Schools of East Khasi Hills Shillong” organised by DERT (Shillong) on 1st September 2017 at Govt Girls Higher Secondary School, Shillong, (ii) at UGC-HRDC 43rd

Department of Biotechnology and Bioinformatics

Orientation Programme (General) on *Teaching at Institution of Higher Learning Challenges and Effectiveness* on 20 February 2018, (iii) “Biotechnology-Career and Opportunities” for school children organised by the National Academy of Sciences, India (NASI) at Gurcharan College (Silchar) on 17 February 2018, and (iv) “Ethical challenges in Contemporary Research from the Perspectives of Research In Science” at Lady Keane College (Shillong) on 20 February 2018.

Reviewer for (i) *PlosOne*, (ii) *Current Microbiology*, (iii) *Journal of Plant Science and Nutrition*, (iv) *3 Biotech*, (v) *Indian Journal of Traditional Knowledge*, and (vi) *Frontiers in Oncology*.

Dr. Atanu Bhattacharjee

Reviewer for (i) *Journal of Microbial Pathogenesis*, and (ii) *Oncology and Hematology Review*.

S. Majaw

Paper reviewed for (i) *Journal of Traditional and Complementary Medicine*, (ii) *Indian Journal of Experimental Biology*, (iii) *Journal of Applied Pharmaceutical Science*, and (iv) *Journal Spectrum: Science and Technology*.

Member of Kendriya Vidyalaya Management Committee, Eastern Air Command, Upper Shillong.



DEPARTMENT OF BOTANY

Head : Prof. Uma Shankar
Telephone : 0364-272 2201/2202
E-mail : hodbot@nehu.ac.in

Faculty: 12

Designation	Name and Qualification	Specialization
Professor (8)	A. K. Misra,* MSc & PhD (Meerut)	Cell and Molecular Genetics
	N. K. Chrungoo, MSc & PhD (Kashmir)	Plant Physiology, Plant Molecular Biology
	M. S. Dkhar, MSc & PhD (NEHU)	Microbiology and Microbial Ecology
	N. Venugopal, MSc & PhD (Madras)	Plant Reproductive Biology and Anatomy
	S. K. Barik,** MSc (Berhampur), PhD (NEHU)	Forest Ecology and Management, Biodiversity Conservation and EIA
	Uma Shankar, MSc (Agra), PhD (NEHU)	Ecology, Biodiversity and Conservation
	H. Kayang, MSc & PhD (NEHU)	Microbiology and Microbial Ecology
	S. Kumaria, MSc & PhD (NEHU)	Plant Biotechnology and Physiology
Associate Professor (3)	Y. Kumar, MSc (Agra), PhD(NEHU)	Plant Taxonomy and Biosystematics
	L. Kharlukhi, MSc (NEHU), PhD (IARI)	Seed Physiology
	P. Ramanujam, MSc & PhD (NEHU)	Plant Ecology, Algal Ecology
Assistant Professor (1)	M. C. Das, MSc & PhD (NEHU)	Plant Biotechnology

*Retired on June 30, 2017; **on lien since November 04, 2016 (as Director, NBRI, Lucknow).

Thrust Areas of Research

Plant and Microbial Diversity: Assessment, Characterization, Bio-prospection, and Conservation.

Brief Statement of Academic Activities

The Department of Botany completed the Phase II, UGC Centre for Advanced Studies in Botany in March, 2017. It offers two MSc Programmes, viz., MSc (Botany) and MSc (Plant Molecular Biology), and PhD Programme in Botany. The Department introduced the revised syllabus for both the courses in MSc Degree Programmes with the beginning of the session in 2017. The

Department of Botany

revised syllabus aimed at integrating more topics of the CSIR-UGC NET examination, reducing topics that have been transferred to the undergraduate level during the last revision and focussing on hands-on training in the laboratory and project skills. Faculty members are actively involved in diverse areas of research in plant sciences and are operating several research projects funded by various national and international agencies. The Department is currently coordinating five multi-institutional research projects. Six individual research projects are also going on. The Department received a research grant of ₹233.03 lakhs from different funding agencies (including non-plan grant from UGC) during the year 2017–18. The faculty members were invited to deliver lectures at important national and international events, such as symposia and seminars, as keynote and lead speakers.

Besides regular teaching and research programmes, the Department organised several workshops and training programmes. Five students were offered student fellowship within the Department and three traineeships were awarded to Post-MSc students. Eight students of the Department availed internships at various universities/laboratories in the country. Against vacant positions, Dr. Neeta Pathaw, Dr. Sonali Ray, Dr. Rajeev Kumar, Dr. Seraj Ahmed, and Dr. Sandeep Kumar Tata were appointed as Guest faculty during the year. Dr. A. Padmanaban (Retd.) from the Institute of Microbial Technology (Chandigarh) worked in the Department under Visiting Research Professor Scheme of the DBT (New Delhi) for one year.

Five students were awarded a PhD degree during the year. Nine students were admitted to the PhD programme. Thirty students were admitted to the MSc in Botany and ten students to the MSc in Plant Molecular Biology programmes. Thirty students were awarded their MSc degree in Botany and eight students were awarded the MSc degree in Plant Molecular Biology. The research scholars participated in workshops and training programmes at universities/institutions, and also presented papers at national and international seminars/symposia in India and abroad. Six research students and one MSc student qualified GATE and NET respectively during the year. Forty-three research papers were published in peer-reviewed scientific journals of national and international repute. Students from Dibrugarh University visited the facility on October 24, 2017. Ms. Sheryl Lanong, Research Scholar, Department of Microbiology, Pondicherry University, was working under Prof. H. Kayang from December 2017 to June 2018. Mr. Anandhapriyan M., Post Graduate Student of Botany, Madras Christian College (Chennai) worked in the laboratory of Prof. Uma Shankar as Science Academies' Summer Research Fellow from May 2 to June 26, 2017.

Several distinguished scientists delivered talks on different topics during the year. These included Prof. P. K. Gupta, C. C. S. Meerut University, Meerut; Prof. R. N. Gohil, B. G. S. B. University, Rajouri, Jammu and Kashmir; Prof. K. N. Ganeshaiah, UAS, Bangalore; Prof. A. K. Pandey, University of Delhi; Prof. R. Vasudeva, University of Agricultural Sciences, Dharwad; Dr. N. A. Aravind, ATREE, Bangalore; Prof. A. R. Reddy, Professor Emeritus, University of Hyderabad and former Vice-Chancellor; Yogi Vemana, University, Andhra Pradesh; Dr. S. K. Singh, BSI, Shillong; and Prof. Umesh Chandra (Retd.) of B. R. Ambedkar University (formerly Agra University).

School of Life Sciences

Students' Profile

Enrolment Capacity: MSc (Botany)—30, MSc (Plant Molecular Biology)—10, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc (Botany)	08	22	01	27		02	16	14	30
MSc (PMB)	02	06		08			07	01	08
PhD	03	06		06		03	04	05	09

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc (Botany)	10	20	01	27	01	01	16	14	30
MSc (PMB)	03	05		08			07	01	08
PhD		05		03		02	02	03	05

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Ladapling Kharmawphlang (07.06.17)	Mass Propagation of <i>Panax</i> of North-East India through Somatic Embryogenesis	Prof. P. Tandon, (Supervisor), Dr. M. C. Das (Joint Supervisor)
Ms. Sureni Yanthan (07.07.17)	DNA Based Phylogenetic Analysis of Carnivorous Plant Families in Meghalaya: Identification of Adaptive and Co-Evolutionary Patterns	Prof. P. Tandon, (Supervisor), Prof. S. Kumaria, (Joint Supervisor)
Mrs. Dina Barman (21.11.17)	Diversity of Endophytic Actinomycetes of Selected Medicinal Plants of Meghalaya	Prof. M. S. Dkhar, (Supervisor)
Ms. Haobam Romola Devi (07.03.18)	Soil Microbial Diversity in Mawphlang Sacred Forest of Meghalaya	Prof. M. S. Dkhar, (Supervisor), Prof. S. R. Joshi (Joint Supervisor)
Ms. Pynbeitsyon Nonkling (19.03.18)	Characterization of diversity of arbuscular mycorrhizal fungi associated with <i>Oryza sativa</i> L. in Ri-Bhoi district, Meghalaya	Prof. H. Kayang (Supervisor)

Department of Botany

Placement of Students

1. Dr. Bibhuti Bhashan Das was appointed Assistant Professor in the Postgraduate Department of Plant Science, Karaikal, Puducherry.
2. Dr. Ruth Laldinthar was appointed Assistant Professor in Department of Botany, Churachandpur Government College, Manipur.
3. Ms. Chipem Vashi was appointed Assistant Professor in Department of Botany, Oriental Government College, Imphal, Manipur.
4. Dr. Nilofer Sheikh was appointed Assistant Professor in Department of Botany, Jagi Road College, Assam.

Research Fellowships: 42

CSIR-UGC- NET	UGC Non-NET	NFHE	Meritorious Fellowship	Moulana Azad Minority Fellowship	Project Fellowship	DST Inspired Fellowship
01	10	14	02	12	02	01

Fieldwork/Educational Tour of Students

Teachers-in-Charge: Prof. Uma Shankar and Dr. Meera Chettri Das

Places/Institutions Visited: Hyderabad and Kolkata

Duration of Tour: Fifteen days (28 December 2017 to 11 January 2018)

Purpose of Tour: As part of the curriculum, an educational excursion of the IV Semester students of the MSc (Botany) course was organised by the Department during 2017–18.

Courses Conducted

Postgraduate: MSc in Botany

Revised Syllabi Effective from 2017

Semester I

Microbiology, Mycology and Plant Pathology; Microbiology, Mycology and Plant Pathology (Practical); Algae, Bryophytes and Pteridophytes; Algae, Bryophytes and Pteridophytes (Practical); Gymnosperms and Plant Anatomy, Gymnosperms and Plant Anatomy (Practical).

Semester II

Angiosperm Taxonomy, Economic Botany and Ethnobotany, Angiosperm Taxonomy, Economic Botany and Ethnobotany (Practical), Plant Biochemistry and Molecular Biology, Plant

School of Life Sciences

Biochemistry and Molecular Biology (Practical), Stress Biology (Open), Bioprocess Development (Open), Techniques in Molecular Biology (Open).

Semester III

Genetics, Cytogenetics and Plant Breeding; Genetics, Cytogenetics and Plant Breeding (Practical); Plant Physiology, Plant Physiology (Practical), Biodiversity and Phytogeography, Environmental Pollution and Conservation (Open), Biostatistics (Open).

Semester IV

Plant Reproductive Biology and Biotechnology, Plant Reproductive Biology and Biotechnology (Practical), Plant Ecology and Ecosystem Analysis, Plant Ecology and Ecosystem Analysis (Practical), Project Work.

Broad Areas for Specialisation through Project Work

Plant Ecology, Microbial Ecology, Plant Molecular Biology, Advanced Plant Physiology, Taxonomy and Diversity of Angiosperms, Development and Reproduction of Angiosperms, Plant Biotechnology, Plant Genetics and Cytogenetics, Lower plants.

MSc in Plant Molecular Biology

Semester I

Microbiology, Cell Biology and Plant Physiology, Fundamentals of Genetic Engineering, Lab Work/ Practical (Practical).

Semester II

Plant Biochemistry and Molecular Biology, Eukaryotic Genome Organization, Stress Biology (Open), Bioprocess Development (Open), Techniques in Molecular Biology (Open), Lab Work/ Practical (Practical).

Semester III

Genetics, Cytogenetics and Plant Breeding; Metabolite Engineering (Open), Environmental Pollution and Conservation (Open), Computer Applications and Bioinformatics (Open), Lab Work/ Practical (Practical).

Semester IV

Plant Biotechnology, Molecular Basis of Differentiation, Lab Work/Practical, Project Work and Dissertation.

Broad areas for Specialization through Project Work.

Microbiology, Molecular Ecology, Plant Biotechnology, Plant Molecular Biology.

PhD Courses

Research Methodology, Plant Sciences, Review of Literature and Seminar.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised the following events:

1. Summer training for college students from 1 to 15 June 2017 (Coordinator: Prof. N. K. Chrungoo).

Department of Botany

2. Science communication workshop in collaboration with the Wellcome Trust-DBT Alliance on 7 & 8 June 2017 (Coordinator: Prof. N. K. Chrungoo).
3. Science academies lecture workshop on *Tropical Rain Forest Resources and Their Conservation in India* held on 27 & 28 June 2017 at Science Seminar Hall (NEHU), sponsored by the Academies IAS-INSANA-NASI and the Department (Coordinator: Prof. Uma Shankar).
4. National symposium on *Current Trends in Research in Biotic Systems* on 29 & 30 June 2017 at the Old Guest House (NEHU) sponsored by the DST-SERB (Delhi), Trust-Arshuma (Agra) and NEHU (Convener: Prof. Uma Shankar).
5. 83rd Annual Meeting of the Indian Academy of Sciences from 3 to 5 November 2017 at the Multi-Use Convention Hall (NEHU) sponsored by the Indian Academy of Sciences and NEHU (Treasurer: Prof. Uma Shankar).
6. National seminar on *Himalayan Plant Diversity: Taxonomy, Conservation and Sustainable Utilization* on 8 & 9 March 2018 at the Botanical Survey of India (BSI, Shillong) organised by BSI, EHSST and NEHU (Joint Secretary: Prof. Uma Shankar).
7. Three-day hands-on training on *Proteomics Workflow* from 19 to 21 March 2018 (Coordinator: Prof. N.K. Chrungoo).
8. Invited talk on “Plant Genome Expansion: Cereal Genomes as Model System” by Prof. A. R. Reddy (Professor Emeritus, University of Hyderabad) on 6 November 2017 (Coordinator: Prof. N. K. Chrungoo).
9. Invited talk on “Bryophytes” by Dr. S. K. Singh, Scientist, BSI (Shillong) on November 17, 2017 (Coordinator: Prof. Uma Shankar).
10. Invited talk on “How Are Fruits Formed in Plants?” by Prof. Umesh Chandra (Retd.) of B. R. Ambedkar University (formerly Agra University) on March 16, 2018 (Coordinator: Prof. Uma Shankar).

Attended

Prof. Uma Shankar

Delivered invited lectures on “Tropical Rainforests in Meghalaya” during the Science Academies lecture workshop on *Tropical Rain Forest Resources and Their Conservation in India* held during June 27–28, 2017 at NEHU Science Seminar Hall (27–28 June 2017), (ii) “Yes, We have ‘Tropical Rain-Forests’ far away from the Equator in Meghalaya” at the national symposium on *Current Trends in Research in Biotic Systems* held on 29 & 30 June 2017 at NEHU Old Guest House, Shillong, (iii) “Did Demonetization 2016 Reduce Environmental Loading of Currency Management in India?” at a national symposium organised by the Department of Commerce (NEHU) at the Old Guest House (October 27–28, 2017); (iv) “Rural Futures: Forests and People” at the international conference on *Eastern Himalayan Naturenomics TM Forum 2017* organised by the Balipara Foundation (Assam) in Guwahati on 2 & 3 November 2017), and (v) “Herbaria, Gardens and Museums: Who Owns the Past Heritage?” and presented a poster on “A Study on Computer-Based Leaf Shape Recognition within a Species: An Example from Citrus” (jointly with S.K.M. Hassan and A. K. Maji) at the national symposium on *Himalayan*

School of Life Sciences

Plant Diversity: Taxonomy, Conservation and Sustainable Utilization organised by BSI, EHSST and NEHU on 8 & 9 March 2018 at BSI, Shillong. He also chaired a session of the seminar.

Presented a project proposal on “Non-timber Forest Products Used by Local Tribes in Meghalaya: Database, Distribution and Capacity Building” during a project evaluation committee meet-cum-workshop held on 27 & 28 February 2018 at the Department of Botany, Tripura University. Also, presented a paper on “Resourcing Forest Products for Livelihoods of Rural Tribes in Meghalaya” at the national symposium on *Understanding the Earth for Resourcing Future Generations* organised by the Shillong Chapter, Indian Science Congress Association (Kolkata) and NEHU at the Old Guest House, NEHU (March 5–6, 2018).

Participated in a panel discussion at the international Eastern Himalaya trans-regional workshop organised by the North-Eastern Region Community Resource Management Project at the State Convention Centre (Shillong) on 9 & 10 November 2017. He also chaired a session of the international conference on *Sustainable Tourism and Hospitality and Marketing: Setting Agenda for Future Research* organised by the Department of Tourism and Hotel Management (NEHU) and others at NEHU, Shillong (March 15–17, 2018).

Dr. P. Ramanujam

Delivered an invited lecture on “Diversity and Potential of Subaerial Algae from East Khasi Hills, Meghalaya” at the international conference on *The Green Planet: Past, Present and Future* held at CAS-VII, Department of Botany, University of Calcutta, Kolkata (December 22, 2016).

Publications

Published in India

- Adhikari, D., Reshi, Z., Datta, B. K., Samant, S. S., Chettri, A., Upadhaya, K., Pradhan, A. (2018). Inventory and characterization of new populations through ecological niche modelling improve threat assessment. *Current Science*, 114(3): 519–531.
- Barik, S. K., Chrungoo, N. K., Adhikari, D. (2018). Conservation of threatened plants of India. *Current Science*, 114(3): 468–469.
- Barik, S. K., Rao, B. R. P., Haridasan, K., Adhikari, D., Singh, P. P., Tiwary, R. (2018). Classifying threatened species of India using IUCN criteria. *Current Science*, 114(3): 588–595.
- Barik, S. K., Tiwari, O. N., Adhikari, D., Singh, P. P., Tiwary, R., Barua, S. (2018). Geographic distribution pattern of threatened plants of India and steps taken for their conservation. *Current Science*, 114(3): 470–503.
- Bose, B., Kumaria, S., Choudhury, H., Tandon, P. (2017). Insights into nuclear DNA content, hydrogen peroxide and antioxidative enzyme activities during transverse thin cell layer organogenesis and *ex vitro* acclimatization of *Malaxis wallichii*, a threatened medicinal orchid. *Physiology and Molecular Biology of Plants*, 23(4): 955–968.
- Chrungoo, N. K., Rout, G. R., Balasubramaniam, S. P., Rajeshkar, P. E., Haridasan, H., Rao, B. R. P., Manjunath, R. G., Nagduwar, P., Venkatasubramaniam, Nongbet, A., Hynniewta, Swain, M. D., Salama, Souravi, S. K., Jena, S. N., Barik, S. K. (2018). Establishing taxonomic identity

- and selecting genetically diverse populations for conservation of threatened plants using molecular markers. *Current Science*, 114: 539–553.
- Devi, S. D., Bui, S., Kumaria, S., Das, M. C. (2017). *In vitro* rhizome induction of *Hedychium coronarium* Koenig., a rhizomatous medicinal and aromatic plant. *Bioscience Discovery*, 8(3): 432–437.
- Dirborne, C. M., Ramanujam, P. (2017). Diversity and ecology of soil algae in broad leaf sacred grove and pine forest in East Khasi Hills, Meghalaya. *Nelumbo*, 59(2): 195–212.
- Hajong, P., Ramanujam, P. (2017). Effect of anthropogenic activities on algal community in Ganol River, West Garo Hills, Meghalaya. *Bulletin of Environment and Pharmacology of Life Sciences*, 6(8): 109–120.
- Hajong, P., Ramanujam, P. (2018). Seasonal variation in algal diversity and productivity in Dachilake, Meghalaya. *Journal of Algal Biomass Utilisation*, 9(2): 9–24.
- Haridasan, K., Mao, A. A., Janarthnam, M. K., Pandey, A. K., Srivastava, S. K., Panda, P. C., Suresh, G., Borthakur, S. K., Rao, B. R. P., Barik, S. K., Datta, B. K. (2018). Contributions of plant taxonomy, herbarium and field germplasm bank to conservation of threatened plants: Case studies from the Himalayas and Eastern and Western Ghats. *Current Science*, 114(3): 512–518.
- Jeri, L., Bhat, N. A., Kumar, Y. (2017). *Exacum tenue* (Blume) Klack. (*Gentianaceae*): A new record for the flora of Eastern Himalaya. *Pleione*, 11(2): 516–519.
- Jeri, L., Bhat, N. A., Kumar, Y. (2018). *Pternopetalum latipinnulatum* (*Apiaceae*). A new record to the flora of India. *Journal of Threatened Taxa*, 10(3): 11480–11483.
- Khonglah, D., Kayang, H. (2018). Antagonism of indigenous fungal isolates against botrytis cineria the causal of grey mold disease of tomato (*Solanum lycopersicum* L.). *International Journal of Current Research in Life Sciences*, 7(1): 806–812.
- Kumar, M., Sarma, P., Dkhar, M. S., Kayang, H., Raghuwanshi, R., Dubey, N. K. (2018). Assessment of chemically characterised *Gaultheria fragrantissima* Wall. essential oil and its major component as safe plant based preservative for millets against fungal, aflatoxin contamination and lipid peroxidation during storage. *Journal of Food Science and Technology*, 55(1): 111–119.
- Lyngdoh, M. K., Chettri, A., Adhikari, D., Barik, S. K. (2018). Metapopulation modelling of threatened plants to assess conservation status and determine minimum viable population size. *Current Science*, 114(3): 532–538.
- Majaw, S., Kayang, H. (2018). Fungal diversity of rhizospheric and non rhizospheric soil of *Zingiber officinale* Rosc. in West Khasi Hills, Meghalaya. *International Journal of Life Sciences and Research*, 6(1): 68–77.
- Marak, M. C. N., Kayang, H. (2017). Isolation and identification of endophytic fungi associated with *Solanum tuberosum* L. of South West Garo Hills, Meghalaya. *International journal of Advances in Agricultural Science and Technology*, 5(1): 58–65.
- Marak, M.C.N, Kayang, H. (2017). *In vitro* evaluation of the efficacy of fungal endophytes against

- the phytopathogens of *Solanum tuberosum* L. *International Journal of Current Research in Life Sciences*, 6(8): 714–720.
- Marbaniang, E. J., Venugopal, N., Verma, S., Raina, R., Khajuria, A., Gautam, K. (2018). Floral biology and embryological studies are important for conservation of threatened plants having reproductive bottlenecks: A case study of *Illicium griffithii* Hook. f. & Thomson. *Current Science*, 114(3): 576–589.
- Naseem, F., Kayang, H. (2018). Fungal endophytes associated with *Nepenthes khasiana* Hook. f. *International Journal of Current Research in Life Sciences*, 7(4): 1907–1912.
- Ojha, A., Tak, N., Rath, S., Chouhan, B., Rao, S. R., Barik, S. K., Gehlot, H. S. (2017). Molecular characterization of novel Bradyrhizobium strains nodulating eriosema chinense and *Flemingia vestita*, important unexplored native legumes of the sub-Himalayan region (Meghalaya) of India. *Systematic and Applied Microbiology*, 40(6): 334–344.
- Panda, P.C., Kumar, S., Singh, J. P., Gajurel, P., Kamila, P. K., Kashung, S., Barik, S. K. (2018). Improving macropagation and seed germination techniques for conservation of threatened species. *Current Science*, 114(3): 562–566.
- Paul, P., Kumaria, S. (2017). Orchids, the marvelous plants. *The NEHU Journal*, 15(1): 31–40.
- Shankar, U. (2017). Editorial of the special issue on research in biotic systems. *The NEHU Journal*, 15(1): VII–XI.
- Shankar, U. (2017). Yes, we have ‘tropical rainforests’ far away from the equator—in Meghalaya! *The NEHU Journal*, 15(1): 1–16.
- Sheikh, N., Kumar, Y. (2017). Morphological characterization of Meghalayan *Dioscorea* spp. (yam), North-East India. *Journal of Agricultural Science and Technology*, 19: 487–497.
- Sheikh, N., Kumar, Y. (2017). Morphology of flower, pollen and orbicules of Meghalayan *Dioscorea* L. (*Dioscoreaceae*), North-East India: A pivotal taxon in the evolution of monocot. *Asian Journal of Biosciences*, 12(2): 223–232.
- Sheikh, N., Kumar, Y. (2017). Palynological implication to the systematic of the genus *Dioscorea* of Meghalaya, North-East India. *International Journal of Pure and Applied Biosciences*, 6(1): 94–100.
- Sheikh, N., Kumar, Y., Jeri, L., Bhat, N. A. (2017). Ethnobotanical uses and survey of *Dioscorea* species of North-East India: Its conservation and sustainable utilization. *International Journal of Current Research in Biosciences and Plant Biology*, 4(12): 117–124.

Published Abroad

- Borah, R., Kumaria, S., Choudhury, H. (2017). *In vitro* plant regeneration of *Magnolia punduana*: An endemic and threatened plant species. *Plant Tissue Culture and Biotechnology*, 27(2): 153–159.
- Bose, B., Choudhury, H., Tandon, P., Kumaria, S. (2017). Studies on secondary metabolite profiling, anti-inflammatory potential, *in vitro* photoprotective and skin-aging related enzyme inhibitory activities of *Malaxis acuminata*, a threatened orchid of nutraceutical importance.

Department of Botany

Journal of Photochemistry and Photobiology B: Biology, 173: 686–695.

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- Dhar, M. K., Sharma, M., Bhat, A., Chrungoo, N. K., Kaul, S. (2017). Functional genomics of apocarotenoids in saffron: Insights from chemistry, molecular biology and therapeutic applications. *Briefings in Functional Genomics*, 16(6): 336–347.
- Diengdoh, R. V., Kumaria, S., Tandon, P., Das, M. C. (2017). Asymbiotic germination and seed storage of *Paphiopedilum insigne*, an endangered lady's slipper orchid. *South African Journal of Botany*, 112: 215–224.
- Iangrai, B., Pattanayak, A., Khongwir, D. E. A., Pale, G., Gatphoh, E. M., Das, A., Chrungoo, N. K. (2017). Development and characterization of a new set of genomic microsatellite markers in rice bean (*Vigna umbellata* (Thunb.) Ohwi and Ohashi) and their utilization in genetic diversity analysis of collections from North-East India. *Plos One*, 12(7): 179–801.
- Iqbal, A. M., Chrungoo, N. K., Shikari, A. Najeeb, B. S., Gayle, A., Mujtaba, A. (2017). Molecular diversity of rice germplasm grown under high altitude conditions. *Plant Cell Biotechnology and Molecular Biology*, (18): 481–488.
- Paul, P., Joshi, M., Gurjar, D., Shailajan, S., Kumaria, S. (2017). *In vitro* organogenesis and estimation of β -sitosterol in *Dendrobium fimbriatum* Hook.: An orchid of biopharmaceutical importance. *South African Journal of Botany*, 113: 248–252.
- Sheikh, N., Kumar, Y. (2017). Foliar epidermal, stem and petiole anatomy of Meghalayan *Dioscorea* L. (*Dioscoreaceae*) and its implication to the systematic of the genus. *Bangladesh Journal of Plant Taxonomy*, 24 (1): 53–63.
- Yanthan, J. S., Kehie, M., Kumaria, S., Tandon, P. (2017). *In vitro* regeneration of *Drosera burmannii* Vahl.: A carnivorous plant of Northeast India. *3 Biotech*, 7:124.

Edited Volumes/Book Reviews

- Shankar, U., editor. (2017). Abstract volume of the national symposium on *Current Trends in Research in Biotic Systems*. Department of Botany, NEHU, Shillong, p. 120.
- Shankar, U., editor. (2017). Special Issue on Research in Biotic Systems. *The NEHU Journal*, Volume 15, Issue 1 (January-June 2017), NEHU, Shillong, p. 144.
- Shankar, U. (2017). Book Review of *Wild Orchids of Meghalaya: A Pictorial Guide* (by C.S. Rao and S. K. Singh 2015, ISBN: 978-93-83403-09-7), Meghalaya Biodiversity Board, Shillong. *The NEHU Journal*, 15(1): 119–120.

School of Life Sciences

Funds Received from Agencies including NEHU/UGC

Funding Agency	Amount (₹ in lakhs)
NEHU (Non-Plan)	18.10
DBT	193.14
GBPI-MoEFCC	21.79
Grand Total	233.03

Research Projects

New: 5

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Invasive Alien Plants in Himalayas: Status, Ecological Impact and Management (A Multi-institutional Networking Project)	Prof. Uma Shankar (PI)	GBPI/NMHS (MoEFCC), Almora	17.65
Non-Timber Forest Products used by Local Tribes in Meghalaya: Database, Distribution and Capacity building	Prof. Uma Shankar (PI)	GBPI/IERP (MoEFCC), Almora	4.136
Bioresource and Sustainable Livelihoods in North-East India: Component 1: Inventories and Mapping of Bioresources in North-East India, Sub-Project 10: Quantitative Assessment and Mapping of Plant Diversity and Biological Resources in Meghalaya (A Multi-institutional Networking Project)	Prof. Uma Shankar (PI)	DBT, New Delhi	22.016
Bioresource and Sustainable Livelihoods in North-East India: Component 1: Inventories and Mapping of Bioresources in North-East India, Sub-project 17: Quantitative Assessment and Mapping of the diversity of Cicadas of North-East India (A Multi-institutional Networking Project)	Prof. Uma Shankar (Co-I)	DBT, New Delhi	19.616

Department of Botany

Bioresource and Sustainable Livelihoods in North-East India: Component 4: Biodiversity based livelihoods, Sub-project 4 (A Multi-institutional Networking Project)	Prof. H. Kayang (PI) Dr P. Ramanujam (Co-I)	DBT, New Delhi	23.55
Ongoing: 6			
Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Exploration of Genomic-wide Polymorphism, Imprintomes and Methylomes to Unfold the Genetic, Epigenetic and Evolutionary Mysteries of Basal Angiosperms with Emphasis on <i>Nymphaea</i> L. under DBT's Program for the NE	Prof. Suman Kumaria (PI) Dr. Meera Chettri Das (Co-I) Collaborators: Prof. Manu Agarwal (PI) Prof. Shailendra Goel (Co-I) University of Delhi North Campus	DBT, Govt of India, New Delhi	20.52
Fungal and Mycotoxin Contamination of Stored Maize (<i>Zea mays</i> Linn) Samples in Meghalaya and Anti-microbial and Myco Toxin Inhibitory Efficacy of Some Biocontrol Agents and Essential Oils of Traditionally Used Medicinal Plants of the Region	Prof. M. S. Dkhar (PI) Dr. H. Kayang (Co-I) Prof. N. K. Dubey (PI) Dr. Bhanu Prakash (CO-I) BHU, Varanasi	DBT, Govt of India, New Delhi	15.35
Sub-Project 15: Preventing Extinction and Improving Conservation Status of Threatened Plants through Application of Biotechnological Tools	Prof. N. K. Chrungoo (Coordinator), Prof. S. K. Barik (Joint-Coordinator)	DBT, Govt of India, New Delhi	11.08
Chemical Ecology of the Northeast Region (NER) of India: A Collaborative Programme Linking NER and Bangalore Researchers	Prof. S. K. Barik (PI), Prof. N. K. Chrungoo (Co-I)	DBT, Govt of India, New Delhi	Nil
Establishment of Advanced Biotech Hub	Prof. N. K. Chrungoo (Coordinator)	DBT, Govt of India, New Delhi (Special Programme for NE States)	77.28

School of Life Sciences

All India Network Project on Functional Genomics Approaches in Understanding the Regulation of Flowering and Carotenoid Biosynthesis in Saffron Crocus	Prof. N. K. Chrungoo (PI)	DBT, Govt of India, New Delhi	13.16
Ongoing: 3			
Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Molecular Characterization and Chemoprofiling of Two Pharmacologically Relevant Species of <i>Dendrobium</i> Found in Northeast India under DBT's program for the NE	Prof. Suman Kumaria (PI) Dr. M. C. Das (Co-I) Dr. Hiranjit Choudhury (Co-I)	DBT, Govt of India, New Delhi	53.40
Survey of Endophytic Fungi Associated with Some Aromatic Plants of North-Eastern Region and Assessment of Their Effect on Chemical Profile and Biological Activity as Antimicrobial, Aflatoxin Inhibitors and Antioxidant Under DBT's Program for the NE	Prof. M. S. Dkhar (PI), Dr. H. Kayang (Co-I), Prof. N. K. Dubey (PI), Dr. Richa Raghuwanshi (Co-I) BHU, Varanasi	DBT, Govt of India, New Delhi	41.50
Sub-project 1A: Preventing Extinction and Improving Conservation Status of Threatened Plants through Application of Biotechnological Tools	Prof. N. Venugopal (PI), Dr. M. C. Das (Co-I), Dr. H. Chowdhury (Co-I)	DBT, Govt of India, New Delhi	11.88

Academic Collaborations

Prof. M. S. Dkhar and Prof. H. Kayang

Collaborated with Prof. N. K. Dubey and Dr. Bhanu Prakash, BHU, Varanasi, on the project *Fungal and Mycotoxin Contamination of Stored maize (Zea mays Linn) Samples in Meghalaya and Anti-microbial and Mycotoxin Inhibitory Efficacy of Some Biocontrol Agents and Essential Oils of Traditionally Used Medicinal Plants of the Region under the DBT program for the NE.*

Department of Botany

Prof. S. K. Barik and Prof. N. K. Chrungoo

Collaborated with Bangalore researchers on the project *Chemical Ecology of the Northeast Region of India: A Collaborative Programme Linking NER and Bangalore Researchers*.

Prof. Suman Kumaria and Dr. Meera Chetri Das

Collaborated with Prof. Manu Agarwal and Prof. S. Goel, University of Delhi, on *Exploration of Genomic-Wide Polymorphism, Imprintomes and Methylomes to Unfold the Genetic, Epigenetic and Evolutionary Mysteries of Basal Angiosperms with Emphasis on Nymphaea L.* under the DBT program for the NE.

Prof. Suman Kumaria, Dr. Meera Chetri Das and Dr. Hiranjit Choudhury

Collaborated with Prof. Sunita Shailajan (Herbal Research Lab, Ramnarain Ruia College, Mumbai) on the project *Molecular Characterization and Chemoprofiling of Two Pharmacologically Relevant Species of Dendrobium Found in Northeast India under the DBT program for the NE*.

Prof. Uma Shankar

Collaborated with Dr. R. Ganesan (ATREE, Bangalore) on a multi-institutional networking project entitled *Bioresource and Sustainable Livelihoods in North-East India: Component 1: Inventories and Mapping of Bioresources in North-East India, Sub-Project 10: Quantitative Assessment and Mapping of Plant Diversity and Biological Resources in Meghalaya*.

Honours/Awards/Recognitions

Prof. N. K. Chrungoo

Member of the Editorial Board of the *Fagopyrum*, the official journal of the International Buckwheat Researchers Association, and Member of (i) DBT Apex committee on Basic Plant Biology Agriculture and Frontier Areas, and (ii) DBT Committee on Ramalingaswamy programme.

Prof. Uma Shankar

Member of the UGC Expert Committee for consideration of the 12-B Status of Raiganj University, August 8–10, 2017.

Prof. Suman Kumaria

Appointed as Councillor of the *Journal of the Orchid Society of India* (TOSI).

Other Activities

Prof. N. K. Chrungoo

Member of the Board of Post-Graduate Studies in Botany, Cotton University (Guwahati) and a Member of the Advisory Committee DRS-III, Department of Botany, Annamalai University.

Delivered an invited lecture on “Preparing a Good Research Proposal” at the Institute of Ayurveda, Ministry of AYUSH (Shillong) on November 15, 2017, (ii) “Science and Technology in Societal Development” at a science awareness programme held at Gorkha Secondary School (Shillong) on March 27, 2018, and (iii) “Science for School Level Students” at a science awareness programme held at Mawprem Modern Higher Secondary School (Shillong) on March 27,

School of Life Sciences

2018.

Prof. M. S. Dkhar

Delivered an invited talk on “Bioconversion of Organic Waste with Special Reference to Organic Compost and Vermicompost” in the Department of Botany, University of Science and Technology (Meghalaya) on July 9, 2017.

Prof. Uma Shankar

Presented a project proposal at a Project Formulation Meeting of the long-term multi-component project on “Inventories and Mapping of Bioresources in North-East India” held at CSIR Vigyan Kendra (New Delhi) from 4 to 5 August 2017.

Member, Editorial Board of *The NEHU Journal*, North-Eastern Hill University, Shillong (2013–2018).

Appointed Chairman of the Interview Board by the Kendriya Vidyalaya Sangathan (KVS), Regional Office, Silchar, for Interview for the Post of PRT for N.E. Region held at KV, NEHU, Shillong, on 26 March 2018.

Prof. H. Kayang

Member of (i) Board of Studies of the Department of Environmental Science, Mizoram, and (ii) Appointed Chairman of the Interview Board by the Kendriya Vidyalaya Sangathan (Regional Office, Silchar) for interview for the post of PRT for N.E. Region held at KV (NEHU, Shillong) on March 26, 2018.



DEPARTMENT OF ZOOLOGY

Head : Prof. S. N. Ramanujam
Telephone : 0364-2722301
E-mail : ramanujamsunkam@gmail.com

Faculty: 12

Designation	Name and Qualification	Specialization
Professor (9)	B. K. Sharma, MSc & PhD (Panjab)	Limnology and Biosystematics
	B. B. P. Gupta, MSc & PhD (BHU)	Endocrinology
	S. B. Prasad, MSc & PhD (BHU)	Cell and Tumour Biology
	R. N. K. Hooroo, MSc & PhD (NEHU)	Developmental Biology
	N. Saha, MSc & PhD, (NEHU)	Biochemical Adaptation
	S. N. Ramanujam, MSc (Bangalore), PhD (NEHU).	Fish Biology and Environmental Toxicology
	A. K. Yadav, MSc (Agra), PhD (NEHU)	Parasitology and Ethnopharmacology
	B. Roy, MSc (NBU), PhD (NEHU)	Parasitology and Toxicology
	A. S. Dixit, MSc (Gorakhpur), PhD (BHU)	Endocrinology
Associate Professor (2)	B. Keshan, MSc & PhD (Calcutta)	Insect Endocrinology and Molecular Biology
	S. Ghosh, MSc & PhD (Calcutta)	Genetics
Assistant Professor (3)	S. Choudhury, MSc & PhD (NEHU)	Entomology
	S. R. Hajong, MSc & PhD (NEHU)	Entomology
	B. Das, MSc (Berhampur), PhD (NEHU)	Biological Chemistry

Thrust Areas of Research

The Department is engaged in research under the thrust area “Faunal Diversity and Ecophysiology” in various disciplines, such as biodiversity of freshwater zooplanktons, fishes, amphibian and insects in the North-Eastern Region, adrenergic signal transduction in pineal gland, hormonal regulation of oxidative metabolism, and breeding biology of endangered fishes, amphibians and birds, cisplatin action as an anticancer drug, and efficacy of putative anti-cancerous plants and animals from the North-Eastern Region, biochemical adaptation to nitrogen, carbohydrate, protein and oxidative metabolism, and nitric oxide signalling under various environmental stresses in air-breathing fishes, diversity of helminth parasites and entomopathogenic nematodes in the North-Eastern Region with an emphasis on molecular taxonomy of zoonotic parasites

School of Life Sciences

and bioprospection of anthelmintic efficacy of plants used in traditional medicine systems, chronoendocrinology and photophysiology of reproduction, migration and moult in some birds of the region, silkworm growth and development under various environmental stresses and the involvement of hormones mediated signalling pathway, and epigenetic study of human cancer with emphasis on the role of DNA methylation.

Brief Statement of Academic Activities

The Department of Zoology offers specializations in all major disciplines of Zoology. The Department is regularly conducting the UGC Refresher Course in Zoology for college and university teachers. Faculty members of the Department have several collaborations with international and national academic and research institutions. The Department has successfully organised several national and regional seminars, symposia and workshops having direct regional and national relevance. Besides book(s)/book chapters, many research papers were published in reputed national and international journals. The Department offers the MSc and PhD Programmes. The Department has adopted the Choice Based Credit System (CBCS) at the MSc level. Some research students qualified in the CSIR-UGC NET examination. Some students have acquired important faculty positions in educational and research institutions of the North-Eastern Region and other parts of the country. The total intake of students per year for MSc Zoology course is 30, and for the PhD programme it varies from 15 to 20. Faculty members and research students of the Department are recipients of various awards, distinctions and fellowships. Based on the overall academic and research contributions, the Department was awarded the three phases of DRS and the two phases of DSA programme by the UGC under its Special Assistance Programme to promote higher research with special reference to the North-Eastern Region. Further, the Department has received grants recently under the DST-FIST programme for the second time and the third phase of UGC-DSA programme. The Department has various research projects sponsored by UGC, DST, DBT, ICMR, ICAR, MoEF, etc. All these projects have a direct relevance to the socio-economic development of the North-Eastern Region. The Department is conducting seminars every week for the MSc students to deliver talks under the supervision of faculty members. The Department runs a “Zoonic Society” for various activities involving students, teaching and non-teaching staff.

Students' Profile

Enrolment Capacity: MSc–30, PhD–Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	09	22		28		03	25	06	31
PhD	05	05		07		03	06	04	10

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	07	22		25		04	25	04	29
PhD	06	03		05		04	02	07	09

Department of Zoology

Students Awarded PhD

Name of Student	Title of Thesis	Name of Supervisor
Mr. Rajiv Paul	Studies on Histopathology and Oxidative Stress due to Copper and Cadmium Toxicity in the Air-Breathing Catfish, <i>Heteropneustes Fossilis</i> (Bloch)	Prof. S. N. Ramanujam
Mr. Bodhisattwa Banerjee	Molecular Characterization of the Expression of Genes of Glutamine Synthetises and Ornithine-Urea Cycle Enzymes and the Involvement of Mitogen Activated Protein Kinases under Hyper-Ammonia Stress in the Air-Breathing Catfish, <i>Clarias Batrachus</i> (Bloch)	Prof. N. Saha
Ms. Jane Wanry Shangpliang	Diversity and Ecology of Wild Silk Moths of Meghalaya, North-East India	Dr. S. R. Hajong
Mr. Bhabesh Ronghang	Studies on the Parasite Spectrum of Mithun, <i>Bos Frontalis</i> Lambert and Yak, <i>B. Grunniens</i> Linnaeus in Northeast India	Prof. B. Roy
Ms. Shyamalima Gogoi	Anthelmintic Effects and Toxicity Assessment of <i>Caesalpinia Bonducella</i> (L) Roxb. and Croton Jofra Roxb., Used By The Mishing Tribe in Assam	Prof. A. K. Yadav
Ms. Caressa Maebha Thabah	Effects of Ph and Food on the Development and Morphology of Hylid and <i>Dicroglossid Anuran</i> Tadpoles	Prof. R. N. K. Hooroo
Mr. Md. Shaikhul Islam Khan	Limnological Studies in Selected Floodplain Lakes of Lower Assam with Emphasis on Plankton Diversity and Their Ecological Relationships	Prof. B. K. Sharma
Mr. Kensibo	Limnological Studies in Selected Aquatic Ecosystems of Nagaland with Special Emphasis on Plankton Diversity	Prof. B. K. Sharma
Mr. Nogen Noroh	Limnological Studies in Selected Floodplain lakes of Tinsukia, Assam	Prof. B. K. Sharma

Placement of Students: 2

1. Dr. Gitalee Bhuyan joined as an Assistant Professor, Madhabdev College Narayanpur, Lakhimpur, Assam.
2. Dr. Bodhisattwa Banerjee joined as a SERB National Post-Doctoral Fellow, Department of Zoology, NEHU, Shillong.

School of Life Sciences

Research Fellowships: 10

UGC Non-NET:10

Courses Conducted

Postgraduate: MSc

Semester I

Cell Biology and Immunology, Biological Chemistry and Molecular Biology, Genetics and Developmental Biology.

Semester II

Animal Physiology, Parasitology and Entomology, Techniques in Biology.

Semester III

Endocrinology and Reproductive Biology, Aquatic Biology and Fisheries, Animal Diversity.

Semester IV

Biosystematics and Evolution, Ecology and Environmental Biology, Special Paper.*

*Special Papers Offered: Biochemical Adaptation and Metabolic Regulation, Developmental Biology, Endocrinology and Reproductive Physiology, Fish Biology, Genetics, Helminth Parasitology, Insect Physiology, Limnology, Molecular Cell Biology and Immunology.

PhD Courses

Research Methodology, Optional Papers (Applied Entomology, Chronobiology, Fish Physiology and Toxicology, Freshwater Ecology, Molecular and Biochemical Zoology, Tropical Parasitology), Review of Literature.

Seminars/Conferences/Symposia/Workshops

Organised

Prof. B. B. P. Gupta was Organising Secretary of the 83rd Annual Meeting of the Indian Academy of Sciences (Bangalore) from 3 to 5 November 2017.

Attended

Prof. B. B. P. Gupta

Delivered a (i) State-of-art lecture on “Photoperiod and Temperature Jointly Regulate Inverse Relationship between Thyroid Hormones and Arylalkylamine N-acetyltransferase Activity in Pineal Organ of the Fish, *Clarias gariepinus*” at THYROID 2017 pre-satellite symposium on *Trends in Thyroid Endocrinology* held on 28 November 2017 at Madras Christian College Chennai, and (ii) Planetary lecture on “Circadian Rhythms of Expression of Clock Genes and Arylalkylamine N-acetyltransferase2 (*aanat2*) Gene in the Photoreceptive Pineal Organ of an Air-Breathing Fish, *Clarias gariepinus*” at the international symposium on *Recent Advances in Comparative Endocrinology* held at Madras Christian College (Chennai), and chaired a scientific session (November 29 to December 1, 2017).

Department of Zoology

Prof. N. Saha

Delivered an invited lecture on “Stimulation of Ureogenesis under Hyper-ammonia Stress is Mediated through the Induction of Ornithine-Urea Cycle and Multiple Glutamine Synthetase Genes in Air-breathing Catfishes” at the 1st International Conference on *Frontiers in Biological Environmental and Medical Sciences* held at the University of Burdwan (8–10 March 2018), and chaired two sessions.

Prof. A. S. Dixit

Delivered an invited talk on “Photoperiodic Regulation of Reproduction in Birds” at a workshop on *Mechanism of Adaptation in the Temporal Environment* held at the Department of Zoology, Mizoram University (22 to 23 May 2017). He also chaired a session of the Indo-US workshop and international symposium on *Biological Timing and Health Issues in the 21st Century* held at the Department of Zoology, University of Delhi (21 to 24 February 2017).

Publications

Published in India

- Bharti, R. R., Roy, B. (2017). *In vivo* acute toxicity of a traditionally used medicinal plant *Millettia pachycarpa* (Benth) in Swiss albino mice. *North Bengal University Journal of Animal Sciences*, 11: 15–20.
- Choudhury, S., Das, K. S., Nonglait, K. C. L. (2017). Ecological and medicinal importance of termite fauna. *The NEHU Journal*, 15(1): 79–87.
- Das, K. S., Choudhury, S., Nonglait, K. C. L. (2017). Zootherapy among the ethnic groups of North-Eastern Region of India: A critical review. *Journal of Critical Reviews*, 4(2): 1–9.
- Dixit, A. S., Bamon, I., Byrsat, S., Chetri, R. (2017). Human circadian rhythms and their health implications. *The NEHU Journal*, XV(1): 97–118.
- Hajong, S. R., Thangkhiew, R. (2018). Extension in its distribution range and a new record for the cicada genus *Salvazana distant*, 1913 (Hemiptera: Cicadidae: *Cryptotympanii*) from India. *Journal of Threatened Taxa*, 10(3): 11454–11458.
- Hooroo, R. N. K., Tron, R. K. L., Rangad, D., Thabab, C. M., Devi, L. M., Khongwir, S., Iangrai, A. J. (2017). Oviposition sites of some anurans in East Khasi Hills, Meghalaya, North-East India. *ENVIS Bulletin Diversity and Ecology of Amphibians of India*, p. 141–162.
- Khongsti, S., Lamare, F. A., Shunyub, N. B., Ghosh, S., Maitra, A., Ghosh, S. (2017). Whole genome DNA methylation profiling of oral cancer in ethnic population of Meghalaya, North-East India reveals novel genes. *Genomics*, 110: 112–123.
- Manoram, M., Ramanujam, S. N. (2017). Ultrastructural studies of *Puntius shalynius* an endemic and threatened hill stream fish. *Journal of Environmental Biology*, 35: 835–839.
- Mihisill, K. R. R., Keshan, B. (2017). Ethno-zoological practices by Khasis, an indigenous tribe of Meghalaya, India. *The NEHU Journal*, XV(1): 89–96.
- Saha, N., Banerjee, B. (2017). Dogmas and controversies in handling of nitrogenous wastes: Unique biochemical adaptational strategies evolved in Indian air-breathing catfishes to survive

in extreme environment. *The NEHU Journal*, 15: 41–63.

Thangkhiew, I., Hajong, S. R. (2017). Gut cells in the workers of *Apis cerana indica* (F.). *Indian Journal of Entomology*, 79(1): 49–54.

Published Abroad

Banerjee, B., Koner, D., Lal, P., Saha, N. (2017). Unique mitochondrial localization of arginase 1 and 2 in hepatocytes of air-breathing walking catfish, *Clarias batrachus* and their differential expression patterns under hyper-ammonia stress. *Gene*, 622: 13–22.

Borah, M. P., Prasad, S. B. (2017). Ethnozoological study of animals based medicine used by traditional healers and indigenous inhabitants in the adjoining areas of gibbon wildlife sanctuary, Assam, India. *Journal of Ethnobiology and Ethnomedicine*, 13: 39–51.

Choudhury, M. G., Kumari, S., Das, K. B., Saha, N. (2018). Lipopolysaccharide causes NF κ B-mediated induction of inducible nitric oxide synthase gene and more production of nitric oxide in air-breathing catfish, *Clarias magur* (Hamilton). *Gene*, 658: 18–27.

Dey, P., Roy, B. (2018). Biochemical and ultrastructural changes in *Raillietinae chinobothrida* *in vitro* exposed to extract of *Lysimachia aramosa*. *Journal of Parasitic Diseases*, 42(2): 412–419.

Dixit, A. S., Gupta, N. J., Dwivedi, V., Bhardwaj, S. K. (2017). Control of annual gonadal cycles in Indian song birds. *Biological Rhythm Research*, 48(5): 701–721.

Dixit, A. S., Singh, N. S., Bamon, I. (2017). Photoperiodic time measurement and photoentrainment of circadian locomotor activity rhythm in subtropical tree sparrow. *Photochemical & Photobiological Sciences*, 16: 1146–1152.

Dixit, A. S., Singh, N. S., Byrsat, S. (2017). Role of GnIH in photoperiodic regulation of seasonal reproduction in the Eurasian tree sparrow. *Journal of Experimental Biology*, 220: 3742–3750.

Dikhar, B., Khongsti, K., Thabab, D., Syiem, D., Satyamoorthy, K., Das, B. (2018). Genistein represses PEPCK-C expression in an insulin-independent manner in HepG2 cells and in alloxan-induced diabetic mice. *Journal of Cellular Biochemistry*, 119: 1953–1970.

Manoram, M., Ramanujam, S. N. (2017). Diet of threatened fish *Pethia shalynius* (Yazdani and Talukdar 1975) in the Umiam River, Northeast India. *Asian Fisheries Science*, 30: 38–49.

Nath, P., Yadav, A. K., Soren, A. D. (2017). Sub-acute toxicity and genotoxicity assessment of the rhizome extract of *Acorus calamus* L. a medicinal plant of India. *European Journal of Medicinal Research*, 4: 392–399.

Premabati, Y., Singh, K. M., Gupta, B. B. P. (2017). Inverse relationship between diurnal rhythms in plasma levels of thyroid hormones and pineal arylalkylamine-N-acetyltransferase (AANAT) activity in an air-breathing fish, *Clarias gariepinus*. *Biological Rhythm Research*, 49: 201–214.

Roy, B., Pathaw, D. (2017). Flowcytometric analysis of cell cycle in liver of mice *in vivo* exposed to (+)- α -viniferin, a phytoestrogen. *Journal of Clinical & Experimental Pharmacology*, 7(5), doi:10.4172/2161-1459.1000243.

Sing, K. M., Saha, N., Gupta, B. B. P. (2017). Season-dependent effects of photoperiod and temperature on circadian rhythm of arylalkylamine N-acetyltransferase2 gene expression

Department of Zoology

- in pineal organ of an air-breathing catfish, *Clarias gariepinus*. *Journal of Photochemistry and Photobiology B: Biology*, 173: 140–149.
- Tandon, V., Das, B. (2018). Genistein: Is the multifarious botanical a natural anthelmintic too? *Journal of Parasitic Diseases*, doi:10.1007/s12639-018-0984-0.
- Thounaojam, B., Keshan, B. (2017). Modulation of gene expression by nutritional state and hormones in *Bombyx larvae* in relation to its growth period. *Gene Expression Patterns*, 25–26: 175–183.
- Tobias, J. C., Yadav, A. K., Schmidt-Rhaesa, A., Poulin, R. (2017). Intra- and inter-specific genetic diversity of New Zealand hairworms (*Nematomorpha*). *Parasitology*, 144: 1026–1040.
- Yadav, A. K., Nath, P. (2017). Anthelmintic effects and toxicity of cynodon dactylon (L.) Pers. in rodent models. *Journal of Complementary Medicine Research*, 6: 407–413.
- Yadav, A. K., Schmidt-Rhaesa, A., Limatemjen (2017). First report of the Gondwana genus *beatogordius* from India, with further records of two chordodes species (*Gordiida*, *Nematomorpha*). *Zookeys*, 643: 53–61.
- Yadav, A. K., Tobias, J. C., Schmidt-Rhaesa, A. (2017). *Gordionusmaori* (*Nematomorpha: Gordiida*), a new species of horsehair worm from New Zealand. *New Zealand Journal of Zoology*, 45: 29–42.

Book Chapters/Proceedings

- Kharkongor, M., Hooroo, R. N. K., Dey, S. (2017). Microscopic analysis of blood in *Polypedatereaisensis* tadpoles exposed to chlorpyrifos. In: *EMSI 2017 Proceedings*, p. 71–73.
- Trivedi, A. K., Singh, D., Dixit, A. S., Kumar, V. (2017). Pineal gland, melatonin and timekeeping in non-mammalian vertebrates: Avian perspective. In: *Biological Timekeeping: Clocks, Rhythms and Behaviour*. V. Kumar (Ed.). Springer (India), p. 521–541.

Funds Received from Agencies including NEHU/UGC: ₹6, 36, 57, 077

Research Projects

New: 3

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Molecular Adaptation During Exposure to Zinc Oxide and Titanium Dioxide Nanoparticles with Special Reference to Oxidative Stress, Nitric Oxide Production, and Expression of Heat Shock Proteins in Air-Breathing Catfish, <i>Clariasbatrachus</i>	Prof. N. Saha	DST-SERB	77.272
Effect of Climate Change on Breeding Strategies of Songbirds	Prof. A. S. Dixit	DBT, GoI	20.650
Quantitative Assessment and Mapping of the Diversity of Cicadas from Northeast India	Dr. S. R. Hajong, (PI)	DBT, GoI	69.740

School of Life Sciences

Completed: 3

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Studies on Circadian Rhythm of Arylalkylamine N-Acetyltransferase Gene Expression and Its Regulation in Photoreceptive Pineal of the Fish, <i>Clarias gariepinus</i>	Prof. B. B. P. Gupta	SERB, DST, New Delhi	35.00
Anticipation in Genes: Molecular, Physiological and Behavioral Correlates of Response of Circa-annual Clocks to Seasons in Night-migratory Songbirds: Investigation of Physiological and Metabolic Adaptations in Migrants	Prof. A. S. Dixit	DBT, GoI	6.30
Identification of Biomarkers of Oropharyngeal Cancer Prevalent in North-Eastern States of India by whole Genome Methylation and Expression Profiling	Dr. S. Ghosh (PI), Dr. B. Syunyu (Co-PI), Dr. A. Maitra (Co-PI), Dr. A. Sengupta (Co-PI)	DBT (NER) GoI	85.20
Evaluation of Mitochondrial Glycerophosphate Dehydrogenase (mGPDH) for Its Role in Type 2 Diabetes Mellitus (T2DM) (EMR/ 2016/001283 dated February 01, 2017)	Dr. B. Das (PI)	DST-SERB, GoI	29.54
<i>Niangtaser...</i> Insect Resource from Ribhoi'	Dr. S. R. Hajong (PI), Prof. H. J. Syiemlieh (CoPI)	MBDA, GoM	3.50

Completed: 2

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Identification and Development of DNA Methylation Biomarkers for Stomach Cancers Prevalent in Mizoram, India	Dr. S. Ghosh (PI), Dr. S. Chenkual (Co-PI)	DST, GoI	46.54
Identification and Development of DNA Methylation Biomarkers for Oral/ Oropharyngeal Cancers Prevalent in the North-Eastern States of India	Dr. Dr. S. Ghosh (PI), Dr. B. Shunyu (Co-PI)	DBT, GoI	53.08

Department of Zoology

Academic Collaborations

In India

Prof. R. N. K. Hooroo

Collaborated with Prof. S. K. Dutta (Nature Environment and Wildlife Society, Nature House, Odisha) on *Studies on the Breeding Biology and Development of Amphibians with Reference to Meghalaya, North-East India*.

Prof. N. Saha

Collaborated with Dr. Manas Santra (Scientist F, National Centre for Cell Sciences, Pune) on *Possible Induction of Ornithine-Urea Cycle Genes in Air-Breathing Catfishes under Ammonia Stress*.

Prof. A. S. Dixit

Collaborated with (i) Prof. Vinod Kumar (Department of Zoology, Delhi University), (ii) Prof. Sangeeta Rani (Department of Zoology, Lucknow University), (iii) Dr. Praful Singru (NISER, Bhubaneswar), (iv) Dr. Monika Sadanada (Mangalore University, Mangalore), and (v) Sanjay Bhardwaj (Ch. Charan Singh University, Meerut) on *Molecular, Physiological, Metabolic and Behavioral Correlates of Responses of Circadian and Circa-Annual Clocks to Seasons in Non-Migratory and Night-Migratory Songbirds*.

Dr. S. Ghosh

Collaborated with (i) Dr. Arindam Maitra (National Institute of Biomedical Genomics, Kalyani, West Bengal) for the project *Identification of Biomarkers of Oropharyngeal Cancer Prevalence in North-Eastern States of India by Whole Genome Methylation and Expression Profiling*, (ii) Dr. Neizekhotuo Brian Shunyu (NEIGRIHMS) for the projects: (a) *Identification of Biomarkers of Oropharyngeal Cancer Prevalence in North-Eastern States of India by Whole Genome Methylation and Expression Profiling*, (b) *Identification and Development of DNA Methylation Biomarkers for Oral/Oropharyngeal Cancer Prevalence in the North-Eastern States of India*, and (iii) Dr. Saia Chenkual (Civil Hospital, Aizwal, Mizoram) for the project *Identification and Development of DNA Methylation Biomarkers for Stomach Cancers Prevalent in Mizoram, India*.

Dr. B. Das

Collaborated with (i) Prof. K. Satyamoorthy (Director, MLSC, Manipal University, Manipal), and (ii) Prof. S. Mishra (Scientist-E, ILS, Bhubaneswar, Odisha) on *Verification of Epigenetic Status with Pro/Anti Apoptotic Activity of the Genes Involved in Aging and Their Possible Correlation with Breast Cancer*.

Abroad

Prof. R. N. K. Hooroo

Collaborated with Prof. Indraneil Das (Institute of Biodiversity and Environmental Conservation, University of Malaysia, Sarawak) on *Survey and Identification of Some Amphibians in Some Select Forests of Meghalaya*.

School of Life Sciences

Prof. N. Saha

Submitted the following sequences to the GenBank and accession numbers received (2017–2018):

- 1) MG571500: Banerjee, B., Koner, D., Saha, N. *Clariasbatrachus* NFkB p65 transcription factor (rela) mRNA, partial cds, 1491bp.
- 2) KY793551.1: Banerjee, B., Koner, D., Saha, N. *Clariasbatrachus* inhibitor of nuclear factor kappa-B kinase subunit alpha mRNA, complete cds, 3718 bp.
- 3) MF100768: Banerjee, B., Koner, D., Saha, N. *Heteropneustesfossilis* aquaporin-1 (aqp1) mRNA, complete cds, 1733 bp.
- 4) MG545607: Banerjee, B., Koner, D., Saha, N. *Heteropneustesfossilis* aquaporin-3 (aqp3) mRNA, complete cds, 941 bp.
- 5) MG545608: Banerjee, B., Koner, D. and Saha, N. *Heteropneustesfossilis* aquaporin-8 (aqp8) mRNA, complete cds, 856 bp.
- 6) MG545609: Banerjee, B., Koner, D., Saha, N. *Heteropneustesfossilis* aquaporin-12 (aqp12) mRNA, complete cds, 865 bp.

Prof. A. K. Yadav

Collaborated with Prof. Andreas Schmidt-Rhaesa (CeNAK, University of Hamburg, Germany) on Biodiversity of Indian Nematomorphs.

Dr. B. Das

Collaborated with Dr. Todd Holyoak (Associate Professor, Department of Biology, University of Waterloo, Canada) on *Crystallisation of PEPCK Variants from Different Organisms in Order to Find out Possible Inhibitors*.

Honours/Awards/Recognitions

Prof. B. B. P. Gupta

Member of the Editorial Board of the *American Journal of Experimental Biology*, Columbia International Publication, USA.

Prof. S. B. Prasad

Member of the Editorial Board of the *Journal of Bioresources* (Rajiv Gandhi University).

Prof. N. Saha

PAC Member of the DST-SERB Animal Science Group, New Delhi (2015–2018). He is also Expert Committee Member for the DST-SERB Young Scientists Scheme, New Delhi (2015–2018), and Task Force Member of the DST-SERB Empowerment and Equity Opportunities for Excellence in Science Committee (2016–2019). Research Advisory Committee Member of the ICAR-National Bureau of Fish Genetic Resources, Lucknow.

Prof. A. K. Yadav

Received the M. M. Chakravorty Commemoration Lecture Award-2018 given by the Zoological Society of Kolkata, Kolkata University.

Department of Zoology

Member of the Editorial Board of the *Journal of Parasitic Diseases* (Springer), and the *Journal of Alternative Medical Research*, Elyns Publishing Group, USA.

Prof. A. S. Dixit

Vice-President, Association of Avian Biologists in India.

Editorial Board Member of the *Global Journal of Zoology*, *NEHU Journal*, *International Journal of Research Studies in Zoology*.

Other Activities

Prof. B. B. P. Gupta

Member of the Selection Committee for Summer Research Fellowship 2017 of the Indian Academy of Sciences (Bengaluru) and Chairperson of the NASI North-East Regional Chapter (Shillong). He also organised a science awareness programmes at Kolasib College (Mizoram), G. C. College (Silchar, Assam) and schools/colleges, including the North-Eastern Institute of Ayurveda and Homoeopathy (Shillong).

Prof. S. B. Prasad

Regular reviewer for Journals of *Biomedicine and Pharmacotherapy*, *Elsevier*, *PlosONE*, *Journal of Ethnopharmacology* (Elsevier).

Prof. R. N. K. Hooroo

Acted as a resource person and delivered a talk at a science awareness programme organised by the NASI-NER programme Local Chapter at Nongstoin College, Meghalaya (November 29, 2017), Kolasib College, Mizoram (February 15, 2018), and G. C. Government College Silchar, Assam (February 16, 2018).

Prof. N. Saha

Member of (i) Board of Postgraduate Studies, Department of Zoology, Sikkim University, Gangtok, and (ii) Board of Studies of the Department of Zoology, Tripura University, Agartala.

Delivered an invited lecture at the ICAR-National Bureau of Fish Genetic Resources, Lucknow on “Role of Ureogenesis and Multiple Glutamine Synthetase Genes to Survive under Hyper-Ammonia Stress in Air-Breathing Catfishes” (24 February 2018).

Reviewer for the journals of *PlosOne*, *Biochemie*, *Ecotoxicology and Environmental Safety*, *Aquatic Toxicology*, *Comparative Biochemistry and Physiology*.

Prof. S. N. Ramanujam

Member of the Board of Studies of the Department of Zoology, Mizoram University, Aizawl.

Prof. A. K. Yadav

Reviewer for the *PLoS Neglected Tropical Diseases*, *Journal of Ethnopharmacology* (Elsevier), *PlosOne*, *BMC Complementary and Alternative Medicine*, *Journal of Parasitic Diseases* (Springer), and *Experimental Parasitology* (Elsevier).

Prof. A. S. Dixit

Reviewer for a number of the *International Journals in Zoology*, *Biology*, *Behavior Chronobiology*.

School of Life Sciences

Dr. B. Keshan

Visiting Fellow at the Department of Zoology, Tripura University (April 10–17, 2017).

Reviewer for the *Scientific Reports*, Nature Publishing Group. Member of the University Level Yoga Committee to observe International Yoga Day on 21 June 2017 at Shillong Campus.

Dr. S. Ghosh

Reviewer for the journal of *Current Science*.

Dr. B. Das

Reviewer for the *Journal of Parasitic Diseases*, *Bioscience Reports*, and *Biochemical Journal*.

VI



SCHOOL OF PHYSICAL SCIENCES

Dean : Prof. R. H. Duncan Lyngdoh
Telephone : 0364-2722501(O)/9436333332(M)
E-mail : rhdl@nehu.ac.in, harkuduncanl@yahoo.co.in

The School of Physical Sciences consists of the Departments of Chemistry, Mathematics, Physics and Statistics. All the Departments are involved in postgraduate teaching and research (PhD and MPhil) programmes. Every department has its chosen thrust areas for carrying out research work. The 37 faculty members in the School engage in research of significance, leading to a total of 74 publications. In addition to many individual research projects, the Departments have received extra financial support from DST-FIST and UGC-SAP. The Department of Chemistry is a UGC Centre of Advanced Study. Ninety MSc students and ten PhD scholars were awarded their degrees. Many faculty members have national and international collaborations.



DEPARTMENT OF CHEMISTRY

Head : Prof. K. M. Rao
Telephone : 0364-2722601(O)/9436166937(M)
E-mail : kmrao@nehu.ac.in

Faculty: 17

Designation	Name and Qualification	Specialization
Professor (7)	B. Myrboh, MSc & PhD (NEHU)	Organic Chemistry
	R. H. Duncan Lyngdoh, MSc (NEHU), PhD (IIT Madras)	Organic Chemistry
	R. A. Lal, MSc & PhD (BHU)	Inorganic Chemistry
	K. Mohan Rao, MSc (SV Univ), PhD (IIT Kanpur)	Inorganic Chemistry
	A. K. Chandra, MSc & PhD (Burdwan)	Physical Chemistry
	G. Bez, MSc & PhD (Gauhati)	Organic Chemistry
	T. S. Basu Baul, MSc (Jabalpur), PhD (N. Bengal)	Inorganic Chemistry
Associate Professor (4)	H. Askari, MSc/PhD (AMU)	Physical Chemistry
	M. K. Sahoo, MSc (Utkal), PhD (Comenius, Czechoslovakia)	Organic Chemistry
	S. Mitra, MSc (Vidyasagar), PhD (IACS, Kolkata)	Physical Chemistry
	M. Velusamy, MSc & PhD (Bharathidasan)	Inorganic Chemistry
Assistant Professor (6)	R. L. Nongkhlaw, MSc & PhD (NEHU)	Organic Chemistry
	E. K. Rymmai, MSc & PhD (NEHU)	Inorganic Chemistry
	D. P. S. Negi, MSc & PhD (IIT Roorkee)	Physical Chemistry
	B. Sarkar, MSc (N. Bengal), PhD (IIT Guwahati)	Physical Chemistry
	A. K. Pal, MSc (Calcutta), PhD (Kalyani)	Organic Chemistry
	S. Khatua, MSc (Vidyasagar), PhD (IIT Kharagpur)	Inorganic Chemistry

Thrust Areas of Research

Organometallic Chemistry, Coordination Chemistry, Computational Chemistry, Theoretical Reaction Kinetics, Synthetic Organic Chemistry, Heterocyclic Chemistry, Chemistry of Surfactants, Dynamics of Excited States, Photocatalysis, Natural Products Chemistry.

Brief Statement of Academic Activities

The Department has been accorded as a Centre for Advanced Studies in Chemistry by UGC and is also being supported by DST through FIST. The Department offers both MSc and PhD

Department of Chemistry

programmes. Thirty-eight MSc and ten PhD students were admitted to the Department in 2017-18. Ten students were awarded their PhD degree. All faculty members are engaged in active research. Nine students qualified for the CSIR NET JRF/Lectureship and one for SLET (North-East). Seven students are working as post-doctoral fellows both in India and abroad. There are four individual research schemes funded by DST-SERB.

Students' Profile

Enrolment Capacity: MSc—36, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	21	17		22		16	25	13	38
PhD	04	06	01	04		05	04	06	10

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	14	21	00	21	02	12	15	20	35
PhD	07	03	02	05		03	02	08	10

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Markoni Lily	Theoretical Investigations on Kinetics and Thermochemistry of Reactions of Oxygenated Hydrofluorocarbons with OH Radicals and Cl Atoms and Their Atmospheric Implications	Prof. A. K. Chandra
Ms. Iadeishisha Kharbangar	Synthesis of Heterocycles Using KF-Alumina as Catalyst: Development of New Methods in Organic Synthesis	Prof. B. Myrboh
Ms. Sanchayita Rajkhowa	Physicochemical Studies of Cationic and Anionic Surfactant Mixtures in Presence of Mono-, Di- and Trihydric Alcohols	Prof. K. Ismail
Mr. Basava Punna Rao Aradhyula	Synthesis and Spectral Studies of Platinum Group Metal Complexes Comprising η^5 - and η^6 -Cyclic Π -Perimeter Hydrocarbons with Multidentate Nitrogen Donor Ligands	Prof. K. Mohan Rao
Mr. O. Sanentiba Ozukum	Spectroelectrochemical Studies of Some Metalloporphyrins	Prof. R. A. Lal
Mr. Sankey Shangpung	Molybdenum (VI), Vanadium (V), Copper (II) and Zinc (II) Complexes Derived from Multidentate Nitrogen and Oxygen Donor Ligands and Their Catalytic Application in Alcohol Oxidation	Prof. R. A. Lal

School of Physical Sciences

Mr. Pelesakuo Kehie	Synthesis, Characterization and Structures of Organotin (IV) Complexes of Some Schiff Base Ligands Derived from Amino Acids	Prof. T. S. Basu Baul
Mr. Dhrubajyoti Dutta	Synthesis, Characterization and Structures of Organotin and Organoiron Complexes	Prof. T. S. Basu Baul
Mr. Sibaji Nandi	Development of New Metodologies for the Synthesis of Novel Heterocycles Containing Oxygen and Nitrogen	Dr. A. K. Pal
Mr. Narasinga Rao Palepu	Synthesis and Spectral Studies of Complexes of Platinum Group Metals Bearing η^5 - and η^6 -Cyclic Hydrocarbons and Multidentate Nitrogen Donor Ligands	Prof. K. Mohan Rao

Placement of Students

MSc students passing out from this Department have been placed as teachers in different colleges and schools, as scientists in research organizations, and as research scholars in this Department and other institutes. Some research scholars have joined different universities/institutes as research associates. Two PhD scholars got faculty position in colleges in Shillong:

1. Dr. Iadeishisha Kharbangar got faculty position as Assistant Professor in St. Anthony's College, Shillong.
2. Dr. Deboshikha Bhattacharjee has joined as Senior Research Assistant in Chemveda Life sciences, Hyderabad.

Courses Conducted

Postgraduate: MSc

Semester I

Inorganic Chemistry I, Organic Chemistry I, Physical Chemistry I, Quantum Chemistry, Laboratory Course in Organic Chemistry.

Semester II

Inorganic Chemistry II, Organic Chemistry II, Physical Chemistry II, Molecular Spectroscopy, Laboratory Course in Inorganic Chemistry.

Topics in Organic Synthesis, Computer Programming in Chemistry, Organometallic Chemistry, Bioorganic Chemistry, Chemistry of Surfactants.

Semester III

Inorganic Chemistry III, Organic Chemistry III, Physical Chemistry III, Applications of Spectroscopic Methods, Laboratory Course in Physical Chemistry, Environmental and Analytical Chemistry, Photochemistry, Bioinorganic Chemistry, Natural Products Chemistry, Principles and Applications of Fluorescence Spectroscopy.

Department of Chemistry

Semester IV

Inorganic Chemistry IV, Organic Chemistry IV, Physical Chemistry IV, Seminar, Project Work in Inorganic, Organic and Physical Chemistry.

PhD Courses

Research Methodologies in Chemistry, Spectroscopic and Crystallographic Techniques in Chemistry, Advanced Inorganic Chemistry, Advanced Organic Chemistry, Advanced Physical Chemistry, Advanced Quantum Chemistry.

Seminars/Conferences/Symposia/Workshops

Organised

Dr. R. L. Nongkhlaw organised a regional workshop on *Research Based Pedagogical Tools* (RBPTs) as local Co-ordinator in the Department from 27 to 29 July 2017.

Dr. H. Askari was Member of the Organising Sub-Committee of the 83rd Annual Meeting of the Indian Academy of Sciences in NEHU, Shillong (3–5 November 2017).

Attended

Prof. R. H. D. Lyngdoh

Delivered an invited talk on “Models for Structure and Reactivity of Molecules” at the national seminar on *Recent Developments in Chemistry* held at St. Mary’s College, Shillong (12–13 July 2017).

Prof. A. K. Chandra

Delivered an invited talk entitled “Nature and Tunability of Halogen Bonding: A Theoretical Study” at the national symposium on *Recent Trends in Chemical Sciences* (RTCS 2017) held at NIT (Meghalaya, Shillong) on 12 & 13 October 2017.

Dr. H. Askari

Presented posters entitled (i) “Synthesis and Reactivity of Ag@Au-Ag-ap/SBA-15 Heterogeneous Catalysts for Oxidation of Styrene” at the national seminar on *Recent Developments in Chemistry*, Department of Chemistry, Saint Mary’s College, Shillong (12–13 July, 2017), and (ii) “Micellization Behaviour of Cis-[Co(en)₂(C₁₂H₂₅NH₂)Cl]Cl₂, Metallosurfactants” at the international conference on *Emerging Trends in Chemical Sciences* held at the Department of Chemistry, Dibrugarh University (26–28 February 2018).

Delivered a lecture on “Adsorption and Micellization Behaviour of Cis-[Co(en)₂(C₁₂H₂₅NH₂)Cl]Cl₂ Metallosurfactants” during the UGC-sponsored national seminar on *Recent Trends in Environment Responsive Chemical Processes* held at the Department of Chemistry, D. R. College, Golaghat (22–23 September 2017).

Dr. S. Mitra

Delivered an invited lecture on “Time-Resolved Studies on ESIPT Systems: Targeted Manipulation of Multiple Emissive States” at the national workshop on *Fluorescence and Raman Spectroscopy* (FCS 2017) held at the Indian Institute of Technology, Guwahati (17–21 December 2017).

School of Physical Sciences

Dr. S. Khatua

Delivered an invited lecture on “Ru(II) and Ir(III) Complex Based Probes for Multianalyte Sensing and Biological Applications” at the national symposium on *Recent Trends in Chemical Sciences* (RTCS), NIT, Meghalaya (12–13 October 2017).

Dr. Rishanlang Nongkhlaw

Presented posters entitled (i) “Glutathione Functionalised Superparamagnetic Iron-Oxide Nanoparticle for Enhanced Carbon-Oxygen Ring Formation” at the international conference on *Chemistry for Human Development* at the Heritage Institute of Technology, Calcutta University, Kolkata (8–10 January 2018), and (ii) “VitB1Coated Ferrite Nanoparticles for Carbon-Oxygen and Carbon-Nitrogen Ring Cyclization” at the 23rd CRSI National Symposium in *Chemistry* (CRSI-NSC 23), Pt. Ravishankar Shukla University, Raipur (2–4 February 2018).

Delivered invited lectures on (i) “Organo-immobilized Magnetic Nanocatalyst for Carbon-Oxygen and Carbon Nitrogen Ring Cyclization” at the national symposium on Recent Trends in Chemical Sciences (RTCS), NIT, Meghalaya (12–13 October 2017), and (ii) “Magnetically Retrievable Nanocatalyst for Multi Component Reactions” at the XVIII NOST Conference, IISER, Bhopal (24–27 August 2017).

Dr. Biplab Sarkar

Delivered an invited lecture on “Hydrogen Bonding Interactions in Gas Phase 3-halo Catechol and 2-hydroxy Thiophenol with a Water Molecule” at IACSCSSD 2018, IACS, Kolkata (22–25 February, 2018).

Publications

Published abroad

- Adhikari, S., Hussain, O., Phillips, R. M., Kollipara, M. R. (2018). Half-sandwich d6 metal complexes comprising of 2-substituted-1,8-naphthyridine ligands with unexpected bonding modes: Synthesis, structural and anti-cancer studies. *Journal of Organometallic Chemistry*, 854: 27–37.
- Adhikari, S., Kaminsky, W., Kollipara, M. R. (2017). Investigation of the coordination chemistry of multidentateazine Schiff-base ligands towards d6 half-sandwich metal complexes. *Journal of Organometallic Chemistry*, 848: 95–103.
- Aradhyula, B. P. R., Joshi, N., Poluri, K.M., Kollipara, M. R. (2018). Synthesis and antibacterial studies of rhodium and iridium complexes comprising of dipyridylhydrazones. *Journal of Molecular Structure*, 1164: 191–199.
- Aradhyula, B. P. R., Kaminsky, W., Kollipara, M. R. (2017). Half-sandwich d6 metal complexes with bis(pyridine carboxamide)benzene ligand: Synthesis and spectral analysis. *Journal of Molecular Structure*, 1149: 162–170.
- Aradhyula, B. P. R., Mawnai, I. L., Kaminsky, W., Kollipara, M. R. (2018). Synthesis and spectral studies of sterically hindered half-sandwich d6 metal complexes containing quinoxaline based electron rich heterocyclic pyrazoles. *Inorganica Chimica Acta*, 476: 101–109.

- Baidya, B., Lily, M., Chandra, A. K. (2017). Theoretical studies on atmospheric chemistry of CHF₂CF₂CH₂OH: Reaction with OH radicals, lifetime and global warming potentials. *Computational and Theoretical Chemistry*, 1119: 1–9.
- Baruah, P., Basumatary, G., Yesylevskyy, S. O., Aguan, K., Bez, G., Mitra, S. (2018). Novel coumarin derivatives as potent acetylcholinesterase inhibitors: Insight into efficacy, mode and site of inhibition. *Journal of Biomolecular Structure and Dynamics*, <https://doi.org/10.1080/07391102.2018.1465853>.
- Basu Baul, T. S., Dutta, D., Duthie, A., Guedes da Silva, M.F. C. (2017). Influencing the outcome: Diorganotin(IV) ladder to macrocycle conversion through solvent selection. *Inorganic Chemistry Communications*, 84: 68–71.
- Basu Baul, T. S., Longkumer, I., Duthie, A., Singh, P., Koch, B., Guedes da Silva, M.F. C. (2018). Triphenylstannyl(arylimino)methylbenzoates with selective potency that induce G1 and G2/M cell cycle arrest and trigger apoptosis via ROS in human cervical cancer cells. *Dalton Transactions*, 47: 1993–2008.
- Basumatary, G., Bez, G. (2017). Ethyl acetate as an acetyl surrogate for the iodine catalyzed acetylation of alcohols. *Tetrahedron Letters*, 58(45): 4312–4315.
- Bhattacharjee, D., Sutradhar, D., Chandra, A. K., Myrboh, B. (2017). L-proline as an efficient asymmetric induction catalyst in the synthesis of chromeno[2,3-d]pyrimidine-triones, xanthenes in water. *Tetrahedron*, 73: 3497–3504.
- Bhattacharjee, K., Kumar, S., Palepu, N. R., Patra, P. K., Joshi, S. R., Kollipara, M. R. (2017). Structure elucidation and in silico docking studies of a novel furopyrimidine antibiotics synthesized by endolithic bacterium *Actinomadura* sp. AL2. *Journal of Microbiology and Biotechnology*, 33: 178–193.
- Bora, P., Bora, P. P., Wahlang, B., Bez, G. (2017). Michael addition at neutral pH: A facile synthesis of 1, 3-dinitroalkanes. *Canadian Journal of Chemistry*, 95(12): 1261–1266.
- Chingbiaknem, E., Neihsial, S., Duncan Lyngdoh, R. H. (2018). Isomorphic repeat units for novel information-bearing H-bonded duplexes. Part I. Pyrimidine base pairs with polyamide backbone. *Computational and Theoretical Chemistry*, 1126: 33–43.
- Dam, B., Jamatia, R., Gupta, A., Pal, A. K. (2017). Metal-free greener syntheses of pyrimidine derivatives using a highly efficient and reusable graphite oxide carbocatalyst under solvent-free reaction conditions. *ACS Sustainable Chemistry & Engineering*, 5: 11459–11469.
- Dam, B., Patil, R. A., Ma, Y. R., Pal, A. K. (2017). Preparation, characterization and catalytic application of nano-Fe₃O₄-DOPA-SnO₂ having high TON and TOF for non-toxic and sustainable synthesis of dihydroquinazolinone derivatives. *New Journal of Chemistry*, 5: 6553–6563.
- Devi, M., Chingbiaknem, E., Duncan Lyngdoh, R. H. (2018). A molecular mechanics study on GA codon box translation. *Journal of Theoretical Biology*, 441: 28–43.
- Diamai, S., Warjri, W., Saha, D., Negi, D. P. S. (2018). Sensitive determination of 6-mercaptopurine based on the aggregation of phenylalanine-capped gold nanoparticles. *Colloids and Surfaces*

- A, 538: 593–599.
- Gupta, A., Jamatia, R., Mahato, M., Pal, A. K. (2017). Metalloprotein inspired ruthenium polymeric complex: A highly efficient catalyst in ppm level for 1,3-dipolar Huisgen's reaction in aqueous medium at room temperature. *Industrial & Engineering Chemistry Research*, 56: 2375–2382.
- Hsia, C. H., Jayakumar, T., Sheu, J. R., Tsao, S. Y., Velusamy, M., Hsia, C. W. Chou, D. S., Chien, C. C., Chung, C. L., Themmla, K., Lin, K. C. (2018). Structure-antiplatelet activity relationships of novel ruthenium (II) complexes: Investigation of its molecular targets. *Molecules*, 477: 1–15.
- Hsia, C. H., Velusamy, M., Sheu, J. R., Themmla, K., Jayakumar, T., Lu, W. J., Lin, K. H., Chang, C. C. (2017). A novel ruthenium (II)-derived organometallic compound, TQ-6, potently inhibits platelet aggregation: *Ex vivo* and *in vivo* studies. *Scientific Reports*, 9556: 1–14.
- Hsia, C. W., Velusamy, M., Tsao, J. T., Hsia, C. H., Chou, D. S., Jayakumar, T., Lee, L. W., Li, J. Y., Sheu, J. R. (2017). New therapeutic agent against arterial thrombosis: An iridium(III)-derived organometallic compound. *International Journal of Molecular Sciences*, 2616: 1–16.
- Islam, M. M., Rohman, M. A., Gurung, A. B., Bhattacharjee, A., Aguan, K., Mitra, S. (2018). Correlation of cholinergic drug induced quenching of acetylcholinesterase bound thioflavin-T fluorescence with their inhibition activity. *Spectrochim Acta A: Molecular and Biomolecular Spectroscopy*, 189: 250–257.
- Jamatia, R., Gupta, A., Dam, B., Saha, M., Pal, A. K. (2017). Graphite oxide a metal free highly efficient carbocatalyst for the synthesis of 1,5-benzodiazepines under room temperature and solvent free heating condition. *Green Chemistry*, 19: 1576–1585.
- Jamatia, R., Gupta, A., Pal, A. K. (2017). Ru-Ferrite-decorated graphene (RuFG): A sustainable and efficient catalyst for conversion of aromatic aldehydes and nitriles to primary amides in aqueous medium. *ACS Sustainable Chemistry and Engineering*, 5: 7604–7612.
- Kharnaik, K., S., Duncan Lyngdoh, R. H., Chandra, A. K. (2017). C₄H₄ radical cation isomers: Generation, structure, stability, and isomerization reactions. *Computational and Theoretical Chemistry*, 1115: 158–168.
- Kurbah, S. D., Asthana, M., Syiemlieh, I., Lal, R. A. (2018). Bimetallic cis-dioxido-molybdenum(VI) complex containing multidentatehydrazone ligand catalyzed the oxidation of alcohols in biphasic medium. *Current Organocatalysis*, 4(3): 189–195.
- Kurbah, S. D., Asthana, M., Syiemlieh, I., Lal, R. A. (2018). Peroxidative catalytic oxidation of alcohols catalyzed by heterobinuclearvanadium(V) complexes using H₂O₂ as terminal oxidizing agents. *Applied Organometallic Chemistry*, 32: 4299.
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- Kurbah, S. D., Kumar, A., Shangpung, S., Asthana, M., Syiemlieh, I., Lal, R. A. (2017). Oxidation of alcohols by hydrogen peroxide catalyzed by trinuclear copper(II) complex [Cu₃(slmh)(μ-Cl)₂(CH₃OH)₃].0.5CH₃OH derived from disalicylaldehyde malonoyldihydrazone. *Current Organocatalysis*, 4: 62–68.

- Kurbah, S. D., Kumar, A., Shangpung, S., Syiemlieh, I., Khongjoh, I., Lal, R. A. (2017). Synthesis, characterization, and fluorescence chemosensor properties of a cis-dioxomolybdenum(VI) complex containing multidentatehydrazone ligands. *Zeitschrift für anorganische und allgemeine Chemie*, 794–801.
- Kurbah, S. D., Kumar, A., Syiemlieh, I., Asthana, M., Lal, R. A. (2017). Bimetallic cis-dioxomolybdenum (vi) complex containing hydrazone ligand: Syntheses, crystal structure and catalytic studies. *Inorganic Chemistry Communications*, 86: 39–43.
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- Kurbah, S. D., Kumar, A., Syiemlieh, I., Lal, R. A. (2017). Synthesis, characterization, structure and properties of heterobimetallic complexes [CuNi(μ -OAc)(μ -OH)(μ -OH₂)(bpy)₂](BF₄)₂ and [CuNi(bz)₃(bpy)₂]ClO₄ from 2,2' bipyridine. *Journal of Molecular Structure*, 1154: 535–542.
- Kurbah, S. D., Kumar, A., Syiemlieh, I., Lal, R. A. (2018). Crystal structure and biomimetic activity of homobinuclear dioxidovanadium(V) complexes containing succinoyldihydrazones ligands. *Polyhedron*, 139: 80–88.
- Kurbah, S. D., Syiemlieh, I., Lal, R. A. (2018). Colorimetric detection of hydrogen peroxide by dioxido-vanadium (v) complex containing hydrazone ligand: Synthesis and crystal structure. *Royal Society Open Science*, 5: 171471.
- Lal, R. A., Kumar, K., Syiemlieh, I., Kurbah, S. D. (2017). Synthesis, characterization, and catalytic activity of a water soluble copper(II) and nickel(II) heterobimetallic complex [CuNi(μ -OH)(μ -OH₂)(μ -OAc)(bpy)₂](ClO₄)₂ in aqueous medium in the absence of a base and co-catalyst. *Journal of Coordination Chemistry*, 70(15): 2722–2735.
- Muthuramalingam, S., Themmla, K., Velusamy, M., Mayilmurugan, R. (2017). Catalytic fixation of atmospheric carbon dioxide by copper(II) complexes of bidentate ligands. *Dalton Trans.*, 46: 16065–16076.
- Nandi, S., Gupta, A., Pal, A. K. (2017). A New MCR strategy generating a collection of skeletally diverse simple molecules combinatorially. *Letters in Organic Chemistry*, 14: 291–299.
- Nongthombam, G. S., Kharmawlong, G. K., Kumar, J. E., Nongkhaw, R. L. (2018). UV365 light promoted catalyst-free synthesis of pyrimido[4,5-b]quinoline-2,4-diones in aqueous-glycerol medium. *New Journal of Chemistry*, <https://doi.org/10.1039/C8NJ01459K>.
- Nongthombam, G. S., Nongkhaw, R. L. (2018). Experimental and theoretical studies on SPION@ glutathione catalyzed synthesis of indolylchromene, indolo xanthene, and pyrimido[4,5-b]quinolone. *Synthetic Communications*, 48(5): 541–552.
- Patra, S. K., Sheet, S. K., Sen, B., Aguan, K., Roy, D. R., Khatua, S. (2017). Highly sensitive bifunctional probe for colorimetric cyanide and fluorometric H₂S detection and bioimaging: Spontaneous resolution, aggregation, and multicolor fluorescence of bisulfide adduct. *Journal of Organic Chemistry*, 82: 10234–10246.

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- Saha, D., Negi, D. P. S. (2018). Spectroscopic investigations on the interaction of thioacetamide with ZnO quantum dots and application for its fluorescence sensing. *Spectrochimica Acta A*, 189: 516–521.
- Salam, T., Devi, S. P., Duncan Lyngdoh, R. H. (2017). Molecular criteria for mutagenesis by DNA methylation: Some computational elucidations. *Mutation Research*, 807: 10–20
- Sheet, S. K., Sen, B., Patra, S. K., Rabha, M., Aguan, K., Khatua, S. (2018). Aggregation-induced emission-active ruthenium (II) complex of 4,7-dichloro phenanthroline for selective luminescent detection and ribosomal RNA imaging. *ACS Applied Materials and Interfaces*, 10: 14356–14366.
- Shyu, K.G., Velusamy, M., Hsia, C. W., Yang, C. H., Hsia, C. H., Chou, D. S., Jayakumar, T., Sheu, J. R., Li, J. Y. (2018). Novel iridium (III) derived organometallic compound for the inhibition of human platelet activation. *International Journal of Molecular Medicine*, 41(5): 2589–2600.
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- Syiemlieh, I., Kumar, A., Kurbah, S. D., De, A. K., Lal, R. A. (2017). Low-spin manganese(II) and high-spin manganese(III) complexes derived from disalicylaldehyde oxaloyldihydrazone: Synthesis, spectral characterization and electrochemical studies. *Journal of Molecular Structure*, 1151: 343–352.
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Department of Chemistry

oxaloyldihydrazones, 1, 10-phenanthroline and 2,2'-bipyridine. *Journal of Molecular Structure*, 1166: 252–261.

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Winaki, P. S., Kannan, A., Saravanan, D., Velusamy, M. (2018). N,N-Dimethyl-2-[(1E)-{[(methylsulfanyl)methanethioyl]amino}imino)methyl]aniline. *IUCrData*, x180461: 1–3.

Funds Received from Agencies including NEHU/UGC

UGC SAP (CAS) : ₹1,10,75,000

Research Projects

New: 2

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Cyclometalated Platinum-Based Triplet Emitters for OLED Applications	Dr. Marappan Velusamy	DST-SERB	35.05
Preparation and Characterization of Stabilized Magnetic Nanoparticles (MNPs) Supported with Pd Complex and Catalytic Uses in C-H Activation and Asymmetric Synthesis	Dr. Amarta Kumar Pal	DST-SERB	25.55

Ongoing: 2

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Synthetic Studies on Organo Encapsulated Nanoparticles for Fabrication of C-N, C-O, C-S Bonds Leading to Five and Six Membered Rings: An Experimental and Computational Approach	Rishanlang Nongkhaw	DST-SERB	28.51
Theoretical Investigations of Hydrogen Bond Interactions Involved in the Reactions of Volatile Organic Compounds Presents in the Atmosphere	Dr. Biplab Sarkar	SERB, DST	25.00

School of Physical Sciences

Completed: 4

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Synthetic Studies of Selenium Dioxide (SeO ₂), Selenous acid (H ₂ SeO ₃) and Selenic Acid (H ₂ SeO ₄) in Organic Reactions: Synthesis of Important Organo-Selenium Intermediates and Attempt at Asymmetric Synthesis of a substituted Propiophenones and Related Reactions	Prof. B. Myrboh	SERB, DST, New Delhi	49.06
Development of Lab-on-a-Molecule Chemosensor for Cation and Anion Sensing	Dr. S. Khatua,	SERB-DST, New Delhi	27.60
Mineralization and Biototoxicity Assessment Studies of Selected Surfactant Formulations by Some Advanced Oxidation Processes	Dr. M. K. Sahoo	DAE-BRNS, Mumbai	31.19

Academic Collaborations

Prof. R. H. Duncan Lyngdoh

Collaborated with (i) Prof. H. F. Schaefer (Director, Centre for Computational Quantum Chemistry, University of Georgia, USA) for *Computational Quantum Chemistry*, (ii) Prof. R. Bruce King (Regents Professor, Department of Chemistry, University of Georgia, Athens, Georgia, USA) on *Computational Studies of Transition Metal Complexes and Biomolecules*.

Prof. K. M. Rao

Collaborated with (i) Roger M Phillips (Professor of Cancer Pharmacology, Director of Research, University of Huddersfield, Huddersfield), and (ii) Werner Kaminsky (Department of Chemistry, University of Washington, Seattle, USA) on *Carrying Biological Studies and Single Crystal X Ray Analysis*.

Prof. A. K. Chandra

Collaborated with the Quantum Chemistry Group, University of Leuven (Belgium, and the Department of Chemistry, Quy Nhon University, Vietnam) on *High End Theoretical Calculations*.

Prof. T. S. Basu Baul

Collaborated with (i) Profs. A. Linden (Department of Chemistry, University of Zurich, Switzerland), U. Englert (Institut für Anorganische Chemie, RWTH Aachen, Germany), H. Höpfl (Centro de Investigaciones Químicas, Universidad Autónoma del Estado de Morelos, Mexico), E. R. T. Tiekink (Research Centre for Crystalline Materials, School of Science and Technology, Sunway University, Malaysia) on *SCXRD*, (ii) Prof. A. Duthie (School of Life and Environmental Science, Deakin University, Australia) for *NMR and Microanalysis*,

Department of Chemistry

(iii) Prof. A. Lycka (Research Institute of Organic Synthesis, Czech Republic) on *NMR*, (iv) Prof. M. Fátima C. Guedes da Silva (Centro de Química Estrutural, Universidade de Lisboa, Portugal) on *Electrochemistry and SCXRD*, (v) Prof. E. Y. Tshuva (Institute of Chemistry, The Hebrew University of Jerusalem, Israel) on *Hydrolytic Stability/Anti-Tumor Work*, (vi) Prof. D. Rauh (Lehrstuhl für Medizinische Chemie und Chemische Biologie, Technische Universität Dortmund, Germany) on *Anti-Tumor Work*, and (x) Prof. S. K. Manna (Centre for DNA Fingerprinting and Diagnostics, Hyderabad) on *Anti-Tumor Work*.

Dr. S. Mitra

Collaborated with (i) Prof. S. O. Yesylevskyy (Department of Physics of Biological Systems, Institute of Physics of the National Academy of Sciences of Ukraine, Ukraine) on *Breathing Motion of Macromolecules in Complex Biological System*, (ii) Prof. K. Aguan (Department of Biotechnology, NEHU) on *Quantitative Assay of Novel AD drugs*, (iii) Prof. S. R. Joshi (Department of Biotechnology, NEHU) on *Antibacterial Activity at Nano-Bio Interfaces*, (iv) Dr. A. Bhattacharjee (Department of Biotechnology, NEHU) on *Modelling Drug-Protein Interaction*, and (v) Dr. P. R. Bangal (IICT, Hyderabad) on *Ultrafast Time-Resolved Spectroscopy*.

Dr. D. P. S. Negi

Collaborated with Dr. L. Robindro Singh (Department of Nanotechnology, NEHU) on *Characterization of Semiconductor Nanoparticles*.

Dr. S. Khatua

Collaborated with Prof. K. Aguan (Department of Biotechnology and Bioinformatics, NEHU, Shillong), Dr. Debesh R. Roy (Applied Physics Department, S. V. NIT, Surat), Prof. Mintu Halder (Department of Chemistry, IIT, Kharagpur, India), and Prof. N. Saha (Department of Zoology, NEHU, Shillong) for DST Project *A Labon A Molecule for Cation and Anion Sensing*.

Awards/Recognitions

Prof. T. S. Basu Baul

Dr. Basu Baul is Editorial Board Member of the journal *Main Group Metal Chemistry* (De Gruyter), Berlin, Germany. He has received a Certificate of outstanding contribution as a reviewer for the *Journal of Organometallic Chemistry* (Elsevier) in November 2017.

Other activities

Prof. B. Myrboh

Reviewer for *Tetrahedron letters*, *RSC Advances*, and others.

Prof. R. H. Duncan Lyngdoh

Reviewer for journals like *Computational and Theoretical Chemistry*, *Journal of Biomolecular Structure and Dynamics*, *Inorganic Chemistry*, *Journal of Molecular Modeling*, *Current Organic Chemistry*, *Plos One*, etc.

Prof. K. M. Rao

Frequent reviewer for the journals of Elsevier, Springer and Royal Society of Chemistry.

School of Physical Sciences

Prof. A. K. Chandra

Reviewer for the journals, viz., *Journal of Physical Chemistry (A & B)*, *RSC Advances*, *New Journal of Chemistry*, *Chemical Physics Letters*, *Computational and Theoretical Chemistry*, *Journal of Computational Chemistry*, *Chemistry Select*, etc.

Prof. G. Bez

Reviewer for the journals, viz., *Tetrahedron Letters*, *Catalysis Letters*, *Catalysis Communications*, *Journal of Chemistry*, *Molecular Diversity*, *Asian Journal of Organic Chemistry*, *Journal of Chemical Sciences*, *Letters of Organic Chemistry*, *Journal of Molecular Catalysis B: Enzymatic*, *RSC Advances*, *Competes fur Chemie*, and *Journal of Advanced Research*.

Prof. T. S. Basu Baul

Reviewer for Journals, viz., *Organometallic Chemistry*, *Inorganica Chimica Acta*, *Applied Organometallic Chemistry*, *Zeitschrift für anorganische und allgemeine Chemie*, *Main Group Metal Chemistry*.

Dr. H. Askari

Reviewer for the journal of *Computational Biology and Chemistry*.

Dr. M. K. Sahoo

Reviewer for the journals, viz., *Chemosphere*, *International Review of Chemical Engineering*, *Chemical Engineering Journal*, *Critical Reviews in Environmental Science and Technology*, *Journal of Advanced Oxidation Technologies*, *Desalination and Water Treatment*, *Separation and Purification Technology*, *Ecological Engineering*.

Dr. S. Mitra

Reviewer for the reputed international journals, viz., *JACS*, *JPC*, *PCCP*, *CPL*, *Journal of Photochemistry and Photobiology A & B*, *Spectrochim. Acta-A*, *Journal of Luminescence*, *Journal of Molecular Structure*, etc.

Dr. Rishanlang Nongkhlaw

Reviewer for the journals like *Tetrahedron (Elsevier)*, *Chemistry Select (Wiley)*, *Journal of Inorganic and Organometallic Polymers and Materials (Springer)* and *Dyes and Pigments (Elsevier)*.

Dr. D. P. S. Negi

Reviewer for the *Journal Materials Research Express*.

Dr. S. Khatua

Reviewer for journals of *Royal Society of Chemistry (RSC)* and *American Chemical Society (ACS)*. He is a member of Doctoral Scrutiny Committee (DSC), Department of Chemistry, NIT, Meghalaya.



Head : Dr. A. M. Buhphang
Telephone : 0364-2722723(O)/09436161409(M)
E-mail : ardeline17@gmail.com, ardeline@nehu.ac.in

Faculty: 6

Designation	Name and Qualification	Specialization
Professor (1)	H. K. Mukerjee, DPhil (Allahabad)	Algebraic and Differential Topology
	A. T. Singh, PhD (NEHU)	Algebraic and Differential Topology
Assistant Professor (5)	S. Dutta, PhD (NEHU)	Rings of Continuous Functions
	A. M. Buhphang, PhD (NEHU)	Ring Theory
	John Paul Jala Kharbhih, MSc (NEHU)	Rings of Continuous Functions
	Ph. Chinglensana, MSc (Delhi)	Algebraic Topology

Thrust Areas of Research

Thrust areas of research in alphabetical order are Algebra, Algebraic and Differential Topology, Dynamical Systems, Geometry.

Brief Statement of Academic Activities

In the year under review, the Department continues to give quality and rigorous MSc/MPhil and Pre-PhD courses of different subjects of Mathematics like Algebra, Analysis, Complex Function Theory, Differential Equations, Linear Algebra, Mechanics, Number Theory, Numerical Analysis and Computer Programming, Functional Analysis Topology, Algebraic Topology, Differential Topology, Commutative Algebra. The Department conducted regular seminar and colloquia on topics in the thrust areas of research. It continues to follow the culture of pursuing fundamental research of original nature and refraining from repetitive and marginal research. It continues to emphasize on the quality of research output rather than quantity. Students of the Department continue to perform well in obtaining UGC/CSIR NET Junior Research Fellowship and NET Lecturership.

Students' Profile

Enrolment Capacity: MSc—36, MPhil/PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	23	13		31		05	24	12	36
MPhil		01				01		01	01
PhD	03			02		01	02	01	03

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	13	10	01	20	-	02	18	05	23

School of Physical Sciences

Placement of Student

Four of our students were appointed Assistant Professor in St. Edmund's College, St. Mary's College and Nongstoin College.

Research Fellowships: 11

CSIR-UGC-NET	UGC NON-NET	National Fellowship for Higher Education
04	05	02

Fieldwork/Educational Tour of Students

Teacher-in-Charge: Dr. A. M. Buhphang

Places/Institutions Visited: Kerala University, Calcutta University, Napier museum, Thiruvananthapuram

Duration of Tour: 14 days (January 12–26, 2017)

Purpose of Tour: The tour is aimed at exposing students to the academic atmosphere of some institutes in the country by visiting libraries, museums and some historical places.

Courses Conducted

Postgraduate: MSc

Semester I

Analysis I, AMES, Linear Algebra, ODE, Classical Mechanics.

Semester II

Elementary Graph Theory, Algebra, Topology, PDE, Analysis II.

Semester III

CFT; Tensor Analysis and Riemannian Geometry, Theory of Field Extensions, ENT, Programming in C and Applications, Computer Programming Practical.

Semester IV

Computer Practical, Numerical Analysis, Algebraic Topology, Ring Theory, Theory of Relativity.

MPhil/PhD Courses

Compulsory Course: Research Methodology in Mathematics.

Optional Courses: Galois Theory, Rings of Continuous Functions, Algebraic Geometry, Commutative Algebra, Advanced Ring Theory, Magneto Fluid Dynamics, Fluid Mechanics, Advanced Algebraic Topology, Differential Topology, Cosmology, Tensor Analysis and Theory of Relativity, Analytic Number Theory, Algebraic Number Theory, Topics in Algebra, Topics in Differential Manifolds, Topics in Riemannian Geometry, Homological Algebra, Advanced Group Theory, Theory of Characters, Topological Graph, Application of Linear Algebra, Advanced Topics in Discrete Mathematics, Computational Homology, Relativistic Mechanics.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised (i) Annual Foundation School-III National Center for Mathematics (NCM) from 12 June to 8 July 2017 with Prof. H. K. Mukerjee and Dr. A.T. Singh as convenors, (ii) UGC-SAP-sponsored three-day national seminar on *Topology and Algebra* during 26–28

Department of Mathematics

March 2018 at NEHU (Shillong) with Dr. A. M. Buhphang as Program Coordinator, and (iii) NBHM-Sponsored Mathematical Olympiad Orientation Programme during 15–20 January 2018 at NEHU (Shillong) with Dr. Deiborlang Nongsiang (Union Christian College, Umiam) as Convener.

Attended

Dr. A. T. Singh

Delivered two lectures in NBHM-sponsored national seminar on *Topology and Its Applications* at St Berchmans' College, Changanacherry, (7–9 February 2018).

Dr. A. M. Buhphang

Dr. A. M. Buhphang delivered five lectures at the NCM-Sponsored Annual Foundation School-III organised by the Department from 12–18 June 2017. She also completed the CIMPA research school on *Recent Trends in Non-commutative Algebras* at IISER, Pune (June 19–30, 2017).

Publications

Published Abroad

Lanong, C., Dutta, S. (2017). Some results on graphs associated with vector spaces. *Journal of Information and Optimization Sciences*, 38(8):1357–1368.

Funds Received from Agencies including NEHU/UGC

1. UGC-SAP (DRS-II) (Recurring): ₹9.10 lakhs
2. NEHU (Non-plan): ₹3.80 lakhs
3. DST-FIST: ₹29.20 lakhs

Academic Collaborations

The Department has collaboration with the International Centre for Pure and Applied Mathematics (CIMPA), France, for research purposes.

Other Activities

Dr. A. T. Singh

Delivered (i) six lectures at the NCM-sponsored instructional school for teachers on *Topology* at IIT (Patna) during 1–13 May 2017, (ii) five lectures at the NCM-Sponsored Annual Foundation School-III at NEHU (Shillong) from 12 June to 8 July 2017, (iii) four lectures at the NCM-sponsored workshop on *Topology of Manifolds and Group Actions* held at Delhi University (9–22 November 2017), and (iv) eight lectures at the NCM-sponsored Annual Foundation School-I held at IIT (Delhi) from 4 to 30 December 2017.

Dr. A. M. Buhphang

Delivered two lectures during the NBHM-Sponsored Mathematical Olympiad Orientation Programme held from 15 to 20 January 2018 at NEHU, Shillong.

Mr. Ph. Chinglensana

Attended and completed the NCM-IST instructional school for teachers on Linear Algebra and Multivariable Calculus (18–30 December 2017) organised by Dibrugarh University, Assam, India. He also completed the NCM-IST instructional school for teachers on *Advanced Linear Algebra* organised by IIT, Gandhinagar (Gujarat), from 10 to 22 July 2017.



DEPARTMENT OF PHYSICS

Head : Prof. Atul Saxena
Telephone : 0364-2722827/2722801
E-mail : atulnehu@yahoo.co.in, hodphy@nehu.ac.in

Faculty: 8

Designation	Name and Qualification	Specialization
Professor (5)	B. M. Jyrwa, MSc & PhD (NEHU)	Nuclear Physics Theory
	P. Nongkynrih, MSc & PhD (NEHU)	Nuclear Physics Experiment
	Y. N. Tiwari, MSc (Patna), PhD (Patna)	Atomic and Molecular Physics Theory (Theoretical)
	A. Saxena, MPhil (IAS, Meerut), PhD (NEHU)	Nuclear Physics Experiment
	M. C. Mahato, MSc (Ranchi), PhD (IISc, Bangalore)	Solid State Physics Theory
Associate Professor (2)	S. S. Khatri, MSc & PhD (NEHU)	Laser Physics
	A. K. Biswas, MSc (IIT, Kharagpur), PhD (IP, Bhubaneshwar)	High Energy Physics Theory
Assistant Professor (1)	Dr. S. S. Pohlong, MSc & PhD (NEHU)	Solid State Physics Theoretical

Thrust Areas of Research

Theoretical physics with thrust in using a covariance matrix of nuclear data needed for nuclear reactors, measurement of high energy photon and neutron nuclear reaction cross-sections in structural materials, study of pre-equilibrium processes, EXFOR Compilations, Experimental Nuclear Physics with thrust in characterization of radiation detectors and measurement of environmental radioactivity (hazard indices) with emphasis on Radon Measurement, Solid State Physics (Theory), High Energy Physics (Theory), Laser Physics (Experiment).

Brief Statement of Academic Activities

The main academic activity of the Department is teaching of MSc (Physics) courses to a class of 34 students in each semester of the MSc (First and Second years) programme. The Department also conducts the PhD course work for the newly admitted doctoral candidates. In addition to teaching of MSc and PhD courses, members of the faculty have been engaged in guiding research for the PhD scholars and in carrying out their own research works. Faculty members visited various reputed national and international institutions to carry out research collaborations and delivered talks on their research contributions.

Department of Physics

Students' Profile

Enrolment Capacity: MSc—34, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	17	17	02	25	02	05	24	10	34
PhD	04			01		03	02	02	04

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	17	11	01	26		01	04	24	28

Research Fellowships: 16

CSIR UGC-NET: 02

UGC NON-NET: 01

NFHE: 10

Others: 03

Courses Conducted

Postgraduate: MSc

Semester I

Classical Mechanics, Quantum Mechanics I, Mathematical Physics, Laboratory I.

Semester II

Electrodynamics; Electronics, Quantum Mechanics II, Laboratory II.

Semester III

Nuclear Physics I, Solid State Physics I, Atomic and Molecular Physics, Environmental Physics, Laboratory III.

Semester IV

Thermal Physics, Computational Techniques and Numerical Methods, Computational Techniques, Laboratory IV. Optional Papers: Solid State Physics II, High Energy Physics, Laser Physics, Nuclear Physics II.

PhD Courses

Advanced Statistical Mechanics, Experimental Techniques and Their Applications, Statistical and Numerical Methods in Physics.

Seminars/Conferences/Symposia/Workshops

Attended

M. C. Mahato

Delivered an invited talk on “Resonance Oscillation of a Damped Driven Simple Pendulum” at a symposium on *Condensed Matter Days—2017* organised by Tezpur University (Tezpur) from 29 to 31 August 2017. He also delivered lecture on “Instability of Water Jets and Recoil

Capillary Waves” at the 62nd DAE Solid State Physics Symposium organised by the Bhabha Atomic Research Centre (Mumbai) from 26 to 30 December 2017.

Publications

Published in India

Maibam, D., Sharma, Y., Khardewsaw, A., Saxena, A. (2017). Comparison of a few simple prescriptions for the selection of number of bins in a univariate histogram for normally distributed samples using simulations. *Transient*, VI: 34–41.

Published Abroad

Ghosh, R., Badwar, S., Lawriniang, B., Jyrwa, B., Naik, H., Naik, Y., Suryanarayana, S.V., Ganesan, S. (2017). Measurement of $^{58}\text{Fe}(p,n)^{58}\text{Co}$ reaction cross-section within the proton energy range of 3.38 to 19.63 MeV. *Nuclear Physics A*, 964: 86–92.

Badwar, S., Ghosh, R., Lawriniang, B. M., Vansola, V., Sheela, Y.S., Naik, H., Naik, Y., Suryanarayana, S.V., Jyrwa, B., Ganesan, S. (2017). Measurement of formation cross-section of ^{99}Mo from the $^{98}\text{Mo}(n,\gamma)$ and $^{100}\text{Mo}(n,2n)$ reactions. *Applied Radiation and Isotopes*, 129: 117–123.

Ghosh, R., Badwar, S., Lawriniang, B., Sheela, Y. S., Naik, H., Naik, Y., Suryanarayana, S. V., Jyrwa B., Ganesan, S. (2017). Measurement of photo-neutron cross-sections of Gd and Ce using bremsstrahlung with an end-point energy of 10 MeV. *Journal of Radioanalytical and Nuclear Chemistry*, 314: 1983–1990.

Ghosh, R., Lawriniang, B., Badwar, S., Yerraguntla, S. S. Naik, H., Patil, J., Naik, Y., Suryanarayana, S. V., Jyrwa, B., Ganesan, S. (2018). Measurement and uncertainty propagation of the (γ,n) reaction cross-section of ^{59}Ni and ^{59}Co at 15 MeV bremsstrahlung. *Radiochemical Acta*, 106: 345–354.

Lawriniang, B., Ghosh, R., Badwar, S., Vansola, V., Sheela, Y. S., Suryanarayana, S. V., Naik, H., Naik, Y., Jyrwa, B. (2018). Measurement of cross-sections for the $^{93}\text{Nb}(p,n)^{93m}\text{Mo}$ and $^{93}\text{Nb}(p,pn)^{92m}\text{Nb}$ reactions up to ~20MeV energy. *Nuclear Physics A*, 973: 79–88.

Lyngkhai, B., Nongkynrih, P., War, S. A. (2017). Investigation of certain performance characteristics of a thallium activated sodium iodide scintillation detector. *Journal of Applied and Fundamental Sciences*, 3(2): 58–68.

Kharkongor, S., Reenbohn, W. L., Mahato, M. C. (2018). Inertial frictional ratchets and their load bearing efficiencies. *Journal of Statistical Mechanics: Theory and Experiment*, 033209, <https://doi.org/10.1088/1742-5468/aab01a>.

Book Chapters/Proceedings

Khardewsaw, A., Maibam, D., Sharma, Y. Saxena, A. (2018). Studies on indoor radon activity concentration in two villages of West Khasi hills district of Meghalaya, India. In: *American Institute of Physics Conference Proceedings*, 1951, 020011, doi:10.1063/1.5031719.

Khardewsaw, A., Maibam, D., Shasrma, Y., Saxena, A., Sahoo, B. K. (2018). Indoor radon activity concentration measurement in some villages of West Khasi Hills district of Meghalaya, India. In: *Proceedings of ICSPPCB 2018*, Silchar, BIDD–05, p. 90.

Department of Physics

- Lyngkhoi, B., Nongkynrih, P. (2018). Assessment of natural radioactivity and radiation hazard indices in soil samples of East Khasi Hills District, Meghalaya. In: *Conference Proceedings*, 1951, 020006 (2018), doi: 10.1063/1.5031714.
- Lyngkhoi, B., Nongkynrih, P. (2018). Estimation of radiation hazard indices and excess lifetime cancer risk in soil samples of East Khasi Hills District of Meghalaya using gamma ray spectroscopy. In: *Proceedings of ICSPPCB 2018*, Silchar, ISBN: 978-81-934859-0-3.
- Lyngkhoi, B., Nongkynrih, P. (2018). Human health risk assessment from the natural radio nuclides in soil samples of East Khasi Hills District of Meghalaya, India. In: *Proceedings of International Conference on Radiation Research—2018*, University of Hyderabad, Hyderabad.
- Pyngrope, A., Khardewsaw, A., Maibam, D., Sharma, Y., Saxena, A., Sahoo, B. K. (2018). Measurement of indoor radon, thoron and their progeny concentrations in selected villages of East Khasi Hills district of Meghalaya, India. In: *Proceedings of ICSPPCB 2018*, Silchar, BIDD-05, p. 88.
- Ram, M., Jha, A. K., Syiemiong, A., Swer, S., Saxena, A. (2017). A first principle study of electronic and magnetic properties of Full-Heusler alloy Mn_2ZnSi . Condensed matter days. In: *Proceedings of CMDAYS 2017*, Tezpur, p. 92.
- Swer, S., Syiemiong, A., Ram, M., Jha, A. K., Saxena, A. (2018). Einsteub coefficients and oscillator strengths for low lying state of CO molecules. In: *American Institute of Physics Conference Proceedings*, 1951, 030005, doi: 10.1063/1.5031731.
- Syiemiong, A., Jha, A. K., Swer, S., Saxena, A. (2018). Theoretical study on the ground and some low-lying excited electronic states of CO^+ molecules. In: *Proceedings of International Conference on Systems and Processes in Physics, Chemistry and Biology ICSPPCB 2018*, Silchar, ISBN: 978-81-934859-0-3.
- Syiemiong, A., Swer, S., Jha, A. K., Saxena, A. (2018). Analysis of Franck-condon factors for CO^+ molecules using the Fourier Grid Hamiltonian method. In: *American Institute of Physics Conference Proceedings*, 1951, 030007, doi:10.1063/1.5031733.

Research Projects

Ongoing: 2

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Measurement of Radon, Thoron and Gamma Radiation Level in Three Districts of Meghalaya	Prof. A. Saxena/ Prof. D. Walia	Department of Atomic Energy Board of Research in Nuclear Sciences	35.91

School of Physical Sciences

EXFOR Compilations and Participation in the Measurement of High Energy Photon and Neutron Nuclear Reaction Cross-Sections in Structural Materials (e.g., Fe, Co, Ni, Cr, Zr, etc.) and Materials Related to Medical Isotopes (e.g., Mo)	Prof. B. Jyrwa	Department of Atomic Energy Board of Research in Nuclear Sciences	27.60
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Academic Collaborations

Prof. P. Nongkynrih

Collaborated with the Atomic Mineral Division (North-Eastern Region, Shillong) and Health Physics Division (BARC, Trombay, Mumbai) on *Experimental Work*.

Prof. A. Saxena

Collaborated with (i) Prof. R. J. Buenker and H. P. Liebermann (Bergische Universitaet Wuppertal, Germany) on *Theoretical Atomic and Molecular Physics*, (ii) Prof. K. K. Dwivedi (Vice Chancellor, ITM University, Gwalior) on *Particle Tracks in Solids, and Various Groups for Irradiation Facilities* at GSI, Darmstadt, Germany, and (iii) Prof. Devesh Walia (Department of Environmental Studies, NEHU) on *Radon Studies and Geophysics*.

Other Activities

Prof. M. C. Mahato

Reviewer for the journals of *Physica A*, *Physical Review E*.



DEPARTMENT OF STATISTICS

Head : Dr. R. Singh
Telephone : 0364-2722901
E-mail : hodsta@nehu.ac.in

Faculty: 17

Designation	Name and Qualification	Specialization
Professor (1)	G. Das, MA (Delhi), PhD (NEHU)	Survey Sampling
Associate Professor (3)	B. K. Gupta, MSc (AMU), PhD (Gauhati)	Survey Sampling
	R. Singh, MSc & PhD (Patna)	Econometrics, Demography Poverty and Human Development
	T. K. Chakrabarty, MSc (Agra), PhD (Manipur)	Time Series Modelling, Statistical Demography and Health Analytics
Assistant Professor (2)	S. K. Jha, MSc & PhD (Patna)	Probability Distribution, Correlated Data Analysis, Computation and Spatial Statistics
	B. Das, MSc & PhD (Gauhati)	Distribution Theory, Environmental Statistics

Thrust Areas of Research

Statistical Inference, Design of Experiments, Survey Sampling, Demography, Econometrics, Spatial Statistics, Probability Models and Distributions, Poverty, and Human Development.

Brief Statement of Academic Activities

The Department is financially supported under the FIST programme of DST, Government of India. It offers the Choice Based Credit System for the MSc, PhD and MPhil programmes. Apart from giving adequate exposure in the theoretical areas of the subject, it emphasizes on practical training using latest software, such as STATA, SPSS, R, S-PLUS, SYSTAT, MINITAB and MS-EXCEL. The Department uses a quality and rigorous curriculum in Research Methodology as a compulsory paper in the MPhil/PhD research works. All faculty members are actively engaged in research in the eminent fields, such as Econometrics, Demography, Spatial Statistics, Statistical Distribution Theory, Survey Sampling Theory, and Time Series.

Students' Profile

Enrolment Capacity: MSc—25, MPhil/PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	12	12	01	19		04	07	17	24
PhD		01	01					01	01

School of Physical Sciences

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MSc	06	02	01	06		01	02	06	08
PhD		01				01		01	01

Students Awarded PhD

Name of Student	Title of Thesis	Name of Supervisor
Ms. Mallika Deb	Time Series Modeling and Stimulating Predictive Distribution of Vital Rates	Dr. T. K. Chakrabarty

Placement of Students

MSc Students passed during 2017–18 from the Department were placed as UG and PG teachers in different schools and one student was appointed as Lecturer in college located in Meghalaya.

Research Fellowships: 2

UGC Non-NET: 1

Inspire Fellowship: 1

Courses Conducted

Postgraduate: MSc

Semester I

Mathematical Analysis and Linear Algebra, Distribution Theory, Probability Theory, Practical I (Statistical Computing in R), Practical II (Distribution and Linear Algebra).

Semester II

Survey Sample, Statistical Inference I, Linear Models and Regression Analysis, Poverty, Human Development and Environmental Statistics, Practical III (Sampling, Inference I and Regression).

Semester III

Design and Analysis of Experiments, Statistical Inference II, Econometrics, Stochastic Processes, Practical IV (Design, Inference II and Econometrics).

Semester IV

Applied Multivariate Analysis, Time Series Analysis and Forecasting, Project Work, Practical V (Multivariate and Time Series and Optional Paper), Reliability Theory, Operation Research, Population Dynamic and Demography.

MPhil/PhD Courses

Research Methodology in Statistics, Bayesian Inference and Analysis, Statistical Modelling.

Seminars/Conferences/Symposia/Workshops

Attended

Dr. B. K. Gupta

Dr. B. K. Gupta presented two papers (posters) titled “Estimation of Khasi Traditional Medical Users in Myllem Block, Meghalaya” and “Demographic Survey in Purul Block of Senapati

Department of Statistics

District of Manipur” at the annual conference of Indian Society for Medical Statistics Conference 2017 held at Sanjay Gandhi Postgraduate Institute of Medical Sciences (Lucknow) held from 2 to 4 November 2017.

Presented a paper entitled “Pre-Market Collaborations and Institutional Feasibilities in Agri-Promotional Measures” at the national conference on *Think Global Act Local Contemporary Sustainable Business Practices and Development* organised by the North-Eastern Management Association in collaboration with the University of Science and Technology (Meghalaya) on 10 & 11 October 2017 at USTM Campus.

Dr. T. K. Chakrabarty

Presented a paper entitled “A Wavelet Based Hybrid SARIMA-ETS Model to Forecast Electricity Consumption” at the international conference on *New Paradigms in Statistics for Scientific and Industrial Research* organised by IAPQR and CSIR-CGCRI from 4 to 6 January 2018 at CSIR-CGCRI, Kolkata.

Acted as a resource person at (i) national workshop on *Research Methodology* organised by the Research, Innovations and Publication Cell and IQAC, Shillong College, Shillong (June 7–13, 2017); delivered lectures on “Exploratory Analysis of Qualitative and Quantitative Data” on June 12, 2017, and (ii) workshop on *Advanced MS Excel* organised by the Department of Statistics (St. Anthony’s College, Shillong) on 16 September 2017 with lecture on hands-on training for the undergraduate students on “Statistical Graphics and Computing Using MS Excel.”

Dr. S. K. Jha

Presented a paper on “Spatio-temporal SAR Model Implementation through Error Distribution by Differential Evolution” at the Third International Conference on *Statistics for Twenty-first Century 2017* organised by the Department of Statistics, University of Kerala, Trivandrum (14–16 November 2017).

Served as a panellist in a panel discussion of the one-day seminar on *Contemporary Environmental Issue and Concerns* on 12 March 2018 organised by ENVOS RP Centre, and NSS unit, NEHU.

Publications

Book Chapters

Singh, R., Phukon, M. (2017). A study on spatial statistical method of poverty and sustainable development of North-Eastern States of India. In: *Inequality, Poverty and Development in India*. U. K. Dey, M. Pal and P. Bharati (Eds.), Springer, Singapore, Chapter 17, p. 337–349.

Chakrabarty, T. K., Deb, M. (2018). Is India on the path to replacement fertility soon? Exploring the role rural-urban differential pace and timing of fertility decline. In: *Issues on Health and Healthcare in India*. U. K. De, M. Pal and P. Bharati (Eds.). Springer Nature, Singapore Pvt Ltd, Chapter 14, p. 255–271.

Chakrabarty, T. K. (2018). Prevalence of child under-nutrition in India: Estimating extent of deficits using distributions of nutritional outcomes. In: *Issues on Health and Healthcare in*

School of Physical Sciences

India. U. K. De, M. Pal and P. Bharati (Eds.). Springer Nature, Singapore Pvt. Ltd., Chapter 15, p. 273–291.

Other Activities

Dr. T. K. Chakrabarty

Delivered an invited lecture on “Exploratory Data Analysis” at Sankardev College (Shillong) on 10 July 2017.

Dr. S. K. Jha

Statistical Advisor of the Meghalaya State Commission for Women for the Project “An Exploratory Study on the Socio Economic Status and Problems of Single Mothers in Meghalaya” during the year 2017–18.

VII



SCHOOL OF SOCIAL SCIENCES

Dean : Prof. Cecile A. Mawlong
Telephone : 0364-2723001
Fax : 0364-25511944
E-mail : deansss@nehu.ac.in, camawlong@hayoo.com

The School of Social Sciences consists of six departments, namely Cultural and Creative Studies, History and Archaeology (Tura), History, Law, Political Science, and Sociology. All Departments under the School offer MPhil and PhD courses in addition to the MA Programme. The Department of Law also offers the five-year integrated BA LLB course and the Department of Cultural and Creative Studies offers the Diploma courses in Music and Painting. Some departments also have extension activities as part of their academic programmes. Educational tours to other parts of India were undertaken by the Department of Cultural and Creative Studies, and field trip/work/museum visits that are part of the academic programmes were undertaken under the supervision of faculty members in the Departments of History, Cultural and Creative Studies, Law, and History and Archaeology. The Departments of History and Political Science have on-going projects under the UGC-SAP at various levels, which included all faculty members of the respective departments. In addition, some faculty members also have on-going individual projects funded by other agencies.

The Departments of History, Political Science, and Creative and Cultural Studies organised seminars/conferences/workshops. Faculty members attended regional, national and international seminars held in NEHU and elsewhere, where they presented keynote addresses, papers, chaired academic sessions, etc. Faculty members were also engaged as resource persons in refresher courses and other types of academic programmes run by the UGC-HRDC (NEHU) and other institutions in the region and beyond. Some of the faculty members are currently members of committees of various academic institutions in the country, Northeast region, and under the Government of Meghalaya. Most faculty members from the various departments under the School have publications by way of research papers and books for the year under review.



DEPARTMENT OF CULTURAL AND CREATIVE STUDIES

Head : Prof. Desmond L. Kharmawphlang
Telephone : 0364-2723374/3371/3372(O)/09863060983(M)
E-mail : hodcccs@nehu.ac.in

Faculty: 17

Designation	Name and Qualification	Specialization
Professor (2)	Desmond L. Kharmawphlang, PhD (NEHU)	English
	Subrat Kumar Nanda, PhD (JNU)	Sociology
Associate Professor	Lapynshai Syiem, PhD (NEHU)	Music
Assistant Professor	Bedanta Kalita, MFA (MSU, Baroda)	Painting

Thrust Areas of Research

The major thrust area of research in the Department is studying various theoretical, conceptual and contextual issues relating to different aspects of folklore, performing arts and visual arts.

Brief Statement of Academic Activities

The Department runs a regular MA course in folkloristics and the PG Diploma courses in music and painting. In addition, the Department offers the PhD programme in folkloristics, which covers studies primarily related to folklore and other related areas, such as folk music, traditional performing arts, folk theatre, etc. Candidates desirous of pursuing research work in these areas are provided necessary facilities, technical and professional guidance. Both theoretical knowledge and practical training are provided to the students admitted to the post-graduate course in folkloristics and the diploma courses in music and painting. Besides teaching and research, the Department regularly engages in extension activities as part of its academic programmes.

Students' Profile

Enrolment Capacity: MA Folkloristics—30, PG Diploma Music—20, PG Diploma Painting—10, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non Meghalaya	Total
MA Folkloristics	13	17	29			01	25	05	30
PG Diploma Music	10	04	14				13	01	14
PG Diploma Painting	06	03	08			01	08	01	09
PhD	02	02	03			01	03	01	04

Department of Cultural and Creative Studies

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non Meghalaya	Total
MA Folkloristics	05	18	23				22	01	23
PG Diploma Music	01	04	05				05		05
PG Diploma Painting	04	03	07				05	02	07

Research Fellowships: 16

CSIR-UGC- NET	UGC NON-NET	NFHE	Swami Vivekananda Fellowship	Maulana Azad Minority Fellowship
09	04	01	01	01

Fieldwork/Educational Tour of Students

Teacher-in-Charge: Mr. Macdonald L. Ryntathiang

Places Visited: Mumbai and Goa

Duration of Tour: 15 days from 14 to 28 January 2018

Purpose of Tour: To enable the students to acquaint themselves with the folklore and other oral traditions and literature of different communities in this part of the country. Besides, a field trip for the students of MA Folkloristics was conducted at Umpowin, Ri-Bhoi District, during 23–24 September 2017 under the supervision of Prof. Desmond L. Kharmawphlang to study the folk material culture of the region.

Courses Conducted Department of Cultural and Creative Studies

Postgraduate: MA (Folkloristics)

Semester I

Introduction to Folkloristics, History of Folklore Studies, Introduction to Semiotics, Folklore Theories I, Field Methods and Studies.

Semester II

Folklore Theories II, Folk Literature I, Public Sector Folklore, Introduction to Visual Arts, Urban Folklore.

Semester III

Ethnomusicology, Folk Literature II, Introduction to Performing Arts, Folklore of Northeast India-I, Social Folk Custom.

Semester IV

Material Culture; Language, Culture and Society, Narratology, Folklore of Northeast India-II, Dissertation.

School of Social Sciences

PG Diploma (Painting)

Semester I

Fundamentals of Visual Arts (Theory), Introduction to Indian and Chinese Art (Theory), Drawing and Colour Application (Practical), Sculpture (Practical), Introduction to Folk Art and Craft of Northeast India (Theory).

Semester II

Introduction to Western Art (Theory), Print Making (Practical), Creative Painting (Practical), Enamel Painting in Glazing Technique (Practical), Introduction to Indian and Western Aesthetics (Theory).

PG Diploma (Music)

Semester I

Brief History of Indian Classical Music (Theory), Introduction to General Musical Terms (Theory), Introduction to Indian Classical music (Practical), Practical Training in Indian Classical Music (Practical), Introduction to Western Musical (Staff) Notation (Practical).

Semester II

Study of Selected Musical Instruments (Theory), Songs of Meghalaya (Practical), Rhythmic Pattern of Music of Meghalaya (Practical), Concept of Rhythmic Pattern of Music of Meghalaya (Theory), Proficiency Western Musical Instruments (Practical).

PhD Courses

Research Methodology, Recent Trends in Folkloristics, Advanced Course in Performing Arts.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised a national seminar on *Oral Culture: People, Poetics and Performance* at NEHU Guest House (Shillong) on 22–23 August 2017. Prof. Desmond L. Kharmawphlang was the Coordinator and Professor S. K. Nanda was the Joint-Coordinator of the seminar.

Professor Desmond L. Kharmawphlang

Organised a consultative seminar on *Khasi-Welsh Cultural Dialogues* at NEHU (Shillong) on 21 July 2017.

Attended

Prof. Desmond L. Kharmawphlang

Presented a paper entitled “Regimen of Resistance: Codifying Khasi Oral Literature” at the international seminar on *Purifying the Dialect of the Tribe: Cross Cultural Concerns in Colonial and Post-Colonial India* at the Indian Institute of Advanced Studies (Shimla) on 17 & 18 May 2017. He also delivered a keynote address at the national seminar on *Women and Urbanity through the Lens of Cultural Memory* organised by Tezpur University on 27 November 2017.

Chaired sessions at (i) national seminar on *Oral Culture: People, Poetics and Performance* at NEHU Guest House on 22 & 23 August 2017, (ii) international seminar on *Narratives of Violence and Terror in South Asia*, and (iii) regional seminar on *175 Years of Khasi Written Literature* at St.

Department of Cultural and Creative Studies

Edmund's College on 14 December 2017.

Professor S. K. Nanda

Chaired a technical session of the national seminar on *Oral Culture: People, Poetics and Performance* at NEHU Guest House (Shillong) on 22 & 23 August 2017.

Fund Received from Agencies including NEHU/UGC

Non-Plan: ₹1.75 lakhs

Academic Collaborations

Prof. Desmond L. Kharmawphlang

Member of the Indian Delegation to the ASEAN-India Network of Think-Tanks Meet held in Jakarta (Indonesia) from 6 to 9 January 2018.

Awarded the Dyason Visiting Fellowship to teach at Melbourne University (Australia) from 1 to 28 March 2018.

Associate Editor, *Anthropology Today, an International Peer Reviewed Journal*, published by the Don Bosco Centre for Indigenous Cultures, Shillong.

Other Activities

Prof. Desmond L. Kharmawphlang

Nominated Member to the Core Committee of the Scheme for Protection and Preservation of Endangered Languages under CIIL (October 10, 2017).



DEPARTMENT OF HISTORY

Head : Prof. Vanlalruata Rengsi
Telephone : 364-2723019
E-mail : ruatarengsi@yahoo.co.in

Faculty: 11

Designation	Name and Qualification	Specialization
Professor (8)	M. Momin, MPhil & PhD (JNU)	Ancient Indian History and Early Northeast India
	F. A. Qadri, MPhil & PhD (Aligarh)	Medieval Indian History and Northeast India
	C. A. Mawlong, MA & PhD (NEHU)	Medieval Indian History and Northeast India
	T. Gurung Nag, MPhil & PhD (NEHU)	Modern Indian History and Northeast India
	A. K. Thakur, MA & PhD (BU)	Archaeology and Early Northeast India
	V. R. Rengsi, MPhil & PhD (NEHU)	History of Sciences and Non-Indian History
	S. N. Lamare, MPhil & PhD (NEHU)	Modern Indian History and Modern Northeast India
	A. Mathur, MA & PhD (Rohilkhand)	Ancient Indian History, Culture and Archaeology
Associate Professor (1)	M. S. N. Rahman, MA & PhD (Calcutta)	Medieval Indian History and Islamic History and Culture
	B. Dutta, MPhil & PhD (NEHU)	Modern Indian History

Thrust Areas of Research

The Department's thrust area is Northeast India.

Brief Statement of Academic Activities

During the period under report the faculty members of the Department were involved in several academic programmes like organising seminars, field and study tours, conducting refresher course for college/university teachers, and holding dialogues with colleagues engaged in undergraduate teaching within the region.

Department of History

Students' Profile

Enrolment Capacity: MA—51, MPhil—4, PhD—9

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	19	32		47		04	26	25	51
MPhil	01	03		01		03		04	04
PhD	02	07		04		05	05	04	09

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	24	25	01	44		04	14	35	49
MPhil	01	04		05			04	01	05
PhD	01	01		01		01	01	01	02

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Angira Kar	Garo Economy During the Pre-Colonial and Colonial Times	Prof. A. K. Thakur
Mr. Lamzolien Suantak	Social History of the Vaiphei	Prof. V. Rengsi

Research Fellowships: 28

ICSSR: 01

UGC NON-NET: 21

NFHE: 04

ICHR Fellowship: 02

Educational Tour of Students

Teacher-in-Charge: Prof. C. A. Mawlong

Places/Institutions Visited: Don Bosco Museum of Indigenous Cultures, Mawlai

Duration of Tour: One day

Purpose of Tour: Field Study on Archaeology: Methods and Approaches—an observation

Field Trip: Prof. C. A. Mawlong took the students on a field trip in June 2017 to a Neolithic site in Jaintia Hills as part of the course in Archaeology: Methods and Approaches.

Courses Conducted

Postgraduate: MA

Semester I

Historical Methods I, Prehistoric to Ancient Societies, Modern Indian Society, Economy and Society

School of Social Sciences

in Ancient India, British Expansion and Imperial Policy in India, Technology in the Making of Early China, Social Movement in USA.

Semester II

Historical Methods II, Feudalism, Ancient Indian Polity and Society; Colonialism, Imperialism and Economic Change in India; History of the Graeco-Roman Civilization, Colonialism in South East Asia, (Open Course): Society, Technology and History: Prehistoric Age to Industrial Revolution.

Semester III

Capitalism and Imperialism I, Religion and Society in Ancient India, Indian Nationalism, Political Ideas and Institutions during the Sultanate Period, Ancient Indian Art and Architecture, History of Ideas in Modern India, Religion and Society in Medieval India (Open Courses), Social Forces and Social Mobilization, Introduction to Gender History.

Semester IV

Capitalism and Imperialism II, Social and State Formations, Archaeology: Methods and Approaches; Colonialism, Communalism and Secularism; Political History of the Mughal Empire, Political History of the Delhi Sultanate, Contemporary India, Socio-Economic History of NEI: The Early Period, The Rise of South Indian Civilization, Monarchies in Medieval North-East India, Christianity in North-East India.

PhD Courses

Research Methodology, History and Theory, Oral Tradition.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised a national seminar on *Religious Beliefs and Practices: A Cross Cultural Study of Societies in North-East India* under the UGC-SAP-DSA Programme on 8 & 9 March 2018. Convener: Prof. C.A. Mawlong and Co-Convener: Prof. T. Gurung Nag.

Attended

Prof. F. A. Qadri

Presented papers on (i) "Price Dara Shikoh (1615–59): Towards a Syncretic Spiritual Culture" at the international conference on *Dara Shikoh: Reclaiming the Spiritual Legacy of India* organised by the Indian Council for Cultural Relations, New Delhi (April 27–28, 2017), and (ii) "Contribution of Annemarie Schimmel to Sufism in India" at the international seminar on *Contribution of Non-Muslims to Islamic Studies* organised by Rampur Raza Library, Ministry of Culture, Rampur (December 17–19, 2017).

Delivered two lectures on "Religious Minorities in Humanities and Social Sciences" at the ICSSR-sponsored national research methodology workshop on *Researching Subalternity in Social Sciences and Humanities* organised by the Dr. Ambedkar Chair, Department of Sociology, Tezpur University (March 18–27, 2018).

Prof. C. A. Mawlong

Delivered a keynote address at the national seminar on (i) *The Changing Worlds of Tribal Women* organised by the Indian Association of Women Studies at Vinoba Bhave University,

Department of History

Hazaribagh (19–20 November, 2017), and (ii) *Perspectives on Material Cultures in Northeast India* organised by the Department of History and Archaeology, NEHU, Tura Campus (22–23 March 2018), and chaired an academic session of the same seminar. She also delivered a valedictory address at an international seminar organised by the Department of Political Science, NEHU (27–28 March 2018).

Presented a paper entitled “Kinship, Religion and the Construction of Gender in Khasi-Jaintia Society” at the national seminar on *Religious Beliefs and Practices: A Cross Cultural Study of Societies in North-East India* organised by the Department (8–9 March 2018), and chaired an academic session of the seminar.

Prof. T. Gurung Nag

Presented a paper on (i) “Indo-Nepal Relations during British Period and Its Present Implications” at the international seminar on *North-East India and Its International Neighbours: New Directions* organised by the Department of Political Science (NEHU) on 27 & 28 March 2018, (ii) “The Medical Work of the American Baptist Mission in Colonial Assam” at the UGC-SAP-sponsored national seminar on *Religious Beliefs and Practices: A Cross-Cultural Study of Societies in Northeast India* organised by the Department on 8 & 9 March 2018, and (iii) “The 8th Gurkha Rifles in Colonial Assam: A Study in Military History” at the 77th Session of the Indian History Congress, Jadavpur, Kolkata (December 28–30, 2017).

Prof. A. K. Thakur

Presented papers on (i) “Ramayana Traditions in Northeast India” during the 38th Annual Conference of North-East India History Association at D. K. Girls College, Mirza (2–4 October 2017), (ii) “Colonial Ethnography in Northeast India: A Critique” and presided over an academic session during the Asiatic Society-sponsored national seminar on *Ethnography, Historiography and Northeast India* at the Department of History, Manipur University (25–27 October 2017), (iii) “Buddhism in the History of Northeast India: Issues and Concerns” and presided over an academic session during the three-day national conference on *Buddhism in Northeast India*, Department of History, Dibrugarh University (19–21 February 2018), (iv) “Buddhism of Arunachal Pradesh” during a UGC-SAP-DSA II and ICSSR-NERC-sponsored national seminar on *Religious Beliefs and Practices: A Cross-Cultural Study of Societies in Northeast India* organised by the Department of History, NEHU (8–9 March 2018), (v) “Aupniveshik Lekhan Aur Aadivasi Vimarsh” at the national seminar on *Hindi ka Rashtriya Paridrishya aur Poorvottar Bharat* organised by the Department of Hindi (NEHU) on 9 & 10 March 2018, (vi) “Gandhi and Globalisation: Some Aspects” and acted as a resource person during the two-day ICSSR-sponsored national seminar on *Relevance of Gandhian Economic Thoughts in the Era of Globalisation* at D. S. College, Katihar, Bihar (15–16 March 2018), (vii) “Traditional Craft Practices in Northeast India: Some Aspects” and chaired an academic session of the two-day ICHR national conference on *Perspectives on Material Cultures in Northeast India* at the Department of History and Archaeology (NEHU, Tura Campus) on 22 & 23 March 2018, and (ix) “Trade in (Pre) Colonial Arunachal Pradesh and Tibet during the UGC-SAP-DRS II international seminar on *North-East India and Its International Neighbours: New Directions* organised by the Department of Political Science (NEHU) on 27 & 28 March 2018.

School of Social Sciences

Prof. V. Rengsi

Presented papers on (i) “Religion and Technology” at the national seminar on *Society and Religion* organised by the Department on March 9 & 10, 2018, and (ii) “Mizoram and Chin Hills: A Historical Study on Trans-Border Relations” at the international seminar on *North-East India and Its International Neighbours: New Directions* organised by the Department of Political Science (NEHU) on 27 & 28 March 2018.

Prof. S. N. Lamare

Presented papers on (i) “Mediation in Family Disputes and Role of the Maternal Uncle in Settling Family Issues within the Jaintia Household” at a seminar on *Mediation in Family Disputes and Role of the Maternal Uncle in Settling Family Issues within the Khasi, Jaintia and Garo Household* organised on 28 October 2017 by the Meghalaya State Judicial Academy, High Court of Meghalaya, Shillong, and (ii) “Of Spirits and the Jaintia Belief System” at the national seminar on *Religious Beliefs and Practices: A Cross Cultural Study of Societies in North-East India* on 8 & 9 March 2018, organised by the Department under the UGC-SAP-DSA programme.

Prof. Amena N. Passah

Presented papers on (i) “The Jaintia: Religious Beliefs and Practices Revisited” at the UGC-SAP-DSA 11 and ICSSR-NERC-sponsored national seminar on *Religious Beliefs and Practices: A Cross Cultural Study of Societies in Northeast India* organised by the Department on 8 & 9 March 2018, (ii) “Christianity in Meghalaya: A Post-Independence Perspective” at a seminar organised by OKDISCD at NEHU, Shillong (16–17 March 2017), and (iii) “Unsung Heroes: The Khasi in the I.N.A.” at the 38th Annual Conference of the North-East India History Association at D. K. Girls College, Mirza (2–4 October 2017). She was also a resource person in the workshop on *U Tirot Sing the Freedom Fighter: An Appraisal* organised by the Office of the Sub-Divisional Officer of Mairang Civil Sub-Division and Hima Nongkhlaw, Nongkhlaw (4 November 2017).

Dr. A. Mathur

Presented papers on (i) “Buddhist Art in Assam: Some Observations” during the 38th Annual Conference of North-East India History Association, D. K. Girls College, Mirza (2–4 October 2017), (ii) “Tantra and Buddhism: An Enquiry into Early Assam” during the three-day national conference on *Buddhism in Northeast India*, Department of History, organised by Dibrugarh University in collaboration with the Indira Gandhi National Centre for the Arts, New Delhi (19–21 February, 2018), (iii) “Brahmanical Traditions and Tantra in Early Assam” at the UGC-SAP-DSA II and ICSSR-NERC-sponsored national seminar on *Religious Beliefs and Practices: A Cross-Cultural Study of Societies in Northeast India* organised by the Department of History (NEHU) on 8 & 9 March 2018, and (iv) “Religion, Globalisation and Gandhi” during the two-day ICSSR-sponsored national seminar on *Relevance of Gandhian Economic Thoughts in the Era of Globalisation* held at D. S. College, Katihar, Bihar (15–16 March 2018).

Dr. M. S. N. Rahman

Presented papers on (i) “Pir Cult as a Syncretic Force in the Barak-Surma Valley and Its Adjacent Areas” at the UGC-sponsored national seminar on *Religion and Society* organised by the Department on 8 & 9 March 2018, (ii) “Sufism and Inter-Religious Relations and Banglar

Department of History

Rumi” at the international seminar on *Inter-Religious Harmony and Banglar Rumi Syed Ahmadul Huq* organised by the Asiatic Society (Kolkata) in collaboration with the Allama Rumi Society (Bangladesh) on 6 March 2018, (iii) “Iran in the Eyes of Rabindranath Tagore” at the 78th Session of the Indian History Congress held at Jadavpur University, Kolkata (28–30 December 2017), (iv) “Cultural Syncretism as Reflected in the Writings of Hasan Raja of Sylhet (1854–1922)” during the 38th Annual Conference of NEIHA held at D. K. Girls’ College, Guwahati (2–4 October 2017), and (v) “Islam as a Religion of Peace” at the national seminar on *Conflict Transformation and Dharma of Peace Building: Contemporary Relevance in North-East India* organised by the Department of Philosophy, Lady Keane College, Shillong (16–18 May, 2017).

Dr. B. Dutta

Presented papers on (i) “Of The Enemy’s Faith’: Theocracy, State Formation and Politics of Violence in Decolonizing Northeast India” at the SAP-sponsored national conference on *Religious Beliefs and Practices: A Cross-Cultural Study of Societies of Northeast India* organised by the Department on 8 & 9 March 2018, (ii) “Forgotten Partitions and Fluid Frontiers: History of Partitions from Northeast India through Archives and Beyond” at the international seminar on *North-East India and Its International Neighbours: New Directions* organised by the Department of Political Science (NEHU) on 27 & 28 March 2018, (iii) “In the Shadows of Modernity: Writing Partition of Northeast India in the Twenty-First Century and Its Challenges” at the international seminar on *Ethical Challenges and Contemporary Issues in Creative Research: Uniformity Vs Creativity* on 19 & 20 February 2018, (iv) “NRC as the Great Impediment to India’s Act-East/Neighbourhood First Policy” at the two-day seminar on *The Age of Multilateralism and Connecting India’s North-East: Opportunities and Challenges* organised by the Asian Confluence-India East Asia Center (Shillong), Indian Council of World Affairs (New Delhi) and Ministry of DONER on March 19 & 20 2018 at Sapru House (New Delhi), (v) “Recovering Forgotten Partitions: History of Partitions from Northeast India through Archives and Beyond” at a two-day international seminar organised by the Department of History, Jadavpur University (1–2 February 2018), and (vi) “Handkerchiefs, Cats and Other Stories: Revisiting Moments of Violence and Uprooting in Northeast India” at the three-day international seminar on *Narratives of Terror and Violence in South Asia* organised by the Department of English, NEHU, Shillong (16–18 November 2017).

Publications

Published in India

- Dutta, B., Choudhury, S. (2017). The forgotten partitions of North-East India and its lingering legacies in India at 70: The many partitions. *Café Dissensus*, Issue No. 38. <https://cafedissensus.com/2017/08/15/contents-india-at-70-the-many-partitions-issue-38/>.
- Passah, A. N. (2017). Oral traditions, memories, songs: A relook at society and culture in the Khasi-Jaintia hills. *Academia: GMGC, International Multi-Disciplinary Refereed Academic Journal*, p. 35–43.

Thakur, A. K. (2017). Iron in Assam: A preliminary study. *The Journal of the Assam Research Society*, XLI (1–2): 10–18.

Book

Dutta, B. (2017). *Madhuri Choudhury's Rani Iaxmipriya Devi Aru Beltolar Itihas: Engendering a Family and Social History of Beltola Raj*. DVS Publishers, Guwahati, ISBN: 978-93-85839-14-6.

Book Chapters/Proceedings

Dutta, B. (2017). Challenging times, challenged body: Decolonization, displacement and disease among the East Pakistani refugees in South Assam, 1947–1954. In: *Playing With Nature: History and Politics of Environment in North-East India*. Sajal Nag (Ed.). Primus Books, New Delhi, p. 255–272.

Dutta, B. (2017). Images of the home and the world in conflict and beyond: A view through a gendered lens. In: *Rethinking Gender History: Essays on North-East India and Beyond*. M. Sharma (Ed.). DVS Publishers, Guwahati, New Delhi, p. 239–260.

Dutta, B. (2018). Decolonization politics beyond Punjab and Bengal. In: *North-East India before and after Partition: Issues and Experiences*. N. Bhadra and B. R. Chakma (Eds.). Shivalik Prakashan, New Delhi, Chapter 1, p. 15–32.

Dutta, B. (2018). The Story of the stout fanatical Mahomedan: Bengali peasant immigration and wastelands in colonial Assam. In: *Blending Nation and Region: Essays in Honour of Amalendu Guha*. Sajal Nag and Ishrat Alam (Eds.). Primus Books, Delhi, p. 426–439.

Mathur, A. (2017). Relooking Arthashastra: A gender perspective In: *Rethinking Gender History: Essays on Northeast India and Beyond*. Manorama Sharma (Ed.). DVS Publishers, Guwahati, Chapter 2, p. 43–68.

Mawlong, C. A. (2017). Women and craft production: A study of iron-working and pot-making in traditional Khasi-Jaintia society In: *Rethinking Gender History: Essays on Northeast India and Beyond*. Manorama Sharma (Ed.). DVS Publishers, Guwahati, p. 148–190.

Nag, T. G. (2017). Rethinking Nepali migration in colonial Assam: A gender perspective. In: *Rethinking Gender History: Essays on Northeast India and Beyond*. Manorama Sharma (Ed.). DVS Publishers, New Delhi, p. 217–238.

Nag, T. G. (2018). The making of the Gurkhas as a 'Martial Race' in colonial India. In: *Blending Nation and Region: Essays in Honour of Late Professor Amalendu Guha*. Sajal Nag and Ishrat Alam (Eds.). Primus Books, Delhi, p. 277–290.

Passah, Amena N. (2017). Gender History in Khasi-Jaintia hills: A relook at oral traditions and Literature. In: *Rethinking Gender History: Essays on Northeast India and Beyond*. Manorama Sharma (Ed.). DVS Publishers, Guwahati, New Delhi, p. 307–329.

Passah, Amena N. (2017). Roles of Khasi-Jaintia men in matrilineal Meghalaya: A historical perspective. In: *Proceedings of North-East India History Association, 37th Session 2016*, Gangtok. A. K. Thakur (Ed.). NEIHA, Shillong, p. 474–483.

Rahman, M. S. N. (2017). The Mughals in Bengali literature during colonial period. In: *Proceedings*

Department of History

of the Indian History Congress, 77th Session, University of Kerala, Thiruvananthapuram, p. 683–691.

Thakur, A. K. (2017). Boi system and the reconstruction of history of Mizoram: A perspective. In: *Linguistic Ecology of Mizoram*. S. K. Singh, R. Kumar, O. Prakash and C. Lalremzami (Eds.). EBH Publishers (India), Guwahati, Chapter 12, p. 153–167.

Thakur, A. K. (2017). Material culture and the historical reconstruction of Northeast India. In: *Proceedings of North-East India History Association, 37th Session 2016*, Gangtok. A. K. Thakur (Ed.). NEIHA, Shillong, Chapter 3, p. 17–23.

Thakur, A. K. (2018). History and the partition of India: Probing Northeast India. In: *North-East India before and after Partition: Issues and Experiences*. N. Bhadra and B. R. Chakma (Eds.). Shivalik Prakashan, New Delhi, Chapter 1, p. 1–14.

Thakur, A. K., editor. (2017). *Proceedings of North-East India History Association*. NEIHA, Shillong, ISSN: 2349-753X.

Funds Received from Agencies including NEHU/UGC:

NEHU: ₹1.80 lakhs

UGC-SAP-DSA-II: ₹8.80 lakhs

Research Projects

New: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Borders, Identities and the Predicament of Citizenship in Post-Colonial Assam (1947–2005)	Dr. Binayak Dutta	OKDISCD	4.00

Ongoing: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
UGC-SAP-DSA II	Prof. C.A. Mawlong	UGC	8.80
Flowing Boundaries: A Research and Documentation Initiative in Understanding Lives, Livelihoods and Environs of remote riverine borderlands in Northeast India	Dr. Binayak Dutta	Heinrich Boll Foundation	5.00

Academic Collaborations

Dr. B. Dutta: Partition archive.org (an initiative sponsored by Stanford University).

Honours/Awards/Recognitions

M. S. N. Rahman is Member of the Meghalaya State Wakf Board (2017–2022).

Other Activities

F. A. Qadri

Guest of Honour at the international seminar on *Contribution of Non-Muslims to Islamic Studies* at Rampur Raza Library, Ministry of Culture, Govt of India (17–19 December 2017), and presided over the valedictory session of the seminar.

Prof. A. K. Thakur

Delivered invited lectures on (i) “Research Methods in Social Sciences: Sources and Objectivity during the Research Scholars’ and Guides’ Meet” at the University of Science and Technology (Meghalaya) on 18 November 2017, and (ii) “Technology and Society in Pre-colonial Northeast India” at the Department of History, Banaras Hindu University, Varanasi (23 January 2018). He also delivered lectures as a resource person during the orientation programme on *Nationalism, National Integration and Northeast India* at UGC-HRDC, NEHU (February–March 2018).

Prof. Amena N. Passah

Delivered a lecture on “Trends in Historiography” at Thomas Jones College (Jowai) on 12 April 2017.

Dr. M. S. N. Rahman

Delivered lectures on (i) “Research Methods and Approaches and Importance of Literary Sources for the Study of History,” (ii) “Research Methodology in History” organised by UGC-HRDC (University of Kolkata) at the Department of History and South Asian Studies (Calcutta University) on 16 January 2018, (iii) “Role of the Youth in Peace Building in Contemporary India” during the Trainers’ Programme on *Youth and Peace Building* organised by the Rajiv Gandhi National Institute of Youth Development (Tamil Nadu) at the National Institute for Rural Development and Panchayati Raj (Guwahati) on 19 September 2017, (iv) Six lectures on “Trends of Communalism, Secularism and Syncretism in Indian History Writing” during the refresher course in History on *Recent Trends in Writing History* organised by UGC-HRDC (NEHU) in November 2017, (v) “Contribution of Qazi Abdul Wadud to the Renaissance of Bengali Muslim Society” organised by the Berhampur Centre for Awakening of Minority People (Berhampore, Murshidabad) on 5 January 2018, (vi) “Syed Badruddoza and His Times” at the Journalists’ Forum, Berhampore, Murshidabad (4 January 2018), and (vii) “Philosophy of History” on 6 January 2018 at Murshidabad Itihas Charcha Kendra, Berhampore, Murshidabad.

Dr. B. Dutta

Delivered lectures during the refresher course in *Tribal Studies: Life, Culture and Development* organised by UGC-HRDC (NEHU) from 22 January to 11 February 2018.



DEPARTMENT OF HISTORY AND ARCHAEOLOGY (TURA CAMPUS)

Head : Dr. Tilok Thakuria
Telephone : 8575133962
E-mail : tilokthakuria@rediffmail.com

Faculty: 3

Designation	Name and Qualification	Specialization
Assistant Professor (3)	Amit Kumar Upadhyay,* MA & PhD (BHU)	Ancient Indian History, History of Early Northeast, Epigraphy and Numismatics
	Tilok Thakuria, MA & PhD (Deccan College PGRI)	Archaeology, Etho-Archaeology, Archaeology and Culture of Northeast India
	Doneti Sivaji, MPhil & PhD (HCU)	Business History, Studies on Entrepreneurship, Studies on Cast

*On lien from July 2016

Thrust Areas of Research

The foremost concentration of the Department is on research in history and archaeology. The goal is to promote research in history of ancient India and archaeology of India and Southeast Asia. The Department gives particular interest to encourage research in history, archaeology, ethno-archaeology and culture studies of Northeast India. Besides these, it also aims to explore the research areas like business history, studies on entrepreneurship, studies on intellectual history, caste system of India in general and Northeast India in particular.

Brief Statement of Academic Activities

The Department offers both theoretical and practical training to the postgraduate students as part of teaching and research within the stipulated time. Exposure to students in areas related to the field of archaeology is also being provided. In addition, the Department arranges field trips to archaeological and historical sites for training in documentation of archaeological and historical records along with other field-based studies. Faculty members often make visits to local historical and archaeology places to gather information on related areas.

Students' Profile

Enrolment Capacity: MA–25, PhD–Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	13	12		25			23	02	25
MPhil		02		01		01	01	01	02
PhD	03			02		01	01	02	03

School of Social Sciences

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	06	15		20		01	19	02	21

Research Fellowships: 1

CSIR-UGC-NET: 1

Courses Conducted

Postgraduate: MA

Semester I

History Methods 1, Pre-Historic society, Ancient Society, Archaeology: An Introduction, Social and Polity Formation in North-East India.

Semester II

Historical Methods II, Pre-Industrial Society, Polity and Society in Early India, Making of Modern India Society in Early North-east India, The Neolithic Age in India.

Semester III

Capitalism and Colonialism I, Practical's in Archaeology, Economy and Society in Early India, Making of Modern India Society.

Semester IV

Capitalism and Colonialism II, the Chalcolithic Age in India, Christianity in North-East India, Economy and Society in Early North-East India, Economy and Society in Early North-East India, Perspectives in History and Culture of North-East India.

MPhil/PhD Courses

Research Methodology, History and Theory, Oral Traditions.

Seminars/Conferences/Symposia/Workshops

Dr. Tilok Thakuria

Organised the ICHR-sponsored national seminar on *Perspectives on Material Cultures in Northeast India* at the Department from 22 to 23 March 2018.

Dr. Doneti Sivaji

Organised the ICSSR-NERC sponsored national seminar on *Business History: Problems of Unemployment and Assessment of Entrepreneurial Competencies in Northeast India* at the Department from 26 to 27 March 2018.

Attended

Dr. Tilok Thakuria

Presented papers on (i) "Evidence of Shell Bangle Manufacturing at Manikapatana: A Port in Coastal Odisha" at the international seminar on *Archaeological Heritage of South Asia* organised by the Directorate of Archaeology, Govt of Assam (19–21 November 2017), and (ii) "Stone Jars of North Cachar, Assam: Some Observations" at the international workshop on *Hierarchy and Balance: The Role of Monumentality in European and North-East Indian*

Department of History and Archaeology (Tura Campus)

Landscapes organised by Nagaland University, Nordic Graduate School in Archaeology and Kiel University (17–24 March 2018).

Participated as a keynote speaker at the seminar on *Building Gig? Global Scale of Monumentality: An Ethno-Archaeological Perspective* organised by Nagaland University, Nordic Graduate School in Archaeology and Kiel University, from 12 to 16 March 2018. He also participated as a resource person in the national workshop on *Archaeology: Methods and Approaches* organised by the Department of History and Archaeology, Nagaland University (30 April to 7 May 2018).

Dr. Doneti Sivaji

Chaired the session on “Cultural Net-works and Traditional Knowledge” at the national conference on *Perspectives on Material Culture in North-East India* held in the Department sponsored by the Indian Council for Historical Research (New Delhi) on 22 & 23 March 2018.

Publications

Published in India

Thakuria, T. (2017). Society and economy during early historic period in Maharashtra: An archaeological perspective. *Heritage: Journal of Multidisciplinary Studies in Archaeology*, 5: 169–190.

Mohanty, R. K., Vaidya, S., Kharakwal, J.S., Sontakke, V., Thakuria, T. (2017). The early Iron Age Megalithic culture of Vidarbha in border perspective: A pragmatic observation. *Shodha Patrika*, 68(1-2): 21–51.

Book Chapters/Proceedings

Thakuria, T. (2017). Recent discovery of petroglyphs in Dima Hasao, Assam. In: *Cultural Ecology Prehistory and Ethnoarchaeological Context of Indian Rock Art*. B. L. Malla and D. Bezbaruah (Eds.). Aryan Book International, New Delhi, Chapter 6, p. 57–52.

Fund Received from Agencies including NEHU/UGC

Non-Plan: ₹5.80 lakhs

Research Projects

Ongoing: 3

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Automatic recognition of Patterns in Numismatic Data	Dr. A.K. Upadhyay	UGC, New Delhi	11.25
Excavation in Misimagre, West Garo Hills	Dr. Tilok Thakuria	UCL	3.50
Ornaments of Garo: Social and Cultural symbolism	Dr. Tilok Thakuria	NTICVAM	0.30



DEPARTMENT OF LAW

Head : Prof. (Dr.) J. J. Mozika
Telephone : 9436312487/0364-2723801
E-mail : j_mozika@yahoo.co.in, hodlaw@nehu.ac.in
Faculty: 8

Designation	Name and Qualification	Specialization
Professor (2)	J. J. Mozika, LL.M & PhD (NBU)	Administrative Law, Constitutional Law, Jurisprudence and Judicial Process
	Chintamani Rout, LL.M & PhD (Utkal)	Commercial Law and Constitutional Law
Assistant Professor (6)	R. K. Mishra, LL.M & PhD (BHU)	Intellectual Property Right and Criminal Law
	A. K. Singh, LL.M (BHU), PhD	Criminal Law, Human Rights and Private International Law
	N. Kumar, LL.M (JM Islamia), PhD	Public Health Law, Corporate Laws, Human Rights, Constitutional Law and Environmental Law
	R. Sil, LL.M & PhD (Burdwan)	Public Laws
	Mr. S. Tiwari, LL.M (BHU), MPhil (JNU)	International Law, International Humanitarian and Refugee Law, International Environmental Law, Information Technology Law (Cyber law) and Cultural Heritage Law
	P. Gupta, LL.M, (ILI, New Delhi), PhD	Law and Medicine, Environmental Law, Gender Studies

Thrust Areas of Research

1. To advance and disseminate knowledge of law and legal processes in the overall context of national and global developments.
2. The Department focuses on Constitutional Law, Environmental Law, Cyber Law, Patent Law, Industrial Law, Family Law, Commercial Law, Criminal Law, and International Law.

Brief Statement of Academic Activities

The students of the Department participated in various national moot court competitions, including the Henry Dunant Memorial Moot Court Competition in New Delhi. The Department also celebrated National Law Day on 28 November 2017 and launched a series of NEHU Law Lectures with Chief Justice of Meghalaya High Court Sri Dinesh Maheshwari who delivered the First NEHU Law Lecture on the occasion.

Department of Law

Students' Profile

Enrolment Capacity: BA LLB—60, LLM—10, PhD—Variable

Degree	Male	Female	SC	ST	GEN	Meghalaya	Non-Meghalaya	Total
BA LLB (Hons)	26	34		57	03	56	04	60
LLM	05	05		08	02	07	03	10
PhD	01	07		04	04	02	06	08

Degrees Awarded

Degree	Male	Female	SC	ST	GEN	Meghalaya	Non-Meghalaya	Total
BA LLB (Hons)	23	38	03	55	03	53	08	61
LLM	02	07		04	05	03	06	09

Research Fellowship: 21

CSIR-UGC-NET: 02

UGC NON-NET: 19

Courses Conducted

Five year Integrated BA LLB (Hons)

Semester I

English I, Political Science I, Sociology I, Micro Economics, Law of Tort.

Semester II

English II, Political Science II, Sociology II, Macro Economics, Law of Contract.

Semester III

English III, Political Science III, Political Science IV, Sociology III, Special Contract.

Semester IV

Indian Economy, Political Science V, Political Science VI, Family Law I, Law of Crimes I (Indian Penal Code).

Semester V

Constitutional Law I, Jurisprudence, Law of Crimes II (CrPC), Family Law II, Property Law.

Semester VI

Administrative Law, Constitutional Law II, Human Rights Law and Practice, Labour Law I, Public International Law.

Semester VII

Company Law, Labour Law II, Copyright, Interpretation of Statutes & Principles of Legislation; Drafting, Pleading and Conveyance.

Semester VIII

Civil Procedure Code & Limitation Act, Law of Evidence, Honours II Patent Law, International Environmental Law, Professional Ethics and Professional Accounting System.

Semester IX

Honours III Women & Criminal Law, Honours IV Trademark and Design, Honours V Health Law,

School of Social Sciences

Information Technology Law, Alternate Dispute Resolution.

Semester X

Honours VI Forensic Science, Honours VII Private International Law, Honours VIII Offences against Child & Juvenile Offences, Legislative Drafting, Banking Law; Moot Court, Exercise and Internship.

Two Year LLM Programme (4 semesters)

Semester I

Compulsory: Indian Constitutional Law

Specializations: One group comprising three courses to be offered at any given time to be decided by the Department:

Constitutional Law: Constitutionalism and Constitutional Development in India and England, Comparative Study of Federalism, Civil and Political Rights: Comparative Study of Selected Constitutions.

Jurisprudence: Theories of Law, Theories of Justice, Theories of Rights.

Law of Crimes: Criminology and Penology, Criminal Law in India, Cyber Crimes.

Semester II

Compulsory: Legal Education and Research Methodology.

Specializations: One group comprising three courses to be offered at any given time to be decided by the Department:

Human Rights: International Law of Human Rights.

Corporate Law: Business Organization.

Alternate Dispute Resolution System: Domestic and International Commercial Arbitration.

Open Courses: Any two courses to be offered during the second semester:

Copy Right: National and International Perspective; Trade Marks, Design and Geographical Indications; International Environmental Law, Natural Resource and the Law in India, Development and Regulation of International Trade, Legal Regulation of Economic Enterprises.

Semester III

Compulsory: Law and Social Transformation in India.

Specializations: Two courses to be offered from the group selected during the second semester:

Human Rights: Human Rights and the Refugees, Human Rights in India.

Corporate Law: Business Management (Company Management & Administration), Law Relating to Multinational Corporation.

Alternative Dispute Resolution: Enforcement of Foreign Award and Conciliation in India, Mediation, Lok Adalats and Consumer Forums, etc.

Open Courses: Any one course to be offered during the third semester:

Patents and Protection of Plant Varieties and Farmers' Rights, Pollution Control Laws in India, Legal Regulation of International Trade.

Semester IV: Judicial Process, Dissertation, General Proficiency, Viva-voce.

Department of Law

PhD Courses: Legal Research Methodology, Judicial Process, Comparative Constitutional Law.

Seminars/Conferences/Symposia/Workshops

Attended

Prof. Chintamani Rout

Presented papers on (i) “Tolerance of Persons and Article 15 of the Constitution” and also chaired a technical session of the national seminar on *Equality, Discrimination and Difference: Issues of Tolerance in Globalized World* organised by the Department of Law, University of North Bengal (9–10 September, 2017), (ii) “Social Justice and Positive Discrimination” at a national seminar organised by ICSSR-NERC, Shillong (21–22 September, 2017), (iii) “The Philosophy of Religion and Education of Swami Vivekananda” and chaired a technical session of a national seminar organised by the Department of Philosophy, NEHU (21–23 November, 2017), (iv) “Demonetization and Its Impact on Economic Activity, Industry and Trade, e-Commerce and Human Resources” at a national seminar organised by the Department of Commerce (NEHU, Shillong) on 27 & 28 November 2017, (v) “Prohibition of Traffic in Human Beings and Forced Labour: A Judicial Response” at a national seminar organised by the University Law College (Utkal University, Bhubaneswar) on 19 & 20 January 2018, (vi) “Property Rights under Indian Constitution: An Analysis” at a national seminar organised by Tezpur Law College (Tezpur, Assam) on 23 & 24 February 2018, (vii) “Disaster Resilient Communities and Measures by the Government for Disaster Management: An Analysis under the Disaster Management Act, 2005” at a national seminar organised by the Shillong Chapter, Indian Science Congress association (Kolkata) and NEHU, Shillong (5–6 March 2018), and (viii) “The Importance of Understanding the Psychology of Students in the Classroom” at an international conference organised by the Department of Education (NEHU, Shillong) on 15 & 16 March 2018.

Participated as an expert panellist in the national seminar on *Customary Laws of North-East India: Practice and Relevance* organised on 21 & 22 October 2017 by the University School of Law and Research, University of Science and Technology, Meghalaya.

Dr. A. K. Singh

Presented papers on (i) “Formation of Autonomous District Council Through Sixth Schedule in the State of Meghalaya: A Critical Study” at the two-day national seminar on *Customary Laws of North-East India: Practice and Relevance* organised by the University School of Law and Research, University of Science and Technology Meghalaya, and (ii) “Right to Clean Water as Human Right: An Analysis with Special Reference to the State of Meghalaya” at the seminar on *Environmental Adjudication: A New Dimension in Environmental Jurisprudence in India* organised by Chotanagpur Law College (Ranchi) on 11 November 2017, and acted as a resource person in the second session of the seminar.

Dr. N. Kumar

Presented papers on (i) “Protecting Human Rights through Good Governance: The Role of Judiciary” at the international seminar on *Governance, Human Rights and Regional Co-operation in South Asia: Opportunities and Challenges of Globalization* jointly organised by

School of Social Sciences

UGC-HRDC (Jamia Milia Islamia, New Delhi) and UNESCO Madanjeet Singh Institute of Kashmir Studies (University of Kashmir, Srinagar) on 19 & 20 April 2017, and (ii) “Protection of Environment and National Green Tribunal: A Case Study of Meghalaya” at the 30th Annual Conference of North-East India History Association held at D. K. Girls College (Guwahati) from 2 to 4 October 2017.

Dr. R. Sil

Presented a paper titled “Human Settlements and Scope of Vertical Expansion of Town and Cities in Phase of Rapid Urbanization: Laws and Lawlessness” at the seminar on *Growth of Unplanned Towns and Cities in the North-Eastern Region of India: Problems and Alleviation Measures* organised by ICSSR-NERC and others on 20 and 21 November 2017.

Mr. S. Tiwari

Presented papers on (i) “Safeguarding Cultural Environment: Reflections on the Legal and Policy Framework for the Protection of Cultural Heritage in India” at the national conference on *Paradigmatic Shifts in Law & Justice in 21st Century: Challenges & Opportunities* held at Himachal Pradesh National Law University, Shimla (8–10 December 2017), (ii) “Protecting Children against Online Violence in India: Quest for a Comprehensive and Effective Legal and Policy Framework” at the national conference on *Addressing Violence against Children in North-Eastern States and Sikkim* held at the Centre for Child Rights (National Law University and Judicial Academy, Assam) on 22 and 23 August 2017, and (iii) “Revisiting Children’s Rights: Reflections on the Application of the UN Convention on the Rights of the Child in the Digital Age” at the national seminar on *Human Rights and Global Challenges* organised by IQAC, Guwahati College, in collaboration with UNESCO (20–21 May 2017).

Dr. P. Gupta

Presented papers entitled “Assessing the Law on Civil Liability for Nuclear Damage in India” at a two-day seminar on *Sustainable Energy Future in India: Law, Policy and Management* held on 18 and 19 September 2017, and (ii) “Mental Health of School Children” at a national seminar organised by the North-East Regional Institute Education (NCERT, Shillong) on 8 & 9 February 2018.

Publications

Published in India

- Kumar, N. (2017). Where are we moving? Right to Education Act and its various amendments. *Education India*, 137–160.
- Mishra, R. K. (2017). Access and benefit sharing and Nagoya protocol: Myth and reality. *Chotanagpur Law Journal*, 10(10): 151–158.
- Mishra, R. K. (2017). Agricultural bio-technology infringement and remedies. *Shri Ji Socio-Legal Journal*, 13: 120–133.
- Mozika, J. J., Sonowal, M. (2017). Compensatory justice under Indian criminal justice regime. *The Legal Analyst* (2016), VI (1&2): 58–67.
- Rout, C. (2017). Freedom of expression in India. *Education Today: A Peer Reviewed Journal—An*

Department of Law

international Journal of Education & Humanities, VIII(1): 138–145.

Singh, A. K. (2017). Administration of justice among Khasi tribes of Meghalaya: A rhetoric or reality. *Shri Socio Legal Journal*, 213: 23–42.

Singh, A. K. (2017). Double jeopardy and the law: A comparative analysis. *Banaras Law Journal* (2014), 43(1): 94–102.

Sil, R. (2017). Child labour: A critical legal analysis. *Indian Journal of Law and Justice*, 8(1): 10–28.

Book Chapters

Mishra, Ravi Kant (2017). Plant variety: Need and protection in India. In: *Intellectual Property Rights in Media and Entertainment: Issues and Challenges*. Sumit Narula (Ed.). Amity School of Communications, Amity University, Gwalior, Chapter 14, p. 111–128.

Rout, C. (2017). Right to information and good governance. In: *Right to Information Act-Implementation and Challenges*. S. K. Nanda (Ed.), OJR Publishing Company, Cuttack, p. 23–26.

Singh, A. K. (2017). Government policies and social reform: An analysis. In: *Maximum Happiness for the Greatest Number-the Moto of the Government Policies*. P. K. Chaturvedi et al (Eds.). Chotanagpur Law College, Ranchi, p. 27–36.

Singh, A. K. (2017). Right to clean water as human rights: An analysis with special reference to Meghalaya in environmental adjudication: A new dimension. In: *Environmental Jurisprudence in India*. P. K. Chaturvedi et al (Eds.). Chotanagpur Law College, Ranchi, p. 64–70.

Honours/Awards/Recognitions

Dr. J. J. Mozika

Associate Editor of the *Indian Human Rights Law Review*, and Member of the Editorial Board of the *International Journal of Jurisprudence and Philosophy of Law*.

Mr. S. Tiwari

Member of the Editorial Board of the *National Journal of Comparative Law*.

Other Activities

Dr. J. J. Mozika

Member, Board of Postgraduate Studies in Law, Assam University, Board of Studies in Law, Sikkim University, and CCS (UG) of Gauhati University. She is also Editor of *NEHU Law Journal* and Reviewer for *NEHU Journal*.

Prof. Chintamani Rout

As a resource person delivered lectures on (i) “Ethics of a Law Professional” for the final year students of Law, organised by the State Judicial Academy in the Conference Hall (High Court of Meghalaya, Shillong) on 27 May 2017, (ii) “Child Right and Corporal Punishment to the In-Service Course of PRTS (Guwahati Region)” at Kendriya Vidyalaya (NEHU, Shillong) on 16 June 2017, and (iii) “Efficacy of Parliamentary Democracy in India” to the Students of Postgraduate Department of Law at Sambalpur University (Sambalpur, Odisha) on 13 January 2018.

School of Social Sciences

Dr. R. K. Mishra

Judged a debate competition organised by SBI (NEHU) during the vigilance awareness week in November 2017.

Dr. A. K. Singh

Delivered a lecture on “Human Rights Application in Internal Security Operation and Internal Security Scenario of North-East India” during the three-day training programme sponsored by the National Human Rights Commission (New Delhi) at Police Training School, Meghalaya (14–16 March 2018).

Dr. N. Kumar

Deliver a lecture on “Educational Rights and History in Education” during a refresher course in *Recent Trends in Historical Research: Eastern and North-Eastern India* organised by UGC-HRDC, NEHU (November 20 to 10 December 2017).

Dr. R. Sil

Delivered a lecture as a resource person on “Allegation of Causing Death in False Encounter etc.: Case Study on Escalation of Violence, Custodial Death/Torture during Interrogation/Custodial Rape/Encounters” during the three-day training programme sponsored by the National Human Rights Commission (New Delhi) at Police Training School (Meghalaya) from 14 to 16 March 2018. Also delivered the following three lectures during the three-day training programme on *Protection of Children from Sexual Offences* (POSCO) Act, 2012, conducted by the Police Training School, Shillong (26–28 March 2018): (i) “Bonded Labour and Child Labour Issues and the Relevant Laws,” (ii) “Human Trafficking and Laws with Special Emphasis on Child Trafficking,” and (iv) “Juvenile Justice (Care and Protection of Children) Act and Protection of Children.”

Mr. S. Tiwari

Delivered a lecture as a resource person on (i) “Learning from Case Laws and Precedents” at the one-day workshop-cum-orientation programme on *Pre-Conception and Pre-Natal Diagnostic Technique* (Prohibition of Sex Selection) Act, 1994 organised by the Office of the District Medical and Health Officer (Meghalaya) on 1 December 2017, (ii) “My Vision-Corruption Free India” as part of the Vigilance Awareness Week-2017 organised by the Bharat Sanchar Nigam Limited (Shillong) on 2 November 2017, (iii) “Personal Law” to newly recruited trainee Judges at Meghalaya State Judicial Academy (Shillong) on 21 and 28 June 2017, and (iv) “IT Act 2000 and Its Amendments, Section 65B of Indian Evidence Act and Banker’s Book of Evidence Act with Special Reference to Supreme Court Rulings” at the five-day basic course on *Cyber Crime Investigation* organised by the Central Forensic Training Facility Office of the Additional Director General of Police, Government of Meghalaya (24–28 April 2017).

Panellist in a panel discussion on *Globalisation and the Environment* organised by NEHUSU on 7 June 2017. He also acted as a judge in the 1st Dr. Gurjeet Singh Memorial National Moot Court Competition 2017 held at the National Law University and Judicial Academy (Assam) from 9 to 11 April 2017.



DEPARTMENT OF POLITICAL SCIENCE

Head : Prof. K. Debbarma
Telephone : 0364-272-3035(O)/9436102359(M)
E-mail : kdebbarma@rediffmail.com, hodpolsc@nehu.ac.in

Faculty: 8

Designation	Name and Qualification	Specialization
Professor (4)	K. Debbarma, MPhil & PhD (NEHU)	Human Rights, Development Administration and Politics of Migration in North-East India
	H. Srikanth, MPhil & PhD (NEHU) (Hyderabad)	Political Theory, Political Economy, Social Movements
	R. K. Satapathy, MPhil (Sambalpur), PhD (NEHU)	International Politics, Political Theory and Electoral Politics
	T. T. Haokip, MPhil & PhD (NEHU)	Foreign Policy, Public Administration, Government and Politics in North-East India
Associate Professor (2)	Susmita Sen Gupta	Politics of North-East India
	Munmun Majumdar, MPhil & PhD (NEHU)	South East Asian Studies
Assistant Professor (2)	Biswajit Mohapatra, MPhil & PhD (JNU)	India South and South East Asia, Look/Act East Policy, North-East Politics
	Suparna Bhattacharjee MPhil & PhD (JNU)	International Politics and Trade

Thrust Areas of Research

Contemporary Issues in Indian Politics and Politics of North-East India.

Brief Statement of Academic Activities

The Department of Political Science, established in 1974, aims at building an academic community of students, researchers and teachers devoted to an open, critical and analytical study of the discipline with an emphasis on inter-disciplinary approach. It also aims at making courses and research work that are socially relevant and developing an awareness of the basic issues and problems in the discipline so as to equip the students intellectually to fulfil these needs.

With the strength of eight faculty members, the Department has 104 students on its roll at the MA level. The Department admits MPhil and PhD scholars who undergo course work for one

School of Social Sciences

semester followed by dissertation/thesis writing on proposals approved by the School Board of Social Sciences. At present, there are 50 research scholars who are engaged in the MPhil and PhD programmes of the Department. The Department is in SAP-DRS-II. And the thrust area of SAP is “Political Processes and Economic Changes in Northeast India.”

Students’ Profile

Enrolment Capacity: MA—52, MPhil/PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	22	30		51	01		24	28	52
MPhil	03	05		05		03		08	08
PhD	04	04	01	05		02	03	05	08

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	17	32		48		1	24	25	49
MPhil	02	04	01	05				06	06
PhD	05	04		07		02	04	05	09

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Chandana Bhattacharjee	Conflict Resolution in Assam: Responses of State and Civil Society towards United Liberation Front of Assam (ULFA)	Prof. T. T. Haokip
Jagmohan Boro	Ethnic Politics and Identity Assertion of the Rabhas in Assam	Dr. S. Sengupta
Mary Magdalene Kurbah	Electoral Politics in Meghalaya: A Study of Mawlai and Mawprem Constituencies in 2008	Prof. R. K. Satpathy
Yow Peter Raiphea	India-Afghanistan Relations: 2001–2011	Prof. R. K. Satpathy
Rimki Patgiri	Poverty Alleviation: A Study of Implementation of Mahatma Gandhi National Rural Employment Guarantee Act in Nalbari District of Assam	Prof. R. Borgohain
Batskhem Myrboh	Non-Tribal Migration to Meghalaya: Role of Pressure Groups and Political Parties	Dr. S. Sengupta
Seikhogin Haokip	Kuki Militant Movement in Manipur: A Study of Kuki National Organisation	Prof. H. Srikanth

Department of Political Science

Iengskhem Ryngki Synniang	Lyngdohship in Khasi Hills: A Study of Continuity and Change	Prof. L. S. Gassah
Charismine P. Khonglah	Property Rights among Jaintia Women: Continuity and Change Property Rights Among Jaintia Women: Continuity and Change	Prof. L. S. Gassah & Dr. V. Bijukumar, Joint Supervisor.

Research Fellowships: 41

CSIR-UGC-NET: 04

UGC NON-NET: 32

NFHE: 02

ICPR Fellowship: 03

Courses Conducted

Postgraduate: MA

Semester I

Compulsory Core Courses: Liberal Political Theory, Theory of International Politics, Major Concepts and Issues in Public Administration, Indian Political System, State Politics in India with Special Reference to North-East India (I).

Semester II

Compulsory Core Courses: Marxist Political Theory, Problems of International Politics, State Politics in India with Special Reference to North-East India (II).

Optional Core Courses (Any one): Third World Political Theory, Administrative Theory, East & South East Asian Political Systems, West-Asian Political Systems.

Open Courses (Any one): Government and Politics in N.E. India, Democracy in India, Modern Indian Political Ideas.

Semester III

Compulsory Core Courses: Contemporary Political Theory, Research Methodology I.

Optional Core Courses (Any one): Issues in Women's Studies, International Law and International Organisation, South Asian Political Systems, South Asian Political Systems, African Political Systems.

Open Courses (Any two): Globalisation, Politics of Social Movements in India, Women and Political Theory, Development Administration, Issues in Environmental Politics.

Semester IV

Compulsory Core Courses: Major Debates in Political Theory, Comparative Politics, Research Methodology II.

Optional Courses (Any two): Political Ideology, Political Sociology, Foreign Policy of Major

School of Social Sciences

Powers, Indian Political Economy, Human Rights.

PhD Courses

Compulsory Courses: Research Methodology, Seminar Paper on Frontier of Knowledge in the relevant field.

Optional Courses (Any one): Issues and Processes in the Politics of North-East India, Issues in Indian Politics, Women and Politics in North-East India, Critical Perspectives on Knowledge and Power, Advanced Studies in International Politics, Environmental Politics.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised the following events:

UGC-SAP international seminar on *North-East India and Its International Neighbours: New Directions* in the Old NEHU Guest House on 27 and 28 March 2018 with Prof. H. Srikanth as Coordinator.

UGC-SAP Lectures delivered by Prof. Mahendra Lama (Centre for South Asian Studies, JNU, New Delhi) on (i) Conflicts and Refugees in South Asia (19 March 2018), (ii) Emerging Challenges in Indian and Chinese Migration Abroad (20 March 2018), and (iii) Human Security (21 March 2018).

UGC-SAP Lectures/Public Talks delivered by Prof. Ashutosh Kumar (Department of Political Science, Punjab University) on (i) Political Leadership at the State Level in India: Looking for a Theoretical Framework on 13 March 2018, (ii) Democracy in India: Politics and Economics on 14 March 2018, (iii) Writing a Publishable Research Paper in Social Sciences on 15 March 2018, and (iv) Autonomy Movement in Kashmir and Northeast India: Legal and Constitutional Perspectives (Public Talk) on 16 March 2018.

UGC-SAP Lectures/Public Talks delivered by Prof. Kham Khan Suan Hausing, (Department of Political Science, Hyderabad University) on (i) Asymmetric Autonomy and the Politics of Accommodation in Northeast India on 6 March 2018, (ii) Indian State and Nation-Building in Northeast India on 7 March 2018, and (iii) Political Leader in an Insurgent Space: SC Jamir as an 'Architect of Political Change' in Nagaland (Public Talk) on 8 March 2018.

UGC-SAP Lectures delivered by Prof. Sanjib Baruah (Bard College, New York, USA) on (i) Ethno-nationalism in North-East India on 21 February 2018, (ii) North-East India: Prospects of Look East Policy on 22 February 2018, and (ii) Quality of Our Democracy: The Strange Career of the Armed Forces Special Powers Act on 23 February 2018.

Special Lecture delivered by Prof. K. Debbarma (Head of the Department) to MA Political Science Students of Synod College in the Cluster of Classroom (NEHU, Shillong) on 28 April 2017.

The Political Science Discussion Forum Lecture on (i) "Interpreting Ethnic Violence in India: Musaffarnagar (2013) and Shillong (1979)" delivered by Prof. Jagpal Singh (Department of Political Science, IGNOU, New Delhi) on 22 September 2017, and (ii) The "Global Megatrends"

Department of Political Science

delivered by Ambassador Dr. Deepak Vohra (Special Advisor to Prime Minister, Lesotho and Guinea-Bissau and to the Ladakh Autonomous Hill Development Councils) on 8 September 2017.

Attended

Prof. K. Debbarma

Chaired the inaugural and academic sessions of the UGC-SAP international seminar on *North-East India and Its International Neighbours: New Directions* organised by the Department on 27 & 28 March 2018.

Presented papers on (i) “Legalizing Illegal Migration: A Case of Tripura” at the international seminar on *North-East India and Its International Neighbors: New Directions* being organised by the Department-UGC-SAP, Shillong (March 27–28, 2018), and (ii) “Politics in Tripura: Journey from Monarchy to Democracy” at the national seminar on *State Politics in India with Special Reference to Northeast India* organised jointly by the Department and the Nehru Memorial Museum and Library (NMML, New Delhi), and the ICSSR-NERC (Shillong) on 13 & 14 March 2018.

Prof. H.Srikanth

Presented papers on (i) “Building Bridges Across Communities: Thinking outside the Box at the international seminar on *Conflict Transformation and Dharma of Peace Building: Contemporary Relevance in North-East India* organised by Lady Keane College (Shillong) from 16 to 18 May 2017, (ii) “Doklam Crisis and National Jingoism: Missing the Woods for Trees” at the national seminar on *Changing Contexts of India-China Relations: Insights and Lessons from Crises Pathways and Imperatives in Stability and Convergence* organised by ICSSR-NERC on 11 September 2017, (iii) “Dalit Movement for Justice: Politics of Accommodation in Telugu Region” at the national seminar on *Towards Social Justice: Impact of Positive Discrimination on Marginalized Communities with Special Reference to Scheduled Castes in India* organised by ICSSR-NERC (Shillong) on 21 & 22 October 2017, (iv) “Humour in Times of Demonetization” at a national seminar on *Demonetization and Digitization* organised by the Department of Commerce, NEHU, on 37 & 28 November 2017, (v) “Values in Social Science Research: Alternatives to Positivism” at the international seminar on *Ethical Challenges and Contemporary Issues in Creative Research: Uniformity and Creativity* organised by Lady Keane College on 19 & 20 February 2018, and chaired the panel session on “Ethical Challenges and Contemporary Issues in Creative Research: Uniformity vs. Creativity—Furthering the Conversation,” (vi) “Agrarian Relations in Khasi-Jaintia Hills” at the national seminar on *Agrarian Crisis, Agricultural Credit and Unemployment in the Northeast* organised by the Department of Economics (NEHU) on 23 & 24 February 2018, and (vii) “Drug Trafficking in and through Myanmar and Manipur” jointly with Prof. T. T. Haokip at the international seminar on *North-East India and Its International Neighbors: New Directions* organised by the Department-UGC-SAP on 27 & 28 March 2018.

School of Social Sciences

Prof. R. K. Satpathy

Presented a paper on “India and Its Neighbours: China Factor in Its Policy Strategies” at the international seminar on *North-East India and Its International Neighbors: New Directions* organised by the Department-UGC-SAP on 27 & 28 March 2018.

Delivered a keynote address at the national seminar on *ASEAN Calling: Development of India's North-East through Sub-Regional Cooperation* organised by the Department of Political Science (Mizoram University) in collaboration with the ASEAN Study Centre (Shillong) on 23 March 2018.

Prof. T. T. Haokip

Presented a paper jointly with Prof. H. Srikanth on “Drug Trafficking In and Through Myanmar and Manipur” at the international seminar on *North-East India and Its International Neighbors: New Directions* organised by the Department-UGC-SAP on 27 and 28 March 2018. He also presented a paper on “Religion and Ethnic Relations: The Manipur Experience” at the UGC-SAP-national seminar on *Religious Beliefs and Practices: A Cross-Cultural Study of Societies in North-East India* sponsored by ICSSR-NERC and UGC-SAP, History Department, NEHU (8 March 2018).

Delivered a keynote address on “Anglo-Kuki War-1917–1919” at a regional workshop on *Anglo-Kuki War Centenary Celebration* jointly organised by the Kuki Research Forum and Kuki Inpi (Meghalaya) at Shillong on October 17, 2017.

Prof. S. Sen Gupta

Presented papers on (i) “Border Trade in Borth-East India: Exploring Socio-Cultural and Political Implications for Meghalaya” at the international seminar on *North-East India and Its International Neighbors: New Directions* organised by the Department-UGC-SAP on 27 & 28 March 2018, (ii) “Intra-Regional Migration of Chakmas: Exploring the Problems and the Prospects” at the inter-disciplinary international seminar on *Human Resource Development in South Asia: Capabilities, Challenges and Possibilities* organised by the Department of Economics and IQAC (Synod College, Shillong) and others on 16 & 17 March 2018, (iii) “Regional Politics in Meghalaya: Emerging Trends” at the national seminar on *State Politics in India with Special Reference to Northeast India* organised jointly by NMML (New Delhi), ICSSR-NERC (Shillong) and the Department on 13 & 14 March 2018, and (iv) “Politics of Social Forces in North-East India: A Comparative Study of the Khasis and the Bodos” at the international conference on *Interdisciplinarity: Contemporary Research in Humanities, Social Sciences and Management Studies* organised by the Department of Humanities and Social Sciences (National Institute of Technology, Meghalaya) on 21 & 22 July 2017.

Dr. Munmun Majumdar

Presented papers titled (i) “The South China Sea Conflict Management Process between ASEAN and China: Is It Relevant?” at the Fifth Global International Studies Conference on *Dialogue Across Borders in Turbulent Times: Addressing Global Challenges* held in Taipei, Taiwan (April 1–3, 2018), and (ii) “Lessons from the Doklam Standoff” at the one-day national seminar on

Department of Political Science

China's Extended Compellence, India's Restraint: Issues of Cooperation, Dilemma and Strategic Stability in the Doklam Standoff hosted by ICSSR-NERC (NEHU campus) on 11 September 2017,

Dr. Biswajit Mohapatra

Presented papers on (i) "Northeast India, India China Relations and the New Security Dynamics" at the international seminar on *North-East India and Its International Neighbors: New Directions* organised by the Department under UGC SAP on 27 & 28 March 2018, and (ii) "India-CLMV Countries' Convergence of Interests and India ASEAN Relations" at the national seminar on *Border and Connectivity: North-East India and South-East Asia* organised by the Department of Political Science (Mizoram University, Aizawl) on 23 & 24 March 2018.

Dr. Suparna Bhattacharjee

Presented papers on (i) "Border Haat: Contextualising India's Engagement with Its Neighbour" at the international seminar on *North-East India and Its International Neighbors: New Directions* organised by the Department under UGC SAP on 27 & 28 March 2018, and (ii) "Border Haat: Looking from the Perspective of Connectivity" on 27 August at the international seminar on *Cross Border Connectivity and Inclusive Growth: Possibilities and Challenges* organised by Shillong College (27–28 August, 2017).

Publications

Published in India

- Haokip, T. T. (2017). Conceptualizing tradition and traditional institutions in Northeast India. *Mizoram University Journal of Humanities and Social Sciences*, 111(1): 1–10.
- Haokip, T. T. (2017). Book of review of Nehginpao Kipgen's book titled Democratization of Myanmar. *India Quarterly*: 73(3), September 27.
- Majumdar, M. (2017). Islamic ideas versus secular ideas in Indonesia. *FPRC Journal* (East Asia), p. 42–47.
- Srikanth, H. (2017). Combating transnational crimes in the era of globalization: Strategies for India and the ASEAN. *International Studies*, 54(2): 1–14.
- Srikanth, H. (2017). Interrogating the studies on regionalism in Northeast India. *Northeast Researches*, 7(1): 72–86.

Book Chapters

- Debbarma, K. (2017). Empowerment of tribal women. In: *Empowerment of Tribal Women*. Lily Debbarma and Somali Saha (Eds.). Tribal Research and Cultural Institute, Govt of Tripura, Agartala, p. 25–56.
- Majumdar, M. (2017). Australia and the dispute in the South China Sea. In: *India-Australia Relations Evolving Polycentric World Order*. D. Gopal and Dalbir Ahlawat (Eds.). Pentagon Press, p.157–171.
- Majumdar, M. (2017). India's Act East Policy begins in Myanmar. In: *Mainstreaming the Northeast*

School of Social Sciences

in India's Look and Act East Policy. Atul Sarma and Saswati Choudhury (Eds.). Palgrave Macmillan, p. 287–300.

Majumdar, M. (2017). Why engaging Myanmar is important. In: *Act East and India's Northeast*. C. J. Thomas and K. Sarada (Eds.). Pentagon Press, p. 99–107.

Srikanth, H. (2017). Look East Policy: Sub-regional connectivity projects and Northeast India. In: *Mainstreaming the Northeast in India's Look and Act East Policy*. Atul Sarma and Saswati Choudhury (Eds.). Palgrave Macmillan, p. 213–232.

Srikanth, H. (2017). Indian-ASEAN economic integration: Need to address social and political concerns. In: *Act East and India's Northeast*. C. Joshua Thomas and K. Sarda (Eds.). Pentagon Press, p. 93–97.

Srikanth, H. (2017). State, ethnicity and nation building in South Asia. In: *Ethnicity, Nationalism and State in South Asia*. Minu Jha (Ed.). Victorious Publishers, Delhi, p. 32–45.

Srikanth, H. (2017). Status of research in politics in Northeast India. In: *Constraints and Challenges to Social Science Research in Northeast India*. L. S. Gassah, C. J. Thomas, (Eds.). Regency Publications, p. 49–54.

Research Projects

Ongoing: 5

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Development of Border Villages in Garo Hills: A Pilot Study	Prof. H. Srikanth	ICSSR (NERC)	0.75
Border Areas Development Program in Khasi-Jaintia Hills	Prof. H. Srikanth	UGC-SAP	0.26
Electoral Politics in Meghalaya: Study of the Assembly Elections	Prof. R. K. Satpathy	CSDS, New Delhi	1.50
Indigenous Tribal Communities along Indo-Myanmar Border: A Study of Interactions and Perceptions of the Kukis in Moreh and Tamu	Prof. H. Srikanth & Prof. T. T. Haokip	ASEAN Studies Centre, Shillong	5.00
Problems and Perceptions of Indigenous Communities along International Border: A Study of Kuki Community in Moreh & Tamu	Prof. T. T. Haokip	ASEAN Study Centre, Ministry of Home Affairs, GoI	5.00

Department of Political Science

Honours/Awards/Recognitions

Prof. R. K. Satpathy

Appointed as Honorary Director of the Indian Council of Social Sciences, North-East Regional Centre, Shillong, since January 9, 2018.

Other Activities

Prof. K. Debbarma

Delivered a lecture on “Gender Sensitization and Women’s Rights” on 24 August 2017 in a short-term course on *Gender Sensitization and Women’s Rights* organised by UGC-HRDC, NEHU (24–26 August 2017).

Prof. H. Srikanth

Delivered two lectures on “Structure of Academic Writing” and “Publishing Academic Articles” in a summer course at UGC-HRDC (NEHU) on 22 & 24 March 2018. He also delivered lectures on (i) “Structure of Academic Writing” and (ii) “Publications” in a summer course at UGC-HRDC (NEHU) on 21 & 23 March 2018, and (iii) “Demonetization” during the 42nd Orientation Programme organised by UGC-HRDC (NEHU) on February 9, 2018.

Prof. R. K. Satpathy

Delivered talks on (i) “Globalisation, Sovereignty and State” at a seminar hosted by Soro College (Odisha) on 21 December 2017, (ii) “India’s Foreign Policy During Modi Era” at the Department of Political Science (Sambalpur University, Odisha) on 18 July 2017, and (iii) “Civil Society in North-East India” at the Department of Political Science (Jamia Milia Islamia University, Delhi) on 5 April 2017.

Conducted a pre-poll survey in Tripura and Meghalaya in association with People’s Pulse, 16–20 January 2018. He also conducted a pre-poll survey in Meghalaya as State Coordinator during the last Assembly Elections (20–25 February 2018).

Prof. T. T. Haokip

Delivered two lectures on “Ethnicity and Ethnic Conflicts in Northeast India” during a refresher course in *Tribal Studies* organised by UGC-HRD (NEHU) on 8 & 9 February 2018.

Dr. Suparna Bhattacharjee

Delivered lectures on (i) “Security Issues in Southeast Asia through the Lens of Donald Trump’s Approach to Foreign Policy” at the ASEAN Study Centre (Shillong) on 27 April 2017, (ii) “India ASEAN Relations: Contextualizing India’s Engagement with Singapore Security Issues” at the ASEAN Study Centre (Shillong) on 25 April 2017, and (iii) Delivered a “Review of Literature and Book Review” at the workshop on *Research Methodology and Academic Writing* organised by ICSSR-NERC on 14 December 2017.

School of Social Sciences



DEPARTMENT OF SOCIOLOGY

Head : Prof. A. K. Nongkynrih

Telephone : 0364-2723040

E-mail : hodsoc@nehu.ac.in

Faculty: 7

Designation	Name and Qualification	Specialization
Professor (4)	C. L. Imchen, MPhil & PhD (JNU)	Political Sociology, Polity Formation and Indigenous Peoples
	I. L. Aier, MPhil & PhD (NEHU)	Political Sociology, Sociology of Religion, Ethnic Relations
	A. K. Nongkynrih, MPhil & PhD (NEHU)	Sociology of Kinship, Sociology of Organisations, Sociology of Rural Development
	D. V. Kumar, MPhil & PhD (JNU)	Modernization, Ethnicity and Social Change
Associate Professor (1)	B. Panda, MPhil (Hyderabad), PhD (IIT Kanpur)	Sociology of Third Sector, Sociology of Development
Assistant Professor (2)	Rekha M. Shangpliang, MPhil & PhD (NEHU)	Sociology of Environment, Sociology of Gender
	Md. Yusuf Khan, MA (AMU), MPhil (DU)	Ethnicity, Urban Sociology, Migration

Thrust Areas of Research

Social Change is the main thrust area of the department. It is concentrating in understanding the changes taking place in the societies of the region.

Brief Statement of Academic Activities

The Department is concentrating on understanding changes taking place in the societies of the region. The Department began instructions at the MA, MPhil and PhD Levels in 1976. Besides teaching and supervising research, the faculty engages in individual research activities as well. With the existing faculty expertise, the Department has developed research excellence in the studies of political dynamics and social movements, emerging accommodation between native systems and the nation state, ethnic identity, globalization and its impact on the North-Eastern Region, land and privatization of communal lands, rural developmental schemes and policies and traditional political institutions, modern organizations. Moreover, faculty members have been involved in their own capacities in community extension programmes, development of evaluation tools, documentation of Khasi indigenous forest management with reference to environment, evaluative research on community approach to development.

Department of Sociology

Students' Profile

Enrolment Capacity: MA—50, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	10	40		49		01	22	28	50
PhD	03	02		04		01	01	04	05

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MA	9	38		46		01	18	29	47
PhD	02	02		04				04	04

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Hormila G. Zingkhai	Traditional System of Forest Management among the Nagas: A Case Study of Waromung and Khonoma Village	Dr. Rekha M. Shangpliang
Ms. Vijanti Namchoom	A Sociological Study of the Social Dynamics of a Tai Khampti Village	Prof. C. L. Imchen
Mr. Soibam Teinkoo	A Sociological Study of Bandhs and Strikes in Manipur	Prof. D. V. Kumar
Mr. Letminlun Khongsai	A Sociological Study of Kuki Students' Organisation (KSO)	Prof. A. K. Nongkynrih

Research Fellowships: 4

CSIR-UGC-NET: 1

UGC NON-NET: 3

Courses Conducted

Postgraduate: MA

Semester I

Sociological Theories I, Methodology of Social Research I, Sociology of Family and Kinship, Indian Society I, Indian Society II.

Semester II

Sociological Theories II, Methodology of Social Research II, Sociology of Religion, Indian Society III, Ethnic Relations (Open Course).

Semester III

Economy and Society, Political Sociology, Sociology of Development, Tribal Movements in India,

School of Social Sciences

Sociology of Gender (Open Course), Urban Sociology (Open Course).

Semester IV

Social Change, Sociology of Environment, Anthropological Theories, Industrial Sociology.

PhD Courses

Designing Sociological Research, Sociological Concepts, Advanced Sociological Theory.

Seminars/Conferences/Symposia/Workshops

Organised

Dr. R. M. Shangpliang organised a national seminar on *Environment and Society: The Context of North-East India* at the Department on 14–15 March 2016.

Attended

Prof. A. K. Nongkynrih

Presented papers on (i) “Naga’s Society View from an Outsider Perspective” at the seminar on *The Programme of Literary Day-2017* organised by the Naga Students’ Union (Shillong) on 15 July 2017, (ii) “U Rangbah Mynnin Mynta bad Lawei” at a seminar of the Seng Rangbah organised by KGIP (Jongksha) on 28 October 2017, and (iii) “A Sociological View of Sacred Sites” at the national seminar on *Religious Beliefs and Practices: A Cross Cultural Study of Societies in NEI* organised by the Department of History, (NEHU, Shillong) on 8 March 2018.

Attended as a resource person in (i) conference on *MGNREGA: Bridging the Policy with the Ground Reality* organised by the Department of Social Work, St. Edmund’s College, Shillong, on 17 June 2017, and (ii) training of key resource persons on *Research Methodology for the States of Mizoram and Meghalaya* organised by NERIE (Umiam, Shillong) on 20 February 2018. He was also a panellist in a panel discussion of the national seminar on *Contemporary Environmental Issues and Concerns* organised by NSS and ENVIS RP Center, NEHU, Shillong (12 March 2018).

Delivered a key note address at a national seminar on *Sustainable Tourism: Striking a Socio-Economic and Environmental Balance* organised by the Department of Sociology (Synod College, Shillong) on 4 September 2017. He also delivered a speech as a Guest Speaker at a fresher’s social function-cum-cultural workshop organised by the Ao Students’ Union (Shillong) on 9 September 2017.

Dr. B. Panda

Presented paper titled (i) “Philanthropy, Philanthropic Initiatives of Voluntary Organizations: An Appraisal” at a national seminar organised by the Department of Philosophy (Lady Keane College, Shillong) in collaboration with ICPR (New Delhi), ICSSR-NERC (Shillong) from 16 to 18 May 2017, and (ii) “Identity, Culture and Livelihood: Perceiving Baliapal Movement from New Social Movement Perspective” at the international seminar held at IIT (Kanpur) from 21 to 23 February 2018.

Delivered a lecture on “Bibliography/Reference” during the national workshop on *Research Methodology* organised by the Research, Innovation and Publication Cell and IQAC (Shillong)

Department of Sociology

College) from 7 to 13 June 2017.

Publications

Published in India

Kumar, D. V. (2017). Examining ethnicity: The context of Mizos in Bengaluru. *Sociological Bulletin*, 67(1): 1–16.

Shangpliang, R. (2017). Common property resources and rural livelihood among the Khasi of Meghalaya. *The Eastern Anthropologist*, 70(1-2): 156–164.

Shangpliang, R. (2017). Matriliney: The cultural cradle of Khasi kinship system. *Arunodoi: Ethnic Identity, Environment, Economy, Cultural and Homelands*, 130–132.

Published Abroad

Nongkynrih, A. K., Ellena, R. (2017). Changing gender roles and relations in food provisioning among matrilineal Khasi and patrilineal Chakhesang indigenous rural people of North-East India. *Maternal and Child Nutrition*, 13(S3): 1–14.

Book

Nongkynrih, A. K. (2017). *A Study on Equity and Customary Forest Management in Meghalaya*. Galaxy Book Store, Shillong, ISBN: 13978-8193144046.

Honours/Awards/Recognitions

Prof. A. K. Nongkynrih

Member of Task Force, Social Welfare Department, Government of Meghalaya.

Other Activities

Prof. A. K. Nongkynrih

Delivered a lecture on (i) “A Discourse on Power and Authority” and interacted with the Sociology Honours Students in the Department of Sociology (Lady Keane College, Shillong) on 8 September 2017, and (ii) “An Overview of Meghalaya: A Social, Cultural and Historical Perspective” to Arunachal Pradesh Civil Service Officers at the Meghalaya Administrative Training Institute (Shillong) on 1 December 2017. He was also a resource person in a programme on *World Soil Day 2017* at NESFAS, Shillong (5 December 2017).

Dr. R. M. Shangpliang

Judged the Extempore Speech Competition during the Varsity Fest, organised by NEHUSU in May 2017.

Delivered lectures on (i) “Gender: The Challenges of Teaching Gender at Universities and Colleges” during a short-term course in *Gender Sensitization* organised by UGC-HRDC (NEHU, Shillong) from 21 to 26 of August 2017, and (ii) “Nature as a Cultural Symbol: The Bhutanese and Khasi Concept of Forest” during the refresher course in *English and Comparative Literature* organised by UGC-HRDC (NEHU, Shillong) on 5 April 2018.

VIII



SCHOOL OF TECHNOLOGY

Dean : Prof. Gautam Saha
Telephone : 0364-2723601(O)/7980904316(M)
E-mail : deanst@nehu.ac.in, dr.goutamsaha@gmail.com

The School of Technology consists of the Departments of Architecture, Basic Sciences and Social Sciences (BSSS), Biomedical Engineering (BME), Computer Applications (Tura), Electronics and Communication Engineering (ECE), Energy Engineering, Information Technology (IT), and Nanotechnology. These departments are relatively new entities, but vibrant with academic activities, performing well with several newer ideas and thoughts. The departments are carrying out several projects including major projects, such as state of art initiative on Internet of Things (IoT), design of Neural Network Based Pacemaker, design for Relief of Muscle Spasticity in CP Kids, Prehistoric scripts, etc. Recently, some research experiences developed in this School are also shared by our Defense organizations. A lot of research works are also being executed in the areas of Computational Biology and Cryptography, including PhD research works. Many research scholars in the School have been awarded with the “Visvesvaraya PhD” fellowship of about ₹35,000 per month for each student on merit. Four students from the Departments of IT, ECE and BME are doing PhD works under this scheme with the aim to develop products for industry.

The departments of the School have produced many research articles that are published in top grade journals of their respective areas. Many faculty members of the School were invited for delivering lectures in different universities across the country, and many departments have research collaboration within and outside the University.

All departments are actively engaged in good research projects. A lot of works are initiated in the areas of biomedical engineering, communication, microwave and signal processing by the Departments of BME and ECE. One patent has been filed from the Department of Energy Engineering with regards to production of bio-diesel from pine tree extracts. Several research works are also under execution with the help of NEIGRIHMS, Shillong. One Doctor of NEIGRIHMS is doing his PhD work in the Department of BME.

The School also has the Department of BSSS, which comprises experts from different streams like physics, chemistry, mathematics, biology, humanities and management studies, as a hub of teaching and research. Apart from providing lesson for foundation subjects to the engineering students, the Department has also developed basic Sciences Research Laboratories to raise the standard of teaching and research in the School.



DEPARTMENT OF ARCHITECTURE

Head : Ar. Banbhalang Swer
Telephone : 0364-2724101/8794741771
E-mail : banbha13@gmail.com, bswer@nehu.ac.in

Faculty: 3

Designation	Name and Qualification	Specialization
Associate Professor (3)	Banbhalang Swer, Master in Architecture (SPA, Delhi)	Urban Design and Postgraduate Diploma in Urban Planning and Development
	Ibynta. B. Tiewsoh, Master in Design (IIT Bombay)	Industrial Design
	Rameez Gazi, Master in Landscape Architecture (SPA, Delhi)	Landscape Design

Thrust Areas of Research

Architecture and Planning.

Brief Statement of Academic Activities

The students were introduced to topics of Basic Design Elements and Design Principles as part of the Design Innovation paper and were guided to conduct survey work for understanding different materials and its applications in developing a product as part of the studio programme.

The academic session 2017 ended with a two-day workshop conducted by resource persons from within the region.

Students' Profile

Enrolment Capacity: BArch—40

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
BArch 1 st year	15	08	01	05		17	05	18	23
BArch 2 nd year	19	20	02	16		21	13	26	39
BArch 3 rd year	19	14	02	12		19	09	24	33
BArch 4 th year	16	12		11		17	09	19	28

School of Technology

Courses Conducted

Undergraduate: Bachelor of Architecture (BArch)

Semester I

Structural Design I (Applied Mechanics), Building Materials I, Introduction to Architecture, Communication Skills, Architectural Design, Building Construction and Technology I, Architectural Graphics I, Workshop I.

Semester II

Structural Design II, Building Materials II, History of Architecture I, Communication Skills II, Architectural Design II, Building Construction and Technology II, Architectural Graphics II, Workshop II.

Semester III

Structural Design III, Building Materials III, History of Architecture II, Climatology I, Surveying and Levelling, Architectural Design II, Building Construction and Technology III.

Semester IV

Structural Design IV, Theory of Design I, History of Architecture III, Building Services I, Climatology I, Architectural Design III, Building Construction and Technology II, Computer Application I.

Semester V

Structural Design V, Theory of Design II, Modern Architecture, Building Services II, Elective I: (i) Interior Design, (ii) Art in Architecture and history of Meghalaya's art and culture, Architectural Design IV, Building Construction and Technology V, Computer Application II.

Semester VI

Structural Design VI, Estimation, Costing and Specifications, Building Bye-Laws and Codes of Practices, Advanced Building Services III (Acoustics), Elective II: (i) Design for disabled, (ii) Sustainable Architecture; Architectural Design VI, Building Construction and Technology VI, Working Drawing 1.

Semester VII

Advanced Structural Design, Landscape and Site Planning, Town Planning, Elective III: (i) Industrial Design, (ii) Intelligent Buildings; Landscape and Site Planning (Studio), Architectural Design VII, Building Construction and Technology VII, CAD II.

Semester VIII

Urban Design, Elective IV: (i) Urban Conservation, (ii) Housing; Urban Design (Studio), Architectural Design VIII, Advanced Building Construction & Technology, Project Introduction and Dissertation, CAD III.

Semester IX to Semester X: Not yet applicable.

Seminars/Conferences/Symposia/Workshops

Attended

Presented a paper on "Conservation of the Built Environment in the European Ward, Shillong" at the two-day international conference on *Interdisciplinarity: Contemporary Research in Humanities*,

Department of Architecture

Social Sciences and Management Studies (COIN2017) organised by the Department of Humanities and Social Sciences (NIT, Meghalaya) at Bijni Complex, Laitumkhrach, Shillong (21–22 July 2017), and (ii) “The Consecrated Sohpet Bneng Peak (Navel of Heaven): The Meaning and the Need for Protection, Preservation and Conservation” at the 3rd International Conference on *Civil, Architectural, Structural and Constructional Engineering–2017* held at Yonsei University in Seoul (South Korea) from 14 to 16 July 2017.

Publications

B. Swer, B. (2018). The consecrated Sohpetbneng Peak (Navel of Heaven): The meaning and the need for protection, preservation and conservation. *Applied Mechanics and Materials*, 878:146–151.

Academic Collaborations

Ar. Rameez Gazi collaborated with Dr. Manoj Kumar Singh, JSPS Post-Doctoral Member, University of Tokyo, for research entitled *Estimation of Thermal Comfort Status in Offices of Shillong*.

Other Activities

Students participated in the Zonal-NASA (National Association of Students of Architecture) Convention held at Royal Global University (Betkuchi, Guwahati) from 22 to 25 September 2017.

School of Technology



DEPARTMENT OF BASIC SCIENCES AND SOCIAL SCIENCES

Head : Dr. A. Sinha
Telephone : 0364-2723641/42
E-mail : hodbsss@gmail.com, emailtosinha@gmail.com

Faculty: 15

Designation	Name and Qualification	Specialization
Professor (1)	P. V. Koparkar, MSc & PhD (NU)	Physics (Instrumentation, Atmospheric Sciences, Nanomaterials)
	A. Sinha, MSc (LU), PhD (NEHU)	Chemistry (Physical and Analytical)
Associate Professor (2)	M. M. Singh, MSc (BHU), PhD (PU)	Mathematics (Number Theory, Algebraic Number Theory, Numerical Analysis, Discrete Mathematics)
	M. D. Kushwaha, MA & PhD (BHU)	Mathematics
Assistant Professor (12)	Hiranjit Choudhury, MSc & PhD (NEHU)	Botany (Plant Biotechnology)
	Regenel S. Kharwanlang, MSc & PhD (NEHU)	Physics (Theoretical Physics)
	Phrangstone Khongjee, MSc & PhD (NEHU)	Statistics (Sampling Theory and Demography)
	Krishna Upadhaya, MSc & PhD (NEHU)	Botany (Plant Ecology)
	Jyoti Narayan, MPhil & PhD (KU)	Chemistry (Physical, Analytical, Nanoscience and Nanomaterials)
	Jibitesh Dutta, MSc & PhD (NEHU)	Mathematics
	Sainkumar M.N. Mawiong, MSc & MPhil (NEHU)	Mathematics
	Evapynhun Giri, MA & MPhil (NEHU)	English
	R. S. Singh, MSc (Jadappur), PhD (CSIR-IICT, Osmania)	Chemistry (Organic, Bio-organic, Soft materials)
	M. Mahato, MSc (Burdwan), PhD (Calcutta)	Physics (Thin film, Molecular Spectroscopy, Nanobiotechnology)
	Munshi Ram, MCom (VBSPU), PhD (BHU)	Commerce-HRM (Human Resource Management)

Department of Basic Sciences and Social Sciences

Thrust Areas of Research

The thrust areas of research of the Department are the fields of Basic and Applied Mathematics, Basic and Applied Physics, Atmospheric Sciences, Chemical Sciences, Nanoscience and Nanotechnology, Basic Environmental Sciences, Biotechnology, Basic and Applied Economics, Applied Statistics, and Communicative English, with emphasis on interdisciplinary and multidisciplinary studies.

Brief Statement of Academic Activities

The Department of BSSS is not offering any course of study as such. However, teachers of the Department are teaching the core courses of Basic Sciences, Humanities and Social Sciences, which appear in the BTech curricula of ECE, IT, BME and EE of the School of Technology. In addition, faculty members have engaged themselves in research activity in their respective core fields of interest as well as in the interdisciplinary and multidisciplinary areas.

Students' Profile

Enrolment Capacity: MSc–60, PhD–Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
PhD	12	09		11	03	07	05	16	21*

*Out of 21, 13 students are admitted to other departments, while 8 are admitted to BSSS.

Research Fellowships: 21

CSIR-UGC-NET	UGC NON-NET	NFHE	DBT-JRF (NON-NET)	MoEF & CC (NON-NET)
02	12	05	01	01

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Pinkimani Goswami	Some Applications of Quadratic Residues in Public Key Cryptography	Dr. M. M. Singh

Courses conducted

The core courses pertaining to basic sciences, humanities and commerce are taught for the BTech programme of the departments/disciplines of Electronics and Communication Engineering, Information Technology, Bio-medical Engineering, and Energy Engineering, in the School of Technology. The details of the courses are as below:

Semester I & II

Professional Communication Skills, Digital English Language Laboratory, Engineering Mathematics I, Engineering Physics, Engineering Physics Laboratory, Engineering Mechanics,

School of Technology

Basic Electrical Engineering, Basic Electrical Laboratory, Workshop Practice, Elements of Environmental Sciences, Engineering Mathematics II, Engineering Chemistry, and Engineering Chemistry Laboratory for ECE, IT BME and EE.

Semester III

Engineering Mathematics III for ECE, IT & BME Engineering Economics and Financial Accounting for IT only, Discrete Mathematics for IT only.

Semester IV

Statistics and Random Processes for both ECE and IT.

Semester V

Industrial Economics and Management for ECE only, Management Information System for IT only.

Seminars/Conferences/Symposia/Workshops

Attended

Prof. Koparkar

Presented a paper on “Study of the Possible Correlation of the Local Weather Dynamics of the North-Eastern India and Atmospheric Electrical Behaviour” at the international conference on *New Frontiers in Engineering, Science & Technology* (NFEST 2018) held from 8 to 12 January 2018 in New Delhi.

Dr. M. M. Singh

Presented papers on (i) “Diophantine Equations and Its Applications” and (ii) “Integer Factorization: Its Historical Perspective and Recent Development” at the national seminar on *Mathematics Education* organised by NERIE & NCERT (Umiam, Shillong) on 21 & 22 December 2017, (iii) “On the Length of the Largest Cycle Consist by the Quadratic Residues” and “An Introduction to Complex Theory of Pell’s Equation $x^2 - Dy^2 = 1$ ” at the UGC-SAP-sponsored three-day national seminar on *Topology and Algebra* organised by the Department of Mathematics, NEHU, Shillong (March 26–28, 2018).

Dr. K. Upadhaya

Delivered an invited lecture on “Environmental Issues and Concerns with Special Reference to Northeast India” at a seminar on *Contemporary Environmental Issues and Concerns* organised by NSS Unit NEHU and ENVIS RP Centre NEHU, Shillong (March 12, 2018).

Dr. J. Dutta

Presented a paper on “Dynamics of Interacting Dark Energy from a Variational Approach” at the 29th Meeting of the Indian Association for General Relativity and Gravitation held at the Indian Institute of Technology, Guwahati (May 18–20, 2017).

Dr. Jyoti Narayan

Presented a paper on “Synthesis, Characterisation and Physicochemical Properties of Cupric Oxide Nanoparticles and Their Nanofluids” at the international conference on *Nanotechnology: Ideas, Innovations & Initiatives* 2017 (ICN: 3I 2017) held at IIT Roorkee, Uttarakhand (December

6–8, 2017).

Dr. R. S. Singh

Presented a paper on “Triphenylmethyl Derivatives of Primary Alcohols as a New Class of Organogelators” at the international conference on *Sophisticated Instruments in Modern Research* jointly organised by the Central Instruments Facility (IIT, Guwahati), Central Instruments Facility (Tezpur University), SAIF-Gauhati University and SAIF-NEHU (June 30 to July 1, 2017).

Dr. M. Mahato

Presented papers on (i) “A Focused Review on the Waste Plastic Conversion into Carbon Materials” at the Recycle 2018: The 2nd International Conference on *Waste Management* held at IIT, Guwahati (February 22–24, 2018), (ii) “A Focused Review on the Conversion of Waste Biomass into Carbon Nanomaterial” at the Bioprocessing India: The 5th National Annual Conference held at IIT, Guwahati (December 9–11, 2017), and (iii) “Waste to Wealth: An Environmental Nanotechnology Initiative” at the IAPT national convention and national symposium on *Recent Trends in Physics at Different Scales at the Department of Physics*, Gurukul Kangri Vishwavidyalaya, Haridwar (October 29–31, 2017).

Publications

Published in India

Adhikari, D., Reshi, Z., Datta, B. K., Samant, S. S., Chettri, A., Upadhaya, K., Shah, M. A., Singh, P. P., Tiwary, R., Majumdar, K., Pradhan, A., Thakur, M. L., Salam N., Zahoor, Z., Mir, S. H., Kaloo, Z. A., Barik, S. K. (2018). Inventory and characterisation of new populations through ecological niche modelling improve threat assessment. *Current Science*, 114(3): 519–531.

Mahato, S. K., Timiri, A. K., Mahato, M., Maity, A., Walia, Y. K. (2017). Studies on the interaction and complexation of pyrrole compound with haemoglobin. *Journal of Indian Chemical Society*, 94: 1–10.

Mir, A. H., Roy, D. K., Upadhaya, K. (2017). Taxonomy, recollection and conservation implications of *Aquilaria khasiana* (Thymelaeaceae): An endemic and threatened species of India. *Rheedea*, 27(2): 85–89.

Mir, A. H., Upadhaya, K., Roy, D. K. (2017). Rediscovery, distribution and conservation implications of *Cleyera grandiflora* Wall. ex choisy (Pentaphylacaceae): An endangered and endemic tree species of Meghalaya, Northeast India. *National Academy Science Letters*, 40(3): 205–209.

Published Abroad

Goswami, P., Singh, M. M., Bhuyan, B. (2017). A new public key cryptosystem over $Z_{(n^2)^*}$. *Discrete Mathematics, Algorithms and Applications*, 9(6): 1750080.

Asthana, S., Singh, M. M. (2017). On the Diophantine Equation $8x + 113y = z^2$. *International Journal of Algebra*, 11(5): 225–230.

Asthana, S., Singh, M. M. (2017). On the Diophantine Equation $3x + 13y = z^2$. *International*

- Journal of Pure and Applied Mathematics*, 114(2): 301–304.
- Borah, R., Kumaria, S., Choudhury, H. (2017). *In vitro* plant regeneration of *Magnolia punduana*: An endemic and threatened plant species. *Plant Tissue Culture and Biotechnology*, 27(2): 153-159.
- Bose, B., Kumaria, S., Choudhury, H., Tandon, P. (2017). Insights into nuclear DNA content, hydrogen peroxide and antioxidative enzyme activities during transverse thin cell layer organogenesis and *ex vitro* acclimatization of *Malaxis wallichii*, a threatened medicinal orchid. *Physiology and Molecular Biology of Plants*, 23(4): 955–968.
- Bose, B., Choudhury, H., Tandon, P., Kumaria, S. (2017). Studies on secondary metabolite profiling, anti-inflammatory potential, *in vitro* photoprotective and skin-aging related enzyme inhibitory activities of *Malaxis acuminata*, a threatened orchid of nutraceutical importance. *Journal of Photochemistry and Photobiology B: Biology*, 173: 686–695.
- Mir, A. H., Upadhaya, K. (2017). Effect of traditional management practices on woody species composition and structure in montane subtropical forests of Meghalaya, Northeast India. *Journal of Mountain Science*, 14(8): 1500–1512.
- Pao, N. T., Upadhaya, K. (2017). Effect of fragmentation and anthropogenic disturbances on floristic composition and structure of subtropical broad leaved humid forest in Meghalaya, Northeast India. *Applied Ecology and Environmental Research*, 15(4): 385–407.
- Deori, C., Talukdar, S. R., Mir, A. H., Upadhaya, K. (2017). *Liparis sootenzanensis* Fukuy. (Orchidaceae): A new addition to the orchid flora of India. *The MIOS Journal*, 18(8): 9–12.
- Adhikari, D., Mir, A. H., Upadhaya, K., Iralu, V., Roy, D. K. (2018). Abundance and habitat-suitability relationship deteriorate in fragmented forest landscapes: A case of *Adinandra griffithii* dyer, a threatened endemic tree from Meghalaya in northeast India. *Ecological Processes*, 7(1): 3, <https://doi.org/10.1186/s13717-018-0114-z>.
- Iralu, V., Upadhaya, K. (2018). Relative growth rate, biomass partitioning and nutrient allocation in seedlings of two threatened trees grown under different light conditions. *Acta Ecologica Sinica*, <https://doi.org/10.1016/j.chnaes>.
- Baruah, J. M., Narayan, Jyoti. (2017). Development of greener methodology for the synthesis of CdSe quantum dots and characterisation of their thin films. *Journal of Optics*, <https://doi.org/10.1007/s12596-017-0417-y>.
- Khongji, P. (2017). Ranking of districts in North-East states of India by the use of standard of living index using 2001 and 2011 Census. *International Journal of Economic Research*, 14(10): 1–10.
- Khongji, P. (2017). Projection of populations by age and sex for states in North-East of India for 2011–2031. *International Journal of Interdisciplinary and Multidisciplinary Studies*, 4(3): 150–169.
- Dutta, J., Khyllep, W., Saridakis, E. N., Tamanini, N., Vagnozzi, S. (2018). Cosmological dynamics of mimetic gravity. *Journal of Cosmology and Astroparticle Physics*, 18(02): 41.
- Dutta, J., Khyllep, W., Tamanini, N. (2018). Dark energy with a gradient coupling to the dark matter fluid: Cosmological dynamics and structure formation. *Journal of Cosmology and*

Department of Basic Sciences and Social Sciences

Astroparticle Physics, 18(01): 038.

Zonunmawia, H., Khyllep, W., Roy, N., Dutta, J., Tamanini, N. (2017). Extended phase space analysis of interacting dark energy models in loop quantum cosmology. *Physical Review D*, 96(8): 083527.

Biswas, S. K., Khyllep, W., Dutta, J., Chakraborty, S. (2017). Dynamical analysis of an interacting dark energy model in the framework of a particle creation mechanism. *Physical Review D*, 95(10): 103009.

Mahato, M. (2017). Biomaterialized nanocrystal of calcium carbonate in protein Langmuir Blodgett monolayer. *Materials Today: Proceedings*, 4(4): 5682–5686.

Book Chapters

Koparkar, P. V. (2018). ICT and empowerment of women in India's North-East. In: *Inequality, Poverty and Development in India: North-East Perspectives*. U. K. De and B. N. Ghosh (Eds.). Bookwell, Delhi, Chapter 14, p. 271–286.

Baruah, J. M., Narayan, J. (2018). Dilute magnetic semiconducting quantum dots-smart materials for spintronics. In: *Nonmagnetic and Magnetic Quantum Dots*. V. N. Stavrou (Ed.). Intech Open, p. 187–199.

Research Projects

New: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
To Study Some Social and Economic Implications of Population Projection for States in North-East of India till 2031	Project Director: Dr. P. Khongji	ICSSR, New Delhi	3.00

Ongoing: 5

Phytochemical Examination, Molecular Characterisation and Propagation of <i>Illicium Griffithii</i> Hook. F. & Thoms.: A Medicinally Important RET Plant of Northeast India for Improving Economic and Conservation Status	PI: Dr. H. Choudhury Co-PI: Prof. S. R. Rao and Dr. A. Bhattacharjee	DBT, GoI, New Delhi	39.28
Bottom-up Nanobiocomposite Film of Protein, Polymer and Nanoparticles by Langmuir Bldgett/Layer by Layer Technique for Pesticide Sensing Application	PI: Dr. M. Mahato Co-PI: Dr. M. Gogoi, BME, NEHU	SERB, DST, GoI	32.15

School of Technology

Conversion of Waste Plastic into Value Added Products	PI: Dr. M. Mahato Co-PI: Dr. M. Gogoi	SERB, DST, GoI	7.24
Orchid Bioresources of the North-east India-Conservation, Database Development and Information Networking	PI: Dr. H. Choudhury CI: Dr. K. Upadhaya & Dr. A. Bhattacharjee	DBT, GoI, New Delhi	29.38
Traditional Knowledge System-Network Programme on Convergence of Traditional Knowledge Systems for Integration to Sustainable Development in the Indian Himalayan Region	PI:Dr. K. Upadhaya	DST, GoI	99.77
Completed: 5			
Fragmentation of Humid Subtropical Broad-Leaved Forest and its Impact on Plant Diversity and Ecosystem Function in Meghalaya, Northeast India.	PI: Dr. K. Upadhaya	MoEFCC	35.575
Phytodiversity and Phytosociological Characterisation of Sacred Groves in Meghalaya	PI: Prof. B. K. Tiwari Co-PI: Dr. K. Upadhaya	DEF, Govt of Meghalaya	20.00
Molecular Characterisation and Chemoprofiling of Two Pharmacologically Relevant Species of Dendrobium Found in Northeast India	PIs: Prof. S. Kumaria & Dr. S. Sailajan, Co-PIs: Dr. H. Choudhury, Dr. S. Pednekar and Dr. S. Menon	DBT, GoI, New Delhi	26.25
Preventing Extinction and Improving Conservation Status of Threatened Plants through Application of Biotechnological Tools	PI: Prof. S. K. Barik <i>et al.</i> ; Co-PIs: Dr. H. Choudhury, Prof. N. Venugopal and Dr. M. C. Das	DBT, GoI, New Delhi	103.30
Preventing Extinction and Improving Conservation Status of Threatened Plants through Application of Biotechnological Tools	PI: Prof. N. K. Chrungoo Co-PIs: Dr. K. Upadhaya and Prof. S. Kumaria	DBT, GoI, New Delhi	82.58

Academic Collaborations

Dr. H. Choudhury

Collaborated with Dr. V. Kumar (Forest Research Institute, Dehra Dun), Prof. S. R. Rao and Dr. A. Bhattacharjee (Department of Biotechnology and Bioinformatics, NEHU) on *Phytochemical Examination, Molecular Characterisation and Propagation of Illiciumgriffithii* Hook. F. & Thoms.: A Medicinally Important RET Plant of Northeast India for Improving Economic and Conservation Status; Dr. A. Bhattacharjee (Department of Biotechnology and Bioinformatics, NEHU), Dr. K. Upadhaya (DBSSS, NEHU), Dr. Sunil S. Thorat, Regional Centre of Institute of Bioresources and Sustainable Development (IBSD, Gangtok), Dr. C. Deb (Department of Botany, Nagaland University), Dr. Rajiv Kumar Singh (Rajiv Gandhi University), Mr. B. G. Somkuwar (IBSD, Imphal), Dr. S. K. Sinha (TERI-NRC, Guwahati), Prof. B. K. Datta (Tripura University), Dr. K. Upadhyaya (Mizoram University) and Dr. D. S. Thokchom (Centre for Orchid Gene Conservation of Eastern Himalayan Region, Manipur) on *Orchid Bioresources of the North-East India—Conservation, Database Development and Information Networking*.

Dr. K. Upadhaya

Collaborated with (i) Prof. S. K. Barik (Department of Botany, NEHU), and Prof. S. C. Garkoti (JNU) on *Convergence of Traditional Knowledge Systems for Integration to Sustainable Development in the Indian Himalayan Region*, and (iii) Dr. H. Choudhury (Department BSSS, NEHU), and (iv) Dr. A. Bhattacharjee (Department of Biotechnology and Bioinformatics, NEHU) on *Orchid Bioresources of the North-East India: Conservation, Database Development and Information Networking*.

Dr. M. Mahato

Collaborated with (i) Dr A. K. Pal (Department of Chemistry, NEHU) on *Nanomaterial Synthesis, Characterisation and Their Novel Applications*, and (ii) Dr Manashjit Gogoi (Department of Biomedical Engineering, NEHU) on (a) *Langmuir Blodgett Film Preparation and Biosensor Application*, and (b) *Waste Conversion into Value Added Products*.

Honours/Awards/Recognitions

Dr. A. Sinha

Expert Member of Star College Advisory Committee/Panel, St. Edmunds College, Shillong under the Star College Scheme by the Department of Biotechnology, GoI (June, 2017), (ii) ISCA Representative of Shillong Chapter (July 2017).

Dr. H. Choudhury

Member of the Asian Council of Science Editors, Deria Dubai, U. A. E.

Dr. J. Dutta

Associate of Inter-University Centre for Astronomy and Astrophysics, Pune, India (August 1, 2015 to July 31, 2018).

Dr. K. Upadhaya

Member of the (i) Expert Committee of Meghalaya Biodiversity Board, Government of Meghalaya (ii) Expert Member of the Monitoring committee of Eco-sensitive Zone Nongkhyllam Wild Life Sanctuary, Government of Meghalaya, and (iii) Expert Member, Monitoring committee of Eco-

School of Technology

sensitive Zone Naphu Wild Life Sanctuary, Government of Meghalaya.

Other Activities

Prof. P. V. Koparkar

Coordinator of (i) Remedial Coaching Scheme for SC/ST/OBC and Minority students at UG level in the School of Technology, and (ii) EDUSAT facility provided by CEC, New Delhi, in the premises of School of Technology, NEHU, Shillong.

Dr. A. Sinha

Member of the Local Organizing Committee of the 83rd Annual Session of the Indian Academy of Sciences held at NEHU (Shillong) during November 3–5, 2017.

Organised (i) National Unity Day programme at NEHU on 31 October 2017 in memory of the birth anniversary of Sardar Vallabhbhai Patel, and (ii) Birth anniversary commemoration of Madam Curie and Sir C.V. Raman on November 7, 2017 at NEHU.

Dr. M. M. Singh

Acted as a resource person in (i) UGC-sponsored service level coaching classes for Civil Services/Banking/SSS held at Women's College, Shillong (1 March to 30 November 2017), and (iii) NCERT sponsored in-service course for PRT's (Guwahati Region) 2017–18 held at Kendriya Vidyalaya (NEHU, Shillong) from 6 to 17 June 2017.

Reviewer for the *Mathematical Review (MR)*, *American Mathematical Society (USA)*, and Member of the Editorial Board of the in-house Magazine—*NEHU JYOTI*.

Dr. H. Choudhury

Delivered two invited lectures on (i) “Green Biotechnology: Its Impact on Agricultural Production” organised by the Institutional Biotech Hub (Lady Keane College, Shillong) at MeECL Secondary School, Sumer, Ri-Bhoi, Meghalaya (October 13, 2017), and (ii) “Impact of Biotechnology in Health Sciences and Medicines” at Arya Kanya Vidyalaya Secondary School (Shillong) on 8 September 2017.

Dr. Jyoti Narayan

Completed a short-term course in “Research Methodology” organised by UGC-HRDC, NEHU (August 7–12, 2017).

Dr. J. Dutta

Served as reviewer of (i) *General Relativity and Gravitation*, Springer, US (International Journal) and (ii) Grant proposal in National Science Centre, Poland 2017.

Dr. M. Mahato

Attended and completed the UGC-sponsored Summer School at HRDC, NEHU, Shillong (19 June to 9 July 2017).



DEPARTMENT OF BIOMEDICAL ENGINEERING

Head : Dr. Dinesh Bhatia
Telephone : 03642723851(R)/03642723853(O)
E-mail : hodbme@nehu.ac.in

Faculty: 6

Designation	Name and Qualification	Specialization
Associate Professor (1)	Dinesh Bhatia, ME (Mumbai), PhD (MNNIT Allahabad)	Biomechanics and Rehabilitation Engineering, Biomedical Devices and Signal Processing, Medical Informatics and Telemedicine
	Nitin Sahai, BTech (UPTU), MTech (MNNIT Allahabad)	Computer Aided Tissue Engineering, Biomechanics and Biomaterials
	Sudip Paul, MTech & PhD (IIT-BHU)	Electrophysiology, Biomedical Instrumentation, Artificial Organ and Rehabilitation system, Biomedical Signal Processing
Assistant Professor (5)	Manashjit Gogoi, MTech (Tezpur), PhD (IIT Bombay)	Bio Nanotechnology, Nano medicine, Cancer Drug Delivery
	Gajendra Kumar Mourya, MTech (IIT-BHU), MBA (Pondicherry)	Medical Image Processing, Signal Processing and Biomedical Instrumentation
	Shyamal Mandal, BTech (WBUT), MTech (IIT Kharagpur)	Medical Image Processing, Nanotechnology, Biomaterials

Thrust Areas of Research

Biomechanics and Rehabilitation Engineering, Biomedical Devices and Signal Processing, Tissue Engineering, Biomechanics, Electrophysiology and Medical Instrumentation, Bio-nanotechnology, Nano Medicine and Cancer Drug Delivery, Medical Image Analysis and Processing, Biomaterials and Artificial Organs, Medical Informatics and Telemedicine, Robotics.

Brief Statement of Academic Activities

The Department of Biomedical Engineering (BME) was established in 2012 under the School of Technology funded by MHRD, Government of India, with the purpose to promote studies in new emerging areas of medical sciences and technology, employing advancements in technology for the benefit of masses and patients.

The Department intends to provide education to young minds for achievement of better health care solutions with emphasis on learning new techniques, developing innovative ideas

School of Technology

through learning, skill development, research and development (R&D), and industry-institution interaction in the field. The Department organised one International School, one IEEE Conference and four workshops and seminars in 2017–18. Faculty members and students published 30 papers in journals of national and international repute, and nine book chapters and proceedings.

Students' Profile

Enrolment Capacity: BTech (BME)—60 Vertical and 6 Lateral, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
1 st year	01	04	01	02		02	01	04	05
2 nd year	18	18	03	15		18	07	29	36
3 rd year	15	18	03	08		22	07	26	33
4 th year	18	23	02	17		22	09	32	41
PhD	02	01	02			01	01	02	03

Placement of Students: Two students placed in Pradan Pvt. Ltd.

Research Fellowships: 51

Merit-cum-means Scholarship	UGC Ishan Uday Scholarship	Post Metric Scholarship	NEC Scholarship
21	05	24	01

Fieldwork/Educational Tour of Students

Teacher-in-Charge: Dr. Dinesh Bhatia and Dr. Sudip Paul

Places/Institutions Visited: Advance Training Institute, Dehradun, UK

Duration of Tour: Ten days (30 October to 10 November 2017)

Courses Conducted

Undergraduate: BTech

Semester I

Elements of Environmental Science, Engineering Mathematics I, Engineering Chemistry, Computer Systems and Programming, Basic Electronics, Engineering Chemistry Laboratory, Computer Programming Laboratory, Basic Electronics Laboratory, Engineering Graphics.

Semester II

Professional Communication Skills, Engineering Mathematics II, Engineering Physics, Engineering Mechanics, Basic Electrical Engineering, Digital English Language Laboratory, Engineering Physics Laboratory, Basic Electrical Engineering Laboratory, Workshop Practice, General Proficiency I.

Semester III

Engineering Mathematics III, Biomaterials Signals and Systems, Human Anatomy and Physiology-I, Data Structures and Algorithms, Human Anatomy and Physiology Laboratory I, Data Structure Laboratory.

Department of Biomedical Engineering

Semester IV

Statistics and Random Processes, Biomedical Instrumentation I, Biomechanics, Medical Biochemistry, Human Anatomy and Physiology II, Biomedical Instrumentation Laboratory I, Medical Biochemistry Laboratory, Human Anatomy and Physiology Laboratory II, General Proficiency II.

Semester V

Bio-Transport Process, Microprocessor, Biomedical Signal Processing, Biomedical Instrumentations-II, Tissue Engineering, Microprocessor Laboratory, Biomedical Signal Processing Laboratory, Biomedical Instrumentation Laboratory II.

Semester VI

Medical Imaging Techniques, Modelling of Physiological Systems, Artificial organ and Rehabilitation Engineering. Elective I: Fundamental of Bio-Mems, Nuclear Medicine, Radiation and Safety, Modelling of Physiological Systems Laboratory, Hardware Design Project Laboratory, Seminar and Group Discussion, General Proficiency III.

Semester VII

Bio-Nanotechnology, Hospital Management, Medical Image Processing, Industrial Economics and Management. Elective II (Open): Telemedicine, Bionanotechnology Laboratory, Medical Image Processing Laboratory.

Semester VIII

Major Project, General Proficiency IV.

PhD Courses

Research Methodology, Advance Biomedical Instrumentation, Advances in Nanomedicine.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised (i) International Brain Research Organization (IBRO/APRC Associate School 2017) from 5 to 10 June 2017 with Dr. Sudip Paul as Convener, (ii) Workshop on *Medical Image Processing using MIMICS Innovation Suite* in collaboration with the Net-Track System and Services at Guwahati from 10 to 11 August 2017 with Mr. Gajendra Kumar Mourya as convener, (iii) One-day outreach programme in collaboration with IEEE (Kolkata Section) and IEEE Joint CSS-IMS Chapter (Kolkata) on 9 October 2017 at NEHU with Dr. Dinesh Bhatia as convener and Mr. Gajendra Kumar Mourya as Coordinator, (iv) Virtual Laboratory Workshop (Nodal Centre for North-Eastern Region) under NMEICT initiative (MHRD, GoI) in collaboration with IIT (Roorkee) on 8 & 9 March 2018 with Dr. D. Bhatia as Convener, (v) Workshop on *An Introduction to Biomedical Signal Processing* from 12 to 14 August 2017 with Mr. Gajendra Kumar Mourya as Convener, and (vi) One-day seminar on *Contemporary Environmental Issues and Concerns* organised by ENVIS RP in collaboration with the NSS Unit (NEHU, Shillong) on 12 March 2018 with Dr. Dinesh Bhatia as Coordinator.

School of Technology

Attended

Dr. Dinesh Bhatia

Delivered invited lectures on (i) “Computational Approaches in Neuroprotection and Neurorehabilitation” at IBRO/APRC Associate School 2017 held at the Department from 5 to 10 June 2017, (ii) “Effect of Ageing on Neuro-Biological Signals and Difficulty in Their Interpretation” at 31st Annual meeting of Society for Neurochemistry and workshop on *Application of Neurobiological Techniques to Study Neurological Disorders* organised by IIT (BHU, Banaras) from 15 to 21 September 2017, (iii) “Effect of TMS in Spastic CP” at the 35th Annual Meet of the Indian Academy of Neurosciences (IAN 2017) and international conference on *Translational Neurosciences and Its Application in Protection of Mental Health* held at Ravenshaw University (Cuttack) on 27 & 28 October 2017, and (iv) “Biomedical Waste Management and Its Awareness in India” during the one-day seminar on *Contemporary Environmental Issues and Concerns* organised by ENVIS RP Centre (NEHU) in collaboration with the NSS Unit (NEHU, Shillong) on 12 March 2018.

Delivered a keynote address at the Fourth International Conference on *Biosignals, Images and Instrumentation* (ICBSII 2018) organised by the SSN College of Engineering (Chennai) from 22 to 24 March 2018. He also delivered a lecture at (i) one-day regional CME on *Joint Diseases, Arthritis and Tissue Engineering* organised by the Orthopedics Department (NEIGRIHMS, Shillong) on 2 February 2018, (ii) one-day international conference on *Emerging Microbes and Infection and Their Impact on Public Health* organised by Dr. G. M. Taori (Central Indian Institute of Medical Sciences, Nagpur) on 9 February 2018, and (iii) international pre-conference workshop on *Biomechanics and Fourth International Conference on Biosignals, Images and Instrumentation* organised by SSN College of Engineering (Chennai) from 19 to 21 March 2018.

Chaired a session of the one-day international conference on *Emerging Microbes and Infection and Their Impact on Public Health* held on 9 February 2018 at the Dr. G. M. Taori Central India Institute of Medical Sciences, Nagpur. He also served as expert for a PhD research symposium organised by the Department of Electronics and Telecommunication Engineering (Shri Guru Gobind Singhji Institute of Engineering and Technology, Maharashtra) on 27 & 28 January 2018.

Dr. Sudip Paul

Delivered an invited lecture at the 7th Congress of Federation of the Indian Physiological Societies & 29th Annual Conference of Physiological Society of India, organised by the Defence Institute of Physiology & Allied Sciences (DRDO, Delhi) from 5 to 7 November 2017. He also chaired a session of the international conference on *Emerging Microbes & Infection and Its Impact on Public Health*, CIIMS, Nagpur (February 9, 2018).

Mr. Nitin Sahai

Delivered aposter presentation on “Development of Porous Tissue Scaffolds Using Computer Aided Tissue Engineering by Stress Analysis” at the 26th Congress of the International Society of Biomechanics in Brisbane, Australia (23–27 July 2017).

Publications

Published in India

Gupta, M., Bhatia, D., Rajak, B. L. (2017). Study of available intervention techniques to improve cognitive function in cerebral palsy patients. *Current Neurobiology*, 8(2): 51–59.

Published Abroad

Gogoi, M. (2017). Recent advances in nanomedicine for antimalarial drug delivery. *Biomedical Research Journal*, 4(2): 151–161.

Gogoi, M., Layek, R., Vuorinen, J., Mahato, M. (2017). Conversion of solid waste into functional carbon materials: A review. *Energy and Environment Focus*, 6(1): 52–68.

Gupta, M., Bhatia, D. (2017). Effect of repetitive transcranial magnetic stimulation on cognition in spastic cerebral palsy children. *Journal of Neurological Disorders*, 5(2): 1–2.

Gupta, M., Rajak, B. L., Bhatia, D., Mukherjee, A. (2017). Effect on functional performance of upper extremity in spastic cerebral palsy children employing varying rTMS pulses. *International Journal of Biotechnology and Biomedical Sciences*, 2(3): 216–219.

Gupta, M., Rajak, B. L., Bhatia, D., Mukherjee, A. (2017). Transcranial magnetic stimulation in spastic cerebral palsy helps achieve developmental milestone: A case report. *Clinical Psychiatry*, 3(2): 1–3.

Khawash, S., Bardoloi, B., Bhatia, D., Paul, S. (2017). Design of electrical knee stimulator for osteoarthritis (oa) patients. *International Journal of Biomedical Engineering*, 3(1): 6–9.

Mourya, G. K., Bhatia, D., Handique, A., Warjri, A., War, S., Amir, A. (2018). Segmentation of liver using random forest classifier (An Abstarct). *International Journal of Computer and Information Engineering*, 12(2): 1.

Paul, S., Sinha, T. (2017). Effect of cerebral stroke on collective neural oscillations in rat brain. *International Journal of Stroke*, 11: 203–204.

Paul, S., Sinha, T. K., Patnaik, R. (2017). Feedforward neural network based classification cans possibly a novel tool to evaluate the neuronal condition in rat model. *Journal of the Neurological Sciences*, 381: 981.

Rajak, B. L., Gupta, M., Bhatia, D., Mukherjee, A. (2017). Effect of repetitive transcranial magnetic stimulation on hand function of spastic cerebral palsy children. *Journal of Neurological Disorders*, 5(1): 1–5.

Rajak, B. L., Gupta, M., Bhatia, D., Mukherjee, A., Paul, S., Sinha, T. K. (2017). Power spectrum density analysis of EEG signals in spastic cerebral palsy patients by inducing r-TMS therapy. *Journal of Biomedical Engineering and Technology*, 4(1): 7–11.

Sahai, N., Gogoi, M. (2017). Development of chitosan porous tissue scaffolds using computer aided tissue engineering for cartilage regeneration. *Asian Chitin Journal*, 13(1): 9–14.

Saikia, A., Paul, S., Pandey, V. (2017). Prevalence of Parkinson's disease in India: A review. *Journal of Biological Engineering Research and Review*, 4(1): 55.

Published Abroad

Books

- Paul, S. (2017). *Introduction to Rat Brain EEG Signal and Its Significance*. LAP LAMBERT Academic Publishing, Germany, ISBN-13: 978-3-659-64256-2.
- Paul, S., guest editor. (2017). IBRO/APRC Associate School 2017 abstract book, India. *Journal of Biological Engineering Research and Review* (JBERR), E-ISSN: 2349-3232.
- Saikia, A., Paul, S., Hussain, M. (2017). *An Overview of Parkinson's Disease and Its Relevance*. LAP LAMBERT Academic Publishing, Germany, ISBN-13: 978-613-3-99599-4.

Book Chapters/Proceedings

- Avutu, S. R., Bhatia, D., Reddy, B. V. (2017). Design of an appropriate manual-cum-powered wheelchair. In: *IEEE Proceedings of the International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials* (ICSTM), p. 276–280.
- Avutu, S. R., Bhatia, D., Reddy, B. V. (2017). Design of low-cost manual-cum-electric-powered wheelchair for disabled person's to use in indoor. In: *Proceedings of the 2nd International IEEE Next Generation Computing Technologies* (NGCT-2016), p.178–184.
- Avutu, S. R., Bhatia, D., Reddy, B. V. (2017). Voice control module for low cost local-map navigation based intelligent wheelchair. In: *Proceedings of the 7th IEEE International Advance Computing Conference* (IACC 2017), p. 609–613.
- Mazumdar, S., Saikia, A., Sahai, N., Paul, S., Bhatia, D. (2017). Determination of significant muscle in movement of upper limb using maximum voluntary contraction of EMG signal. In: *Proceedings of the 4th International Conference on Signal Processing and Integrated Networks*, p. 96–99.
- Moirangthem, J., Avutu, S. R., Gupta, M., Bhatia, D. (2018). Devices for rehabilitation. In: *Design and Development of Affordable Healthcare Technologies*. Bit Arindam (Ed.). IGI Global Publishers, USA, Chapter 3, p. 57–84.
- Mourya, G. K., Bhatia, D., Handique A., Bordoloi A., Saha, P. S., Swargiary, S. (2017). Automatic segmentation of human ribcage from 3D medical dataset for diagnosis. In: *Proceedings of International Conference on Innovations in Electronics, Signal Processing and Communication* (IESC), Shillong, p. 112–114.
- Mourya, G. K., Bhatia, D., Handique, A. (2018). Segmentation of liver from 3D medical imaging dataset for diagnosis and treatment planning of liver disorders. In: *Design and Development of Affordable Healthcare Technologies*. Bit Arindam (Ed.). IGI Global Publishers, USA, Chapter 9, p. 191–217.
- Mourya, G. K., Bhatia, D., Handique, A., Warjri, S., War, A., Amir, S. A. (2018). 2D/3D liver segmentation from CT datasets. In: *Advances in Communication, Devices and Networking: Proceedings of ICCDN 2017*. R. Bera, S. K. Sarkar and S. Chakraborty (Eds.). Springer Nature, Singapore, Chapter 68, p. 625–632.
- Pandey, V. K., Saikia, A., Paul, S. (2017). Unique approach to control speech sensory and motor

Department of Biomedical Engineering

- neuronal disorder through natural language processing and cognitive development: A review. In: *Proceedings of RegICON 2017: Regional International Conference on Natural Language Processing*, IIIT Manipur, India, p. 29–33.
- Paul, S., Sinha, T. K. (2018). Remote monitoring via EEG of persons in severe depression. In: *Design and Development of Affordable Healthcare Technologies*. Bit Arindam (Ed.). IGI Global Publishers, USA, Chapter 14, p. 288–298.
- Rajak, B. L., Gupta, M., Bhatia, D., Mukherjee, A. (2018). Power spectral study of EEG signal from the frontal brain area of autistic children. In: *Proceedings of the International Conference on Computing and Communication Systems*, Chapter 52, p. 1–7.
- Rajak, B. L., Gupta, M., Bhatia, D., Mukherjee, A., Paul, S., Sinha, T. K. (2018). Power spectral study of EEG signal from the frontal brain area of autistic children. In: *Proceedings of the International Conference on Computing and Communication Systems*. Springer, Singapore, p. 523–529.
- Saikia, A., Pandey, V. K., Paul, S. (2017). Correlation between electroencephalogram and electromyogram in parkinson's disease: A review. Sfn Neuroscience 2017 Conference, Washington, DC, USA, 669.25/W4.
- Sari, I., Bhalariao, G. V., Paul, S. (2018). An image-based approach for the classification of dementia from brain magnetic resonance images. In: *Proceedings of the International Conference on Computing and Communication Systems*. Springer, Singapore, p. 307–315.

Patents (Filed)

Dr. Dinesh Bhatia filed (i) Patent (Ref. No. 201831000592) filed with Patent Office, Intellectual Property India, Kolkata Office, on Determination of the Presence and Location of Arterial Blocks Using Fast Fourier Transform and Power Spectral Density Analysis of Arterial Pulses on 05/01/2018; (ii) Patent (Ref. No. 201831000593) filed with Patent Office, Intellectual Property India, Kolkata Office, on Detection of the Presence of Multiple Cardiac States from ECG on 05/01/2018, and (iii) Patent (Ref. No. 201831000594) filed with Patent Office, Intellectual Property India, Kolkata Office, on Estimation of the Time Window of Heart Attack or Heart Failure on 05/01/2018.

Research Projects

New: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
ENVIS RP Centre, NEHU, Shillong on “E-Waste, Biomedical Waste and Hazardous Waste Management System”	Dr. Dinesh Bhatia, Coordinator	MoEFCC, GoI	44.29

School of Technology

Ongoing: 6

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Design of Pulsed Electrical Knee Stimulator for Osteoarthritis (OA) Patients	Dr. Dinesh Bhatia, PI; Dr. Sudip Paul, Co-PI	DST, GoI	46.77
Design of Neural Network Based Pacemaker	Dr. Dinesh Bhatia, PI; Sh. Nitin Sahai, Co-PI, Dr. Sudip Paul, Co-PI	Twinning Programme, DBT, GoI	69.64
Modeling, Simulation and Development of Smart Active Ankle Foot Orthotic Device for Gait Rehabilitation	Sh. Nitin Sahai, PI Dr. Dinesh Bhatia, Co-PI	Twinning Programme, DBT, GoI	53.70
Automatic Segmentation of Abdominal Organs from 3D Medical Data Sets for Diagnosis and Treatment Planning	Sh. Gajendra Kumar Mourya, PI	SERB, DST, GoI	11.00
Bottom-Up Nanobiocomposite Film of Protein, Polymer and Nanoparticles by Langmuir Bldgett/ Layer by Layer Technique for Pesticide Sensing Application	Dr. Mrityunjay Mahato, Dr. Manashjit Gogoi	SERB, DST, GoI	32.15
Conversion of Waste Plastic into Value Added Products	Dr. Mrityunjay Mahato, Dr. Manashjit Gogoi	SERB, DST, GoI	7.24

Completed: 2

To Study Relief of Muscle Spasticity in CP Kids by Employing r-TMS in Collaboration with NGO UDAAN Working for Disabled and Elderly	Dr. Dinesh Bhatia	DST, GoI	57.00
Design of Artificial hand with Artificial Fingers	Sh. Nitin Sahai, PI Dr. Dinesh Bhatia, Co-PI	Twinning Programme, DBT, GoI	32.78

Academic Collaborations

The Department has collaborated with (i) Dr. Manish Kapoor (NEIGRIHMS, Shillong) on Design of Neural Network Based Pacemaker, (ii) Dr. Bhaskar Borgohain (NEIGRIHMS, Shillong) on *Modeling, Simulation and Development of Smart Active Ankle Foot Orthotic Device for Gait Rehabilitation*, (iii) Virtual, Laboratory (Department of Electrical Engineering of IIT, Roorkee) on *Virtual Laboratory*, (iv) Indian Society of Biomechanics of IIT (Roorkee) on *Eastern*

Department of Biomedical Engineering

Region of ISB, (v) Dr. Akash Handique, NEIGRIHMS, Shillong) on *Automatic Segmentation of Abdominal Organs from 3D Medical Data Sets for Diagnosis and Treatment Planning*; (vi) Dr. Sanjib Handique (GNRC, Assam) on *Study Tour and Expert Talk*, (vii) Prof. D. N. Tiberiwala (IIEST, Shibpur) for Project guidance, (vii) Dr. Pallab Bhattacharya (NIPER, Ahmedabad) for project guidance, and (ix) Dr. Rajpal Singh Kashyap (CIIMS, Nagpur) for project guidance.

Honours/Awards/Recognitions

Dr. Dinesh Bhatia

Coordinator of the Virtual Laboratory Nodal Centre for North-Eastern Region under NMEICT Initiative (MHRD, GoI), (ii) Member, Shastri Indo-Canadian Institute, MHRD, Govt of India (2016–2018), (iii) Convener, Local Chapter, Eastern Region, Indian Society of Biomechanics (ISB), (iv) Sanctioned “To Study Relief of Muscle Spasticity in CP Kids by Employing Transmagnetic Stimulation (rTMS)” selected in Accessible India Campaign (Sugamya Bharat Abhiyan) under the *Technology Interventions for Disabled and Elderly (TIDE) Programme* of DST (Delhi) for the release of compendium by the Hon’ble Prime Minister of India in 2017.

Member of the Editorial Board of (i) SRL Biomedical Engineering and Biomedical Science (USA), (ii) SM Physical Medicine and Rehabilitation (USA), (iii) *SCIREA Journal of Physics* (Science Research Association), and (iv) *Journal of Neuroscience and Neurological Surgery* (Boffin Access, UK). He is also a Member of the Science Advisory Board, Arlington, VA, USA since February, 2017 (www.scienceboard.net), and National Advisory Board, Andhra Pradesh Biomedical Engineering Association (APBMEA).

Mr. Shyamal Mandal

Awarded a consolation prize for the poster presentation entitled “Study on Application of Green Synthesis Gold Nanoparticles via Double Beam UV VIS Spectro-Photometer” at a short-term training programme on *Advanced Material Characterisation and Data Analysis* organised by the Department of Physics (NIT, Meghalaya) from 26 to 28 March 2018.

Dr. Sudip Paul

Awarded a Post-Doc Fellow (Visiting Research Fellow) under the Biotechnology Overseas Associateship for the Scientists working in the North-Eastern States of India 2017–18, supported by the Department of Biotechnology, Government of India.

Other Activities

Dr. Dinesh Bhatia

Completed a one-week training program on *3D Motion/Gait Analysis System* organised by *SIMI Reality Motion Systems*, Munich, Germany (3–7 April 2017), (ii) one-week training program on EMG, EEG and rTMS organised by Neurosoft Pvt. Ltd, Ivanovo, Russia, from 25 to 29 September 2017, (iii) GIAN Course on *Innovative Principles of Gait Training: Neuroplasticity Principles, Biomechanics, and Computational Methods* organised by the Computer Science and Engineering Department (NIT, Rourkela) from 26 December to 30 December 2017.

Deliver a lecture on “Role and Scope of Biomedical Engineering in India” as a resource person during the UGC-HRDC 41st Orientation Programme (22 May to 18 June 2017).

School of Technology

Reviewer for the *International Journal of Computing and Digital Systems Journal*, (University of Bahrain) *Defence Life Science Journal* (DRDO, India), *Journal of Scientific and Industrial Research*, *Biomedical Engineering Journal* (World Scientific Publishing Co. Ltd.).

Dr. Sudip Paul

Science Communicator in the 105th session of Indian Science Congress, 2018. He also delivered an invited lecture on *Research Showcase* at the Central India Institute of Medical Sciences (Nagpur) on 8 February 2018.

Completed a GIAN course on *Innovative Principles of Gait Training: Neuroplasticity Principles, Biomechanics, and Computational Method* held at NIT (Rourkela) from 26 to 30 December 2017.

Dr. Manashjit Gogoi

Completed a winter school organised by UGC-HRDC (NEHU) from 19 March to 8 April 2018.

Delivered lectures on (i) “Nanomedicines,” (ii) “Nanomedicines for Cancer Drug Delivery,” and (iii) “Development of Magnetic Liposomes for Cancer Hyperthermia” during a refresher course in *Nanoscience and Nanotechnology* at UGC-HRDC, NEHU, Shillong (13 November to 3 December 2017).

Mr. Nitin Sahai

Completed a GIAN course on *Modeling Simulation, Performance Evaluation and Biological Safety for Medical Devices for Respiratory and Cardiovascular Assistance* held at MNNIT (Allahabad) from 22 March to 2 April 2018.

Mr. Gajendra Kumar Mourya

Completed the following: (i) GIAN course on *Theory and Application of Correlation Filters for Computer Vision* organised by the Department of ECE (Osmania University) from 13 to 17 November 2017, (ii) GIAN Course on *Empirical Mode Decomposition and Its Applications* organised by IIT (Guwahati) from 23 to 27 October 2017, (iii) Short-term course on *Wavelets and Their Application in Signal and Image Processing* conducted by the Department of Mathematics (IIT-BHU, Varanasi) from 21 to 25 December 2017, (iv) Special summer school (equivalent to refresher course) organised by UGC-HRDC (NEHU) from 19 June to 9 July 2017, and (v) Faculty development program on *Deep Learning and Machine Learning* conducted by the Department of ECE (Gauhati University, Guwahati) from 19 to 24 March 2018.

Mr. Shyamal Mandal

Completed the 43rd Orientation Programme and obtained grade ‘A’ held at UGC-HRDC (NEHU) from 19 February to 18 March 2018.

Delivered a poster presentation titled “Study and Application of Green Synthesis Gold Nanoparticles Via Double Beam UV VIS Spectrophotometer” during a short-term training programme on *Advanced Material Characterisation and Data Analysis* organised by the Department of Physics (NIT, Shillong) from 26 to 28 March 2018. He also delivered a lecture on “Carbon Nano Tube and Applications” during a refresher course in *Nanoscience and Nanotechnology* held at UGC-HRDC, NEHU (3 December 2017).



DEPARTMENT OF COMPUTER APPLICATIONS (TURA CAMPUS)

Head : Dr. Anindya Halder
Telephone : 919774471479(M)/7980918985(M)
E-mail : computerapplication.nehu@gmail.com, anindya.halder@gmail.com

Faculty: 3

Designation	Name and Qualification	Specialization
Assistant	Anindya Halder, MCA, PhD	Pattern Recognition, Soft Computing
Professor	Ansuman Kumar, MCA, MTech	Computer Networks, Web Services
(3)	Rubul Kumar Bania, MCA, MTech	Data Mining, Artificial Intelligence

Thrust Areas of Research

Machine Learning, Pattern Recognition, Data mining, Bioinformatics, Medical Image Analysis, and Remote Sensing Image Analysis.

Brief Statement of Academic Activities

The Department of Computer Applications was established in 2012 under the School of Technology. The Department has offered the Three-Year Master's programme in Computer Applications (MCA) since 2013 and the PhD programme in Computer Applications from 2016. The core part of the MCA curriculum embodies theoretical and practical knowledge basic to the industry/academic/research with special reference to emerging technologies relevant to the field of computer applications. During the year under report, the Department undertook an industrial study tour for the students of MCA final year to Agra and Mussoorie. Thirteen students were awarded their MCA degree in 2017.

Students' Profile

Enrolment Capacity: MCA—20, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
1 st Sem	13	07	01	13		06	12	08	20
3 rd Sem	08	05	01	07		05	08	05	13
5 th Sem	09	05	01	07	03	03	10	04	14
PhD	03	01	01	01	01	01	01	03	04

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
MCA	09	04		08		05	10	03	13

School of Technology

Courses Conducted

Postgraduate: MCA

Semester I

Digital Logic Design, Programming and Problem Solving through C, Organisational Behaviour, Accounting and Financial Management, Discrete Mathematics and Probability Theory.

Semester II

Theory of Computation, Data Structures Using C++, Object Oriented Programming and Design, Computer Graphics, Computer Organisation and Architecture.

Semester III

Database Management System-I, Data Communication and Networks I, Operating System, Design and Analysis of Algorithms, GUI Programming Using VB.NET.

Semester IV

Software Engineering, Data Communication and Networks II and Network Programming using Linux, Oracle, Database Management System II, Internet Technology and Applications, Artificial Intelligence.

Semester V

Compiler Design, Programming through Java, System Programming, Data Mining, Minor Project.

Semester VI : Major Project.

PhD Course Work: Research Methodology, Design Analysis of Algorithm, Soft Computing.

Educational Tour of Students

The Department organised an industrial study tour for the students of MCA final year under the guidance of Dr. Anindya Halder, Assistant Professor, during 12–22 January 2018.

Seminars/Conferences/Symposia/Workshops

Organised

The Department organised an outreach programme for the North-East students in collaboration with the Indian Statistical Institute (Kolkata) on November 13, 2017.

Mr. Rubul Kumar Bania

Presented papers entitled (i) “An Effective Supervised Filter Based Feature Selection Algorithm Using Rough Set Theory” at the IEEE international conference on *Energy, Communication, Data Analysis and Soft Computing* (ICECDS) 2017 organised by SKR College, (Tamil Nadu) on 1 & 2 August 2017, and (ii) “Empirical Study towards Segmentation of Mass Lesion in Digitized Mammogram Images” at the national conference on *Recent Advances in Science and Technology* (NCRAT 2018) organised by Assam Science and Technology University (Guwahati) from 15 to 17 March 2018.

Mr. Ansuman Kumar

Presented a paper entitled “Active Learning using Multi-Class SVM based on Breaking Ties and Mutual Information for Cancer Prediction from Microarray Gene Expression Data” at the national conference on *Recent Advances in Science and Technology* (NCRAT 2018) organised by Assam Science and Technology University, Guwahati (March 15–17, 2018).

Publications

Published in India

Bania, R. K. (2018). An enhanced rough set based feature grouping approach for supervised feature selection. *International Journal of Mathematical Sciences and Computing*, 1(1): 402–407.

Proceedings

Bania, R. K. (2017). An effective supervised filter based feature selection algorithm using rough set theory. In: *Proceedings of IEEE International Conference on Energy, Communication, Data Analysis and Soft computing (ICECDS)*, 2017, p. 402–407.

Research Projects

Ongoing

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Automatic Recognition of the Patterns in Numismatic Data	Dr. Anindya Halder	UGC	11.50

Other Activities

Dr. Anindya Halder

Acted as (i) resource person in a short-term training program on *Introductory Bioinformatics: A Journey from Sequence to Structure* organised by the Bioinformatics Infrastructure Facility Centre, Department of RDAP, NEHU (Tura) from 21 to 23 March 2018, and (ii) local coordinator of the *Outreach Programme* for the North-East students in collaboration with the Indian Statistical Institute (Kolkata) on November 13, 2017.

Reviewer for the *IET Computer Vision Journal*, *Journal IEEE Access*, and *IET Image Processing Journal*.

Mr. Rubul Kumar Bania

Acted as a resource person in one-day training program on *Bioinformatics: Linking Science to Information Technology* organised by the Bioinformatics Infrastructure Facility Centre, Department of RDAP, NEHU (Tura) on March 20, 2018.

Participated in a faculty development programme organised by the Entrepreneurship Development Institute of India at the Department of Management (NEHU, Tura) during March 1–14, 2018.

Mr. Ansuman Kumar

Completed a short-term training program on *Introductory Bioinformatics: A Journey from Sequence to Structure* organised by the Bioinformatics Infrastructure Facility Centre, Department of RDAP, NEHU (Tura) from 21 to 23 March 2018.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Head : Dr. Rupaban Subadar
Telephone : 0364-2723661
E-mail : hodece@nehu.ac.in, rupaban.subadar@gmail.com

Faculty: 11

Designation	Name and Qualification	Specialization
Professor (1)	Lairenlakpam Joyprakash Singh, MTech (Tezpur), PhD (Jadavpur)	Signal Processing
	Sushanta Kabir Dutta, BE (JEC), MTech (Manipal)	Speech Signal Processing, Image Processing
Associate Professor (3)	Subhash C. Arya, BTech (GGSIPU), PhD (ISM, Dhanbad)	Opto-Electronics Devices, Silicon Photonics, Optical modulators and Amplifiers, Optical Communication
	Rupaban Subadar, MTech (Tezpur University), PhD (IIT Guwahati)	Theory of Wireless Communication
	Juwesh Binong, BE (Bhavnagar University), MSc (SMU), PhD (Tezpur)	Context-Aware Systems, Machine Learning
Assistant Professor (7)	Rajkishur Mudoi, BE (JEC), MTech (Tezpur)	Wireless Communication, Embedded System
	Jaydeep Swarnakar, ME (Jadavpur)	Control System
	Fidalizia Pyrtuh, BTech (SJCE), MTech (IIIT, Allahabad)	Speech Processing
	Asif Ahmed, BTech (Kalyani University), MTech (NIT, Durgapur)	Mixed Signal CAD tool Development
	Pankaj Sarkar, MTech (Burdwan University), PhD (Jadavpur)	RF/Microwave filters, Antenna
	Nipanka Bora, MTech (Tezpur)	Nano electronics Device Modelling, VLSI Design

Thrust Areas of Research

Signal Processing: Speech, Language and Speaker Recognition, Digital Image Processing, Quantized Semiconductor Structures, Microwave Passive and Active Circuit Design, Telecommunication Engineering, Optical Fiber Communication and Opto-Electronics Devices, Theory of Wireless Communication, Mixed Signal CAD Tool and VLSI Design, Qualitative Reasoning and Context Awareness.

Department of Electronics and Communication Engineering

Brief Statement of Academic Activities

The Department is currently running three programmes, namely BTech, MTech and PhD in ECE Engineering. As for BTech Electronics and Communication Engineering, the Department admitted 60 students by vertical entry and 6 students by lateral entry. Eighteen students were admitted to the MTech programme. A total of 63 and 15 students have completed their BTech and MTech degrees in Electronics and Communication Engineering, respectively. Faculty and students have published eleven papers in national and international journals and fifteen chapters in edited books and proceedings. One paper entitled “A Compact Ku-band Bandpass Filter with Wide Upper Stopband Using SIR” by Atiqur Rahman, Sushanta Kabir Dutta and Pankaj Sarkar was given the 3rd best paper award at the international conference on *Communication, Devices and Networking* (ICCDN 2017) on 3 & 4 June 2017 at SMIT, Sikkim.

Students' Profile

Enrolment Capacity: BTech—60/6 (Vertical/Lateral), MTech—18, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
BTech	34	08	07	13	05	17	06	36	42
MTech	09	08	01	10		06	08	09	17

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
BTech	21	11	06	11		15	07	25	32
MTech	05	05	03	02		05	01	09	10

Placement of Students: 22

The following students were placed in Zolacode IT Solution Pvt Ltd:

Aminul Islam, Manisha Das, Mun Deori, Khushbu Kumari Roy, Risham Doley, Tarif Hussain Hazarika, Elvis Lianthanglom Hrangkhoh, Arnav Kashyap, Chinmoy Mali, ChayanikaTaye, Abhijit Roy, Jyotismita Nath, Gathy Lalnunthieng Tuolor, Ashish Kumar Das, Anuj Kumar Das, Bhargav Deka, Anisha Chaki, Deba Protima Deay, Romakanta Bharali, Chandan Kumar Rai, Riazul Hoque, and Sheikh AshifSadique.

Research Fellowships: 7

UGC NON-NET: 7

Courses Conducted

Undergraduate: BTech (Electronics and Communication Engineering)

Semester II

Basic Electronics, Basic Electronics Laboratory.

Semester III

Electronic Devices and Circuits, Signals and Systems, Electrical Network Theory, Data Structures

School of Technology

and Algorithms, Electronic Devices and Circuits Laboratory, PCB Design Laboratory.

Semester IV

Electromagnetic Theory, Digital Electronics, Linear Integrated Circuits and Systems, Electronics Measurements and Instrumentation, Digital Electronics Laboratory, Linear Integrated Circuits Laboratory, Electronics Measurements and Instrumentation Laboratory.

Semester V

Microprocessor, Principles of Communication Systems, Power Electronics, Basic Control Engineering, Microprocessor Laboratory, Communication Systems Laboratory, Simulation using MATLAB.

Semester VI

Embedded Systems and Microcontrollers, Digital Signal Processing, Microwave Engineering, Computer Communications and Networks, Antenna, Embedded Systems and Microcontrollers Laboratory, Digital Signal Processing Laboratory, Microwave Engineering Laboratory, GPIII.

Semester VII

Introduction VLSI Design, Digital Communication, Data Communication Systems, Information Theory and Coding, VLSI Design Laboratory, Digital Communication Laboratory.

Semester VIII: Major Project.

Postgraduate: MTech (Electronics and Communication Engineering)

Semester I

Mathematical and Statistical Techniques, Advanced Communication Engineering, Elective I (Speech Processing, Advanced Wireless Communication, Microwave Theory and Techniques, VLSI Devices and Modelling, Lightwave Communication System), Elective II (Spoken Language Identification Techniques, Speaker Recognition, Machine Learning, Advanced Fiber Optic Communication, Communication Network) RF and Communication Lab.

Semester II

Mobile Communication, Advanced Digital Signal Processing, Open Course I (Analog IC Design, Advanced Embedded Systems, High Speed Digital Design, Advanced Control Engineering, Antenna Theory and Design), Open Course II (Advanced Image Processing, Computational Electromagnetics, Optical Communication Networks, Processor Architectures for VLSI, Digital IC Design), Advanced Digital Signal Proc. Lab.

Semester III: Dissertation—Part I

Semester IV: Dissertation—Part II

PhD Courses

Course work Research Methodology, Mathematical Methods, Speech Processing, Advanced Wireless Communication, Microwave Theory and Techniques, VLSI Devices and Modelling, Lightwave Communication System, Spoken Language Identification Techniques, Speaker Recognition, Machine Learning, Advanced Fiber Optic Communication, Mobile Communication, Analog IC Design, Advanced Embedded Systems, High Speed Digital Design, Advanced Control Engineering, Antenna Theory and Design, Advanced Image Processing, Computational Electromagnetics, Communication Networks, Processor Architectures for VLSI, Digital IC

Department of Electronics and Communication Engineering

Design.

Seminars/Conferences/Symposia/Workshops

Attended

Dr. L. J. Singh

Chaired a session of the international conference on *Innovations in Electronics, Signal Processing and Communication-IESC 2017* organised by the Department of ECE, NIT Meghalaya (6–7 April 2017).

Susanta Kabir Dutta

Presented papers titled (i) “A Comparative Study on Feature Dependency of the Manipuri Language Based Phonetic Engine” at the 2nd IEEE International Conference on *Communication Systems, Computing and IT Applications* held at the Kohinoor Continental Hotel (Mumbai) on 7 & 8 April 2017, and (ii) “A Study on Prosodic Feature Based Automatic Classification of Languages from North-Eastern India” at the Springer-sponsored international conference on *Communication, Devices and Networking* held on 3 & 4 June 2017 at SMIT, Sikkim.

Dr. S. C. Arya

Chaired a session of the international conference on *Innovations in Electronics, Signal Processing and Communication* (IESC 2017) organised by the Department of ECE, NIT Meghalaya (6–7 April 2017).

Dr. Rupaban Subadar

Chaired a session of the international conference on *Innovations in Electronics, Signal Processing and Communication* (IESC 2017) organised by the Department of ECE, NIT Meghalaya (6–7 April 2017).

Mr. Jaydeep Swrnakar

Presented research papers titled (i) “Realization of Fractional Order Operator in Complex Domains: A Comparative Study” at the international conference on *Communication, Devices and Networking* (ICCDN 2017), organised by the Department of Electronics and Communication Engineering (MIT, Sikkim) on 3 & 4 June 2017, and (ii) “Rational Approximation of Fractional Order System in Delta Domain: A Unified Approach” at the 5th IEEE Region 10 (Asia Pacific) Humanitarian Technology Conference (R10HTC 2017), organised by IEEE Bangladesh Section from 21 to 23 December 2017 at Bangladesh University of Engineering and Technology, Dhaka.

Publications

Published in India

Dutta, S. K., Singh, L. J. (2017). An analysis of automatic phone recognition and identification of a few languages from North-Eastern India. *Indian Journal of Science and Technology*, 10(23), doi: 10.17485/ijst/2017/v10i23/114011.

Dutta, S. K., Singh, L. J. (2017). A comparative evaluation of three automatic language identification approaches for Indian Languages. *Indian Journal of Computer Science and Engineering*, 8(4): 511–518.

- Swarnakar, J., Sarkar, P., Singh, L. J. (2017). Indirect methods for discretizing fractional order differentiator in delta domain. *Journal of Control and Instrumentation*, 8(2): 27–34.
- Das, A. K., Kalita, D., Gogoi, N., Swarnakar, J. (2017). Efficient trash supervision using internet of things. *Trends in Electrical Engineering*, 7(3): 1–7.
- Mudoi, R., Subadar, R. (2017). Adaptive transmission with multiuser TAS/MRC systems over exponentially correlated Rayleigh fading channels. *International Journal of Engineering and Technology*, 9(2): 1121–1129.
- Mudoi, R., Subadar, R. (2018). Performance analysis of multiuser transmit antenna selection systems over TWDP Fading Channels. *Journal on Communication Engineering and Systems*, 7(1): 22–28.
- Ismail, L. J., Singh, L. J. (2017). Dialect identification of Assamese language using spectral features. *Indian Journal of Science and Technology*, 10, doi:10.17485/ijst/2017/v10i20/115033.

Published Abroad

- Ghosh, B., Hazra, S., Haldar, N., Roy, D., Patra, S. N., Swarnakar, J., Sarkar, P. P., Mukhopadhyay, S. (2018). A novel approach to realize of all optical frequency encoded dibit based XOR and XNOR logic gates using optical switches with simulated verification. *Optics and Spectroscopy*, 124(3): 337–342.
- Bora, N., Pegu, P., Subadar, R. (2017). A surface potential and threshold voltage model including quantum mechanical effects for a dual material double gate junctionless field effect transistor (DMDG-JLFET). *Journal of Advanced Physics*, 6(3): 408–412.
- Das, P., Subadar, R. (2017). Performance of M-EGC receiver over TWDP fading channels. *IET Communications*, 11(12): 1853–1856.
- Das, P., Subadar, R. (2017). Performance analysis of QAM for M-SC receiver over TWDP fading channels. *International Journal of Electronics Letters*, doi: 21681724.2017.1382000.

Book Chapters/Proceedings

- Barman, N., Patangia, P. M., Subadar, R. (2018). Selection diversity-based energy detection over Weibull fading channels. In: *Proceedings of the International Conference on Computing and Communication Systems*, Springer, Singapore, Vol. 24, p. 207–215.
- Das, H. R., Arya, S. C. (2018). Design of ITO based hybrid silicon optical modulator. In: *IEEE Proceedings of 3rd International Conference on Microwave and Photonics (ICMAP)*, Dhanbad, p. 1–2.
- Das, H. R., Arya, S. C. (2018). Coupling characteristic of silicon based optical directional coupler. In: *Proceedings of the International Conference on Computing and Communication Systems*, Springer, Singapore, Vol. 24, p. 499–504.
- Das, P., Subadar, P. (2017). Performance of L-SC receiver over K-fading channels. In: *IEEE Proceedings of the 8th International Conference on Computing, Communication and Networking Technologies* (2017), IIT, Delhi, doi:10.1109/ICCCNT.2017.8203908.
- Dutta, S. K., Nandakishor, S., Singh, L. J. (2017). A comparative study of feature dependency of the Manipuri language based phonetic engine. In: *2017 2nd International Conference on Communication Systems, Computing and IT Applications (CSCITA)*, Mumbai, 2017, p. 5–10.

Department of Electronics and Communication Engineering

- Dutta, S. K., Singh, L. J. (2018). Some issue related to phone recognition and language identification using phonetic engine. In: *Proceedings of the International Conference on Computing and Communication Systems*, p. 297–305.
- Hazarika, M. R., Bora, N. (2017). Performance analysis of a 3–D asymmetric junctionless double gate MOSFET. In: *Proceedings of 2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS)*, Chennai, 2017, p. 1391–1395.
- Ismail, L. J., Singh, L. J. (2017). Identification of Goalparia dialect and similar languages. In: *Proceedings of 2017 International Conference on Multimedia, Signal Processing and Communication Technologies (IMPACT)*, Aligarh, 2017, p. 51–54.
- Ismail, T., Singh, L. J. (2017). Development of speech Corpora for Goalparia dialect and similar languages. In: *Proceedings of the IEEE International Conference on Signal and Image Processing Applications (IEEE-ICSIPA 2017)*, Malaysia, p. 170–173.
- Kakati, D., Arya, S. C. (2018). Design of dense wavelength division multiplexing passive optical network system using dqpsk modulation format. In: *Proceedings of the International Conference on Computing and Communication Systems*, Springer, Singapore, Vol. 24, p. 217–223.
- Kaur, B., Arya, S. C. (2018). Modelling of multicore erbium doped fiber amplifier. In: *Proceedings of the 2018 3rd International Conference on Microwave and Photonics (ICMAP)*, Dhanbad, p. 1–2, doi: 10.1109/ICMAP.2018.8354580.
- Medhi, S., Arya, S. C. (2018). C-band silicon optical modulator for high speed optical communication system. In: *Proceedings of the International Conference on Computing and Communication Systems*. Springer, Singapore, p. 515–521.
- Rahman, A., Dutta, S. K., Sarkar, P. (2017). A compact Ku-band bandpass filter with wide upper stopband using SIR. In: *Proceedings of the International Conference on Communication, Devices and Networking (ICCDN 2017)*, 03–04 June 2017, SMIT, Sikkim.
- Swarnakar, J., Sarkar, P., Singh, L. J. (2017). Rational approximation of fractional order system in delta domain: A unified approach. In: *Proceedings of the 5th IEEE Region 10 Humanitarian Technology Conference (R10HTC)*, Dhaka, Bangladesh, p. 144–150.
- Syiem, B., Rynjah, F., Singh, L. J. (2017). Homomorphic analysis of vowels in Khasi dialect. In: *Proceedings of the International Conference in Communication, Devices and Networking (ICCDN 2017)*, Sikkim, India during June 3–4, 2017.

Ongoing Research Project

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Modeling and Design of Silicon Based Optical Modulator for High Speed Optical Communication System	Dr. S. C. Arya	DST-SERB, New Delhi	32.922

School of Technology

Honour/Award/Recognition

Dr. Pankaj Sarakr

Received the best paper award (3rd position) at the international conference on *Communication, Devices and Networking* (ICCDN 2017), 3–4 June 2017, SMIT, Sikkim.

Other Activities

Dr. L. J. Singh

Member of (i) Advisory Committee, Shillong Engineering College, Government of Meghalaya, Shillong and (ii) Board of Management, NERIST, Arunachal Pradesh.

Susanta Kabir Dutta

Completed a school on *Automatic Speech Recognition* held at the Indian Institute of Technology, Guwahati, Assam (16–28 May 2017).

Dr. S. C. Arya

Attended and completed (i) Faculty development programme on *RF Design* organised by E & ICT Academy at IIT, Guwahati (17–22 December 2017), and (ii) One-week short-term training programme on *Digital Design and Analysis at Backend Level Using Cadence* at NIT, Shillong (5–9 March 2018).

Delivered a talk on “Enriching Science, Engineering and Technology through Bloom’s Taxonomy” during a refresher course on *Nanoscience and Nanotechnology* at UGC-HRDC, NEHU (27 November 2017).

Dr. Rupaban Subadar

Member of (i) Academic Committee, AICTE-NEQIP Project, Shillong Polytechnic, (ii) BOS of the Department of Electronics and Communication Engineering, NERIST, Nirjuli, Itanagar.

Dr. Juwesh Binong

Completed a refresher course in *Nanoscience & Nanotechnology* organised by UGC-RDC (NEHU) from 13 November to 3 December 2017, and (ii) an AICTE-sponsored faculty development programme on *Machine Intelligence and IoT* held at Tezpur University (Tezpur) from 19 to 23 February 2018.

Mr. Jaydeep Swrnakar

Attended the 107th Orientation Programme held at UGC-HRDC (University of Burdwan) from 7 November to 4 December 2017.

Mr. Nipanka Bora

Completed a refresher course in *Nanoscience and Nanotechnology* organised by UGC-RDC (NEHU) from 13 November to 3 December 2017.

Dr. Pankaj Sarkar

Attended a summer school held from 19 June to 9 July 2017 at UGC-HRDC, NEHU, Shillong.



DEPARTMENT OF ENERGY ENGINEERING

Head : Dr. Samrat Paul
Telephone : + 91-9485043421
E-mail : paulsamrat17@gmail.com

Faculty: 5

Designation	Name and Qualification	Specialization
Associate Professor (5)	Dr. Samrat Paul, MTech (Energy Technology), PhD (Energy)	Solar Energy, Energy Nanomaterials
	Mr. Manmit Saikia, MTech (ET, Tezpur)	Bio-Energy, Solid Bio-Fuel
	Mr. Sanat Das, MTech (IIT, Kanpur)	Propulsion Thermal Energy Storage System
	M. Velusamy, MSc & PhD (Bharathidasan)	Inorganic Chemistry
	Mr. Samar Jyoti Hazarika, MTech (ET)	Energy Management and Accounting

Thrust Areas of Research

Energy Nanomaterials, Solar Energy, Combustion, Solid Fuel, Design, Energy Accounting & Management, International Management System, Renewable Energy Utilization.

Brief Statement of Academic Activities

The Department is offering the Bachelor of Technology in Energy Engineering and PhD in Energy Engineering. Faculty and students have published papers in international journals and 11 chapters in edited books and proceedings.

Students' Profile

Enrolment Capacity: BTech—60, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
BTech	136	20	12	68	13	63	21	135	156
PhD	002					02		002	002

Courses Conducted

Undergraduate: BTech (Energy Engineering)

Semester I

Engineering Mathematics I, Engineering Physics I, Elements of Environmental Science, Professional Communication Skills, Solid Mechanics, Digital English Language Laboratory, Engineering Drawing.

Semester II

Engineering Mathematics II, Engineering Physics II, Engineering Chemistry, Basic Electronic Devices, Engineering Physics Laboratory, Engineering Chemistry Laboratory, Electronic Devices Laboratory.

Semester III

Energy Resources, Electrical Systems and Automatic Control, Elements of Nanoscience, Engineering Thermodynamics, Fluid Mechanics, Fluid Mechanics Laboratory, Thermal Laboratory, Electrical Measurement and Instrumentation Laboratory.

School of Technology

Semester IV

Basics of Renewable Energy Technology, Measurement and Control Instrumentation, Heat and Mass Transfer, Fuel and Combustion Technology, Basics of Solar Energy Technology, Heat and Mass Transfer Laboratory, Fuel and Combustion Laboratory, Solar Energy Laboratory, General Proficiency II.

Semester V

Solar Thermal Technology, Biomass and Bio-fuel Technology, Energy Economics and Planning, Energy Auditing, Nuclear Energy, Solar Thermal Laboratory, Biomass and Bio-fuel Laboratory, Energy Auditing Laboratory, Seminar.

Semester VI

Photovoltaic Conversion Technology, Internal Combustion Engine and Gas Turbine; Hydro, Wind, Ocean and Tidal Energy Technology; Industrial Economics and Energy Management, Climate change and Carbon Trade, Photovoltaic Conversion Laboratory, Internal Combustion Engine Laboratory, Hydro, Wind and Ocean Technology Laboratory, General Proficiency III.

Semester VII

Professional Ethics and IPR, Nanotechnology for Renewable Energy Systems, Chemical Energy Storage Devices and Systems, Fuel Cell and Hydrogen Energy, Waste Heat Recovery, Chemical Storage and Fuel Cell Laboratory, Field Visit/Industrial Training, Minor Project and Seminar, General Proficiency IV.

Semester VIII: Major Project, General Proficiency V.

PhD Courses

Research Methodology, Energy Resources and Technology, Nanomaterials in Energy Devices and Systems.

Seminars/Conferences/Symposia/Workshops

The Department organised a one-day seminar on *Energy Scenario in India and Thermal Power Station Boilers* on 9 June 9 2017 (Coordinator: Mr. Samar Jyoti Hazarika).

Publications

Published Abroad

Nair, R. G., Das, A., Paul, S., Rajbongshi, B., Samdarshi, S. K. (2017). MWCNT decorated V-doped titania: An efficient visible active photocatalyst. *Journal of Alloys and Compounds*, 695: 3511–3516.
Paul, S., Rajbongshi, B., Bora, B., Nair, R. G., Samdarshi, S. K. (2017). Organic photovoltaic cells using MWCNTs. *New Carbon Materials*, 32(1): 27–34.

Research Projects

Ongoing: 2

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Synthesis of d-group Metal Perovskite Nanocomposite for Dye Sensitized Solar Cell	PI: Dr. Samrat Paul Co PI: Mr. Sanat Das	DST-SERB	46.13
Synthesis of Nano-Catalyst Decorated Activated Char for Biofuel Production	PI: Dr. Rahul Singh Chutia Mentor: Dr. Samrat Paul	DST-SERB	19.20

Department of Energy Engineering

Completed: 1

Titanium Dioxide/Carbon Nanotube Nano Composite Dyed Sensitized Solar Cells	Dr. Samrat Paul	DST-SERB	21.92
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Academic Collaborations

Dr. Samrat Paul

Collaborated with (i) Prof. Alberto Tagliaferro (Applied Science and Technology, University of Politecnico di Torino, Torino, Italy) on *Effect of Mixed Phase Titania on Active Layer of DSSC*, (ii) Prof. R. Kataki (Department of Energy, Tezpur University) on *Production of Biofuels from Locally Available Pine-wood*, (iii) Prof. S. K. Samdarshi (Centre of Energy Engineering, Central University of Jharkhand), on *Characterisation of Photoactive Nanoparticles for Photocatalytic Activity*, and (iv) Prof. B. Ghosh (School of Energy Studies, Jadavpur University), Dr. R. G. Nair (Department of Physics, NIT Silchar) and Dr. P. Deb (Department of Physics, Tezpur University) on *Characterisation of Perovskite Materials for Solar Cell Application*.

Mr. Samar Jyoti Hazarika

Collaborated with (i) Mr. S.V. Malpe (Director, National Power Training Institute, Ministry of Power), (ii) Mr. Nand Kishore Jha (Engineer (Tech), Energy Efficiency Services Limited, MoP, Govt of India) on *Promoting Transformation for Energy Efficiency in Micro, Small and Medium Enterprise: A Project under Global Environmental Facility*, and (iii) Mr. Manoj Kumar Verma, Deputy Director, National Productivity Council, Govt of India.

Honours/Awards/Recognitions

Dr. Samrat Paul

Certified by the International Registrar for Certified Auditors as Lead Auditor for ISO 9001: 2015 Standards, 2017.

Mr. Samar Jyoti Hazarika

Certified as Energy Auditor-cum-Energy Manager (EA 15266) by the Bureau of Energy Efficiency, Ministry of Power, Government of India, as per Energy Conservation Act 2001.

Other Activities

Dr. Samrat Paul

Delivered invited talks on (i) “Advanced Materials for Renewable Energy” at the five-day workshop on *Energy Production and Management* held at NIT (Agartala) from 19 to 23 March 2018, (ii) “Perovskites for Solar Cell Application” during the Faculty Development Program held at the Department of Energy, Tezpur University (19–23 February 2018), and (iii) “Nanomaterials and Their Application on Renewable Energy” during the refresher course in *Nanotechnology* organised by UGC-HRDC, NEHU.

Mr. Samar Jyoti Hazarika

Presented a paper on “Constraints of the Cluster and Prospective Technological Measures for Achieving Energy Efficiency in the Jorhat Tea Cluster” in the brainstorming workshop on *Energy Efficiency in the Jorhat Tea Cluster* held on November 21, 2017 at Jorhat.



DEPARTMENT OF INFORMATION TECHNOLOGY

Head : Dr. Debdatta Kandar

Telephone : 0364-2723611(O)

E-mail : hodit@nehu.ac.in

Faculty: 12

Designation	Name and Qualification	Specialization
Professor (1)	Goutam Saha, MTech (Calcutta University), PhD (IIT Kharagpur)	Bioinformatics, Internet of Things
	Md. Iftekhar Hussain, MTech, PhD (Tezpur)	Internet of Things (IoT), QoS Issues in Computer Networks, Wireless Networks
Associate Professor (4)	Bubu Bhuyan, MTech (Tezpur University), PhD (Jadavpur)	Cryptography, Information Security
	Hemanta Kumar Kalita†, MTech (Tezpur University), PhD (Jadavpur)	Computer and Network Security
	Debdattta Kandar, MTech (Allahabad AIDU), PhD (Jadavpur)	Wireless Mobile Communication, Soft Computing, Artificial Intelligence, RADAR Imaging
	Swarup Roy‡, MTech, PhD (Tezpur)	Data mining, Computational Biology, Machine Learning
Assistant Professor (7)	Arnab Kumar Maji, MTech (IEST, Shibpur), PhD (Assam)	Image Processing, Algorithm of NP Complete Puzzles
	Sangita Neog, MTech (Tezpur)	Coding Theory, Information Theoretic Security
	Sufal Das, BTech (WBUT), MTech (Tezpur)	Big Data Analysis, Data Mining, Soft Computing
	Subhas Chandra Sahana, BTech (WBUT), MTech (Tezpur)	Cryptography and Network Security
	K. Amitab, BE (Manipur), ME (Punjab Engg. College)	Image Processing, Soft computing
	Amitabha Nath, MTech (Tezpur)	Geoinformatics and Machine Learning

† On lien since 1 August 2017

‡ On lien since 4 October 2017

Department of Information Technology

Thrust Areas of Research

IoT, Wireless Networking, Mobile Communication, Computational Biology and Bioinformatics, Information Security, Cryptography and Network Security, Big Data Analysis, Machine Learning, Data Mining, and Image Processing.

Brief Statement of Academic Activities

The Department is offering the BTech (IT), MTech (IT) and PhD programmes. During the year under report, 29 students completed their BTech degree and 11 students got their MTech degree. In addition to teaching and research programmes, the Department organised a workshop on *Technology Empowerment of North-East: Water, Energy and Communication Solutions* (TENE-WECS) on 21 & 22 December 2017. An awareness program on *Capacity Building of Government Employees on e-Waste Management* was organised on February 21, 2018. The Department admitted two foreign students: one in MTech and the other into BTech programme. Eleven students received the UGC-Non-Net Fellowship, three students were awarded the Visvesvaraya Fellowship, and one student received the National Fellowship for Higher Education (ST Students). Faculty members of the Department contributed fifteen papers published in international journals, and twenty-five chapters/papers in edited volumes and proceedings.

Students' Profile

Enrolment Capacity: BTech—60/6 (Vertical/Lateral), MTech—18+2*, PhD—Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
BTech	35	04	08	17		14	13	26	39
MTech	17	02		12		07	09	10	19
PhD	03	04	01	02		04	02	05	07

*sponsored category

Degrees Awarded

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
BTech	22	07	04	05		20	05	24	29
MTech	08	03	01	02		08		11	11

Placement of Students: 8

Anil Kumar Gupta, Wipro; Ocean Seemona, Pradan; Kumar Rahul, Wipro; Nitu Sharma, Regalix Hyderabad; Rashika Agarwal, Regalix Hyderabad; Saranga Jyoti Baruah, Wipro; Saumya Kushwaha, Regalix Hyderabad; Sushweta Kar, Regalix Hyderabad.

Research Fellowships: 17

DST Inspire Fellowship: 2

UGC Non-Net: 11

School of Technology

Visvesvaraya: 3

RGNF-SC/ST: 1

Courses Conducted

Undergraduate: BTech

Semester I

Engineering Mathematics I, Engineering Chemistry, Engineering Mechanics, Engineering Physics, Basic Electrical Engineering, Engineering Physics Laboratory, Engineering Graphics.

Semester II

Engineering Mathematics II, Computer Systems and Programming, Elements of Environmental Science, Basic Electronics, Professional Communication Skills, Computer Programming Laboratory, Digital English Language Laboratory.

Semester III

Engineering Economics and Financial Accounting, Engineering Mathematics III, Signals and Systems, Computer Graphics and Multimedia, Data Structures and Algorithms, Discrete Mathematics, Computer Graphics and Multimedia Lab, Data Structure Laboratory, Numerical Programming laboratory.

Semester IV

Statistics and Random Processes, Data Communication, Digital Electronics, Formal Language and Automata Theory, System Programming, Computer Organization and Architecture, Digital Electronics laboratory, Systems Programming Laboratory, General Proficiency II.

Semester V

Management Information System, Microprocessor, Information Theory and Coding, Object Oriented Programming and Methodology, Algorithm Analysis and Design, Computer Networks, Microprocessor Laboratory, Object Oriented Programming Laboratory, Computer Networks Laboratory.

Semester VI

Operating System, Software Engineering, Relational Database Management System, Compiler Design, Elective I (Data Mining), Elective II (Artificial Intelligence, E-Commerce), Operating System Laboratory, Database Management System Laboratory, Compiler Design Laboratory, General Proficiency III.

Semester VII

Professional Ethics and IPR, System Administration, Web Technology, Elective III (Bioinformatics), Elective IV (Digital Image Processing), System Administration Laboratory, Visual Programming Laboratory, Web Technology Laboratory, Minor Project.

Semester VIII

Major Project, General Proficiency IV (Grand Viva-Voce).

Postgraduate: MTech

Semester I

Mathematical Foundations of Information Science, Theory of Computer Science, Computer Architecture and Operating System, Advanced Database System, Elective, Software System

Department of Information Technology

Laboratory.

Semester II

Algorithms and Complexity, Advanced Computer Networks, Elective I (Computational Intelligence), Elective II (Data mining and Data warehousing), Elective III (Network Security), Seminar on Advanced Topics, Internet Technology Lab.

Semester III

MTech Thesis, Elective IV (Advance Wireless Networks, Cryptography).

Semester IV

MTech Thesis

PhD Courses

Research Methodology, Algorithm Analysis and Design, Elective (Cryptography, Advanced Wireless Networks).

Seminars/Conferences/Symposia/Workshops

The Department organised the following events:

- A one-day capacity building workshop on *e-Waste Management* on 21 February 2017 in collaboration with NEILIT (Kolkata), funded by the Ministry of Electronics and IT, Govt of India.
- A two-day national workshop on *Internet of Things: Its Inside-Out* on 12 & 13 May 2017, which was funded by the Ministry of Electronics and IT, Govt of India. Lectures were delivered by eminent persons working in this field.
- A one-day workshop on *IoT-Technology* in collaboration with CDAC (Pune) on 20 June 2017. Scientists from CDAC delivered a few lectures on IoT and Its Implementation Steps.
- A two-day workshop on *Technology Empowerment of North-East: Water, Energy and Communication Solutions* (TENE-WECS) on 21 & 22 December 2017 in collaboration with NISTADS, New Delhi.

Publications

Published Abroad

- Abdullah, S., Roy, S., Kalita, J. (2017). A detection framework for semantic code clones and obfuscated code. *Expert Systems with Applications*, 97: 405–420.
- Das, S., Kalita, H. K. (2017). Sentiment analysis for web-based big data: A survey. *International Journal of Advanced Research in Computer Science*, 5: 1996–1999.
- Deb, S., Bhuyan, B. (2018). Performance analysis of Grain family and Espresso ciphers for applications on resource constrained devices. *ICT Express*, 4(1): 19–23.
- Goswami, P., Singh, M. M., Bhuyan, B. (2017). A new public key cryptosystem over $\mathbb{Z}_{n^2}^*$. *Discrete Mathematics, Algorithms and Applications*, 9(6), <https://doi.org/10.1142/S179383091750080X>.
- Goswami, P., Singh, M. M., Bhuyan, B. (2017). A new public key cryptosystem based on integer factorization and discrete logarithm. *Palestein Journal of Mathematics*, 6(2): 580–584.
- Guchhait, A., Maji, B., Kandar, D. (2017). Design of a hybrid technology by converging WiMAX

- and DSRC for intelligent transportation system. *International Journal of Sensors Wireless Communications and Control*, 7(1): 33–38.
- Guchhait, A., Maji, B., Kandar, D. (2018). A hybrid V2V system for collision-free high-speed internet access in intelligent transportation system. *Transactions on Emerging Telecommunications Technologies*, <https://doi.org/10.1002/ett.3282>.
- Khan, A., Saha, G., Pal, R. K. (2018). An approach for reduction of false predictions in reverse engineering of gene regulatory networks. *Journal of Theoretical Biology*, 445: 9–30.
- Khwaitrakpam, A., Kandar, D., Paul, B. S. (2017). Noise reduction in synthetic aperture radar images using fuzzy logic and genetic algorithm. *Microsystem Technologies*, <https://doi.org/10.1007/s00542-017-3474-x>.
- Mandal, S., Saha, G., Pal, R. K. (2017). Recurrent neural network-based modelling of gene regulatory network using elephant swarm water search algorithm. *Journal of Bioinformatics and Computational Biology*, 15(04), doi: 10.1142/S0219720017500160.
- Sahana, S. C., Bhuyan, B., Das, M. L. (2017). An efficient key escrow-free identity-based short signature scheme from bilinear pairings. *International Journal of Emerging Technology and Advanced Engineering*, 7(9): 482–486.
- Sahana, S. C., Bhuyan, B. (2017). A key escrow-free identity-based signature scheme from bilinear. *IPASJ International Journal of Computer Science*, 5(9): 74–79.
- Sahana, S. C., Bhuyan, B. (2017). Efficiency comparison of various important identity-based digital signature schemes based on bilinear pairings. *International Journal of Advanced Research in Computer Engineering & Technology*, 6(9): 1476–1479.
- Sahana, S. C., Bhuyan, B. (2017). Efficiency comparison of various important established digital short signature schemes based on bilinear pairings. *IPASJ International Journal of Information Technology*, 5(9): 6–13.
- Sahana, S. C., Bhuyan, B., Das, M. L. (2017). An efficient key escrow-free identity-based signature scheme. *International Journal of Applied Engineering Research*, 12(19): 8964–8971.
- Book Chapters/Proceedings**
- Ahmed, N., De, D., Hussain, M. I. (2018). A QoS-aware MAC protocol for IEEE 802.11ah-based internet of things. In: *Proceedings of the 15th Intl Conf on Wireless and Optical Communications Networks (WOCN)*, 2–4 Feb, 2018, doi: 10.1109/ants.2017.8384132.
- Ahmed, N., Rahman, H., Hussain, M. I. (2017). Scalability analysis of medium access control protocols for internet of things. In: *Proceedings of International Conference on Communication and Networks. Advances in Intelligent Systems and Computing*. N. Modi, P. Verma and B. Trivedi (Eds.). Springer, Singapore, Vol. 508, p. 601–611.
- Alzubaidi, A., Roy, S., Kalita, J. K. (2017). Ranking most informative apps for effective identification of legitimate smartphone owners. In: *Proceedings of 2017 IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS)*, Atlanta, GA, 2017, p. 790–795.
- Amitab, K., Medhi, K., Kandar, D., Paul, B. S. (2018). Impulse noise reduction in digital images using fuzzy logic and artificial neural network. In: *Proceedings of the International Conference on Computing*

- and Communication Systems: I3CS 2016*. J. Mandal, G. Saha, D. Kandar and A. Maji (Eds.). Springer, Singapore, Vol. 24, p. 155–165.
- Bhattacharjee, D., Amitab, K., Kandar, D. (2018). Despeckling of SAR image based on fuzzy inference system. In: *Information and Communication Technology for Sustainable Development*. D. Mishra, M. Nayak and A. Joshi (Eds.). Springer, Singapore, Vol. 10. p. 463–473.
- Chyne, P., Kandar, D., Paul, B. S. (2017). LTE-IEEE 802.11p HetNets interoperability for efficient vehicular communication. In: *Proceedings of 2017 IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (ICPCSI)*, Chennai, 2017, p. 62–67.
- Deb, S., Bhuyan, B., Gupta, N. C. (2018). Design and analysis of LFSR based stream cipher. In: *Proceedings of the International Conference on Computing and Communication Systems, Lecture Notes in Network and Systems 24*, Chapter 61, p. 631–639.
- Elmsallati, A., Roy, S., Kalita, J. K. (2017). Exploring symmetric substructures in protein interaction networks for pairwise alignment. In: *Proceedings of International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO 2017)*, LNBI -II, Vol. 10209, Springer Nature, p. 173–184.
- Guzzi, P. H., Veltri, P., Roy, S., Kalita, J. K. (2017). A novel algorithm for local alignment of protein interaction networks: MODULA. In: *Proceedings of the 25th Italian Symposium on Advanced Database Systems (SEBD 2017)*, Catanzaro, Italy, <http://ceur-ws.org/Vol-2037>.
- Jha, M., Veltri, P., Guzzi, P. H., Roy, S. (2017). Network based algorithms for module extraction from RNASeq data: A quantitative assessment. In: *Proceedings of the 2017 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, Kansas City, MO, 2017, p. 1312–1315.
- Kalita, A., Ahmed, N., Rahman, H., Hussain, M. I. (2017). A QoS-aware MAC protocol for large-scale networks in internet of things. In: *Proceedings of 11th IEEE Intl Conf on Advanced Networks and Telecommunications Systems (ANTS)*, Bhubaneswar, 17–20 Dec 2017, p. 1–6.
- Kandar, D., Paul, B. S. (2017). Downlink data transmission between WiMAX-DSRC communication systems. In: *Proceedings of 2017 IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (ICPCSI)*, Chennai, 2017, p. 119–123.
- Kandar, D., Paul, B. S. (2017). SDN Based programmable RSU selection method in heterogeneous networks. In: *Nanoelectronics, Circuits and Communication Systems*, p.115–125.
- Khan, A., Saha, G., Pal, R. K. (2017). Quantum computing based inference of GRNs. In: *Proceedings of the International Conference on Bioinformatics and Biomedical Engineering*. Springer, Cham, p. 221–233.
- Lalchhanhima, R., Kandar, D., Paul, B. (2018) Performance analysis of fuzzy logic-based edge detection technique. In: *Advances in Communication Devices and Networking*. R. Bera, S. Sarkar and S. Chakraborty (Eds.). Springer, Singapore, Vol 462, p. 737–745.
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Research Projects

Ongoing: 1

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
QoS Provisioning in Internet of Things (IoT)	Dr. Md. Iftekhar Hussain (PI)	MeitY, GoI	82.40

Academic Collaborations

Dr. Md. I Hussain

Collaborated with Dr. Debashis De (Maulana Abul Kalam Azad University of Technology, West Bengal) on *QoS Provisioning in IoT*.

Department of Information Technology

Dr. S. Roy

Collaborated with (i) Prof. Pabitra Paul Choudhury (Applied Statistical Unit, Indian Statistical Institute, Kolkata) on *Physicochemical Characterisation of DNA sequence*, (ii) Dr. Pietro H. Guzzi (University of Cantanzaro, Italy) on *Protein Interaction Network Alignment*, (iii) Prof. Jugal Kalita (University of Colorado, USA) on *Machine Learning and Its Applications*, (iv) Dr. Ahed Elmsallati (McKendree University, Illinois, USA) on *PPI Alignment*, (v) Dr. Abdullah Sheneamer (Jazan University, Jazan, KSA) on *Clone Detection*, (vi) Dr. H. Hazazi (Regis University, Denver, USA) on *Clone Detection*, (vii) Dr. Abdulaziz Alzubaidi (University, KSA) on *Mobile Security*, and (viii) Prof. Sukumar Nandi (Indian Institute of Technology, Guwahati) on *Big Data Analysis in IoT*.

Dr. A. K. Maji

Collaborated with Dr. Partha Pakray (NIT, Mizoram) in the field of *Natural Language Processing of Khasi Texts*.

Other Activities

Prof. G. Saha

Delivered (i) a lecture series in “Bioprocess Engineering” for MSc (MBBT) courses at Kalyani University (West Bengal) in February 2018, and (ii) an invited talk on the “Developments on IoT System” at NIT, Meghalaya.

Dr. S. Roy

Track Co-Chair for Biological Modelling at the 8th ACM Conference on *Bioinformatics, Computational Biology, and Health Informatics* (ACM BCB 2017), Boston, USA.

Reviewer for various International Journals, viz., *Nature-Scientific Reports*, *IEEE/ACM Trans. on Computational Biology & Bioinformatics*, *Elsevier-Computer Methods and Programs in Biomedicine*, *Springer-Network Modeling Analysis in Health Informatics and Bioinformatics*, *PLOS Computational Biology*, *BMC-System Biology*, *BMC-Bioinformatics*, *Springer Plus*.

Delivered invited talks on (i) “Data Mining and Its Application to Disease Diagnosis” at St. Edmund’s College, Shillong, 2017, and (ii) “Biological Network Analysis for Disease Diagnosis: Data Mining Approach” at the Central Institute of Technology, Kokrajhar, 2018.

Dr. A. K. Maji

Delivered an invited talk on “Precautions for Cyber Crime against Women” at a UGC-sponsored workshop at M.D.K.G. College, Dibrugarh (June 16–17, 2017). Also, acted as a Reviewer for the IEEE Access.

Mr. K. Amitab

Reviewer for the *Geoscience and Remote Sensing Letters*.

School of Technology



DEPARTMENT OF NANOTECHNOLOGY

Head : Dr. L. Robindro Singh
Telephone : 0364-2723903
E-mail : robindro001@yahoo.co.in, officenanonehu@gmail.com

Faculty: 2

Designation	Name and Qualification	Specialization
Assistant Professor	Dr. L. Robindro Singh, MSc, PhD	Nanomaterials, CNT, Nanoceramics, Nanomedicine
(2)	Mr. D. Pyngrope, BTech, MTech	Nanomaterials and Nanoelectronics

Thrust Areas of Research

Nanomaterials, Assemble Nanoparticles, Micro-Electro-Mechanical Systems (MEMS), Nanoceramics, Nanomedicine, and Carbon nanotube (CNT).

Brief Statement of Academic Activities

The Department of Nanotechnology offers both MTech and PhD programmes. The faculty members are actively involved in diverse areas of research in Nanoscience and Nanotechnology, viz., nanomaterials, nanophosphors, CNT, hybrid nanomaterials, MEMs, and drug delivery. The Department started the MTech III and IV semesters' projects to train the students in different areas of research. The Department is also collaborating with BARC, (Mumbai), Manipur University, IIT (Guwahati), IGCAR (Kalpakam), and UGC-CSR, Indore. Many students cleared the GATE examination and got their PhD admission in various reputed institutes in India and abroad. One of the project RAs got a PhD admission to the University of Taiwan. The faculty members were invited to different conferences and symposia for delivering their research findings. Two PhD students of the Department have also received the National Fellowship for Higher Education (ST).

Besides regular teaching and research programmes, the Department organised successfully a refresher course in *Nanoscience* at UGC-HRDC (NEHU) from 13 November to 3 December 2017. Four students received the Merit-cum-Means Scholarship Scheme for Professional and Technical Course CS, and two students were awarded the NEHU PG-Merit Scholarship.

Students' Profile

Enrolment Capacity: MTech (Nanotechnology)–18, PhD–Variable

Degree	Male	Female	SC	ST	OBC	GEN	Meghalaya	Non-Meghalaya	Total
M.Tech. Sem-IV	16	02	01	02		15	01	17	18
MTech Sem-II	8	03	01	02		08		11	11

Department of Nanotechnology

Research Fellowships: 3

Non-NET Fellowship: 1

National Fellowship for Higher Education (ST): 2

Courses Conducted

Postgraduate: MTech (Nanotechnology)

Semester 1

Quantum Mechanics of Nanostructured System, Material Science and Nanoelectronics, Mathematical Methods and Modelling, Nanobiotechnology, Nanobiotechnology Laboratory, Simulation Laboratory.

Semester II

Synthesis and Characterisation of Nanomaterials, Polymer and Nanocomposite, Nanophotonics, Elective I (Open), Synthesis and Characterisation of Nanomaterials Laboratory, Nanophotonics Laboratory.

Semester III

Electric and magnetic properties of nanostructures, Elective II, Project Phase I.

Semester IV : Project Phase II

PhD Courses

Research Methodology, Optical Properties of Nanomaterials, Nanomedicine and Drug Delivery, Nanotechnology for Solar Photovoltaic.

Seminars/Conferences/Symposia/Workshops

Organised

Refresher course in *Nanoscience* was conducted during 13 November to 3 December 2017 at UGC-HRDC, NEHU, Shillong.

Publications

Published Abroad

Gogoi, P., Singh, L. R., Pamu, D. (2017). Characterisation of Zn doped MgTiO₃ ceramics: An approach of RF capacitors applications. *Journal of Materials Science: Materials in Electronics*, <http://link.springer.com/article/10.1007/s10854-017-6975-6>.

Singh, L. R. (2017). Eu³⁺ as a marker for formation of core-shell system: YVO₄:SiO₂. *OpenNano*, <https://doi.org/10.1016/j.onano.2017.01.002>.

Masumdar, S., Sahai, N., Bhusahn, M., Singh, L. R. (2017). Recent advancement of chitosan/silver nanocomposite in wound healing: A mini review. *Asian Chitin Journal*, 13(1): 21–24.

Hemam, R., Singh, L. R., Singh, S. D., Sharan, R. N. (2018). Preparation of CaB₄O₇ nanoparticles doped with different concentrations of Tb³⁺: Photoluminescence and Thermoluminescence/Optically stimulated luminescence study. *Journal of Luminescence*, 197: 399–405.

Pyngrope, D., Singh, L. R., Prasad, A. I., Bora, A. (2018). Synthesis characterisation and comparative luminescence studies of rare-earth doped Gd₂O₃ nanoparticles. *Journal of Material Engineering and Performance*, <https://doi.org/10.1007/s11665-018-3367-x>.

School of Technology

Research Projects

Ongoing: 2

Title of Project	PI/Co-PI	Funding Agency	₹ in lakhs
Production of New Non-Toxic Photoluminescent Nano-Materials and Their Application in Energy and Forensic Fields	L. R. Singh	DST	6.30
Preparation of Procesable Oxide Nanoparticles Doped with Lanthanide Ions and Their Luminescence Study	L. R. Singh	UGC-DAE	10.08

Completed: 2

Preparation, Characterisation and Luminescence Study of Li ₂ B ₄ O ₇ Nanoparticles Doped with Metal and Lanthanide Ions for Feasibility of Their Application in Radiation Dosimetry	Dr. L. R. Singh	BRNS, Mumbai	23.00
Preparation and Study on Effect/Role of Sensitizers on the Photoluminescence Properties of Lanthanide Doped Gd ₂ O ₃ and Y ₂ O ₃ Nanocrystals: Dispersion in Organic Solvents	Dr. L. R. Singh	DST, New Delhi	22.00

Academic Collaborations

Indian Institutes

The Department collaborated with (i)UGC-CSR (Indore) on *Preparation and Luminescence Behaviour of Lanthanide Doped Oxide Phosphors*, (ii) IGCAR (Kalpakam) on *Characterisation and Investigation of Luminescence Properties of Zn²⁺ and Sulphate Based-Nano-Phosphors Doped with Lanthanide and Metal Ions for Feasibility on Luminescence Dosimetry Application*, (iii) BARC (Mumbai) on *Preparation, Characterisation and Luminescence Study of Li₂B₄O₇ Nanoparticles Doped with Metal and Lanthanide Ions for Feasibility of Their Application in Radiation Dosimetry (RPD Section) and in Chemistry Division Nano-Drug Delivery by Mesoporous Nanoparticles*, and (iv) Manipur University on *Preparation, Characterisation and Luminescence Study of Li₂B₄O₇ Nanoparticles Doped with Metal and Lanthanide Ions for Feasibility of Their Application in Radiation Dosimetry*.

Foreign Institutes

Under the international collaboration Indo-Egypt, the Department collaborated with Dr. Mona Mostafa Saif, Ain Shams University of Egypt, on *Production of New Non-Toxic Photoluminescent Nano-Materials and Their Application in Energy and Forensic Fields*, funded by DST (New Delhi) and Science and Technology (Egypt).

IX



ADMINISTRATIVE DEPARTMENTS



COLLEGE DEVELOPMENT COUNCIL

In-charge : Dr. C. R. Diengdoh
Telephone : 0364-2721201/1202/1203/1204(O)
E-mail : dircdc@nehu.ac.in, cdcnehu@gmail.com

The College Development Council is an intermediary between the University and the affiliated colleges under its jurisdiction. It is the Principal Advisory Body to the Executive Council and the Academic Council of the University in all matters relating to affiliation. It is constituted every two years and has representatives comprising university officials, faculty members, principals and teachers of affiliated colleges, and a representative of the Government of Meghalaya. It plans for the integrated development of the affiliated colleges by extending help, guidance and advice. Serving as an academic guide to the college system, it ensures availability and use of facilities in the University departments to the teachers of affiliated colleges. It provides a forum for taking necessary steps on various aspects of education with a view to promoting coordination and improving the general educational standards in the affiliated colleges of the University.

In accordance with the Section 2(f) and 12(B) of UGC Act, 1956, the Council is also a liaison between UGC and affiliated colleges in carrying out all procedural formalities regarding proposals for obtaining funds under different schemes for the overall development of colleges, including minor/major research projects, faculty development programme for college teachers for pursuing MPhil and PhD degrees, etc.

The University has 69 affiliated colleges, of which 33 are permanently affiliated and 36 are provisionally affiliated. The University also affiliates Minority Educational Institutions located anywhere in the country as per the provisions of the National Commission for Minority Educational Institutions (NCMEI) Act.

Some of the official transactions of the College Development Council are as follows:

- ☞ Processing of applications of affiliated colleges for grant of affiliation.
- ☞ Constitution of Inspection Teams for inspecting the colleges.
- ☞ Convening of Affiliation Committee.
- ☞ Placing of recommendations of Affiliation Committee as agenda to the Academic Council/ Executive Council for consideration and approval.
- ☞ Appointing Subject Experts/Vice Chancellor's Nominees as members of Selection/Screening

Administrative Departments

Committees for appointing/placement of Assistant Professors in affiliated Colleges as per University/UGC norms.

- ☞ Nominating NEHU representatives from among the academicians, to represent the University in the Governing Bodies/Advisory Committees of the affiliated colleges.
- ☞ Circulation of information/guidelines/regulations of NEHU, UGC, MHRD and other agencies to affiliated colleges.
- ☞ Forwarding of proposals submitted by the colleges to the UGC for funding purposes under its various schemes.
- ☞ Legal matters of affiliated colleges.
- ☞ General/Miscellaneous correspondences with affiliated colleges/State Government/University academicians/University Administration/UGC, New Delhi and Guwahati/MHRD, New Delhi.

List of Colleges Visited by Various Inspection Teams during 2017–18 for Affiliation

1. Tikrikilla College, Tikrikilla, West Garo Hills
2. Woodland Institute of Nursing, Laitkor, Shillong, East Khasi Hills
3. Mawlai Presbyterian College, Shillong, East Khasi Hills
4. Union Christian College Umiam Khwan, Ri-Bhoi District
5. Shillong College, Shillong, East Khasi Hills
6. Raid Laban College, Shillong, East Khasi Hills
7. NEIGRIHMS MBBS College, Mawdiangdiang, Shillong, East Khasi Hills
8. PASF-Abong Noga College, New Tura, West Garo Hills
9. Balawan College, Umsning, Ri-Bhoi District
10. Phukan Memorial College, Dalu, West Garo Hills
11. Metas Adventist College, Surat, Gujarat
12. Bissau College, Shillong, East Khasi Hills
13. Loyola College, Williamnagar, East Garo Hills
14. Shillong Law College, Shillong, East Khasi Hills
15. Khadsawphra College, Mairang, West Khasi Hills
16. Synod College, Shillong, East Khasi Hills
17. Williamnagar Govt. College, Williamnagar, East Garo Hills
18. Sankardev College, Shillong, East Khasi Hills
19. Regional Institute of Science and Technology, Raid Marwet, Ri-Bhoi District
20. Tirot Sing Memorial College, Mairang, West Khasi Hills
21. St. Francis D'Assisi College, Siejlieh, Nongstoin, West Khasi Hills
22. Meribon K.H. Memorial College, Sohiong, East Khasi Hills
23. Khad-Ar- Doloi Law College, Jowai, West Jaintia Hills
24. North-East Regional Institute of Education, Umiam Barapani, Ri-Bhoi District
25. North-Eastern Institute of Ayurveda & Homoeopathy, Mawdiangdiang, Shillong, East Khasi Hills

College Development Council

26. K.L. Bajoria College, Shillong, East Khasi Hills
27. Mendipathar College, Mendipathar, North Garo Hills
28. St. Edmund's College, Shillong, East Khasi Hills

Actions taken on Affiliation Matters, etc. during 2017–18

- ☞ Permission to Open New College: **Four Colleges**
- ☞ Provisional Affiliation of New College: **Four Colleges**
- ☞ Provisional Affiliation to New Subject(s)/Course(s) of study in an Affiliated College/Institution: **Nine Colleges**
- ☞ Renewal of Provisional Affiliation: **Twenty Six Colleges**
- ☞ Permission to start new subject(s)/course(s) of study in an affiliated Colleges/Institute: **One College**
- ☞ Application Received from Colleges for Permission to Start New College/Institution: **One College**
- ☞ Permanent Affiliation of Subject(s)/Course(s) of study in permanently affiliated colleges: **One College**
- ☞ Permission or Provisional Affiliation to start PG Department in an existing College/Institution: **Three Colleges**

NAAC Assessment and Accreditation of Colleges during 2017–18

- Nongtalang College, Nongtalang, West Jaintia Hills with Grade B
- Shillong Commerce College, Shillong, East Khasi Hills with Grade B
- Synod College was reassessed and reaccredited by NAAC (Bangaluru) with Grade A

Other Activities

In the year under report, the CDC was instrumental:

- In recommending/approving Nodal Officers of affiliated colleges for uploading data of the affiliated colleges for All India Survey on Higher Education (AISHE) carried out by the Department of Higher Education, MHRD, New Delhi.
- As Nodal Office in collecting and uploading data of the University on AISHE Portal as required by the Department of Higher Education, MHRD, New Delhi, for the year 2017–18. The data base on higher learning was successfully uploaded for the University on the AISHE portal for the year 2017–18.
- In coordinating matters related to co-curricular activities and sports with the affiliated colleges under NEHU.
- In coordinating as nodal office the UGC Expert Committee's visits to 7 (seven) affiliated colleges located in East Khasi Hills, West Khasi Hills, South West Khasi Hills and Jaintia Hills Districts, for on-the-spot evaluation of ongoing projects for construction of Women's Hostels (re-visit) under UGC Scheme of funding to colleges.
- In coordinating matters and correspondences with the MHRD/UGC concerning the establishment of Deen Dayal Upadhaya Community College/Deen Dayal Upadhaya Kaushal Vikash Kendra (Skill Development) and BVoc at Wahiajer, West Jaintia Hills District, Meghalaya under NEHU.

Administrative Departments



EXAMINATION DEPARTMENT

Controller of Examinations : Shri T. K. Singha
Telephone : 0364-2721211/1212(O)/9436163600(M)
E-mail : offcoe@nehu.ac.in

Activities during 2017–18

- ☞ During the Academic Year under review, the Examination Department had effectively declared all undergraduate (annual/semester) results within the stipulated time frame, which facilitated students seeking admission to the postgraduate programmes within and outside the University. The Department also took special measures towards timely declaration of all postgraduate results to enable students who had aspired for higher academic pursuit in various universities of the country and abroad.
- ☞ On the sideline of Government of India's initiative on Digital India, the Department has introduced an online system of filling in the examination forms by students of affiliated colleges of the University and, as a result of which, Registration Cards and Admit Cards of students are being auto-generated. Similar features are also in the pipeline for PG, MTech, BTech, BA LLB, and other courses offered by the University. Introduction of these features thus facilitated the students to download their Admit Cards, Grade Cards and efforts are also being made to have access to their digitally generated Degree Certificates in future.
- ☞ Under the University Management System, the Department has also successfully implemented automation of semester examinations in respect of students belonging to postgraduate and undergraduate academic departments of the University since December 2017. This has facilitated the online system of filling out examination forms by students' *vis-à-vis* auto generation of Admit Cards, including the facility of online system of entry of marks by examiners. Consequentially, the results are being digitally computed and have considerably minimized the time in declaration of semester results.
- ☞ The North-Eastern Institute of Ayurveda and Homeopathy (NEIAH), an Autonomous Institute under the Ministry of AYUSH, Government of India, has recently been set up in Meghalaya. The Examination Department has extended adequate support to this new Institution by way of successfully conducting their first year BHMS/BAMS examinations held in the month of November 2017.
- ☞ In order to prevent forgery of academic records of the University's passed out students, the Examination Department has introduced adequate number of security features in the Grade Cards/Registration Cards issued to the students with QR Code Facility for web based verification. Efforts are also being made to incorporate security features in the Degree Certificates to be issued by the University.

Examination Department

- ☞ The Examination Department has implemented cashless transaction towards payment of remunerations to the teachers, which is now being carried out through online banking system. Examination Fees payable by the students are also being remitted through digital mode i.e., RTGS/NEFT or through SBI Collect.
- ☞ As part of research activities, the Department is conducting coursework examinations for MPhil and PhD programmes in accordance with the UGC guidelines, and all results of coursework examinations under the UGC's 7 Point Scale have been declared within the stipulated time frame.
- ☞ The Examination Department has successfully declared the results of final year MS and MD Degrees offered by NEIGHRIMS.
- ☞ The Examination Department has received a numbers of requests from external agencies for verification and authentication of certificates/documents issued by this University for the purpose of employment. The Department has made special provision to respond to such queries expeditiously. The Examination Department is also taking adequate steps to digitize all confidential records maintained since its inception. The Department is also actively participating in Govt of India's initiative on National Academic Depository Programme.
- ☞ The student enrolment and results during 2017–18 are as given in the relevant Tables of the Executive Summary of this Annual Report.

Administrative Departments



FINANCE DEPARTMENT

Finance Officer (In-Charge) : Shri. L. M. K. Lyngrah
Telephone : 0364-2721021(O)
E-mail : fo@nehu.ac.in

Accounts of Receipts and Payments for the Period Ending 31.03.2018

Receipts	2017-18 (Rupees)	Payments	2017-18 (Rupees)
<i>I. Opening Balances</i>		<i>I. Expenses</i>	
a) Cash balances		a) Establishment Expenses	935112802
b) Bank Balances		b) Academic Expenses	119189768
i) In Current Accounts	441499658	c) Administrative Expenses	109226940
ii) In Deposit Accounts		d) Transportation Expenses	15121365
iii) Saving Accounts	727851903	e) Repairs and Maintenance Expenses	65461183
c) Investments	351185601	f) Prior Period Expenses	
<i>II. Grants Received</i>		<i>II. Payments against Earmarked/ Endowment Funds</i>	17757695
a) From Government of India	2748971642	<i>III. Payments against Sponsored Projects/Schemes</i>	102850846
b) From State Government		<i>IV. Payments against Sponsored Fellowships/Scholarships</i>	18899624
c) From other Sources	1161074	<i>V. Investments made</i>	15127322
<i>III. Academic Receipts and other Income</i>	53173728	<i>VI. Term Deposits with Scheduled Banks</i>	
<i>IV. Receipts against Earmarked, Endowment Funds</i>	45825107	<i>VII. Expenditure on Fixed Assets and Capital Work in Progress</i>	
<i>V. Receipt against Sponsored Projects/ Schemes</i>	49882989	a) Fixed Assets	114276422
<i>VI. Receipts against Sponsored Fellowships/ Scholarships</i>	12093770	b) Capital Work in Progress	66242680
<i>VII. Income on Investments from</i>		<i>c) Statutory Remittances and Release of Security and Caution Deposits</i>	767842686

Finance Department

a) Earmarked/ ndowment funds	2158760	IX. Refund of Grants	691170
b) Main Account Investments		X. Deposits & Advances/Interest bearing advances	138285046
VIII. Interest Received on		XI. Other Payments/Bank Charges	742627
a) Bank Deposits		XII. Adjustments in Capital Account of Tura Campus	364239
b) Loan & Advances		XII. Adjustments in Corpus Account	36302
c) Saving Bank Accounts	24345912		
d) Corpus, Earmarked & Endowment Funds Account	11214923		
IX. Investment Encashed	21558316		
X. Term Deposits with Scheduled Banks Encashed		Closing Balances	
XI. Other Income (Including Prior Period Income)	20696471	a) Cash in Hand	121150
XII. Deposits and Advances/Interest Bearing Advances	22345751	b) Bank Balances	
XIII. Statutory Dues including Security, Caution, Earnest Deposits, etc.	85726733	i) In Current Accounts	695679149
XIV. Any other Receipts/ Loan Recovery		ii) In Savings Accounts	1216672729
XVI. Miscellaneous in Corpus Account	173931	c) Investments	351185601
XVII. Receipts yet to be Identified	131021077		
TOTAL	4750887346	TOTAL	4750887346
Previous Year (2016-17)	4598059352	Previous Year (2016-17)	4598059352

Administrative Departments



PLANNING DEPARTMENT

Assistant Registrar : Georgina Umdor
Telephone : 0364 2721087(O)
E-mail : gumdor@nehu.ac.in

The Planning Department was created in 1978 with a view to designing and implementing the vision plans for the overall development of the University. It is the Central Unit for budgetary planning of the University. It scrutinizes and finalizes the budgetary plan proposals and allocation of funds to different Schools, Departments and Centres of the University.

The Annual Plan Proposal of the University was submitted to the University Grants Commission, New Delhi, amounting to ₹51318.30 Lakhs.

The details of Grants/subsidies received during the year 2017–18 are given below:

Particulars	UGC (PLAN)	UGC Plan: CTS	UGC Plan: CQU	MYAS: SAF Games (Plan)	UGC Non- Plan	MSJ- SCFD	MWCD (WWH)	SASSP	Total
Balance B/F	58.177	0.250	8.391	0.210	0.000	1.154	0.367	-0.799	68.400
Grants during the Year	0.000	0.000	0.000	0.000	260.605	0.000	0.000	6.211	266.816
Interest	0.000	0.000	0.000	0.000	0.000	0.003	0.014	0.000	0.017
Total	58.177	0.250	8.391	0.210	260.605	1.157	0.380	5.412	335.233
Capital Expenditure	15.746	0.000	0.000	0.000	3.565	0.408	0.000	1.301	21.020
Balance	42.431	0.250	8.391	0.210	257.040	0.749	0.380	4.112	313.563
Revenue Expenditure	4.897	0.000	0.000	0.089	257.040	0.012	0.003	3.085	265.125
Balance Carried Forward	37.534	0.250	8.391	0.121	0.000	0.737	0.378	1.027	48.437

Notes: Rupees in crore

CTS: Chair for tribal Studies; CGU: Collaboration with Queen's University; MYAS: Ministry of Youth Affairs & Sports; MSJ-SCFD: Ministry of Social Justice Scheme for Creation of Facilities for Disabled; MWCD (WWH): Ministry of Women and Child Development (Working Women Hostel); SASSP: Special Assistance Schemes and Sponsored Programmes.

X



CENTRAL SERVICES



BIOINFORMATICS CENTRE

Coordinator : Prof. Atanu Bhattacharjee
Co-Coordinator and Information Officer : Dr. Devendra K. Biswal
Telephone : 0364-2550150/2550300
Website : <http://bicnehu.ac.in>
E-mail : nehuniv.btisnet@nic.in

Staff: 7

Name of Staff	Designation	Working since
Mr. Manish Debnath	Senior Technical Assistant	November 1999
Mrs. Nirmala Dayanandan	Computer Operator	April 2014
Mr. Welfrank Thongnibah	Computer Operator	March 2007
Mr. Graciously Kharumniud	Technical Assistant	March 2007
Mr. Santosh Kumar Vishwakarma	Technical Assistant	March 2007
Mr. Pradeep Kumar Kar	Data Entry Operator	November 2005
Government of India sponsored manpower on contract basis: 1		
Mr. Nirmal Das	Data Entry Operator	April 2012

Thrust Area of Research

The Bioinformatics Centre (BIC) is funded by the Department of Biotechnology (DBT), Ministry of Science and Technology under the Biotechnology Information System Network (BTIS) Program since November 1999 with a view to catering to the needs of the scientific community in the Northeastern region of the country and to augmenting their research activities through information inputs. Rich in great variety of flora and fauna, the Northeastern part of the country has been identified as one of the bio-diversity hotspots. Being a part of the national Bioinformatics Network, the Centre's mandate is biodiversity informatics, and it serves as an information

Central Services

base in various areas of Biosciences. Some of the important areas of research are molecular characterization, genome organization and expression in plants, animals and microbes, oncology, parasitology, crop improvement, microbial genetics, etc., which are relevant to the Northeastern region; and the facilities of the Centre are extensively used for preparation of databases. Besides, extensive work on parasite genomics, proteomics and metabolomics, evolutionary bioinformatics and phylogeny have been also initiated, apart from providing support to all disciplines of research in biotechnology.

The Centre was awarded the Third Rank Position in the category of DIC for publication in high repute journals (https://nehu.ac.in/public/uploads/bic_certificate.pdf).

Brief Statement of Academic Activities

- **Information Node of BTISnet:** The Centre is part of the National Bioinformatics Network and functions as an information base in various areas of Biosciences and Biodiversity for the entire North-East ever since its inception.
- **Nodal Centre of North-East Bioinformatics Network (NEBInet):** The BIC at NEHU serves as a Nodal Centre for the newly constituted NEBInet by DBT, GoI comprising 3 Sub-DIC's and 26 Bioinformatics Facilities through Biology teaching (BIF-BTBI) Centre's since 2008 spanning 8 states of the North-East.
- Nodal Centre for operating DBT-sponsored **Online Access Facility of Library Resources (OAFLR)** for 36 Secondary and Senior Secondary Schools in the Northeastern States of India through eight BIF-BTBI Coordinators.
- Identified as one of the 18 nodal Centres in the Northeastern region to operate and monitor the DBT e-Library Consortium (DeLCON) facility (that comprises a total of 917 selective Journals and a Database (SCOPUS) for NEHU.
- **DBT-Sponsored Bioinformatics National Certification (BINC) Examination Exam Centre:** BIC at NEHU is one of the seven Examination Centres for conducting BINC Exam since 2008.
- **Dissertation Training:** Students pursuing postgraduate degree in any branch of biosciences are trained in Bioinformatics for a period of 3–6 months towards their dissertation work as a partial fulfillment of their MSc degree (Completed – 15).
- **Research and Database Development:** Molecular characterization, functional and comparative genomics, proteomics, metabolomics, and evolutionary bioinformatics of pathogenic worm infections.
- **Bioinformatics Training Programmes** have always been an integral part of the Centre's activity, for which connoisseurs in the field are invited to act as resource persons.

Publications

Published Abroad

Bhattacharjee, B., Pathaw, N., Chrungoo, N. K., Bhattacharjee, A. (2017). Molecular modelling, dynamics simulation and characterization of antifungal chitinase from *Sechium edule*. *Gene*,

606:39–46.

- Biswal, D., Konhar, R., Debnath, M., Parameswaran, S., Sundar, D., Tandon, P. (2017). Chloroplast genome sequence annotation of dendrobium nobile (*Asparagales: Orchidaceae*), an endangered medicinal orchid from Northeast India. *PLOS Currents Tree of Life*, doi:10.1371/currents.tol.cf1709613759c2223eb582c0fa694cc7.
- Bora, B., Biswas, A. D., Gurung, A. B., Bhattacharjee, A., Mattaparthi, V. S. K., Mukherjee, A. K. (2017). An in silico approach to understand the structure–function properties of a serine protease (*Bacifrinase*) from bacillus cereus and experimental evidence to support the interaction of bacifrinase with fibrinogen and thrombin. *Journal of Biomolecular Structure and Dynamics*, 35(3): 622–644.
- Gurung, A. B., Aguan, K., Mitra, S., Bhattacharjee, A. (2017). Identification of molecular descriptors for design of novel isoalloxazine derivatives as potential acetylcholinesterase inhibitors against Alzheimer’s disease. *Journal of Biomolecular Structure and Dynamics*, 35(8):1729–1742.
- Gurung, A. B., Bhattacharjee, A. (2017). Structure based virtual screening identifies Pramlukast as a potential inhibitor against plasmodium falciparum adenosine deaminase enzyme. *Gene Reports*, 6: 54–66.
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- Islam, M. M., Rohman, M. A., Gurung, A. B., Bhattacharjee, A., Aguan, K., Mitra, S. (2017). Correlation of cholinergic drug induced quenching of acetylcholinesterase bound thioflavin-T fluorescence with their inhibition activity. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 189: 250–257.
- Sobhani, R., Pal, A. K., Bhattacharjee, A., Mitra, S., Aguan, K. (2017). Screening indigenous medicinal plants of Northeast India for their anti-Alzheimer’s properties. *Pharmacognosy Journal*, 9(1), doi:10.5530/pj.2017.1.9.
- Sonu, V. K., Islam, M. M., Gurung, A. B., Bhattacharjee, A., Mitra, S. (2017). Serum albumin interaction with xanthine drugs at nano-bio interfaces: A combined multi-spectroscopic and molecular modelling approach. *Journal of Molecular Liquids*, 242: 919–927.

Central Services

Infrastructure Facilities

- **Computer and Communication Facilities:** Implementation of LAN on a Structured CAT 5 UTP Cabling Network using Switches and Hubs, 3 Servers, 20 PCs & 3 Workstations, 3 Printers, One Scanner, 5 UPSs, and 2 LCD Projectors.
- **Scientific Software Packages:** Accelrys Gene 2.5 (Sequence Analysis Work Bench), Matlab 7.0, Winspircs ver 4.1 for Biotechnological Abstracts, Reference Manager, CLC Genomics workbench, PAUP, DNASTAR.
- **Databases and Other Information Resources:** Derwent Biotechnological Abstracts (July 1987–March 2006), Reference Update Deluxe Edition (July 2002–June 2004), Parasitology Database (obtained through MOEF), Application Software from Microsoft, RHEL, SQL, Adobe, Apple, etc.
- **Facility Procured through DIT Sanctioned NEPIAC Project:** Apple Work Group 13 node Cluster (HPCC), 7 Apple iMACs, One 40 kva UPS, SPSS, iWork, iNquiry software.
- **DeLCON Facility through DBT, GoI:** Free access to 917 selected journals available to the potential users through University LAN.
- **Facility Procured through NER Twinning Next-Gen-Sequencing Project:** One Apple Mac Pro, one 10 kva UPS, 6 Apple iMACs, (21”).
- **G. Facility procured through DBT, GoI Sanctioned IBIN-BRIC Project:** OneBackup Device; one Workstation, one HP Procurve Switch, one Cisco 1841 Router, 2 Servers, Red Hat Enterprise Linux 6 Advance Platform (1 user), Microsoft SQL Server 2008 R2 Enterprise Edition (1 user).

Research Activities

- i) De novo assembly of the transcripts and functional genome and transcriptome analysis of the orchids and mapping of important metabolic pathways (Biosynthetic pathway of secondary metabolites of medicinal importance widely used as analgesic, anti-inflammatory and anti-cancerous).
- ii) Ecological Genomics of Orchids (of Medicinal Importance) specific to North-East India.

Research Projects

Ongoing

- a) DBT-sponsored NER Twinning project on Next Generation Sequencing (NGS)-based de novo assembly of expressed transcripts and genome information of Orchids in North-East India (PI: Prof. Pramod Tandon, Devendra K. Biswal (Co-PI) and Dr. S. Sundar (PI), IIT, Delhi).



CAMPUS DEVELOPMENT DEPARTMENT

University Engineer (In-charge) : Shri. J. Cherian
Telephone : 0364-2722069(O)
E-mail : jcherian@nehu.ac.in

Status of Various Works Undertaken during 2017-18

Name of the works	Allotted Amount (₹ in lakhs)	Specialization
Remaining works of glass dome for butterfly park under XI plan	223.73	Work completed
Works under XII Plan		
Providing parking facilities	100.00	Work amounting to ₹69 lakhs completed and remaining works are being taken up
Renovation of old residential quarters	101.55	Work completed. Settlement of bill in progress
Construction of 100 seated women's hostel including warden's residence	804.14	Work outsourced to CPWD and pre-construction activities are in progress
Construction of Academic building for conducting MEd programme	409.62	Work outsourced to CPWD and pre-construction activities are in progress
Painting of Administrative Building	26.24	Work awarded recently
Painting of Examination Building	16.26	Work awarded recently
Renovation of Multiuse Convention hall	49.42	Work completed
Painting and need based repair of Library building	10.00	Work awarded recently
Works taken up from Other Head of account:		
Up-gradation of central lab facility in Botany Department CAS(level-II)	20.00	Lab furnishing works to the tune of ₹14.72 lakhs completed. Work relating to installation of UPS, etc. are in progress
Routing repair/renovation works of various structures	300.00	Works taken up to the extent of ₹240.00 lakhs completed including billing

Central Services

Construction of Guest House near Borjhar Airport	800.00	Out of initial allocation of ₹900 lakhs, work was re-prioritized for ₹800 lakhs. Building works including furnishing works completed, and remaining works including furnishing and installation of ACs are in progress
Tura Campus: 8		
Construction of service building	185.00	Building works barring minor finishing works completed and occupied
Construction of 20 bedded guest house	319.84	Work completed. Furnishing works are being processed
Construction of 12 (Twelve) units of L-Type quarters	578.84	Work outsourced to CPWD, and pre-construction activities are in progress
Construction of 6 (Six) units of P-Type quarters	339.84	Work outsourced to CPWD, and pre-construction activities are in progress
Construction of 4 (Four) units of Non-Teaching quarters-Type-II	96.11	Work outsourced to CPWD, and pre-construction activities are in progress
Temporary structure for Academic building	37.79	Work in progress
Construction of basement under MBA hostel	8.53	Work is almost completed
Providing feeder pillar and incoming feeder cable	50.00	Work amounting to ₹30.40 lakhs have been outsourced to MeECL
Deen Dayal Upadhyay Community College for Skill Development at Wahiajer, West Jaintia Hills:		
Work shed for Community College	20.00	Work is almost completed
Repair of hired buildings for Community College	12.15	Work completed
Procurement of DG set, construction of shed for DG set, sentry shed, etc.	8.90	Work is almost completed
Total Amount	₹4568.22 lakhs	



CAREER AND COUNSELLING CELL

Head : Prof. Goutam Saha
Telephone : 0364-2723604(O)/2723607(C)
Fax : 0364-2723607
E-mail : placement.nehu@gmail.com, placement@nehu.ac.in

Student Representatives Running Different Activities of the Cell during 2017–2018

Names	Position	Department
Mr. Saranga J. Barauh	President	Information Technology (School of Technology)
Ms. Sushweta Kar	VicePresident	Information Technology (School of Technology)
Ms. Irilang Lyngdoh Mawlong	Gen. Secretary	Education (School of Education)
Mr. Mantre Passah	JointSecretary	Political Science (School of Social Sciences)
Mr. KsanborKharkongor	Member	Geography (School of Human and Environmental Sciences)
Mr. AustrianMawrie	Member	Economics (School of Economics, Managementand Information Science)
Mr. WanpynsukMakri	Member	Tourism and Hotel Management (School of Economics, Management and Information Science)
Ms. Bidisha Das	Member	Architecture (School of Technology)
Ms. Tapashya Saikia	Member	Information Technology (School of Technology)
Mr. Bhargab Madhab Barua	Member	Nanotechnology (SchoolofTechnology)

The Career and Counseling Cell (CCC) was established on April 1, 2008 as per UGC guidelines functioning from the School of Technology, NEHU. The CCC endeavors to provide the best opportunities to NEHU graduates in terms of counseling and guidance, campus placements, trainings, internship opportunities, etc. The CCC regularly publicizes detailed notification on any matter related to counseling, training, and career/job opportunities, job fairs, pool campus for students' and other related activities. Job-oriented awareness workshops are being organized by the CCC regularly for the students of NEHU and affiliated colleges. It also interacts with reputed industries, organizations, training centers, and other entities for meeting the demands of the students from time to time. The CCC invites experts from corporate organization for interactive sessions, lectures on soft skills and allows their participation in internship/implant training to the students. The CCC also organizes job fairs/career related fairs, pool campuses for the job seekers

Central Services

in the university premises as per opportunity and requirements. It also organizes interactive sessions, special lectures and seminars so as to prepare the students for a smooth transition to their professional lives and face the challenges of the corporate world. With its interaction with company/industry on a regular basis, the students can avail the opportunity to undergo training during semester break in reputed companies, industries, hospitals, and government organizations. To facilitate the above objectives, enrollment of representatives from various departments of the University has been formulated under the guidance of the Coordinator. The Committee consists of faculty and student representatives who coordinate the different activities of the CCC.

Activities Undertaken during 2017–18

- A seminar on *Higher Education & Professional Courses from India and Overseas Institutes and Universities* was organized by the Admissify Edutech Pvt Ltd in NEHU, Shillong, on 24 April 2017 where 144 students from NEHU and its affiliated colleges attended the seminar.
- A recruitment drive was conducted by the CMJ Breweries at IT Seminar Hall (SOT, NEHU, Shillong) where 40 students participated the drive out of which 20 students got shortlisted for the final round (Personal Interview), which was held at Byrnihat (Meghalaya) on 13 May, 2017, where two students from Don Bosco (Guwahati) and eight students from Biotechnology, School of Life Sciences (SLS, NEHU, Shillong) got placed.
- Ground staff job profile was conducted by Indigo Airlines. Sixteen students of NEHU (Shillong) and MBA students of NEHU Tura Campus attended the interview on 13 May 2017, where five MBA students from NEHU (Tura) got placed.
- A one-day pool campus drive was organized on 29 May 2017 by Regalix Hyderabad in collaboration with the CCC for the post of Account Executives/Process Executives at SOT (NEHU, Shillong). A total of 50 students from different departments of NEHU and its affiliated colleges, NIT, Meghalaya, and other institutes of Assam attended the drive. One student of NEHU (Shillong) and one student of NIT (Meghalaya) got selected.
- Eighteen students of SOT (NEHU, Shillong) attended the off-pool campus drive organized by Wipro Technologies Pvt Ltd on 4 & 5 September 2017 at NIT (Nagaland) where three students of Information Technology Department (NEHU, Shillong) got selected.
- A three-day pool campus drive was organized by Zolacode IT Solutions in collaboration with the CCC from 7 to 9 September 2017, where a total of 400 students from SOT (NEHU, Shillong), NIT (Meghalaya) and other Engineering colleges/institutes of Assam attended the drive. One hundred twenty three students of SOT (NEHU, Shillong) got selected.
- CMJ Breweries recruitment Drive was held on 11 November 2017 at SOT (NEHU Shillong). A total of 120 students attended the drive. Result waited.
- Indigo Airlines Guwahati walk-in interview was held on 13 November 2017 at Indigo Cargo Office Guwahati Airport. Thirty-five students from NEHU and its affiliated colleges attended the drive. Result waited.
- Three MTech students from SOT (NEHU, Shillong) participated in an online exam for the post

Career and Counselling Cell

of IT Faculty at the National Institute of Electronics and Information Technology, Shillong, where one student from the Department of Information Technology (NEHU, Shillong) got selected.

- Twenty-three students from SOT (NEHU, Shillong) attended the off-campus drive at TISS (Guwahati), which was conducted by the Professional Assistance for Development Action (PRADAN) on 10, 14 & 15 March 2018, where three students got selected: one student from Information Technology and two students from the Department of Biomedical Engineering (NEHU, Shillong).
- HDFC Bank had conducted a written examination for the MBA students (NEHU, Tura), and the personal interview of 10 shortlisted students was held at SOT (NEHU, Shillong) on 8 March 2018. Results waited.
- A pre-counselling interaction program was organized on 12 & 14 March 2018 by the Teach India (Non-Profit Organization) in collaboration with the CCC for the final year students of NEHU (Shillong) at IT Seminar Hall (SOT, NEHU), where 55 students attended the program.

Date of Interview	Name of students	Department/College	Name of Company
07-08.09.2017 (111 selected)	Kalyan Baruah	Don Bosco, Guwahati	CMJ Breweries
	Bedabrata Sarma	Don Bosco, Guwahati	
	Ernieca Lyngdoh Nongbri	Biotechnology, NEHU	
	Aibanjiedlang Laso	Biotechnology, NEHU	
	Zachariah B. L. Sunn	Biotechnology, NEHU	
	Joiedevivreson Mawlein	Biotechnology, NEHU	
	Bunshah L. Mawphlang	Biotechnology, NEHU	
	Ibanrisuk Wankhar	Biotechnology, NEHU	
	Ibasngewhun C Nongrum	Biotechnology, NEHU	
	Vanita Lyngdoh	Biotechnology, NEHU	
13.05.2017 (5 selected)	Pranjal Dahal	MBA, NEHU (Tura)	Indigo
	Meera Rana	MBA, NEHU (Tura)	
	Biswajit Kaushik Sarma	ABMFT, NEHU	
	Ankita Sutradhar	MBA, NEHU (Tura)	
	Nijwm Wary	MBA, NEHU (Tura)	
16.06.2017 (2 selected)	N Mompi Devi	IT, NEHU	Regalix, Hyderabad
	Suman Sarkar	NIT, Meghalaya	
04-05.09.2017 (3 selected)	Kumar Rahul	IT, NEHU	Wipro Technologies
	Anil Gupta	IT, NEHU	
	Saranga Jyoti Baruah	IT, NEHU	

Central Services

Date of Interview	Name of students	Department/College	Name of Company
07-08.09.2017 (111 selected)	Deshabrato Mukherjee	BME, NEHU	Zolacode IT Solution Pvt Ltd
	Dhritica B. Bora	BME, NEHU	
	Ravi Kumar Singh	BME, NEHU	
	Rajoshree Saha	BME, NEHU	
	Spondona Kashyap	BME, NEHU	
	Rabia Begum	BME, NEHU	
	Rituparna Paul	BME, NEHU	
	Nityananda Doley	BME, NEHU	
	Parthana Boruah	BME, NEHU	
	Lipika Baruah	BME, NEHU	
	Shakil Hassan	BME, NEHU	
	Mahsina Jinat Aman	BME, NEHU	
	Shabe Noor	BME, NEHU	
	Priyanka Deep	BME, NEHU	
	Priya Debnath	BME, NEHU	
	Simi Pait	BME, NEHU	
	Preetisha Bordoloi	BME, NEHU	
	Ranjan Rai	BME, NEHU	
	Pritom Medok	BME, NEHU	
	Papiya Debnath	BME, NEHU	
	Dhrubahah Sonowal	BME, NEHU	
	Payel Das	BME, NEHU	
	Aminul Islam	ECE, NEHU	
	Manisha Das	ECE, NEHU	
	Mun Deori	ECE, NEHU	
	Khushbu Kumari Roy	ECE, NEHU	
	Risham Doley	ECE, NEHU	
	Tarif Hussain Hazarika	ECE, NEHU	
	Elvis L. Hrangkhoh	ECE, NEHU	
	Arnav Kashyap	ECE, NEHU	
	Chinmoy Mali	ECE, NEHU	
	Chayanika Taye	ECE, NEHU	
	Abhijit Roy	ECE, NEHU	

Career and Counselling Cell

Date of Interview	Name of students	Department/College	Name of Company
07-08.09.2017 (111 selected)	Jyotismita Nath	ECE, NEHU	Zolacode IT Solution Pvt Ltd
	Gathy Lalnunthieng Tuolor	ECE, NEHU	
	Ashish Kumar Das	ECE, NEHU	
	Anuj Kumar Das	ECE, NEHU	
	Bhargav Deka	ECE, NEHU	
	Anisha Chaki	ECE, NEHU	
	Deba Protima Deay	ECE, NEHU	
	Romakanta Bharali	ECE, NEHU	
	Chandan Kumar Rai	ECE, NEHU	
	Riazul Hoque	ECE, NEHU	
	Sheikh Ashif Sadique	ECE, NEHU	
	Rupshikha Deka	EE, NEHU	
	Biswajit Lahon	EE, NEHU	
	Banwari lal Sewda	EE, NEHU	
	Krishnakhi Das	EE, NEHU	
	Apurba sankar bori	EE, NEHU	
	Bidyut Pavan Baishaya	EE, NEHU	
	Kaustav Baishya	EE, NEHU	
	Mayur Krishna Bora	EE, NEHU	
	Arijit Sinha	IT, NEHU	
	Sushmita Barman	IT, NEHU	
	Saumya Kushwaha	IT, NEHU	
	Nishanta Sarma	IT, NEHU	
	Dharmendra Prajapati	IT, NEHU	
	Nitu sharma	IT, NEHU	
	Ritwik Prasad	IT, NEHU	
	Anannya Bora	IT, NEHU	
	Rashika Agarwal	IT, NEHU	
	Ratneshwar kumar Ray	IT, NEHU	
	Kaberi Boro	IT, NEHU	
	Saranga Jyoti Baruah	IT, NEHU	
	Anil Kumar Gupta	IT, NEHU	

Central Services

Date of Interview	Name of students	Department/College	Name of Company
07-08.09.2017 (111 selected)	Kumar Rahul	IT, NEHU	Zolacode IT Solution Pvt Ltd
	Tapashya Saikia	IT, NEHU	
	Vishaal Baruah	IT, NEHU	
	Sushweta Kar	IT, NEHU	
	Athokpam Ocean Seemona	IT, NEHU	
	Swagat Yein	IT, NEHU	
	Shashi Kamal Bordoloi	IT, NEHU	
	Rakesh Kumar Ray	IT, NEHU	
	Rishav Nidhi	IT, NEHU	
	Parbin Sultana Talukdar	CSE, Assam DBU	
	Anindam Das	CSE, Assam University	
	Akhand Pratap Singh	CSE, Assam University	
	Mohit Kumar	CSE, Assam University	
	Ratandeep Das	CSE, Assam University	
	Ravi Bageriya	CSE, Assam University	
	Sadek Uz Zuhaib Laskar	ECE, Assam University	
	Umme Anjum Mariyah	ECE, Assam University	
	Amit Kumar Rajput	IT, Assam University	
	Krishna Kamal Moral	CSE, Jorhat E. College	
	SM Rahees Azam	Civil, NIT, Manipur	
	MD Raghieb Hussain	Civil, NIT, Manipur	
	Shubham Gupta	CSE, NIT, Manipur	
	Sarita Kumari	CSE, NIT, Manipur	
	Priyanka Kumari	CSE, NIT, Manipur	
	Divyank Raj	CSE, NIT, Manipur	
	Jodhavar Singh	CSE, NIT, Manipur	
	Milind Kumar Prabhakar	CSE, NIT, Manipur	
	Anoop Kumar	CSE, NIT, Manipur	
	Hemendra Kumar	CSE, NIT, Manipur	
	Akash Kumar Harsh	CSE, NIT, Manipur	
	M.D. Ameer Humjah	CSE, NIT, Manipur	
	Ritesh Kumar Singh	ECE, NIT, Manipur	

Career and Counselling Cell

Date of Interview	Name of students	Department/College	Name of Company
07-08.09.2017 (111 selected)	M.D. Jahiya	Mech, NIT, Manipur	Zolacode IT Solution Pvt Ltd
	Sanjeev Kumar	Mech, NIT, Manipur	
	Mridul Sahu	CSE, NIT, Meghalaya	
	Shatharajupally Nihar	CSE, NIT, Meghalaya	
	Pavan Kumar Yadav	CSE, NIT, Meghalaya	
	Suman Das	CSE, NIT, Meghalaya	
	A. Mani Kanta Naik	ECE, NIT, Meghalaya	
	Albert Suja	ECE, NIT, Meghalaya	
	Sanjay Kumar Pandit	ECE, NIT, Meghalaya	
	Yash Shukla	ECE, NIT, Meghalaya	
	Deepak Kumar Mishra	EEE, NIT, Meghalaya	
	Saumya Parihar	EEE, NIT, Meghalaya	
	Subhra Ghosh	EEE, NIT, Meghalaya	
	Vipul Anand	EEE, NIT, Meghalaya	
21.02.2018 (1 selected)	Mehbub Alam	MTech, IT, NEHU	NELIT, Shillong



CAREER AND COUNSELLING CELL (TURA CAMPUS)

Officer-In-Charge : Dr. Abhigyan Bhattacharjee
Telephone : 09435017519/08415098100
E-mail : abhigyan09@rediffmail.com

The Career and Counselling Cell (CCC) is also functioning on Tura Campus known as Placement and Counselling Cell. Following the UGC guidelines, the Cell plays a major role in addressing the diverse socio-economic handicaps of students belonging to the different communities by providing active guidance and information regarding career and placement opportunities. In doing so, the CCC interacts with reputed industries, organizations, training centers and other entities through seminars, workshops, placement drives, etc., in collaboration with the Department of Management and others.

Activities under taken during 2017-18

- ☞ An Annual HR Conclave was held on 20 May 2017. The theme of the Conclave was “Tapping the Y-Generation Talent” and was coordinated by Dr. A. Bhattacharjee. CEOs, MDs, Directors, HR Managers and senior Executive from different industries were resource persons in the form of panel discussions and talks.
- ☞ A placement drive was conducted by Gapbridge Software Solutions Pvt Ltd, a Bangalore-based IT company, on 19 May 2017 at NEHU (Tura) in which 7 students from the Department of Management were shortlisted for the next round of selection process. Two students got offer letters.
- ☞ The CCC led by Dr Abhigyan Bhattacharjee coordinated 40 students from the Department of Management. They participated in the one-day seminar on *Creating Ecosystem for Start Ups* at Guwahati, organised by the Guwahati Management Association in collaboration with the All India Management Association (New Delhi) on 30 October 2017 at NEDFi Office, Guwahati.
- ☞ Bharti Airtel Limited conducted a placement drive on 23 November 2017 in which 42 students from the Department of Management participated. Eleven students were shortlisted for the next round of selection process. Finally, two students got offer letters.
- ☞ Axis Bank on 6 February 2018 conducted a placement drive in which students from the Departments of Management, and Agribusiness Management and Food Technology participated. Nine students from the Department of Management were shortlisted after the online AIMCAT Selection Test. Three students got offer letters.
- ☞ A placement drive was conducted by HDFC bank on 8 February 2018 in which students from the Departments of Management, and Agribusiness Management and Food Technology

Career and Counselling Cell (Tura)

participated. Nine students from the Department of Management got selected after the online AIMCAT Selection Test and were shortlisted for the next round of selection process of which three students were given final offer letters.

- ☞ The CCC (NEHU, Tura) organised three entrepreneurship awareness camps during February 7–21, 2018 and one FDP on Entrepreneurship for faculty members during March 1–14, 2018. Dr. Abhigyan Bhattacharjee was the coordinator of the programme. This was sponsored by EDII, Regional Office, Guwahati.
- ☞ The CCC (NEHU, Tura), as part of its outreach programme, conducted an Orientation Programme on *Business Management for Rural Farmers, Traders and Entrepreneurs* from 22 March to 12 April 2018. Altogether 250 Rural Farmers, Traders and Entrepreneurs participated in the orientation programme from all the five districts of Garo Hills, Meghalaya. Dr. Abhigyan Bhattacharjee was the coordinator of the programme. The programme was sponsored by the MBMA, Government of Meghalaya.
- ☞ The Professional Assistance for Development Action (PRADAN), an NGO from New Delhi, conducted a pool recruitment drive for the post of Development Apprentice on 14 & 15 March 2018 at the Tata Institute of Social Sciences, Guwahati. Students from different reputed Institutes of North-East India came to participate in the recruitment drive. Six students participated from the Department of Management, NEHU Tura Campus.
- ☞ Pune Institute of Business Management organised a pool campus drive on 25 March 2018 at Guwahati PIBM Institute. Six students participated in the drive of which one was given the offer letter for the post of Marketing Executive.

Central Services



CENTRAL LIBRARY

Librarian (In-Charge) : Dr. F. R. Sumer
Telephone : 0364-2721251(O)
E-mail : fsumer@nehu.ac.in

Brief Statement of Activities

During the past year, the Central Library continued to work with best efforts to deliver quality and innovative library services. In addition to its core inter-related functions of collection development and management of staff and services, the Library extends full support to each and every library member, including visitors with special attention to the physically challenged. The Library remains committed to strengthening and upholding the standards and values of library services over the years. The NAAC Peer Team visited the Central Library on 1 June 2017. A presentation on the “Infrastructure, Facilities and Achievements of The Library” was presented followed by an interaction with the staff.

With a firm objective to strengthen the online services, the NEHU Institutional Repository (<http://dspace.nehu.ac.in>) and its digital content, which had its web presence for more than five years, has strongly influenced the National Digital Library of India, a project of the Ministry of Human Resource Development, Government of India, which identified NEHU as a prospective Content Partner. With a view to achieving this important status, the Library kept on proceeding with the creation of digital content from printed documents and uploaded them to the Institutional Repository, thereby showcasing the Library’s rich collection globally.

To nurture and strengthen the philosophy of Librarianship especially among the young professionals and staff, the Central Library celebrated Librarian’s Day on 11 August 2017 to commemorate the 125th birth anniversary of Padmashree Dr. S.R. Ranganathan. Dr. Manoj Rana, Assistant Librarian, delivered a talk in the presence of officers and staffs of the Library which focused on the immense contribution of Dr. S. R. Ranganathan to the discipline of Library and Information Science.

As part of the User Education Programme, the qualified and skilled library staff imparted specific information to the newly enrolled library members, including visitors to acquaint them with the various library facilities and services. Such a programme not only creates awareness on the minds of the new members, but also optimizes the usage of the entire library system. In addition, our qualified and highly skilled manpower periodically responds to invitations and acted as resource persons in workshops/programmes/courses conducted by reputed organizations/institutes/colleges within the state and across the Northeastern Region. Through the Internship Programme, the out-going postgraduate students of Master in Library and Information Science (MLISc) were exposed with the practical knowledge discharged by the different sections/units of the Library thus equipping them with the skills in order to raise their confidence and preparedness to the job market. The Central Library is also indebted to those individuals, students and departments/

Central Library

institutions/organizations who had supported the Library either through gifted documents, which had enriched our collection or by volunteering their time as Interns for the benefit of the Library not to forget the contributions of those library staff who had superannuated from the university service, and one who passed away in the beginning of 2018 while in service.

Budget Allocation 2017-18

Particulars	₹ in lakhs
1. Books	10.00
a) Non-Plan	
2. Journals and periodicals	
a) Non-Plan: Journals and periodicals for sciences - Scientific journals including Subscription to e-resources, viz., IEL Online (IEEE e-journals) for School of Technology and subscription to Scopus database	95.00
b) Non-Plan: Other than sciences - periodicals for Humanities, Social Sciences, etc.	20.00
3. Recurring Expenditures & Contingency – Non-Plan	13.75
4. Digitization: Manpower – Non-Plan	2.40
TOTAL	141.15

Library Collection: 2,95,005 volumes

Particulars	Volumes
Economics, Management and Information Sciences	0287
Education	0072
Humanities	0697
Human and Environmental Sciences	0089
Life Sciences	0129
Physical Sciences	0270
Social Sciences	0179
Technology	0202
Gifts and others	0617
NBHM	0015
Theses	0250
Data Bank (Government Publications and Reports)	0268
Total books added during the year	5522

Central Services

Subscription to Periodicals, including Scientific Journals (Titles in Print)

- International Journals: 117
- Indian Journals: 116
- Total: 233

Membership Enrollment during the Year (2017–18)

Particulars	Volumes
Undergraduate Students	0167
Postgraduate Students	1148
Research Scholars	0217
University Teachers	0000
Non-Teaching Staff	0012
Visiting/Guest Professors/Lecturers	0012
Others (Including College Teachers)	0011
Total number of membership	1567

Usage and Issue of Books and Journals, etc.

- Daily average number of books issued/returned/renewed: 322
- Number of users who availed consultation services: 574
- Average usage of journals and back volumes: 1068 per month
- Total Usage of Theses/Dissertations, including Data Bank: (i) Students: 230 per month, (ii) Research Scholars: 370 per month, and (iii) Others: 85 per month
- Photocopies of journal articles, including Back Volumes made: 179 copies per month
- Average number of internet users: 335 per month
- NEHU usage of E-ShodhSindhu Consortium e-resources during 2017–18: 2, 81,791 full-text articles downloaded.

Revenue Generated by the Library during the Year

Consultation fees: ₹2500.00

- o Fines from Books overdue (including Law Library): ₹66481.00
- o Total: ₹68981.00

Other Activities

Awareness/Orientation/Internship Programme for Students and Research Scholars

- Library Orientation Programme was conducted from 5 to 15 September 2017 at the Central Library Conference Hall for the first semester students of different departments. The programme focused on the library's rules and guidelines, in-house/online resources, features

Central Library

of the Online Public Access Catalogue (OPAC), and a guided tour of the Central Library. The programme was coordinated by Dr. M. Rana, Assistant Librarian.

- The 6th Library Internship Programme was conducted by the Central Library from 3 August to 29 September 2017 for the out-going MLISc 4th semester students of the Department of Library & Information Science, NEHU, Shillong. The programme was coordinated by Dr. Lalhmachhuana, Documentation Officer.

Exposure to e-Resources Across the Academic Fraternity

- Access to the online resources on indiastat.com was provided to research scholars and faculty on request through user ID and Password login. Regular interaction with individual MPhil and PhD research scholars on access to various electronic resources was conducted as and when required.
- The online services for the subscribed/renewed e-databases and e-journals were provided through hyperlinks that are placed on the Library webpage (<http://www.nehu.ac.in/library>) for convenience of users. Similarly, hyperlinks to e-resources available through the e-ShodhSindhu and DelCON Consortium are available on the library webpage to ease wide access.
- While the Internet Room in the library is fully dedicated to support the library users to access the e-resources available at NEHU, the Library also extends its supports to the MPhil/PhD research scholars and teachers on their individual requirement, including the use of anti-plagiarism software.
- Remote access of e-resources was extended especially to those located outside the Shillong campus, viz., Tura Campus to ensure optimal use of the e-resources available and subscribed by NEHU.

Membership with other Libraries

- The Library was enrolled as a member of the American Libraries in India.

Subscription to e-Journals, e-Books and Online Databases

- The following subscribed online databases and e-journals were renewed/subscribed during the period: (a) Biological Abstracts, (b) IndiaStat, (c) Library and Information Abstracts, (d) IEL Online (Growth Plan), (f) Indian Journals.com, and (h) Scopus.

Important Activities/Steps Accomplished towards Improvement of Library Services

- The OPAC has been hosted on a cloud platform to ensure seamless access of the library catalogue over the Internet by the library members of the University and interested members of the public. The hyperlink to the library catalogue is placed on the Library webpage listed as "OPAC."
- Additional equipment and infrastructure, viz., computers, printers were installed.
- Awareness on the availability of online learning resource portal, namely National Digital Library of India, e-ShodhSindhu & DelCON Consortium, including subscribed e-resources were

Central Services

initiated in the University.

- Awareness of the National Digital Repository for theses and dissertations, viz., Shodhganga and the use of Anti-Plagiarism software were initiated and conducted in the University. Soft copies of PhD theses awarded by NEHU were submitted to the INFLIBNET Centre, Gandhinagar, for uploading in the Shodhganga repository.
- A total of 90,000 pages of the rare and out of print books were digitized and uploaded on the NEHU Institutional Repository.
- Library staff was trained to use the Lex Air Digital Capture Book Reader that was installed in the library meant for the visually impaired library members.
- Wi-Fi facility was installed inside the Central Library.

Publications

Sumer, F. R., Hangsing, P., Prasad, A. R. D. (2017). Impact of digital libraries on open source software based on user's perceptions: A review. *International Journal of Emerging Technologies and Innovative Research*, 4(11): 461–464.

Sumer, F. R., Hangsing, P., Prasad, A. R. D. (2017). Realizing the potential of open source software in libraries. *International Journal of Engineering Development and Research*, 5(4): 680–683.

Sumer, F. R., Hangsing, P., Prasad, A. R. D. (2017). Defining the boundaries of digital libraries: A review. *International Journal of Library and Information Science*, 6(6): 16–24.

Seminars/Conferences/Symposia/Workshops

Dr. F. R. Sumer

He also delivered lectures on “IPR & Copyright in Libraries” at Women's College, Shillong (23 February 2018) and “Anti-Plagiarism Software” at the workshop on *Access to e-Resources* organized by NEHU Tura Campus Library on 21 June 2017. He also acted as a resource person during (i) three-day national workshop on *Open Source Software for Library Automation-Koha* organized by Shillong College, Shillong (25–28 September 2018), and (iv) workshop on *Digital Libraries: Open Source Software for Digital Repositories* at Dimapur (Nagaland) jointly organized by the Documentation Research and Training Centre, Indian Statistical Institute (Bangalore) and ICFAI University Nagaland, Dimapur (8–10 March 2018).

Dr. Manoj Rana

Presented a paper titled “An overview of MOOC (Massive Online Open Courses) with Special Reference to North-East India” at the international seminar on *Cross Border Connectivity and Inclusive Growth: Issues and Challenges with Special Reference to North-Eastern Region* held at Shillong College on 24 & 25 August 2017.

Acted as a resource person in (i) one-day workshop on *e-resources INFOFEST 2017* organized by Shillong College on 17 November 2017. Delivered a lecture on “Research Methods as Part of a PhD Course Work 2018” at the University of Science and Technology (Meghalaya, Baridua) on 3 February 2018, and (ii) one-day workshop on *Online Library Access Programme* organized

Central Library

by Women's College (Shillong) on 23 February 2018.

Other Activities

Dr. F. R. Sumer

Acted as a resource person during the 39th, 40th, 41st, 42nd and 43rd Orientation Programmes, short-term course on *Research Methodology*, and the Winter School conducted by the UGC-HRDC, NEHU, during 2017–18 and delivered two lectures on each occasion.

Member of (i) National Electronic Theses and Dissertations (NETD) Committee constituted by INFLIBNET Centre (Gandhinagar) during iETD 2017 Conference on 13 & 14 December 2017, (ii) Selection Committee held during 10–11 August 2017 for the recruitment of a Library Assistant A in the North-East Space Application Centre, Umiam, Meghalaya, (iii) Selection Committee for the recruitment of an Assistant Librarian in Sikkim University on 10 August 2017, (iv) Selection Committee for the recruitment of teachers in Kendriya Vidyalaya schools, which was held at Kendriya Vidyalaya, NEHU, Shillong, on 26 March 2018.

Also extended free consultation services during the period to Librarians of affiliated colleges and other organization in Shillong, viz., Synod College, Nabon Women's College and NERC-ICSSR, NEHU.

Dr. Lalhmachhuana

Acted as a resource person during the 40th, 41st, 42th and 43th Orientation Programmes 2017–18 conducted by the UGC-HRDC, NEHU, and delivered two lectures on each occasion.

Delivered lectures during the Library House-Keeping Operations (May-June 2017) and Internship Programme (September 2017) conducted by the Library for the 2nd and 4th semester students of the Department of Library Science and Information Science, NEHU, Shillong.

Dr. Manoj Rana

Acted as a Co-ordinator of “Librarian's Day-2017” celebration on 11 August 2017 to commemorate the 125th Birth Anniversary of Dr. S. R. Ranganathan. Delivered lectures during the Library House-Keeping Operations (May-June 2017) and Internship Programme (September 2017) conducted by the Library for the 2nd and 4th semester students of the Department of Library Science and Information Science, NEHU, Shillong.

Shri J. P. Nongbri

Imparted training on the *Circulation Module Including Registration and Renewal of Library Members on the Koha Open Source Integrated Library Management Software* to the Librarian, Shillong Polytechnic, Shillong, during May 2017.

Delivered lectures during the Library House-Keeping Operations (May-June 2017) and Internship Programme (September 2017) conducted by the Library for the 2nd and 4th semester students of the Department of Library Science and Information Science, NEHU, Shillong.

Shri A. Blah

Imparted training on the *Cataloguing and Serial Modules of the Koha Open Source Integrated*

Central Services

Library Management Software to the Librarian, Shillong Polytechnic, during May 2017.

Coordinated and delivered lectures during the Library House-Keeping Operations (April-June 2017) conducted by the Library for the 2nd semester students of the Department of Library Science and Information Science, NEHU. He also delivered lectures during the Internship Programme (September 2017) organised by the Library for the 4th semester students of the foresaid department.

Shri B. Sten

Imparted training on *System Administrative Aspects, including Data Backup* to the Librarian, Shillong Polytechnic, during the month of May 2017.

Delivered lectures during the Library House-Keeping Operations (May-June 2017) and Internship Programme (September 2017) conducted by the Library for the 2nd and 4th semester students of the Department of Library Science and Information Science, NEHU, Shillong. He also participated in a three-day programme on *Advanced Training on Shodhganga* organized by the Information and Library Network (INFLIBNET) Center, Gandhinagar, Gujarat (13–15 December 2017).



CENTRAL LIBRARY (TURA CAMPUS)

Faculty/Staff

Designation	Name of Staff
Assistant Librarian (In-Charge)	Shri. A. J. Singh (on study leave 2017–19)
Sr. Prof. Assistant	Dr. A. K. Mondal
LDC	Smt. Meritha M. Sangma
	Smt. Shaira A. Sangma
	Mr. Salgira S. Sangma
MTS	Shri R. P. Yadav
	Shri. Uday Nath Naik
	Smt. Sita Chetri

North-Eastern Hill University, Tura Campus, was established in 1996 to impart Higher Education with the motto - Rise Up and Build. The campus now has nine postgraduate and research departments: English, Garo, Education, Rural Development and Agricultural Production, Management, Computer Application, Horticulture, Agri-Business Management and Food Technology and History and Archaeology. During 2017–2018, the campus Library achieved outstanding progress in terms of its collection. The Library offers services like Reference, Circulation, Bibliography Services, Reprography, OPAC, online access to e-journals and databases, and internet browsing facilities to students, research scholars, faculty members and non-teaching staff of the campus. The Library is not only rendering services to its academic user communities, but also providing Library services to the neighbouring colleges of the West Garo Hills district.

Budget Allocation during 2017–18

Particulars	₹ in lakhs
1. Books & Periodicals 2017–2018 (Non-Plan)	12.00
a) Book Grant	3.10
b) Periodicals Subscription	7.90
c) Library Stationary and Others	1.00
Total	12.00
Total Library Collection: 28923 volumes	
Particulars	Volumes
2. Books on Purchase	28166
Gifted Books	757
Total Book collection up to 31.03.2018	28923

Central Services

Books and Journals added during 2017–18

Particulars	Volumes/Number
Purchased Books	391
Gifted Books	01
Indian Journals	71
International Journals	18
Books added during the year (2017–2018)	392
Total number of journals subscribed (2017–2018)	89

Library Membership

Particulars	Number
Students of Nine PG Departments	444
MPhil/PhD Scholars	46
Faculty Members	41
Guest Lecturers	22
Non-Teaching Staff	27
Total Membership	580

Library Circulation and Automation

Particulars	Volume
Books Issued	14027
Books Returned	12753
Books Consulted	36212
Books Classified (2017–2018)	2760
Books Added in the Database & Barcoded	2760

Revenue Collected during 2017–2018

Particulars	Rupees
Reprography Services	14277
Overdue Fine	3300
Total	17577

Other Activities

- The NEHU Central Library on Tura Campus organised a workshop on *Library Automation and Exploration of E-Resources* at Auditorium Hall in Academic Block II from 19 to 21 June 2017.
- The Library is using Libsys4 software for its computerised housekeeping operations. All books are in the computer processed database, which are available on OPAC and Web-OPAC.
- The Library has provided orientation to the new students on the use of OPAC and introduced the library resources (Print & Electronic) to them.
- The Library started introducing smart card for issue and return (Circulation) for the Students.



COMPUTER CENTRE

Head : Prof. Mangal C. Mahato
Telephone : 0364-2723751/272833
E-mail : hodcc@nehu.ac.in, mangal@nehu.ac.in

Faculty/Staff: 5

Designation	Name and Qualification	Specialization
Head	Prof. Mangal C. Mahato, PhD (IISc Bangalore)	Solid State Physics
Senior System Analyst	Mr. P. P. Dey, BTech (REC Warangal), MTech (NEHU)	Electronics and Communication Engineering, Information Technology
System Analyst (2)	Mr. H. Kharshiing, BTech (Jawaharlal Nehru Engg College)	Computer Science and Engineering
	Mr. M. Kharjana, BE (Sardar Patel College of Engg., Mumbai) – On study leave since 14 August 2017	Computer Science and Engineering
Computer Operator	Mr. P. Kharlukhi, BCA Posted to Examination Section since September 2016.	Computer Hardware and Networking

Thrust Areas of Research

- Providing High Performance Computing facility (24×7) to faculty members, research scholars and students of the University.
- Conducting training programs in computer related subjects.
- Supporting ICT/UMS related automation activities of the University.

Brief Statement of Academic/Other Activities

Research scholars and teachers/non-teachers from various departments/centres utilize the facilities of the Centre for computational work, documentation and internet browsing. Several short-term courses were conducted throughout the year, namely C Programming, Java Programming, Windows & MS-Office, Computer Hardware and Networking. The Centre has been assisting Finance, Examination and Administration Departments of NEHU. System analyst and Data entry operators of the Centre are involved in the Examination Department's works on a regular basis. The Centre also supports the Helpdesk for the University online admission.

Central Services

Student Intake (Short-Term Courses)

Enrolment capacity: 80

Degree	Male	Female	SC	ST	GEN	Meghalaya	Non-Meghalaya	Total
Windows & MS-Office	10	03	01	09	03	12	01	13
C-Programming	04	06	02	05	03	09	01	10
Java Programming	03	02	01		04	04	01	05

Short-Term Courses Taught

1. C programming by Mr. P.P. Dey
2. Java Programming by Mr. M. Kharjana
3. MS-Windows and MS-Office by Mr. H. Kharshiing
4. Hardware and Networking by Mr. P. Kharlukhi

Publications

Published Abroad

- Shukla, R., Shukla, H., Kalita, P., Sonkar, A., Pandey, T., Singh, D. B., Kumar, A., Tripathi, T. (2017). *Journal of Biomolecular Structure and Dynamics*, p.1–16, (2017). <https://doi.org/10.1080/07391102.2017.1344141>.
- Kharkongor, D., Reenbohn, W. L., Mahato, Mangal C. (2017). Inertial frictional ratchets and their load bearing efficiencies. *Journal of Statistical Mechanics: Theory and Experiment*, <http://stacks.iop.org/1742-5468/2018/i=3/a=033209T1>.
- Shukla, H., Shukla, R., Sonkar, A., Tripathi, T. (2017). Alterations in conformational topology and interaction dynamics caused by L418A mutation leads to activity loss of *Mycobacterium tuberculosis* isocitrate lyase. *Biochemical and Biophysical Research Communications*, 490(2): 276–282.
- Shukla, R., Shukla, H., Sonkar, A., Pandey, T., Tripathi, T. (2017). Structure-based screening and molecular dynamics simulations offer novel natural compounds as potential inhibitors of *Mycobacterium tuberculosis* isocitrate lyase. *Journal of Biomolecular Structure and Dynamics*, 36(8): 2045–2057.
- Kharkongor, D. Reenbohn, W. L., Mahato, Mangal C. (2018). *Journal of Statistical Mechanics: Theory and Experiment*, 033209, <https://doi.org/10.1088/1742-5468/aab01a>.

Infrastructure facilities

High Performance Cluster Computer

SULEKOR-Dell Cluster has been in use by the University community primarily by Research Scholars from the Department of Chemistry, Physics, Bio-Chemistry, Biotechnology and

Computer Centre

BSSS. The system is in use for 7×24. The SULEKOR has primarily users for Fortran, Gromacs, and Gaussian.

SULEKOR-HP High Performance Cluster Computer: SULEKOR-HP Cluster was reinstalled since June 2016. It has been used by the University community primarily by Research Scholars from the Departments of Physics, Zoology and BSSS. The system is in use for 24×7. The SULEKOR-HP has primarily users for FORTRAN and BLAST. The Centre also has 25 Desktop PCs that are connected on a LAN with NEHU internet facility.

Date	Topic	Number of participants
15-May-2017	LaTex	16
16-May-2017	Scilab	09

- ☞ Computer Centre generated an amount of ₹48,088 during the period through its various activities.
- ☞ Mr. P. P. Dey is deputed by the University as Associate Project Manager for the ongoing UMS implementation.
- ☞ Mr. H. Kharshiing, Mr. P. P. Dey and Mr. P. Kharlukhi are providing assistance to Examination Section, Administration Section and Finance Section of NEHU in Computer Automation work.
- ☞ Mr. H. Kharshiing, Mr. M. Kharjana and Mr. P. P. Dey are supporting the helpdesk for University Online Admission.



EQUAL OPPORTUNITY CELL

Brief Statement of Activities

The Cell deals with matters pertaining to implementation of the Government of India Orders, UGC Guidelines and other instructions issued from time to time on the subject of reservation, etc., in coordination with the Establishment I & II Sections and the Office of the Dean of Students' Welfare of the University.

The present position of the Schedules Castes (SC), Scheduled Tribes (ST), Other Backward Communities (OBC), and Persons with Disabilities (PWD) at the teaching and non-teaching levels, and admission to various courses/degrees as on 31 March 2018 is given as under:

Teaching Staff

Name of the Post	Total Posts		Categories of Posts Filled						
	Sanctioned	Filled	General	OBC	SC	ST	PWD	Total	Vacant
Assistant Professor	205	186	130	19	21	15	01	186	19
Associate Professor	147	089	083		01	05		89	58
Professor	093	048	046		01	01		48	45
Professor/ Associate Professor	002*								02

*Posts that can be filled either as Professor or Associate Professor

Non-Teaching Staff

Name of the Post	Total Posts		Categories of Posts Filled						
	Sanctioned	Filled	General	OBC	SC	ST	PWD	Total	Vacant
Group A	067	052	052					052	015
Group B	185	114	057	30	17	09	01	114	071
Group C	451	224	111	11	02	99	01	224	227

Admission to Various Courses/Degrees during 2017-18

Course/ Degree	Total Seats		Categories of Seats Filled					
	Sanctioned	Filled	General	OBC	SC	ST	PWD	Total
UG	0340	1122	392	40	84	0605	01	1122
PG	1359	2633	342	50	35	2197	09	2633
MPhil		103	031	09	09	0054	00	0103
PhD		969	294	48	58	0569	00	0969
Others		300	029	11	06	0253	01	0300



HEALTH CENTRE

Staff

SHILLONG CAMPUS

Chief Medical	: Dr. M. Marwein
Officer Chief Medical Officer	: Dr. C. Mukhim
Officer	: Dr. M. B. G. Momin
Senior Medical Officer	: One regular and two on contractual basis
Staff Nurses	: One on contractual basis
Physiotherapist	: Two
Pharmacist	: One
Laboratory Technician	: One
Laboratory Technician	: Two office staff, two MTS (one daily wage), one Dresser (on contractual basis)
Other staff	: One Receptionist, five Cleaners, and two Safaiwalas.
Telephone	: 0364–2721705/2224639
TURA CAMPUS	: Mr. (Mrs.) Tangsil Dilme Ch. Momin
Senior Medical Officer	
Laboratory Technician	: One
Other staff	: One Driver, one Peon (Ad-hoc), and one Cleaner

The Health Centre on both Shillong and Tura campuses is catering to the health needs of the teaching, non-teaching and student communities.

Facilities Available in the Health Centre (Shillong Campus)

Consultation: The Medical Officers are available for consultation from 9.00 a.m. to 5.30 p.m. on weekdays and from 9.00 a.m. to 12.30 p.m. on Saturdays and holidays. In the case of emergency, the Resident Medical Officers and Staff Nurses are available beyond duty hours.

Pharmacy: Medicines and other dispensing items are purchased from the wholesale suppliers and stocked in the medical store. These medicines are issued to the patients based on the prescription by the Doctors.

Dressing Room: Dressings, injections and minor surgical procedures are carried out in the dressing room.

Laboratory: Bio-Chemical and Clinical Pathology tests for blood and urine analyses are

Central Services

performed in the Laboratory of the Health Centre.

Observation Room: In the observation room, moderately sick patients have been taken care off for giving IV drips, etc.

In-patient Treatment: Patients requiring in-patient treatment are referred to the hospitals/ Specialist within Shillong and thereafter outside Shillong depending upon the necessity.

Ambulance: Ambulance service is provided during emergency for transporting the severely sick patients from residents to Clinic/Hospitals.

Emergency duty: The Resident Medical Officers and Resident Nurses are doing emergency duty outside duty hours whenever needed.

Credit Billing Facility: Credit billing facility is available for patients admitted to Nazareth and KJP Hospitals in Shillong and CMC Hospital in Vellore.

Sports Aid: First Aid service is provided at sport tournaments organized by the University.

Physiotherapy: Physiotherapy facility is available for the University community.

Medical Camp: Free medical camps like Bone Mineral Density Test, Eye Check-up, Diabetes and Blood Donation camps are being held at the Health Centre from time to time.

Facilities Available in the Health Centre (Tura Campus)

Consultation: Senior Medical Officer (SMO) is available for consultation during the office hours and for emergency consultations and advice on off-duty hours. The SMO looks after the clinical works as well as the administrative matters of the Health Centre.

Pharmacy: A Pharmacist, who joined on 4 September 2017, is dispensing medicines to the patients.

Laboratory: Basic laboratory tests are being carried out in the Health Centre.

Ambulance: An ambulance service is provided to transport patients from hostels/residences to clinics/hospitals during emergencies.

Emergency and in-patient treatment: For emergency treatments and for patients requiring in-patient treatments, they are referred to the hospitals/specialists within Tura and thereafter outside Tura depending upon the necessity.

Credit billing facility: This is available at International Hospital and GNRC, Guwahati, and CMC Hospital, Vellore.

Sports: First Aide Service is provided by the Centre during the sports tournament organized by the campus.



HINDI CELL

Hindi Officer : Sri Rajendra Kr. Ram
Telephone : 0364-2721331(O)/9435174858(M)
E-mail : hindiofficer@nehu.ac.in, krajen112@gmail.com

The Hindi Cell was established in pursuance of the Official Language Policy of the Government of India to promote the progressive use of Rajbhasha Hindi. An Official Language Implementation Committee is also constituted in the University for implementing, reviewing and monitoring the Rajbhasha Policy.

Activities

- During the year, a Hindi Training Programme for the employees of the University was conducted under the aegis of the Government of India, Hindi Teaching Scheme, Shillong Centre. After completion of different courses, i.e. *Prabodh*, *Praveen* and *Pragya*, cash awards were given to the successful employees. And the successful employees of the *Pragya* course were given a one-year special increment as per the Government of India's order and guidelines.
- The Departmental Official Language Implementation Committee held all the mandatory meetings in every quarter. The quarterly report regarding the progressive use of Hindi was forwarded to the Ministry of Human Resource Development and the Ministry of Home Affairs, Government of India. Besides, Hindi Workshops were conducted for the employees of the University at Shillong Campus. The Cell also convenes the meeting of the Quarterly Official Language Implementation Committee regularly, which is mandatory according to the Ministry of Home Affairs, Government of India.
- During the period, the Hindi Cell also conducted the Hindi Divas at Shillong and Tura campuses in the month of September 2017, in which several Hindi competitions, viz., Hindi extempore speech, Hindi Essay Writing, Poem recitation, Noting and Drafting, and Hindi Antakshari competitions were conducted. The winners of the competitions were awarded cash prizes with certificates on the valedictory function. In addition, the Hindi Cell also observed the Matribhash Divas in the University on 21 February 2018.
- The Hindi Officer attended as a guest faculty at a one-day Hindi workshop in the Office of the Principal Accountant General (Audit), Meghalaya, Shillong.
- The Cell Hindi Cell has also published the Annual-in-House Magazine 'NEHU JYOTI' in Hindi.



INTERNAL QUALITY ASSURANCE CELL

Director : Prof. N. Srivastav (Till 2 July 2017)
Prof. P. Nayak (Since 3 July 2017)
Telephone : 0364-2721070/9436111308(M)
E-mail : directoriqac@nehu.ac.in

The IQAC is meant for planning, guiding and monitoring Quality Assurance (QA) and Quality Enhancement (QE) activities of the University. Accordingly, the IQAC of NEHU aims at systematizing efforts and measures towards academic and overall excellence of the University. To achieve this end the IQAC has performed the following functions in the academic year 2017–2018:

- IQAC collected required information from various departments/centers/sections of the University for preparing the Annual Quality Assurance Report (AQR) for the academic year 2016–2017.
- IQAC also prepared AQR 2015–2016 and uploaded the same on the NEHU website.
- One day Principals' Conference was organised by IQAC in collaboration with HRDC, NEHU on the topic "Initiatives on Enhancing Quality in Higher Education." The Principals of all the affiliated colleges of NEHU participated in the programme.
- The IQAC made all preparations along with a Management Committee for the Peer Team Visit of NAAC, which visited NEHU during the period from 31 May to 2 June 2017 for assessment of the University.
- IQAC conducted two meetings in the academic year 2017–2018, which were held on 29 June 2017 and 4 July 2017, respectively.
- A number of applications received from faculty members for their promotions under the Career Advancement Scheme (CAS) were screened by IQAC with the help of various Screening Committees constituted for the purpose with the approval of the Vice-Chancellor.
- IQAC in collaboration with NAAC, Bangalore, organised one Assessors' Orientation Programme at NEHU on 19 & 20 March 2018 as per the Revised Accreditation Framework. There were in total 60 participants of which 6 Vice-Chancellors, 32 Professors, and 22 Principals representing different universities/colleges/institutions of North-East India.



NATIONAL SERVICE SCHEME CELL

Programme Coordinator : Dr. Lakhan Kma
Telephone : 0364-2721151/2721152/2721153
E-mail : nss.nehu@gmail.com

The National Service Scheme (NSS) of Government of India envisages utilizing the free time of higher secondary school/colleges/university students for socially productive works. An important feature of the NSS is that its programmes are organized by the student volunteers themselves under the guidance of their teachers as Programme Officers. The works undertaken by the NSS units are divided into regular activities and special campings. The volunteer strength has increased to 21993, comprising volunteers from two PG units, 38 colleges and one medical institute with 82 NSS Programme Officers.

Review Meeting

- A Review Meeting was held for NSS Programme Officers of various institutions from East Khasi Hills, West Khasi Hills, Jaintia Hills, Ri Bhoi and Garo Hills districts on 21 April 2017 at the Conference Room, Administrative Building, NEHU, where 37 NSS Programme Officers attended the meeting.
- The 37th NSS University Advisory Committee meeting was held on 13 March 2018 at NEHU, Shillong.

Blood Donation

- This year 18 camps were held with 526 NSS volunteers making donations to the various blood banks in the state through Blood Donation Camps and Emergency Donations. These camps were conducted in collaboration with the Meghalaya AIDS Control Society, State Blood Transfusion Council, and the blood banks of Pasteur Institute, Nazareth Hospital, NEIGRIHMS and Tura Civil Hospital.

Republic Day Parade Camp

- The selection camp for Pre-Republic Day parade camp was held on 24 October 2017 at NEHU, Shillong. Eighty students participated, and fourteen students were selected to attend the camp at Bhubaneswar. Shri H. K. Sharma, Regional Director (NSS, Guwahati) also attended the camp.
- Fourteen volunteers along with contingent leader attended the Pre-Republic Day parade camp at Bhubaneswar (Orrisa) from 6 to 17 November 2017.
- Mr. Immanuel Lhunminlun of Union Christian College and Ms. Dakahi Kyndait of Kiang Nangbah Government College (Jowai) attended the Republic Day parade camp in New Delhi from 1 to 31 January 2018.

Central Services

North-East NSS Festivals

- Twenty NSS volunteers along with two Programme Officers attended the North-East NSS Youth Festival at Don Bosco College (Jullong, Itanagar) from 6 to 10 March 2017.
- Eight volunteers along with Programme Officers from Union Christian College attended the North-East NSS Youth Festival at Kohima from 25 to 29 May 2017.
- Twenty-eight volunteers and two Programme Officers from NSS unit of Nongstoin College attended the North-East NSS Festival held at Imphal from 4 to 8 June 2017.
- Twenty NSS volunteers along with one Programme Officer of Synod College, Shillong, attended the North-East NSS Festival at Agartala from 11 to 15 September 2017.

Adventure/Trekking Programme

- The NSS unit (NEHU, Shillong) organized a trekking to 'David Scott' Trail on 18 November 2017, where 250 volunteers participated.
- The NSS unit of Tura Government College organized a trekking-cum-adventure to Rangmanma and Chhinma village on 30 November 2017, where 40 NSS volunteers participated.
- The NSS Unit of Sngap Syiem College organised a trekking-cum-adventure programme to Mawten village on 18 December 2017, where 201 volunteers along with programme Officers participated.

Special Camps under the Theme of Healthy Youth for Healthy India: Special Camps Were Held at Various Places as Highlighted Below:

- Shillong College (Shillong) at Nongkyndah and Nongeitniang villages from 3 to 8 July 2017.
- Kiang Nangbah Government College, Jowai, at Khonglah village from 23 to 28 October 2017.
- Jaintia Eastern College, Khliehriat, at Suchen Rim village from 23 to 29 October 2017.
- Lady Keane College (Shillong) at Subakalai-Laitsohplich village from 25 to 31 October 2017.
- Sngap Syiem College (Mawkyrwat) at Nongdom-Nongbrei village from 23 to 29 October 2017.
- Union Christian College, Umiam, at Mawlyndep village from 25 to 31 October 2017.
- Mawlai Presbyterian College at Laitmawroh village from 23 to 29 October 2017.
- Shillong College at Ur Masi U Joh village from 20 to 26 October 2017.
- Durama College (Tura) at Buripara village from 20 to 26 November 2017.
- St. Edmund's College (Shillong) at Diengsong village from 6 to 12 November 2017.
- St. Edmund's College (Shillong) at Dewlieh village from 6 to 12 November 2017.
- Thomas Jones Synod College (Jowai) at Amutong village from 27 November to 2 December 2017.

National Service Scheme

- Women's College (Shillong) at Mawkyrdep village from 27 November to 2 December 2017.
- Capt Williamson Memorial Government College at Masighat village from 1 to 7 December 2017.
- Mawsynram Border Area College at Phlangmawsyrpat village from 3 to 8 December 2017.
- Mendipathar College (Mendipathar) at Kera Galram village from 4 to 10 December 2017.
- Nongtalang College (Nongtalang) at Lamin village from 11 to 16 December 2017.
- Nongstoin College at Nongrangoi village from 11 to 16 December 2017.
- Tura Government College at Chasingre village from 11 to 17 December 2017.
- Acheng Rangmanpa College (Mahendraganj) at Fakirpara village from 12 to 18 December 2017.
- St. Anthony's College (Shillong) at Lumsohpieng village from 15 to 21 December 2017.
- NSS NEHU Unit at Nongsangu village from 16 to 22 December 2017.
- Lady Keane College (Shillong) at Subakalai-Laitsohpiah village from 16 to 22 December 2017.
- St. Anthony's College (Byndihati) at Lumshken village from 17 to 22 December 2017.
- Nabon Women's Synod College (Shillong) at Umjathang village from 3 to 8 January 2018.
- Loyola College, Williamnagar, at Chiringgro village from 12 to 18 January 2018.

Major activities undertaken during these camps included socio-economic survey of the village, literacy programmes, demonstration on rural technologies and low cost sanitation, disaster management, formation of SHG's, waste disposal and composting, cleaning drives, white washing of local schools, digging of water ponds/fish ponds, asset creation, quiz/debate, sports competitions, trekking, awareness on HIV/AIDS, drug abuse, etc. Besides these activities, free medical and eye check-up camps were carried out during these camps. We are grateful to the DMHOs of the different districts and to Bansara Eye Care Centre, Shillong, for their support

Workshops/Trainings/Orientations/Seminars

- The Programme Coordinator and the Programme Organiser along with 4 volunteers of NSS Unit (NEHU, Shillong) attended a workshop on *State Youth Policy* organised by the Department of Youth Affairs and Sports (Government of Meghalaya) at the State Convention Centre (Shillong) on 3 & 4 April 2017.
- The NSS unit of Thomas Jones Synod College (Jowai) in collaboration with the SBI Jowai Branch organized a one-day workshop on *Digital Banking* on 8 May 2017 at the college campus. Around 100 NSS volunteers participated in the programme.
- Seven volunteers along with the Programme Officers of Kiang Nangbah Government College (Jowai) and Jaintia Eastern College (Khliehriat) attended a national workshop on *Promotion*

Central Services

of *Bamboo for Wood and Health Food* from 25 to 27 May 2017. The workshop was organized by the Centre for Science Education (NEHU) at *Wahiajer*, Jowai.

- The NSS unit of Shillong College organized a sensitized programme on *Climate Change* on 2 June 2017 at the college campus. Resource person were from NEICORD (Shillong) and the Department of EVS, Shillong College. Around 100 volunteers attended.
- NSS programme Officer (BBS College, Shillong) Dr. B. Thapa attended a two-day workshop on *NSS Orientation, Health & Youth Development* on 7 & 8 July 2017 at Guwahati University.
- The NSS unit of Union Christian College, Umiam, conducted a three-day workshop on *Open Source, Android Application Development* from 8 to 10 August 2017 at the college campus. About 158 volunteers and students attended the programme.
- The NSS unit of UCC conducted a workshop on *Digital India: Start up India and Stand up India* from 1 to 3 August 2017 at the college campus. Around 270 students and volunteers participated.
- The unit of Lady Keane College conducted a follow-up training programme on *Cashless Transaction: Digitalization and Financial Literacy Campaign* on 5 August 2017, where 68 volunteers attended.
- The NSS unit of Thomas Jones Synod College and Kiang Nangbah Government College jointly organized a five-day training programme on *Life Skills, Youth Leadership and Personality Development* from 22 to 26 August 2017 at the college campus. About 50 volunteers from 5 colleges of West Jaintia Hills and East Jaintia Hills District participated.
- The Programme Coordinator and the Programme Organiser attended the State Advisory Committee meeting on 8 September 2017 at the Conference Hall of the Main Secretariat, Shillong.
- Ten NSS volunteers from Nabon Women Synod College (Shillong) and St. Dominic's College (Shillong) attended a training programme on *Role of Volunteers in Disaster Management* at the Conference Hall of the DC Office (Shillong) on 15 September 2017, organized by the office of the District Disaster Management Authority, East Khasi Hills.
- A skill development training programme on *Construction Works* was organized for the NSS volunteers on 16 September 2017 at Laitsohpliah-Subakalai village.
- The Shillong Law College opened a new NSS unit on 3 November 2017. The 1st Orientation Programme was conducted on the college campus.
- The unit of Nabon Women's Synod College also organized a seminar on *Cyber Crime* at the college campus on 7 November 2017. The Programme Coordinator attended the programme as Chief Guest. Resource person was Smti. C. Lyngdoh, DSP (City), East Khasi Hills. The programme was attended by about 120 participants.
- The NSS unit of Sngap Syiem College organized a five-day training programme on *Life Skills, Youth Leadership and Personality Development* from 6 to 10 November 2017 at the college

National Service Scheme

campus. About 50 volunteers from 5 colleges of West Khasi Hills and South West Khasi Hills participated.

- The NSS unit of Shillong Law College organized a legal awareness programme on 11 November 2017 at Mawber village (Smit). About 38 NSS volunteers along with the Programme Officer attended the programme.
- The NSS unit of BBS College organized a talk on *Substance Abuse and Cyber Crime* on 18 November 2017 at the college campus. Shri. M. Kharkrang, SP (Spl Branch) of Meghalaya Police and Shri. K. Lamsal (Programme Coordinator, Kripa Foundation) were the resource persons.
- Two NSS volunteers of St. Anthony's College attended a capacity building training of NSS/RRC volunteers organized by the Meghalaya AIDS Control Society on 21 November 2017. Ten volunteers along with one Programme Officer of Sngap Syiem College attended a regional conference on *Skill Development* at IIE (Guwahati) on 24 November 2017.
- The NSS unit of Sngap Syiem College organised a two-day workshop on *Youth and Career* in the college auditorium on 19 & 20 December 2017. About 180 volunteers attended.
- The NSS Ri-Bhoi College unit organized an orientation programme for the newly recruited NSS Volunteers for the year 2017–2020. About 150 Volunteers attended the programme.
- On 29 March 2018, the NSS unit of Lady Keane College (Shillong) organized an orientation programme for all its NSS volunteers to orient them to *what NSS is? And what NSS is all about?* The unit also organized an HIV/AIDS awareness programme on that day.

NSS Day

The NSS Cell NEHU in observance of the 48th NSS Foundation Day organized a day long programme on 23 September 2017 at Convocation Hall, NEHU, Shillong. More than 1100 NSS volunteers along with Programme Officers from different institutions attended the programme. Prof. H. Kayang, Dean Student's Welfare, NEHU, was the Chief Guest on the occasion. The University Level NSS Awards were also presented on the occasion. The best NSS Unit was awarded to Shillong College and the best Programme Officer Award was given to **Mr. Wandy E. H. Lamin** of Thomas Jones Synod College, Jowai. The Special award was awarded to Lady Keane College (Shillong) and the best NSS Volunteer Awards were given to (i) **Mr. Badonbok Paliar**, NSS Unit, NEHU, Shillong, (ii) **Mr. Luckystar Kharrymba**, Shillong College, Shillong, (iii) **Mr. Pyrkhatbha Mynso**, Thomas Jones Synod College, Jowai, (iv) **Mr. Samborlin Syiemlieh**, Sngap Syiem College, Mawkyrwat, (v) **Ms. Rikinti Bashisha Thabah**, Shillong College, Shillong, (vi) **Ms. Amrita Joshi Ghimre**, Lady Keane College, Shillong, and (vii) **Ms. Osin Mosu**, Union Christian College, Umsaw Khwan. The awards were given on the basis of their committed and effective participation in community service. The day ended with a variety of programmes, which comprised songs, dances, skits and multi-varied cultural items.

Central Services

Environmental Programmes

- ☞ The NEHU NSS unit conducted a tree plantation programme at the University campus to observe World Earth Day on 22 April 2017. About 20 volunteers participated in the programme, and 60 saplings were planted.
- ☞ Several NSS units observed World Environment Day on 5 June 2017 by organizing varied programmes on the theme “Connecting People to Nature” such as tree plantation, cleaning drive, skit, song, lectures based on environmental issues, drawing competitions for school children of the adopted villages. About 1500 saplings were planted.
- ☞ The NSS unit of Lady Keane College in collaboration with Mott MacDonald (Shillong) organized an interactive awareness programme on *Wastes Segregation and Disposal* to celebrate World Environment Day 2017 and also to initiate the project on “Solid and Liquid Wastes Management” at the college campus. A poster competition on *Wastes Segregation and Disposal* was held for NSS volunteers.
- ☞ The NSS unit of Women’s College (Shillong) organized a plantation drive on 22 July 2017 at adopted village Mawkyrdep, Ri-Bhoi District, wherein 200 fruit trees saplings of Khasi mandarin, guava, jamun, etc. were planted. About 20 volunteers participated in the programme along with the village bodies and local organization.
- ☞ The NSS unit of St. Dominic’s College organized a tree plantation drive at Umran Niangbyrnai (Adopted village) on 26 August 2017. About 30 volunteers participated in the programme and 200 saplings were planted.
- ☞ As part of the campus beautification drive the NSS unit, NEHU, Shillong undertook painting of tree pots on 11 November 2017 wherein 22 volunteers participated.

District Level NSS Meet

The Deputy programme Coordinator of the NSS, Garo Hills Districts, organized a one-day District Level NSS Meet on 10 June 2016 at Dakopgre, Tura. Around 150 NSS volunteers along with the Programme Coordinator participated.

Other Activities

- Programme Coordinator attended a one-day programme on *Gender Justice* as a panellist organised by the NSS unit of St. Mary’s College, Shillong, on 11 April 2017.
- The NSS Cell, NEHU, organised a review meeting of the NSS Programme Officers at NEHU on 21 April 2017 in which 34 NSS Programme Officers attended.
- The NSS unit of NEHU organized two voluntary blood donation camps on 5 May 2017 at NEHU campus, (Multi Use Convention Centre and Law Department). The camps were held in collaboration with the Regional Blood Bank, Pasteur Institute and Nazareth Hospital. Out of 130 registered donors, and 80 volunteers donated blood.
- The unit of Thomas Jones Synod College, Jowai, organized an awareness programme on *Digital Banking* at the college campus on 8 May 2017. About 100 students participated and interacted

National Service Scheme

with resource persons from State Bank of India, Jowai Branch.

- The NSS unit of Loyola College, Williamnagar, organized literacy classes at the L.P. School of their adopted village on 13 May 2017.
- Biodiversity walk to Pungweikyian (Nongiri Elaka) on 23 May 2017 to commemorate the International Day for Biodiversity. About 30 NSS volunteers participated.
- The NEHU NSS unit organized a food fest at the University campus on 26 May 2017. Funds raised through this activity were donated to old age homes and orphanages.
- Mr. Sumeet Agarwala (NSS volunteer NSS unit, NEHU, Shillong) visited China from 9 to 16 June 2017 as member of the Indian Youth Delegation.
- The NSS unit, NEHU Shillong attended a day long programme on the occasion of World Blood Donors Day on 14 June 2017. The programme was organized by the Meghalaya Blood Transfusion Council and Meghalaya AIDS Control Society.
- Several units observed the 3rd International Day of Yoga on 21 June 2017. About 800 participated in the programmes held at their respective campuses.
- The NSS unit of Union Christian College observed the International Day against *Drug Abuse* on 26 June 2017 by organizing pledge taking and poster competition. About 300 volunteers participated.
- The NSS unit of Ri-Bhoi College observed the International Day against *Drug Abuse* and Illicit Trafficking on 26 June 2017 at Ri-Bhoi College. More than 100 NSS volunteers were participated in the programme.
- On 4 July 2017, the NSS unit of Lady Keane College in collaboration with the Red Ribbon Club, Rangers unit, Youth Red Cross, Medical Care Unit of the college and NEIGRIHMS organized a voluntary blood donation camp on the college campus. About 70 students and staffs of the College volunteered to donate blood and 38 were found to be fit for donation.
- The NSS unit of Thomas Jones Synod College, Jowai, organized an awareness programme on *Drug Abuse* on 6 July 2017 at the college premises. Talks on drug abuse were delivered by resource persons from the Anti-Narcotics Cell and Health Organisations. A slogan writing competition was also conducted. Around 250 students attended the programme.
- A goodwill visit to the newly adopted village, Laitsohplich-Subakalai, was undertaken on 8 July 2017 by the NSS unit of Lady Keane College, Shillong. Around 100 NSS volunteers participated in this visit.
- The NSS unit of Thomas Jones Synod College, Jowai, participated in a motivation-cum-blood donation camp organized by the State Blood Transfusion Council (Shillong) and Meghalaya AIDS Control Society at Civil Hospital, Jowai, on 10 July 2017. Two NSS volunteers donated blood at the camp. The unit also organized a special drive to enroll the left out voters on 21 July 2017 at the college campus. Around 150 students and those who attained the age of 18 years and above enrolled themselves to the national electoral process through the Election

Central Services

Commission of India.

- The NSS unit of St. Dominics College organized an awareness-cum-blood donation camp in collaboration with the Regional Blood Bank, Pasteur Institute (Shillong), on 24 July 2017 at the college premises. About 120 volunteers attended the programme and 19 units of blood were donated.
- The NSS unit of Thomas Jones Synod College, Jowai, in observation of World Blood Donor Day, organized a rally on 31 July 2017. Around 100 NSS volunteers participated.
- The NSS unit of Thomas Jones Synod College, Jowai, in collaboration with the Civil Defence Authority, West Jaintia Hills, organized a two-day short-term Civil Defence awareness programme and basic search and rescue course for NSS volunteers on 3 & 4 August 2017 at the college hall. Around 100 NSS volunteers participated in the training programme.
- On 5 August 2017 a follow-up training programme on *Cashless Transaction* was conducted for the volunteers of the unit with the aim to motivate them to start the work of adopting households to train regarding cashless transaction. In this training 68 NSS volunteers attended.
- In observance of the 75 years of the Quit India Movement, the NSS unit of UCC and NEHU organized a pledge taking at their respective campuses on 9 August 2017. More than 500 volunteers participated.
- The NSS unit of UCC also conducted the HIV/AIDS awareness-cum-blood donation camp on 11 August 2017 in the college indoor stadium. About 101 volunteers registered, and 69 of them donated blood. The camp was organized in collaboration with the Pasteur Institute Regional Blood Bank and NEIGRIHMS.
- Dr. L. Kma, Programme Coordinator, attended the International Youth Day celebrations at St. Edmund's College campus on 12 August 2017 as guest speaker. The programme was organized by Meghalaya AIDS Control Society on *Youth Building Peace*.
- The NSS unit of Lady Keane College also organized a "March for Road Safety" from college campus through the city and back on 14 August 2017. More than 150 volunteers carrying placards slogans and stickers participated.
- The NSS unit of Shillong College conducted a one-day free eye camp at Siatbakon (adopted village) on 15 August 2017 in collaboration with the Bansara Eye Care Centre, Shillong, and the local church. About 150 residents attended the camp and 113 patients were administered treatment.
- The NSS unit of Shillong Commerce College organized a motivational-cum-blood donation camp at the college campus on 19 August 2017 in collaboration with the Pasteur Institute Regional Blood Bank, where 21 volunteers donated blood.
- Various units participated in the essay competition "What can I do for a Clean India" on 5 September 2017. The three best entries were forwarded to the authorities concerned.
- The unit of Jaintia Eastern College, Khliehriat, organized a blood donation camp on 6

National Service Scheme

September 2017 at the college campus in collaboration with the Blood Bank, Civil Hospital, Jowai. About 21 volunteers donated blood out of the 100 registered.

- The NSS unit of UCC also organized a talent show programme for more than 300 NSS volunteers of the college and school children from adopted village. About 50 school students from class nursery to class XII participated in the competition.
- The NSS unit of Jaintia Eastern College, Khliehriat, observed the birth anniversary of Sardar Vallabhai Patel (Rashtriya Ekta Diwas) on 17 September 2017 at the college campus. About 150 NSS volunteers participated.
- The unit of Shillong College, Shillong, organized a blood donation camp on 20 September 2017 at the college campus in collaboration with the State Blood Transfusion Council, Regional Blood Bank, Pasteur Institute. About 15 volunteers donated blood.
- The unit of Shillong College organized a programme to mark 'Service to Humanity Day' on 20 September 2017 in collaboration with the Indian Red Cross. About 60 volunteers took out a rally carrying placards.
- The NSS unit of Jaintia Eastern College, Khliehriat, participated in World Tourism Day organized by the Office of the Deputy Commissioner, East Jaintia Hills, Khliehriat, on 27 September 2017 at Mutong village. Around 150 volunteers, Teachers and Programme Officer participated.
- The selection camp for Pre-Republic Day parade camp was held on 24 October 2017 at NEHU, Shillong. About 80 students participated in the camp and 14 students were selected to attend the camp at Bhubaneswar. Shri H. K. Sharma, Regional Director, NSS, Guwahati, also attended the camp.
- Various NSS units observed the birth anniversary of Sardar Vallabhbhai Patel as Rashtriya Ekta Diwas (National Unity Day) on 31 October 2017 by organizing a Marathon "Run for Unity" and pledge taking.
- The newly inducted unit of Shillong Law College conducted an orientation programme for new NSS volunteers on 3 November 2017 at the college campus. Programme Coordinator delivered an orientation on NSS.
- Twenty volunteers of St. Anthony's College were deputed by the college as volunteers for the "Cherry Blossom Festival" organized by the Government of Meghalaya on 8 November 2017 at Polo Grounds, Shillong.
- The NSS unit, NEHU, Shillong campus, organized a blood donation camp on 9 November 2017 at NEHU Permanent Campus. About 80 volunteers donated blood out of the 130 registered. The camp was organized in collaboration with Nazareth Hospital and NEIGRIHMS, Shillong.
- The NSS unit of Shillong Law College conducted a legal awareness programme at Mawber village (Smit) on 11 November 2017. About 38 volunteers participated. The programme was attended by the community residents.

Central Services

- Fourteen volunteers along with contingent leader attended the Pre-Republic Day parade camp at Bhubaneswar, Orissa, from 6 to 17 November 2017.
- The NSS unit of Thomas Jones Synod College, Jowai, in collaboration with the Society for Promotion of Eye Care and Sight, Mission for Vision and World Diabetes Foundation (WDF) celebrate World Diabetes Day by organizing a Global Diabetes Walk 2017 on 14 November 2017. Around 50 NSS volunteers participated.
- The NSS Ri-Bhoi College Unit organized the International Day to stop violence against women from 25 November to 10 December 2017 at Ri-Bhoi College. More than 100 volunteers participated in the week long awareness programme.
- The NSS unit of Jaintia Eastern College, Khliehriat, observed the Quami Ekta Diwas (National Integration Day) 2017 at the college campus on 25 November 2017. Around 100 NSS volunteers, teachers and Programme Officer participated.
- The NSS unit of Sngap Syiem College conducted an awareness programme on *Career Guidance* at the college campus on 27 November 2017, where 50 volunteers attended.
- The NSS unit of St. Anthony's College organized an awareness programme on *Importance of Blood Donation* followed by a poster competition on the theme *Voluntary Blood Donation* on 27 November. The blood donation camp was organised at the college campus on 29 November 2017 in collaboration with Nazareth Hospital and NEIGRIHMS. About 118 units of blood were collected out of the 183 donors.
- Various NSS units observed World AIDS Day on 1 December 2017.
- The NSS unit of Seng Khasi College conducted an awareness programme on *Cancer* at the college campus. Resource persons were from NEIGRIHMS and Civil Hospital, Shillong.
- The NSS unit of Thomas Jones Synod College (Jowai) organized a street play at lawmusiang Market on *Ethical Voting and Voter Participation* on 16 February 2018. Around 40 NSS volunteers participated in the programme.
- Fourteen NSS volunteers of Lady Keane College (Shillong) rendered their service in two women model polling stations at Lady Keane College and All Saint's Diocese Higher Secondary School in connection with the Meghalaya Legislative Assembly Elections held on 27 February 2018.
- Around 22 NSS volunteers from Jaintia Eastern College, Khliehriat, took part in the Pulse Polio immunization programme organized by the Health Department, Government of Meghalaya on 26 & 27 February 2018.
- The NSS unit of Shillong Law College organized a programme on 8 March 2018 at Pynursla Pyllun, East Khasi Hills District, on account of the celebration of International Women's Day in collaboration with the Seng Longkmie, Pynursla Pyllun.

National Service Scheme

Special Programme during Special Camping

- ☞ NSS units have also constructed community utilities through the labour of volunteers at the respective adopted villages during the course of the special camping programme:
- ☞ The NSS unit of Jaintia Eastern College constructed a bus shed near the college campus.
- ☞ The NSS unit of St. Anthony's College constructed a footpath at Lumsohpieng village.
- ☞ The NSS unit of Loyola College, Williamnagar special planting drive (Black Pepper) for income generation at Chiringgro village.
- ☞ The unit of Shillong College constructed a village footpath at Nongkyndah and Nongeitniang villages.
- ☞ The NSS unit of Kiang Nangbah Govt College constructed a water drain at Khonglah village.
- ☞ The NSS unit of Lady Keane College constructed an "Awareness Billboards" at Subakalai-Laitsohpliah village.
- ☞ The NSS unit of Sngap Syiem College constructed/renovated of traditional drinking water at Nongdom-Nongbrei village.
- ☞ The unit of Shillong College constructed a footpath at Ur Masi-U-Joh village.
- ☞ The NSS unit of St. Edmund's College constructed a drain channel at Diengsong village.
- ☞ The NSS unit of St. Edmund's College constructed a footpath at Dewlieh village.
- ☞ The NSS unit of Women's College constructed a footpath at Mawkyrdep village.
- ☞ The NSS unit NEHU constructed a footpath at Nongsangu village.
- ☞ The NSS unit of Nongstoin College constructed a footpath at Nongrangoi village.
- ☞ Construction of footpath and dustbin at NEHU Permanent Campus, Shillong.
- ☞ The NSS unit NEHU constructed RCC bus shed at NEHU Permanent Campus near SSPTS Taxi Cab stand.

Model Village

Several programmes have been conducted for the residents of the model village of Lawsohtun.

A List of Activities is Given Below:

- **Installation of Solar Lights:** Fifty-two numbers of solar street lights have been installed as the third phase.
- **Health Camp:** More than 125 local residents and school children attended the awareness programme on *Health Issues* on 24 March 2018 at Lawsohtun Community Hall, Lawsohtun, Shillong.

Adopted Villages

The NSS Cell has adopted 54 villages: (1) Marbisu, Ummylle village, East Khasi Hills (EKH), (2)

Central Services

Mawngap, Mawkharshiing village, EKH: 10 numbers of solar street lights have been installed, (3) Nongwar village, EKH, (4) Wahlong village, EKH, (5) 4th Mile village, Upper Shillong, EKH (6) 5th Mile village, Upper Shillong, EKH, (7) 6th Mile village, Upper Shillong, EKH, (8) Baniun village, Upper Shillong, EKH, (9) Umlyngka village, Upper Shillong, EKH, (10) Pomlum village, Upper Shillong, EKH, (11) Lummawbah village, Upper Shillong, EKH, (12) Nongpiur village, Upper Shillong, EKH, (13) Myrkhan village, Upper Shillong, EKH, (14) Laitmysaw village, Upper Shillong, EKH, (15) Mawklot village, Upper Shillong, EKH, (16) Mawnianglah village, Upper Shillong, EKH, (17) Mawkhan village, Upper Shillong, EKH, (18) Mawrashe village, Upper Shillong, EKH, (19) Marbaniang village, Upper Shillong, EKH, (20) Lyngkien village, Upper Shillong, EKH, (21) Mawri village, Upper Shillong, EKH, (22) Mawsawa village, Upper Shillong, EKH, (23) Mawblah village, Upper Shillong, EKH, (24) Lumdewsaw village, Upper Shillong, EKH, (25) Madan Iing Syiem village, Upper Shillong, EKH, (26) Rngi village, Upper Shillong, EKH, (27) Kyndong village, Upper Shillong, EKH, (28) Syllai-U-Lor village, Upper Shillong, EKH, (29) Nongbet village, Upper Shillong, EKH, (30) Pombot village, Upper Shillong, EKH, (31) Mawlmeng (Rangsyiun) village, Upper Shillong, EKH, (32) Demthring village, Upper Shillong, EKH, (33) Jaroit Pomkaniew village, Upper Shillong, EKH, (34) Mawwan village, Upper Shillong, EKH, (35) Mawkhar village, Upper Shillong, EKH, (36) Maweitnai village, Upper Shillong, EKH, (37) Nongumlong village, Upper Shillong, EKH: ten numbers of Solar Street Lights had been installed, (38) Nongkseih village, Upper Shillong, EKH: (i) Fifteen numbers of solar street lights have been installed, (ii) Local residents underwent skill development training programme on *Mechanic Motor Vehicle and Basic Electrical*, (39) Mawkohlur village, West Khasi Hills, (40) Lad Mukhla village, West Jaintia Hills, (41) Umroi Pyllun village, Ri-Bhoi District (RBD), (42) Mawtnen village, RBD, (43) Ryndhi village, RBD, (44) Lumkya village, RBD, (45) Byrwa village, RBD, (46) Umshor-Shor village, RBD: five numbers of solar street lights have been installed, (47) Sumer Umbang village, RBD: five numbers of solar street lights have been installed, (48) Mawlein Mawkhan village, RBD: five numbers of solar street lights have been installed, (49) Nongrim Umksih village, RBD: five numbers of solar street lights have been installed, (50) Umsaitsning Town Dorbar, RBD: five numbers of solar street lights have been installed, (51) Mawkynroh Umshing village, RBD: Construction of footpath at Block-I, Mawkynroh, Umshing, (52) Nongdewsaw village, RBD: five numbers of solar street lights have been installed, (53) Umsning Lumroman village, RBD, (54) Mawiong Rim village, RBD.

Swachh Bharat Abhiyan: Under the Swachh Bharat campaign, several programmes have been conducted. These include the following:

- ☞ 30 NSS volunteers of Law Department, NEHU, held a cleaning drive at the Department and surrounding areas on 12 May 2017.
- ☞ The NSS unit of Jaintia Eastern College, Khliehriat, organized a cleaning drive at Khliehriat West, Weekly Market, on 2 June 2017. More than 50 NSS volunteers and one peer leader participated.
- ☞ The NSS unit of Jaintia Eastern College, Khliehriat, as part of its programme for Health and Sanitation annually conducted programme on *Cleanliness* at its campus and adjacent areas on

National Service Scheme

27 July 2017. All the students and teachers are enthusiastically took part in the programme.

- ☞ The NSS Unit (NEHU, Shillong) organized a cleaning drive at NEHU campus and Boys Hostels on 12 August 2017. Around 60 volunteers participated.
- ☞ The NSS unit of Union Christian College, Umiam, organized cleaning of toilets in hostels, roads, classrooms, etc. on 12 August 2017. More than 50 volunteers participated.
- ☞ The NSS Unit, NEHU, Shillong, also organized a Swachhta pledge taking on 14 August 2017. More than 30 volunteers took the pledge.
- ☞ The NSS Unit of Mawsynram Border Area College, Mawsynram, organized a cleaning drive at Phlang Mawsyrpat village (Adopted village) on 14 August 2017. More than 50 NSS volunteers participated.
- ☞ The NSS Unit of Sohra Government College, Sohra, organized a cleaning drive at Sohra Main Market on 14 August 2017. More than 50 NSS volunteers participated.
- ☞ The NSS unit of Synod College, Shillong, organized a cleaning drive at Robert Hospital (Jaiaw, Shillong) on 14 August 2017. More than 250 volunteers participated.
- ☞ As part of the observance of Swachhta Pakhwara, the NSS Unit of Lady Keane College in collaboration with the NSS Cell (NEHU, Shillong) organized a special cleaning drive at Police Bazar and its adjoining areas on 15 August 2017.
- ☞ NSS Ri-Bhoi College organized a cleaning drive (Swachh Bharat Abhiyan) on 18 August 2017 in around the college premises. More than 100 NSS Volunteers participated in the programme. The unit also planted 200 saplings on the college campus on 15 August 2017. More than 60 NSS volunteers participated.
- ☞ The NSS unit of Lady Keane College, Shillong, in collaboration with BBS College participated in the cleaning drive of commercial area (Police Bazar) on 15 August 2017. More than 150 NSS Volunteers participated.
- ☞ The unit of Union Christian College, Umiam, organized a cleaning drive programme on 9 September 2017 at the college campus. 76 volunteers participated in the programme.
- ☞ The NSS unit, NEHU, Shillong, also organized a cleaning drive at the University campus on 9 September 2017. About 40 volunteers participated.
- ☞ The NSS unit of Tura Government College organizes a campus cleaning drive on 3 August 2017. More than 100 volunteers participated.
- ☞ The NSS unit of Tura Government College organizes a door-to-door campaign at Boldorenggre Village (Adopted village).
- ☞ The NSS unit of Tura Government College organizes a cleaning drive at the adopted village of Boldorenggre on 5 August 2017. Around 50 NSS volunteers along with the Programme Officers participated.
- ☞ The NSS unit of Tura Government College organizes a cleaning drive of Chandmari Bus Depot (Tura) on 11 August 2017. More than 70 volunteers participated.

Central Services

- ☞ The NSS unit of Nongtalang College organized a cleaning drive at the college campus on 12 August 2017. Volunteers, students and the staffs actively participated in this cleaning drive.
- ☞ The NSS unit of Shillong College organized a one-day cleaning drive at the college campus on 23 August 2017. About 80 volunteers took part in the cleaning drive.
- ☞ The NSS unit of Thomas Jones Synod College, Jowai, organized a rally on “Swachh Bharat” on 26 September 2017. Around 200 NSS volunteers participated.
- ☞ The NSS unit of Thomas Jones Synod College, Jowai, celebrated the Gandhi Jayanti by organizing a cleaning drive at Iawmusiang Market on 2 October 2017. More than 200 NSS volunteers participated.
- ☞ Sixteen volunteers from NSS Unit (NEHU, Shillong) participated in the cleaning drive campaign at two commercial market areas of Shillong City on 2 October 2017.
- ☞ Around 300 volunteers from UCC took part in pledge taking function on “Clean India” followed by poster display and campus cleaning on 2 October 2017.
- ☞ The NSS unit, Shillong College, conducted a clean India campaign programme at Siatbakon village for school students of the village on 13 October 2017. Various programmes, such as drawing/painting competition on Swachh Bharat related issues were held.
- ☞ The NEHU NSS unit also organized a campus cleaning-cum-beautification drive on the University campus on 14 October 2017. About 60 volunteers participated.
- ☞ The NSS unit of Nabon Women’s Synod College conducted a cleaning drive at the college campus on 3 November 2017. About 90 students along with 20 teachers participated.
- ☞ The NSS unit of Union Christian College, Umiam, conducted a cleaning drive at the college campus along with painting and white washing activities. About 30 volunteers participated.

Toilet Constructions: *Swachh Bharat Abhiyan*

- Construction of boys' toilet at Kendriya Vidyalaya School, Permanent Campus, NEHU, Shillong.
- The NSS unit of Mawlai Presbyterian College constructed a toilet at Laitmawroh village.
- The NSS unit of Mawsynram Border Area College constructed a bathrooms/washingshed at Phud Japung Phlang Mawsyrpat village.

Cleaning Drives of Tourist Spots

- Cleaning drive of Captain Williamson Memorial Statue and surrounding areas on 10 August 2017. Around 50 volunteers participated in the drive.
- The NSS unit of Jaintia Eastern College (Khliehriat) observed World Biodiversity Day on 22 May 2017 at Lumshnong village in collaboration with the Office of the Deputy Commissioner, East Jaintia Hills, Khliehriat, organized a cleaning drive at Kotsati Cave and its surrounding. NSS volunteers and villagers from the locality participated.



NEHU DATA AND VOICE NETWORK (NDVN)

SHILLONG CAMPUS

Administrative in-charge	: Prof. P. Nongkynrih
Technical Officer	: Mr. Ivan Lyngdoh
Analyst	: Mr. S. Nongkhlaw
Technical Assistant	: Mr. S. N. Sharma
Field Assistant (Technical)	: Mr. Kapoorchand Chaudhury (On contract)
Telephone	: 0364-2726195/2726196/2726197/2551297
E-mail	: admin@nehu.ac.in & ndvn@nehu.ac.in

TURA CAMPUS

System Analyst	: Mr. Deramun Ch Momin (On contract)
E-mail	: deramunmomin@gmail.com

Members of NDVN Committee

Prof.P.Nongkynrih	Chairperson
Registrar or Nominee	Member
Finance Officer or Nominee	Member
Mr.Sekhar Dey, TD NIC,Expert	Member
Head Computer Centre	Member
Prof. N. M. Panda	Member
Prof. O. P. Singh	Member
Dr.L. J. Singh	Member
Dr. Md. I Hussain	Member
Deputy Registrar (P&S)	Member
Mr. H. Kharshiing	Member
Mr. Ivan Lyngdoh	Member

The NEHU Data and Voice Network (NDVN) Facility commissioned in 2003 as VSAT Facility is the network backbone for all Information and Communication Technology (ICT) related services covering all academic and Administrative Departments, including Hostels and Residential Quarters.

Central Services

SHILLONG CAMPUS

Major initiative of the year

The Wi-Fi project of the MHRD-MEITY through ERNET is now commissioned and operational in all the departments of Shillong campus with around 3000 registered users. **The major components of this new Wi-Fi infrastructure are as follows:**

1. Core Switch - Cisco Nexus 7000, N7K-C7010: One
2. Zonal Switch-type2 - Cisco Nexus 5000, N5K-C56128P: Four numbers
3. Cisco WS-C2960X-24PD-L 24 port PoE 10/100/1000 Mbps Switch: 35 numbers
4. Cisco WS-C2960X-24TD-L 24 port 10/100/1000 Mbps Switch: 35 numbers
5. Cisco 5520, AIR-CT5520-100-K9 Wireless LAN Controller: Two numbers
6. Cisco 3702E Wireless Access Points: 170 numbers
7. Cisco 3702E with external enclosure Wireless Access: 17 numbers
8. Cisco UCS C240 M4S with Enterprise Linux Server: One
9. KVM switch, Keyboard & display: One
10. 5KVA online UPS with 1 hour battery backup: Four numbers
11. 1KVA UPS with 30 minutes battery backup: 36 numbers
12. Resident Engineer: Two numbers
13. All required Passive components (Racks, UTP, Fibre cables & accessories)

Existing Infrastructure

Servers

The HP Blade Chassis C7000 hosts 9 Blade Servers for the following services:

- NEHU Webserver <http://www.nehu.ac.in>
- Four Squid Proxy servers
- Examination Webserver<<http://exams.nehu.ac.in/>>

DNS Servers

- Dell Server running Mail (nehu.ac.in) and LDAP for single sign on authentication.
- IBM servers running HP's Intelligent Management Center (IMC) and Extreme's Epicenter for Network Management System.
- IBM Server running Avaya Visability Management Suite for telephony Administration and CUBE Software for call logging and required billing.

Data Network

- The National Knowledge Network (NKN) of 1 Gbps link commissioned on 19 May 2010 provides Internet access and other related applications (Internet, IP authenticated e-journals from UGC-Infonet E-journal Consortium, mail and web, etc.) to all Academic and

NEHU Data and Voice Network (NDVN)

Administrative departments.

- The Extreme Summit Black Diamond 8806 Core Switch with 24 ports 1/10 Gbps Fibre connectivity and latest MSM and OS provide connectivity, routing, Vlans access to and from all layers 2 (L2) switches located in departments' buildings.
- All Departments are connected to the core switch with the Layer 2 Switches consisting of Extreme Summit X150-24t, Extreme Summit X150-48t, HP ProCurve 1920 Cisco SG500 with gigabit uplinks.
- Dedicated Internet connections with 48 port L2 HP Procurve Switches are provided to most departments having computer laboratory facilities.
- The NextGen Firewall DELL Sonicwall Supermassive 9200 provides the required up-to-date network security and performance.
- The DELL SonicWall Email Appliance Security provides enhanced security and spam filter for the mail server.
- Wi-Fi connectivity is available in all hostels with LAN-Controller based Access Points.
- Broadband Internet connectivity is provided to all P-Type, L-Type, Type V, Type IV and Type III residential quarters with the installation of 6 IPDSLAMs.
- The Network provides IP CCTV cameras connectivity across the campus.

Other Services

- Intranet and Internet connectivity for the Digital Repository under the Library Digitalization Project.
- Intranet and Internet connectivity for the University Management Software (UMS), the ERP e-governance project running several Academic, Finance and Administration Modules.
- Web and sub-domain services to: Library Services (OPAC), Access to Computer Centre's HPC (Sulekor), Bioinformatics Centre - NEIHPID (North-East India Helminth Parasite Information Database <http://nepiac.nehu.ac.in>); Geography Department's Automatics weather station.

Voice Network

- Two Avaya S8730 servers in hot-standby mode, two G650 Media-gateways located in NDVN, Administrative building and Political Science Department and four G450 Media-gateways located in the School of Technology (SOT), Old Guest House, Type II and New SOT provide TDM backbone and IP enable switch architecture for the voice/telephony network. All the Media-gateways are connected and registered to the Server-over-IP-Back-Bone.
- The 2 Mbps PRI and 2 Mbps Level-BRI leased lines from BSNL integrated with the IP-PBX Server provide incoming and outgoing telephone calls facilities to/from the network.
- Voice Network (Telephone connectivity) is extended to all departments, centres, Administrative building and most residences quarters with a capacity of over 1500 telephone extensions.

Website Data

Usage Statistics for www.nehu.ac.in generated by the system as in June 2016:

Central Services

Summary by Month										
Month	Daily Avg				Monthly Totals					
	Hits	Files	Pages	Visits	Sites	KBytes	Visits	Pages	Files	Hits
May 2018	13077	11416	2780	647	9779	18228957	10364	44494	182668	209243
Apr 2018	61875	54158	13986	3723	77126	172757426	111707	419581	1624749	1856274
Mar 2018	76737	64680	16986	4502	87173	205291522	139562	526568	2005101	2378867
Feb 2018	47387	41578	11892	3037	59628	250836674	85036	332985	1164195	1326838
Jan 2018	39439	34429	9385	2722	59261	217782039	84385	290950	1067305	1222625
Dec 2017	35380	29549	11162	2328	49948	131833395	72198	346023	916034	1096783
Nov 2017	65126	46516	26272	3269	61582	303726456	98099	788163	1395481	1953793
Oct 2017	71015	42274	36605	2955	53875	171246654	91628	1134783	1310499	2201470
Sep 2017	91097	48314	45327	3789	68572	161552111	113673	1359820	1449434	2732910
Aug 2017	159077	76195	77678	5654	93036	327954276	175297	2408027	2362061	4931398
Jul 2017	171043	115547	41653	8271	114036	395171588	256420	1291249	3581987	5302359
Jun 2017	159414	104450	46897	7369	102264	323257770	221082	1406921	3133529	4782420
Totals						2679638868	1459451	10349564	20193043	29994980

TURA CAMPUS

The NEHU Tura Data and Voice Network (NDVN) Facility commissioned in 2012 and continues to provide data (Internet) and voice (telephony) access to all academic and administrative departments.

New Implementations for 2017–2018

- Internet connection of 16 Mbps has been increased to 50 Mbps on the Permanent Campus at Chasingre.
- CCTV surveillance installation is under process for security and effective monitoring within the campus.
- Installation of Wi-Fi campus in order to give students and faculty easy access to the internet is under process.
- Installation of Video Conferencing System in Administrative departments is under process.
- Workstation HP Z440 is installed in server room for centralize control of endpoint security and for security monitoring.
- Extension of LAN and Internet Facility for the departments that has been shifted from Chandmari campus.
- Power over Ethernet Switches is installed in all departments for powering IP Phones and other

NEHU Data and Voice Network (NDVN)

network device like Wi-Fi, CCTV, etc.

- Installation of 10 KVA secondary UPS Backup System for Server is under process for giving internet facility during power failure from the supplier.

Existing Components providing continual services

Data Network

- The Extreme Summit Black Diamond 8810 core switch provides connectivity with VLAN tagging to all departments layers 2 switches.
- All Departments are connected to the core switch with the Extreme Summit X150-24t L2 switches to corresponding VLAN with gigabit uplinks.
- Data network is secured with Firewall Unified Threat Management Cyberoam 300iNG which provides Web and Application Filter, Intrusion Prevention System (IPS), Gateway Anti-virus and Gateway Anti-Spam.
- Installation of IBM Server X3500M4 for Library Management System.

Voice Network

- The Avaya server 8300 with G450 Media-gateways provide core IP Base PBX Voice Network
- IP Phones is installed in all the departments.



PUBLICATION UNIT

In-Charge : Prof. R. Khongsdier
Publication Officer: B. Shylla
Assistant Editor : G. Umdor
Telephone : 2721422
E-mail : bmshylla21@gmail.com

The NEHU Publication Unit functions as the official printer of the University with the printing press attached to it. At present, the Press has been undertaking almost all printing jobs assigned to it by different departments, including Examination Department, Centre for Distance Education, and Printing and Stationery.

The Unit is mainly concerned with printing and promoting publications in various academic areas of the University. These include some undergraduate textbooks, such as *Phuit! Ka Sabuit!* and *Bhramar* (a Nepalee text book for UG syllabi), official publications of the University like the Acts and Statutes, Ordinances, Annual Report, annual account, The NEHU Journal (biannually) and the e-NEHU News (quarterly), and supplementary reading materials. The Unit has also assisted the Vice-chancellor's Office in designing, printing, and framing photos of important persons associated with the University. As for book distribution, the Unit is entering into contracts with major distributors and book sellers in and around Shillong to sell books and other publications. A staff in this connection makes a list for delivery of the requisitioned books. A list of its publications is also available on the website of the University.

With the addition of a digital printing machine, the Unit is now able to undertake short-run colour printing jobs to meet any emergency that may arise from time to time. The Unit is also equipped with a bi-colour demy offset printing machine. The binding section is yet, however, to procure the machines to undertake the binding jobs with speedy delivery. We hope to modernize it in the near future.

Printing and Publication Works Undertaken During 2017–2018

- Printing of items relating to the Examination Department, NEHU.
- Printing of items relating to the Printing & Stationery Department, NEHU.
- Printing of English and Hindi versions of the Annual Accounts (2016–17) of the Finance Department, NEHU.
- Printing of items relating to the XXIV Convocation, NEHU.
- Printing of receipt books, invitation cards for The Principal, Deen Dayal Upadhaya College for Skill Development & BVoc.

Publication Unit

- Printing of the NEHU wall calendars and engagement pads for the year 2018.
- Printing of Invitation cards, certificates, abstracts, folders & receipt books for CSE, NEHU.
- Printing of table calendars in digital process with wiro binding.
- Printing of *the NEHU Journal* Vol. XV No.1, Jan 2017 & Vol. XV No.2, July 2017.
- Printing of NEHU Law Journal, Vol.1.
- Printing of greeting cards for the VC & PVC.
- Printing of visiting cards for the VC, PVC, & the Registrar.
- Printing of the English and Hindi versions of the Annual Report (2016–17) of NEHU (draft & final version).
- Printing of Foundation Course (FC-SEDE) and programme guide for CDE, NEHU.
- Printing of the BA Syllabus.
- Printing of textbook, Phuit! Ka Sabuit!
- Printing of tutorial books for Law department.

Central Services



SOPHISTICATED ANALYTICAL INSTRUMENT FACILITY

Head : Prof. Sudip Dey
Telephone : 0364-2721801(O)/9436119787(M)
Fax : 0364-2550212
E-mail : saifnehu@gmail.com, hodsaiif@nehu.ac.in, sudipdey.dey1@gmail.com

Scientific Staff: 7

Head	Prof. Sudip Dey, MSc & PhD (Zoology, NEHU), FRMS(Oxford)
Sr. Scientific Officer	Dr. Tapas Chakraborty, MSc, PhD (Physics, NEHU)
Scientific Officers	Dr. Begonia Dkhar, MSc (Zoology, NEHU), PhD (Zoology, Gauhati); Dr. Debashish Dey, MSc (Chemistry, NEHU), PhD (Chemistry, RDU); Dr. Paul S. Dkhar, MSc (Biochemistry, NEHU), PhD (Bio-Physics, NEHU); Dr. Shiv K. Prasad, MSc (Biochemistry, NEHU), PhD (Env Sc, NEHU); Mr. John M Sohtun, MSc (Biochemistry, NEHU)

Thrust Area

The Department of Science and Technology (DST), Government of India, has provided facilities for sophisticated analytical instruments to researchers, through its Sophisticated Analytical Instrument Facilities (SAIF) program, so that the non-availability of these instruments in their institutes may not cause any difficulty in pursuing their R&D activities requiring such facilities. The highly sophisticated analytical instruments available in SAIF, NEHU, enable the faculty members of NEHU and other universities, and scientists of other R&D institutes and industries to keep pace with developments taking place globally.

Brief Statement of Activities

SAIF carries out analysis of samples received from researchers of different institutes. It also acquires and develops capability for preventive maintenance of the analytical instruments and organizes short-term training courses/workshops on the use and application of sophisticated instruments/the analytical techniques. In addition, SAIF trains technicians for maintenance and operation of analytical instruments. The SAIF-NEHU has highly qualified scientific officers and Technical Assistants. Most of the scientific officers and many Technical Assistants of SAIF-NEHU are PhD holders. Hence, quality analysis, necessary interaction with the users and interpretation of data are carried out by the staffs as and when required. Besides these, in the trainings/workshops conducted by SAIF-NEHU, scientific

Sophisticated Analytical Instrument Facility

officers/Technical Assistants of different instrument units act as resource persons in addition to the external resource persons.

Seminars/Conferences/Symposia/Trainings

Attended

1. Dr. Jasha Momo H, Anal, Sr. Technical Assistant, Elemental Analysis Unit, attended a national seminar on *Recent Advances in Nano Science and Technology at the Institute of Nano Science and Technology* (Mohali, Punjab) from 19 to 21 December 2017.
2. Dr. Jasha Momo H, Anal, Sr. Technical Assistant, Elemental Analysis Unit, participated in the 83rd Annual Meeting of the Indian Academy of Sciences (Bangalore) at North-Eastern Hill University (Shillong) from 3 to 5 November 2017.

Trainings Conducted

Department attending the Training	Date	Name of the Program	Number of Students
Department of Agricultural Biotechnology, Assam Agricultural University, Jorhat	2017	Training on LC-MS	2
Department of Environmental Sciences, North-Eastern Hill University, Shillong	2017	Training on NMR	1

Workshops

A workshop on *Optical Microscopy with Image Analyzer and Its Applications* was organised on 27 & 28 March 2017 with 23 participants.

Publications

- Das, D., Pathak, G., Jasha Momo, H. A., Rokhum, L. (2017). Polymer supported triphenylphosphine-methacrylate complex: An efficient catalyst for the selective iodination of alcohols. *Current Applied Polymer Science*, 1: 63–71.
- Dey, Sudip, Chaudhury, S. (2018). Physiological significance of gravity receptors on the larval cephalic cuticle in the silk moth, *Antheraea proylei* Jolly. *Microscopy Research and Technique*, 81:256–266.

Infrastructure Facilities

Following sophisticated analytical instruments are available for analytical services:

- Scanning Electron Microscope (Jeol, JSM 6360) with EDS (Oxford, Inca 350)

Central Services

- Transmission Electron Microscope (Jeol, JEM 2100) with EDS (Oxford X, MAX 65)
- FT-NMR 400 MHz (Bruker AVANCE II-400)
- LC-MS Spectrometer (Waters ZQ-4000)
- Graphite Furnace (Analytic Jena AG Vario 6)
- Liquid Nitrogen Plant (Philips PLN-106)
- Microscope with Image Analyzer (Leica-DMRX)
- Seminar Room (capacity: 50 seats)
- Conference Room (capacity: 14 seats)

In addition, New Glass-Knife-Maker for Transmission Electron Microscope and Carbon-Coating-unit for Scanning Electron Microscope has been installed. Inductively Coupled Plasma—Optical Emission Spectrometer (ICAP-7600 from M/S Thermo Fisher) is in the process of installation.

Services Offered

Scanning and Transmission Electron Microscopic studies of biological and material science samples; 1-D and 2-D NMR spectra of biological and chemical samples in liquid solution phase; trace element analysis of biological, chemical and industrial samples; Mass spectra of various compounds both biological and non-biological compounds.

Awards/Recognition

Prof. Sudip Dey

Recipient of the Grignard Research award in Toxicology and was elected a Fellow of the International Agency for Standards and ratings (FIASR), USA. He was also appointed as Regional Editor of the *International Journal of Environmental Sciences and Toxicology*, and *Journal of Zoological Sciences*.

Other Activities

Dr. Debasish Dey

Invited by the Department of Pharmaceutical Sciences, Dibrugarh University (Assam) as Visiting Fellow to deliver lectures to PG students on Principles and Applications of FT-NMR during the month of August 2017. He delivered 7 lectures on different topics. He was also an External Expert for procurement of FT-NMR by Dibrugarh University, Assam.

Reviewer for the journals of *Acta Zoologica*, *Philippines Journal of Zoology*, and *Microscopy Research and Techniques*.

Mr. J. M. Sohtun

Judged the one-day inter-college students' seminar at St Edmund's College (Shillong) on 9 March 2018.

Dr. Jasha Momo H, Anal

Reviewer for the journals of *Medicinal Chemistry Research (Springer)* and *Environmental Engineering Research (Korea)*.

Sophisticated Analytical Instrument Facility

W. R. Synrem

Carried out significant maintenance works in FT-NMR, which include (i) Repairing of Air Compressor, (ii) Replacement of the fuse of the probe supply board of FT-NMR, which was done with electric soldering, and (iii) Replacement of insert of FT-NMR probe. These maintenance works could save at least two visits of the service engineer costing around ₹1.5 lakhs in each visit and also saved about 5–6 months of down time.

Lectures and Demonstrations

SAIF-NEHU arranged the following lectures and practical demonstrations for different analytical instruments:

Date of Visit	Address of Visitors	No. of Students	Accompanying Teachers
21.02.2017	Department of Zoology, Jagiroad College, Jagiroad, Assam	11	Mr. A. K. Keot, Dr. A.D. Barbaruah, Dr. S. Roy
28.03.2017	Department of Botany, BH College, Hoogly, West-Bengal	19	Dr. M. K. Bhawmik
05.04.2017	Dept of Zoology, Pandu College, Guwahati, Assam	05	De Kalyan Deka
08.09.2017	Dept of Zoology, St Edmund's College, Shillong, Meghalaya	38	Dr. D. Ryngad
30.10.2017	Dept of Zoology, JM College, Assam	15	Dr. S. K. Bhuyan, Dr. R. Chetri, Miss A. Bhngwal
31.10.2017	Indian Academy of Science, Bangalore, Karnataka	20	Prof. N.K. Chrungoo, Prof. N. Saha
04.12.2017	Department of Microbiology, Shillong College, Shillong, Meghalaya	58	Ms. Zolcansanga,

Academic Collaboration

Prof. Sudip Dey, Head, SAIF, NEHU jointly supervised a PhD thesis with Prof. D. Sharma, Department of Zoology, Gauhati University.



SPORTS DEPARTMENT

Head : Dr. S. Umdor
Telephone : 0364-2721381/1383
E-mail : nehusports@gmail.com

Staff: 3

Name	Designation
Shri. N. Das	Assistant Director
Mrs. A. R. Synnah	Basketball Coach
Shri. L. Darlong	Football Coach

The Sports Department of the University functions under the overall guidance of the NEHU Sports Board, which is chaired by the Vice-Chancellor of the University. The Sports Department is the nodal agency for organising sports activities for students of the University and affiliated colleges, and also for other stakeholders of the University. The Department is actively involved in providing support to students in conducting sporting events such as annual varsity fest and other sporting events organised from time to time.

Activities Undertaken During 2017–18

1. The annual meeting of NEHU Sports Board was convened on 14 July 2017, which was chaired by Vice-Chancellor Prof. S. K. Srivastava. Important decisions were taken in the meeting, including approval of the annual sports calendar of the University and necessary amendments to the constitution of the Sports Board.
2. The Department organised the **Inter-College Football (Men) Tournament** from 23 to 25 August 2017 in the Indoor Stadium and Community Hall, NEHU. In the Badminton Men & Women categories, the winners were St. Anthony's College. In Table Tennis Men & Women, St. Anthony's College and NEIGRIMS lifted the championship trophy, respectively. In the Chess (combined), NEHU won the event. Prof. Henry Lamin, Pro Vice-Chancellor, NEHU, was the Chief Guest in the closing ceremony and gave away the prizes to the winning teams.
3. To Commemorate the birth anniversary of Major Dhyani Chand, which is celebrated as National Sports Day, the Department organised the **Inter-College Cross Country** and the **NEHU Cross Country Run** (2017 Edition) on 29 August 2017 for teaching, non-teaching members and students of the University. The event was flag off by Vice-Chancellor Prof. S.K. Srivastava. In the Inter-College Cross Country Run, BBS College, Shillong, emerged as the overall champion in the Men's course while the Women's course was won by the team

Sports Department

representing Kiang Nangbah Government College, Jowai. In the NEHU Cross Country Run, the 1st position in the Men's senior category of above 50 years was secured by Dr. Atul Kumar from the Finance Section. In the 50 years below category, the 1st position went to Dr. Sainkumar Mawiong from the Department of Basic Sciences and Social Sciences. In the Students' section, the 1st positions were secured by Mr. Henry B. Khongwar of the Department of Law (Boys' category) and by Ms. Jeny Jami of the Department of Anthropology (Girls' category).

4. The Department organised the Inter-College Football (Men) Tournament from 4 to 15 September 2017 at J. N. Sports Complex, Polo, Shillong. Altogether 28 colleges participated in the tournament. In the final match played between St. Anthony's College and Shillong College, the later emerged as the winner. The tournament ended with a closing ceremony in which the Chief Guest, Shri Larsing Ming Sawyan, Vice President of the All India Football Federation (AIFF) and President of Meghalaya Football Association gave away the prizes to the winning teams.
5. The Department organised the **Inter-College Basketball (Men & Women) Tournament** from 19 to 23 September 2017 at the NEHU Basketball Court. Altogether 18 Colleges in the Men's section and 12 colleges in the Women's section participated in the tournament. In Men's section, St. Anthony's College defeated St. Edmunds College, while in the Women's section Lady Keane College defeated St. Mary's College and was declared as champions. Prof. P. Nayak, Director Internal Quality Assurance Cell (IQAC), NEHU, was the Chief Guest and gave away the prizes to the winning teams.
6. NEHU Badminton (Men & Women) and Volleyball (Men) teams participated in the **East-Zone Inter-University Tournament** organised by the KIIT University, Bhubaneswar, Odisha, from 1 to 4 October 2017. The Women team of the University reached the quarter final of the Badminton tournament losing to Ranchi University, Jharkhand.
7. The Department organised the **Inter-College Volleyball (Men & Women) Tournament** from 8 to 9 November 2017 at NEHU Multi-Purpose Ground, Shillong. Altogether 9 colleges in the Men's Section and 8 colleges in the Women's section participated in the tournament. In the Men's section, St. Anthony's College defeated the University team and was declared as Champions, while in the Women's section Union Christian College defeated St. Edmunds College.
8. NEHU Football Men's team participated in the **East-Zone Inter-University Football Men Tournament** organised by Rajiv Gandhi University, Doimukh, Arunachal Pradesh, from 27 November to 3 December 2017. The team secured the top position in its own group and qualified for the All India (Inter Zonal) Inter University Football (Men) Tournament. This is the 4th time that the University qualified for the All India (Inter Zonal) Inter University Football (Men) Tournament.
9. The **All India (Inter Zonal) Inter-University Football (Men) Tournament** was held at Calicut University, Kerala, from 31 December 2017 to 5 January 2018. The NEHU team being 2nd position in the group league, qualified for the quarter final but lost out to Calicut University,

Central Services

who emerged as the champion team.

10. The NEHU Table Tennis Men's team participated in the ***East Zone Inter University Tournament*** organised by the KIIT University (Bhubaneswar, Odisha) from 5 to 8 January 2018. The University team reached the 3rd round.
11. The NEHU team, Shillong, took part in the ***North-East Level Inter University Debating Competition*** on 9 February 2018 organised by the Royal Global University, Guwahati, Assam, in memory of Dr. T. Ao Birth Centenary Celebration on the topic "Sports Promotes Rivalry Not Friendship."
12. The Department organised the ***NEHU Inter-College Cricket Men Tournament*** from 12 to 16 March 2018 at Multi-Purpose Ground, NEHU, for the first time on NEHU Permanent Campus. Altogether 10 colleges participated in the tournament. The final match was played between St. Anthony's College and Shillong College, where the former emerged as the winner.



STUDENTS' WELFARE CELL

SHILLONG CAMPUS

Dean Students' Welfare : Prof. H. Kayang
: Prof. L. Joyprakash Singh
Telephone : 0364-2721181
E-mail : dsw@nehu.ac.in

TURA CAMPUS

Dean Students' Welfare (In-Charge) : Dr. Deepak Bhagat
Telephone : +91-9436733357
Email : Basketball Coach
Teacher-in-Charge of Sports : Mr. Gino A Sangma
Telephone : +91-9612155002
Coordinator (Special Lecture Group) : Dr. Tilok Thakuria
Telephone : +91-8575133962

The Offices of the Dean Students' Welfare on Shillong and Tura campuses serve as the nodal agency for student services and their welfare. The major services of both the offices are management of the Halls of residences for the postgraduate, undergraduate, and research scholars; coordination of students' sports and cultural activities, conduct of elections to the Students' Union, award of PhD, MPhil, Non-NET Fellowships and postgraduate scholarships, organizing study and industrial tours through departments, grant to outstanding students and students' aid to the economically weak students. Other activities include organizing of special lectures by eminent personalities and facilitating admission of foreign students.

Activities during 2017–18 (Shillong Campus)

Residence in Hostels: The number of students who were given hostel accommodation on Shillong campus during the year 2017–2018 is as follows:

Activities during 2017–18 (Shillong Campus)

Residence in Hostels: The number of students who were given hostel accommodation on Shillong campus during the year 2017–2018 is as follows:

Particulars	Gender	ST	SC	GEN	International students	Total
Undergraduate	Men	208	047	231	02	488
	Women	098	013	109	00	220

Central Services

Postgraduate	Men	231	005	066	05	307
	Women	331	004	085	02	422
Research Scholars	Men	102	027	110	03	242
	Women	129	012	108	00	249
Total		1099	108	709	12	1928

Study Tours

The office coordinated the study tours of the following ten academic Departments from Shillong campus for the year 2017–2018: (i) Adult and Continuing Education, (ii) Sociology, (iii) Philosophy, (iv) Political Science, and (v) Linguistics.

Other Activities

To coincide the term of NEHUSU and that of the Academic calendar, elections to the Students' Union Executive Committee were held on 22 September 2017, and the results were declared on 25 September 2017. The charge for handing and taking over the new office-bearers of NEHUSU was effective from 3 October 2017. The Office also supported the annual event of NEHUSU to showcase talents of the students of the University. During 2017–18 the Varsity Fest was held from 26 March 2017 that ended with students' sports and cultural activities and celebrations on 23 April 2018.

Student Aid Fund: Fifty-four students (5 postgraduate and 49 undergraduate) were awarded the Student Aid Fund @ ₹3000 per student per annum for postgraduate students and @ ₹4000 per student per annum for undergraduate students.

NEHU PG Merit Scholarship: A total number of 105 postgraduate students were awarded the NEHU PG Merit Scholarship @ ₹3000 per student per annum, out of which 62 students were fresh allottees and 26 students belonging to renewal category (including ST/SC).

UGC Non-NET Fellowship: A total number of 356 PhD and 80 MPhil Scholars were awarded the UGC Non-NET Fellowship @ ₹8000 and @ ₹5000 per student per month, respectively.

Activities during 2017–18 (Tura Campus)

Residence in Hostels: Thenumbers of students residing in the hostels were as follows:

Particulars	Gender	ST	SC	GEN	OBC	International students	Total
Postgraduate	Men	66	05	26	10	01	108
	Women	91	02	20	05	01	119
Research Scholars	Men	06		07	01		14
	Women	03		01	01		05
Total		166	07	54	17	02	246

Students' Welfare Cell

Study Tours: The Office coordinated the study tours of the following three academic departments from Tura Campus in 2017–2018: (i) Department of English, (ii) Department of Garo, and (iii) Department of Computer Applications.

Other Activities

- Support and coordination of the Annual Varsity Week held from 8 to 18 April 2017 organised by PGSU, NEHU, Tura Campus.
- (a) Organised the following special lecture series: (i) “Understanding Migration” by Prof. M. Hussain on 12 May 2017, (ii) “Harappa Culture and Gujarat: Recent Perspectives” by Prof. P. Ajith Prasad on 15 May 2017, (iii) “Skill Development” by Prof. Mahendra Babu on 17 May 2017, and (iv) “Entrepreneurship and North-East India” by Prof. T. S. Vasudeva on 17 May 2017.
- In its continuous endeavour to keep the campus and environment green, the Office coordinated the programme on World Environment Day on 5 June 2017. The programme was coordinated by the Office of Students' Welfare and PGSU, Tura Campus.
- The International Yoga Day was celebrated on 21 June 2017. The event was successful with the participation of both teaching and non-teaching staff along with students.
- The first P. A. Sangma Memorial Lecture was organised on 1 September 2017. The Program was attended by Honourable Member of Lok Sabha Mr. Conrad K. Sangma.
- An orientation programme for the newly admitted 1st Semester Students was organised on 4 Semester 2017.
- A number of skit and drama were organised on the campus to support the “Systematic Voters' Education and Electoral Participation Programme” to educate student voters about the electoral process for better awareness and involvement in the electoral processes.
- Election for new office bearers of PGSU, NEHU, Tura Campus, was held on 14 November 2017.
- The 22nd Foundation Day of NEHU Tura Campus was organised by PGSU, NEHU, on 23 February 2018 at Tura Campus, Chasingre.
- Other events organised were Parting Social, Fresher's Social, and Celebration of Teachers' Day.



UGC-HUMAN RESOURCE DEVELOPMENT CENTRE

Director : Prof. Rakesh Mohan
Telephone : 0364-2721401/2721402
Fax : 0364-2550103
E-mail : hrdcnehu@gmail.com

Faculty: 3

Designation	Name and Qualification	Specialization
Professor	Prof. Rakesh Mohan, MSc & PhD, (BCKV Mohanpur)	Agronomy
Associate Professor	Dr. (Mrs.) Quendarisa Kharbuli, MSc & PhD (NEHU)	Zoology (Genetics)
Assistant Professor	Dr. (Mrs.) Kuheli Biswas Das, MSc & PhD (NEHU)	Zoology (Biochemical Adaptation)

Thrust Area of Service

The UGC-Human Resource Development Centre (UGC-HRDC) is established for upgrading knowledge and skills of the faculty members of the institutions of higher education under the Faculty Development Programme of the UGC, New Delhi. The UGC-HRDC organizes Refresher Courses (RCs) and Orientation Programmes (OPs) for the faculty of universities and colleges located in the North-Eastern Region as well as in other parts of the country. RCs and OPs are conducted in subjects approved by the UGC, New Delhi, in order to update and acquaint the participating teachers with the latest developments and recent trends in their respective subjects. The OPs and RCs are designed to empower the teachers with depth of knowledge to enhance their teaching skills and capabilities. Besides, the UGC-HRDC conducts short-term courses and principal workshops for the faculty, research scholars, academic administrators and principals of affiliated colleges.

Brief Statement of Academic Activities

The UGC-HRDC was established at NEHU in 2006 with financial assistance from the UGC. It became fully functional in March 2007 after appointment of 7 non-teaching staff. The UGC sanctioned 3 academic posts (Professor-Director: 1; Associate Professor: 1, and Assistant Professor: 1), which are filled accordingly. The UGC-HRDC has been allotted rooms for the faculty members and supporting staff, two lecture rooms, one library-cum-documentation room and a computer laboratory in the Building for Centre of Studies.

During 2017-18, the UGC-HRDC conducted four OPs, five RCs, two Special Summer/Winter Schools, three Short-Term Courses, and trained a total of 622 participants from various universities

UGC-Human Resource Development Centre

and colleges recognized by the UGC. Further, the UGC-HRDC established a Computer Laboratory with twenty-four PCs, a Server, two Network Laserjet Printers, a DLP Projector and a Scanner, etc. The Computer Lab is used for training the participants in the OPs and RCs as well as for the faculty, research scholars and students of the University in information technology with special reference to teaching and research. The UGC-HRDC has taken up a new initiative to hold a one-day interactive session of the refresher course participants with the faculty members of the department concerned on academic reforms.

Courses Conducted During 2017-18

Orientation Programmes	Duration
40 th Orientation Programme	24 April to 21 May 2017
41 th Orientation Programme	22 May to 18 June 2017
42 nd Orientation Programme	15 January to 11 February 2018
43 rd Orientation Programme	19 February to 18 March 2018
Refresher Courses	Duration
Refresher Course in Earth Science and Geography	19 June to 19 July 2017
Refresher Course in Nanoscience & Nanotechnology	13 November to 3 December 2017
Refresher Course in History	20 November to 10 December 2017
Refresher Course in Tribal Studies	22 January to 11 February 2017
Refresher Course in English and Comparative Literature	19 March to 8 April 2018
Short-Term Course	Duration
STC in Research Methodology	7 to 12 August 2017
STC in Gender Sensitization	21 to 26 August 2017
Workshop on Stress Management	5 to 7 March 2018
Special Summer/Winter School-2017	Duration
Special Summer School-2017	19 June to 19 July 2017
Special Winter School-2017	19 March to 8 April 2018

Study Tours/Field Trips

Field trips and visits are a regular feature of the activities of the Centre since they are included in the curriculum, designed for orientation programmes, whose objective is concerned with resource awareness and knowledge generation. Furthermore, since the orientation programmes provide training to the new-entrant college and university teachers participating from different

Central Services

states of the country, these visits expand learning beyond the classrooms and expose them to the mesmerizing scenic beauty of the State and glimpses of the cultural heritage of the entire North-East. Siloam being a Transformational Leadership Resource Centre provides an excellent environment to the participants for faculty development especially in interpersonal relationship and student guidance and counselling

Study Tours/Field Trips During 2017–18

Name of Teacher-in-Charge	Places/ Institutions Visited	Name of the Courses/ Programmes	Dates
Dr. (Mrs.) K. B. Das, UGC-HRDC, NEHU	Sohra and adjacent places	41st Orientation Programme	10.06.2017
Prof. Sunil Kr. De Dept of Geography, NEHU, Shillong	Sohra and adjacent places	Refresher Course in Earth Sciences, Geography and Allied Disciplines (ID)	01.06.2017
Dr. (Mrs.) K. B. Das, UGC-HRDC, NEHU	Nartiang	Refresher Course in Tribal Studies (ID)	27.01.2018
Dr. (Mrs.) Q. Kharbuli, UGC-HRDC NEHU	SILOAM, Umsawkhwan	42 nd Orientation Programme	03.02.2018
Dr. (Mrs.) K. B. Das, UGC-HRDC, NEHU	Sohra and adjacent places	43 rd Orientation Programme	10.03.2018
Mr. Lang Kupa K. War, Department of English, NEHU, Shillong	Sohra and adjacent places	Refresher Course in English and Comparative Literature (ID)	24.03.2018
Dr. (Mrs.) K. B. Das, UGC-HRDC, NEHU	Sohra and adjacent places	41st Orientation Programme	10.06.2017

Funds Received from Agencies Other than NEHU

The Centre was sanctioned ₹60.00 lakhs for the year 2017–18 by the University Grants Commission, New Delhi, for conducting refresher courses, orientation programmes, and short-term courses/workshops in approved subjects and for meeting other expenditures.

Infrastructure added during the period: Library books (42 copies), DLP/LCD (two), Steel Chairs (12), Pillows (45), Bookcase (one), Aqua-guard (two).



WOMEN'S CELL

Chairperson: Prof. Streamlet Dkhar

Telephone : 0364-2723301/9436117479(M)

E-mail : s.dkhar@rediffmail.com

Members:10

Prof. Sukalpa Bhattacharjee	English Department, NEHU
Prof. H. Kayang	Botany Department and DSW, NEHU
Dr. Tejimala Gurung Nag	Associate Professor, History Department, NEHU
Dr. Begonia Dkhar	Scientific Officer, SAIF, NEHU
Smti. T.A.W. Umdor	Technical Assistant, Chemistry Department, NEHU
Smti. Edaneola Kynta	Director, Women's Studies Centre, St. Edmund's College
Smti. Rosanna Lyngdoh	Social Activist
Smti. T. Shering Yagi	Legal Expert
Ms. Jupitara Kalita	Member
Ms. Merry C. Passah	Member

Vision: Gender Sensitive Institutional Space.

Mission: To Ensure Safety Security and Dignity of Female Students, Faculty and Staff in the Institution.

Programmes Organized During 2017-18

The Cell organized a programme on *Gender Sensitization* for the students and research scholars of NEHU on 27 October 2017 at the Department of Khasi, NEHU, Shillong. Resource persons were Ms. Mayfereen Ryntathiang and Ms. Shannon Dona Massar.

Attended

Streamlet Dkhar

Resource person in (i) Training workshop on *Legal Awareness and Women Rights* for Government officers and presented a power point on "Status of Women in Matrilineal Society with Special Emphasis to Meghalaya" organised by the Meghalaya Administrative Training Institute on 24 October 2017 at MATI Conference Hall, Shillong, (ii) Gender sensitization programme as part of the celebration of International Women's Day on and faculty of N. S. Patel Arts College (Anand, Gujarat) on "Sexual Harassment at Workplace Based on Sexual Harassment Act 2013" organized

Central Services

by the Department of Social Work, N. S. Patel Arts College, Anand, Gujarat.

Prof. Sukalpa Bhattacharjee

Presented papers entitled (i) “Orality and Gendered Resistance” at the national conference on *Oral Cultures: People, Poetics, Performance* on 23 August 2017 organized by the Department of Cultural and Creative Studies (NEHU) in collaboration with the Indian National Trust for Art and Cultural Heritage (New Delhi) and IGRMS, Bhopal, (ii) “Emotion as Agency: A Feminist Perspective” on 12 December 2017 at the international conference on *Emotions of Cultures/Cultures of Emotions: Comparative Perspectives* at the University of Western Australia in Perth from 11 to 13 December 2017, organized by the Society for the History of Emotions, (iii) “Gendering Religion: A Feminist Perspective” on 8 March 2018 at the UGC-SAP national seminar on *Religious Beliefs and Practices: A Cross-Cultural Study of Societies of Northeast India* organized by the Department of History, NEHU, Shillong.

Honours/Awards/Recognition

Prof. Streamlet Dkhar

Board member of the Management of the Centre for Women’s Studies, Dibrugarh University, Assam.

Prof. Sukalpa Bhattacharjee

Advisory Board Member, Women’s Studies Centre, Dibrugarh University, Assam.

Complaints Reported During 2017–18

One complaint was reported and the case is still pending.

Appendix A

MEMBERS OF THE UNIVERSITY COURT **(Constituted under Clause 10A of the University Statutes)**

(All members of the Court, other than ex officio members and members representing students, shall hold office for a term of three years)

Ex Officio Members

- | | |
|------------------------------|--|
| 1. Chancellor | Prof. Andre Bet ille, 69, Jorbag, Ground Floor, New Delhi-110003 (Till 3 October 2017) |
| 2. Vice-Chancellor | Prof. Sri Krishna Srivastava |
| 3. Pro-Vice-Chancellor | Prof. Henry Lamin (Shillong Campus)
Prof. G. Singaiah (Tura Campus) |
| 4. Dean of Students' Welfare | Prof. H. Kayang |
| 5. Registrar | Dr. J. N. Nayak (In-charge) |
| 6. Librarian | Dr. F. R. Sumer (In-charge) |
| 7. Proctor | Dr. R. L. Nongkhlaw |
| 8. Finance Officer | Mrs. N. G. Marwein (In-charge)
(Till 31 December 2017)
Shri L. M. K. Lyngrah (In-Charge)
(Since 1 January 2018) |

Representatives of Schools and Departments

All Deans of Schools, Ex Officio

All Professors, Ex Officio

Two Associate Professors who are not Head of Department and two Assistant Professors appointed by rotation in the manner prescribed by Ordinances

Appendix A

Associate Professors

1. **Miss N. Ganguli**
Department of English
NEHU, Shillong
2. **Mrs. Nola Syiem**
Department of English
NEHU, Shillong

Assistant Professors

1. **Dr. Mohandas Kushwaha**
Department of RADP
NEHU, Tura
2. **Dr. E. R. Tongper**
Department of Philosophy
NEHU, Shillong

Representatives of Affiliated Colleges (Seven Principals of Colleges in the State of Meghalaya)

1. **Principal**
St. Mary's College
Laitumkhrah, Shillong
2. **Principal**
St. Mary's College of Teacher Education
Laitumkhrah, Shillong
3. **Principal**
Union Christian College
Umiakhran, Ri-Bhoi District
4. **Principal**
Shillong College
Shillong
5. **Principal**
Tura Government College
Tura

Members of the University Court

6. **Principal**
Sankardev College
Shillong
7. **Principal**
College of Teacher Education
Shillong

Four Teachers from Affiliated Colleges Nominated by the Visitor on the Recommendation of the Vice-Chancellor - VACANT

Representatives of Parliament

Lok Sabha

1. **Smt. Bijoya Chakravarty**
18 Mahadev Road
New Delhi-110001
2. **Shri Biren Singh Engti**
17 Windsor Palace
Ferozeshah Road
New Delhi-110001
3. **Shri Conrad Sangma**
Walbakgiri, P.O. Tura
West Garo Hills District
Meghalaya
4. **Shri Ram Prasad Sarmah**
House No. 6 Kacharibasti
Ulubari, Kamrup Metro
Guwahati, Assam-781007

Rajya Sabha

1. **Shri P. Bhattarcharya**
59A Palm Avenue
Flat-4, Ballygunge
Kolkata-700019
2. **Shri Oscar Fernandes**
4-1-40 Doris Rest Heaven
Brahmagiri, Ambalapadi Post
Udupi-576103

Appendix A

Persons Representing Learned Professions and Special Interests (*Ten members to be nominated by the Visitor*) - VACANT

Representatives of the Registered Graduates - VACANT

Representatives of Students

1. **Mr. Hamboy Shadap**, MSc
Department of Bio-Chemistry
NEHU, Shillong
2. **Mr. Carnegie L. Nongrum**, MA
Department of Tourism and Mass
Communication
NEHU, Shillong
3. **Ms. Pampee Das**, PhD
Department of ECE
NEHU, Shillong
4. **Ms. Adela Marak**, PhD
Department of RDAP
NEHU, Shillong

Representatives of the Non-Teaching Staff

1. **President**
Non-teaching Staff Association
NEHU, Shillong
2. **General Secretary**
Non-Teaching Staff Association
NEHU, Shillong

Representatives of State Government (*12 November 2015 to 11 November 2018*)

1. **Shri C. C. M. Mihsill**, IAS
Secretary Education Department
Government of Meghalaya, Shillong
2. **A. Ch. Marak**, MCS
Director of School Education and Literary
Government of Meghalaya, Shillong

Members of the University Court

Remaining Members of the Executive Council, who are not otherwise members of the Court

1. **Principal**
 Women's College
 Shillong
2. **Principal**
 Sohra College
 Sohra

Registrar

Ex-Officio

Other Members (To benominated by the Competent Authorities as prescribed by the Statutes of the University)

1. **Prof. Caroline Marak, Retd.**
 Ring Rey Gittim, Near L.P. School
 West Garo Hills, Tura -794002

Appendix B

MEMBERS OF THE EXECUTIVE COUNCIL

(Constituted under Clause 11(I) of the Statutes of the University)

(All the members of the Executive Council, other than ex officio members, shall hold office for a term of three years)

1. Vice-Chancellor
2. Pro-Vice-Chancellor
3. Four Deans of School by rotation according to seniority
4. One Professor, other than a Dean by rotation according to seniority
5. One Associate Professor by rotation according to seniority
6. Two Principals by rotation according to seniority with reference to the date of establishment of the colleges concerned
7. Director in-charge of colleges' education in the State of Meghalaya
8. Two members of the Court
9. Four persons to be nominated by the Visitor

Details

- | | | |
|----|---|----------|
| 1. | Prof. Sri Krishna Srivastava
Vice-Chancellor
NEHU | Chairman |
| 2. | Prof. Henry Lamin
Pro-Vice Chancellor
NEHU (Shillong Campus) | Member |
| 3. | Prof. G. Singaiah
Pro-Vice Chancellor
NEHU (Tura Campus) | Member |

Four Deans

- | | | |
|----|--|--------|
| 1. | Prof. S. M. Sungoh
Dean, School of Education
NEHU, Shillong | Member |
|----|--|--------|

Members of the Executive Council

- | | | |
|----|---|---------------------------------|
| 2. | Prof. Ramesh Sharma
Dean, School of Life Sciences
NEHU, Shillong | Member (Till 17 December 2017) |
| | Prof. Gautam Saha
Dean, School of Technology
NEHU, Shillong | Member (Since 18 December 2017) |
| 3. | Prof. D. K. Nayak
Dean, School of Human and Environmental
Sciences
NEHU, Shillong | Member (Till 5 January 2018) |
| | Prof. B. K. Agarwala
Dean, School of Humanities,
NEHU, Shillong | Member (Since 6 January 2018) |
| 4. | Prof. B. Mishra
Dean, School of Economics, Management
and Information Sciences
NEHU, Shillong | Member (Till 4 March 2018) |

One Professor

- | | |
|--|-------------------------------|
| Prof. L. K. Jha
Senior Most Professor
Departmental of Environmental Studies
NEHU, Shillong | Member (Till 19 January 2018) |
|--|-------------------------------|

One Associate Professor

- | | |
|--|---------------------------------|
| Miss N. Ganguly
Department of English,
NEHU, Shillong | Member (Till November 2017) |
| Mrs. Nola Syiem
Department of English,
NEHU, Shillong | Member (Since 13 December 2017) |

Two Principals

- | | |
|--|--------|
| 1. Principal
Women's College
Shillong | Member |
|--|--------|

Appendix B

- | | | |
|----|--|--------|
| 2. | Principal
Government College
Sohra-793108 | Member |
|----|--|--------|

Director in charge of Collegiate Education in the State of Meghalaya

Director
Higher Education
Government of Meghalaya, Shillong

Two Members of the Court (Nominated by the Visitor) - VACANT

Four Members Nominated by the Visitor (Visitor's Nominees)

- | | | |
|----|---|--------|
| 1. | Shri Milind SudharkarMarathe
Associate Professor
Department of Electronics Engineering
K.J. Somaiya College of Engineering
Vidyavihar, Mumbai-400077 | Member |
| 2. | Shri Rabi Ranjan Sen
Assistant Professor (Senior Scale)
Department of History, Katwa College
Baddhaman, West Bengal-713130 | Member |
| 3. | Dr. Bubul Kumar Saikia
Principal, L. T. K. College
P.O. Azad North Lakhimpur
Assam-787031 | Member |
| 4. | Prof. Angila Gupta
Vice-Chancellor
Guru GhasidasVishwavidyalaya
Bilaspur-495009 | Member |

Finance Officer NEHU, Shillong	Permanent Invitee
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Registrar NEHU, Shillong	Ex Officio Secretary
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Appendix C

MEMBERS OF THE ACADEMIC COUNCIL

(Constituted under Clause 14(I) of the Statutes of the University)

(All the members of the Executive Council, other than ex officio members, shall hold office for a term of three years)

Ex Officio Members

1. Vice-Chancellor
2. Pro-Vice-Chancellor
3. Dean of Schools
4. Dean of Students' Welfare
5. Heads of Departments and Centres of Studies
6. Librarian
7. Principals of Colleges maintained by the University
8. All Professors, other than the Heads of Departments/Centres

DETAILS

- | | | |
|-----|--|----------|
| 1. | Prof. S. K. Srivastava
Vice-Chancellor
NEHU, Shillong | Chairman |
| 2.1 | Prof. Henry Lamin
Pro-Vice-Chancellor
NEHU, Shillong | Member |
| 2.2 | Prof. G. Singaiah
Pro-Vice-Chancellor
NEHU, Tura Campus | Member |

Appendix C

- | | | |
|-----|--|---------------------------------|
| 3. | All Deans of Schools
NEHU, Shillong | Members |
| 4. | Prof. H. Kayang
Dean, Student's Welfare | Member |
| 5. | All Heads of Departments/Centres
NEHU, Shillong/Tura | |
| 6. | Dr. F. R. Sumer
Librarian (In-charge)
NEHU, Shillong | Member |
| 7. | Principals of Colleges maintained by the University - Nil | |
| 8. | All Professors, other than the Heads of Departments/Centres | |
| 9. | Six Principals of Colleges Admitted to the Privileges of the University | |
| 9.1 | Principal
St. Mary's College
Teacher of Education, Shillong-793003 | Member (Till 17 July 2017) |
| | Principal
St. Dominic's College
Dum Dum, Nongthymmai
Shillong-793014 | Member (Since 6 September 2017) |
| 9.2 | Principal
Kazi and Zaman College
New Bhaitbari-79
Tura-794002 | Member (Till 17 July 2017) |
| | Principal
Thomas Jones Synod College
Jowai-793150, West Jaintia Hills District
Meghalaya | Member (Since 6 September 2017) |

Members of the Academic Council

- | | | |
|-----|---|---------------------------------|
| 9.3 | Principal
Durama College, Megonggre
Rongkhon, P.O. Chanmari
Tura-794002 | Member (Till 17 July 2017) |
| | Principal
Mawsynram Border Area College
Mawsynram-793113
East Khasi Hills District
Meghalaya | Member (Since 6 September 2017) |
| 9.4 | Principal
Greater Mawlai College
Shillong-793017 | Member (Till 17 July 2017) |
| | Principal
Nabon Women's Synod College
Jaiaw – 793002 East Khasi Hills District
Meghalaya | Member (Since 6 September 2017) |
| 9.5 | Principal
Capt. William Memorial College
Baghmara-794202, Meghalaya | Member (Till 17 July 2017) |
| | Principal
North-East Adventist College
Jowai, Thadlaskein-793151
West Jaintia Hills District
Meghalaya | Member (Since 6 September 2017) |
| 9.6 | Principal
Umshyrpi College
Laban, Shillong-793004 | Member (Till 17 July 2017) |
| | Principal
Williamnagar Government College
Williamnagar -794111
East Garo Hills Districts
Meghalaya | Member (Since 6 September 2017) |

Appendix C

Representatives of Teachers of the University (From 27 July 2016 to 26 July 2019)

Two Associate Professors

- | | | |
|----|---|---------------------------------|
| 1. | Dr. N. Ganguly
Department of English
NEHU, Shillong | Member (Till November 2017) |
| | Dr. B. K. Gupt
Department of Statistics
NEHU, Shillong | Member (Since 13 February 2018) |
| 2. | Mrs. Nola Syiem
Department of English
NEHU, Shillong | Member |

Three Assistant Professors

- | | | |
|----|---|--------|
| 1. | Dr. B. K. Mahopatra
Department of Political Science
NEHU, Shillong | Member |
| 2. | Dr. R. C. Pandey
Centre for Distance Education
NEHU, Shillong | Member |
| 3. | Smt. J. R. Marak
Department of Garo
Tura Campus, Tura | Member |

Four Visitor's Nominees (From 24 November 2015 to 23 November 2018)

- | | | |
|----|--|--------|
| 1. | Prof. Bhaben Kalita
Department of Mathematics
Guwahati University
Guwahati, Assam-781014 | Member |
| 2. | Dr. Mukul Bora
Director
Institute of Engineering and Technology
Dibrugarh University
Dibrugarh Assam-786004 | Member |

Members of the Academic Council

- | | | |
|----|---|--------|
| 3. | Dr. Mukunda Rajbongshi
Principal (Retd.) Lakhimpur Girls' College
MD Genius Academic
Assam-787001 | Member |
| 4. | Prof. Kshiti Bhusan Das
Professor of Commerce
Utkal University
Odisha-751004 | Member |

Representatives of Teachers of Affiliated Colleges Admitted to the Privileges of the University (From 30 January 2017 to 29 January 2020)

- | | | |
|----|--|--------|
| 1. | Shri A. R. Myrthong
Lady Keane College, Shillong | Member |
| 2. | Shri S. K. Pradhan
St. Anthony's College, Shillong | Member |
| 3. | Dr. (Mrs.) B. H. Buam
College of Teacher Education, Shillong | Member |
| 4. | Dr. Prashanta Sarkhel
St. Edmunds College, Shillong | Member |
| 5. | E. Kharkongor
Shillong College, Shillong | Member |
| 6. | Shri Davidson Diengdoh
Jaintia Eastern College, Khliehriat | Member |

Representatives of the Postgraduate Students and Research Scholars of the University

Two Postgraduate Students

- | | | |
|----|--|-------------------------------|
| 1. | Md. Atiqur Rahman, MSc
Department of ECE
NEHU, Shillong | Member (Till 2 November 2017) |
| 2. | Ms. Yavitsono Nakhroro, MA
Department of Geography
NEHU, Shillong | Member (Till 2 November 2017) |

Appendix C

One Research Scholar

- | | | |
|----|--|-------------------------------|
| 1. | Ms. Algracia Kharbuki
Department of Mathematics
NEHU, Shillong | Member (Till 2 November 2017) |
|----|--|-------------------------------|

Permanent Invitees

- | | | |
|----|--|--------|
| 1. | Director
College Development Council
NEHU, Shillong | Member |
| 2. | Controller of Examinations
NEHU, Shillong | Member |

Registrar, NEHU, Shillong

Secretary, Ex Officio

Appendix D

MEMBERS OF THE BOARD OF RESEARCH STUDIES (Constituted under Clause OA-6(I) of the Ordinances of the University)

Prof. S. K. Srivastava Vice-Chancellor NEHU, Shillong	Chairman, Ex Officio
Prof. Henry Lamin Pro-Vice-Chancellor NEHU, Shillong	Member
Prof. G. Singaiah Pro-Vice-Chancellor NEHU, Tura Campus	Member
All Deans of Schools NEHU, Shillong	Ex Officio Members
All Heads of Departments/Centres NEHU, Shillong/Tura	Ex Officio Members
All Professors other than Heads of Departments/Centres in NEHU, Shillong/Tura	Ex Officio Members
Six Associate Professors, three of whom are from Humanities and Social Sciences and three from Sciences	
1. Dr. Lapynshai Syiem Department of Creative & Cultural Studies, NEHU, Shillong	
2. Dr. B. P. Tripathi Department of Hindi NEHU, Shillong	Member
3. Dr. A. Bhattacharjee Department of Management NEHU, Tura	Member

Appendix D

4. **Dr. S. S. Khatri**
Department of Physics
NEHU, Shillong
5. **Dr. Dinesh Bhatia**
Department of Biomedical Engineering
NEHU, Shillong
6. **Dr. Y. Kumar**
Department of Botany
NEHU, Shillong

Four External Experts: two representing Humanities and Social Sciences and two representing Sciences

- | | | |
|----|--|----------------------|
| 1. | Prof. M. M. Chaturvedi
Dean, Research (Life Science)
Department of Zoology
University of Delhi
Delhi -110007 | Member |
| 2. | Prof. T. Lhungdim
Department of Education
Rajiv Gandhi University
Rono Hills Doimukh
Arunachal Pradesh-791112 | Member |
| 3 | Prof. S. C. Channa
Department of Anthropology
University of Delhi
Delhi-110007 | Member |
| 4. | Prof. Rajib Mall
Department of CSE
Indian Institute of Technology
Kharagpur, West Bengal-721302 | Member |
| | Registrar
NEHU, Shillong | Ex Officio Secretary |

ABBREVIATIONS AND ACRONYMS

AARR	Asian Association of Radiation Research
ADNAT	Association for DNA Fingerprinting Technology
AICTE	All India Council for Technical Education
AIDU	Agricultural Institute Deemed University
AIFF	All India Football Federation
AIIMS	All India Institutes of Medical Sciences
AIMCAT	All India Mock CAT
AIPC	All-India Poetess Conference
AMU	Aligarh Muslim University
AOGS	Asia Oceania Geosciences Society
AP	Andhra Pradesh
AQAR	Annual Quality Assurance Report
ASC	Academic Staff College
ASEAN	Association of Southeast Asian Nations
ATDS	Agricultural Technology Development Society
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy
BA	Bachelor of Arts
BA LLB	Bachelor of Arts and Bachelor of Law
BArch	Bachelor of Architecture
BARD	Bangladesh Academy for Rural Development
BBIN	Bangladesh, Bhutan, India, Nepal
BBS	Buddha Bhanu Saraswati
BCA	Bachelor of Computer Applications
BCKV	Bidhan Chandra Krishi Viswavidyalaya
BCom	Bachelor of Commerce
BE	Bachelor of Engineering
BEd	Bachelor of Education
BEd-SEDE	BEd Special Education
BHU	Banaras Hindu University
BIC	Bioinformatics Centre
BINC	Bioinformatics National Certification

Abbreviations and Acronyms

BME	Biomedical Engineering
BOS	Board of Studies
BRI	Basic Rate Interface
BRNS	Board of Research in Nuclear Sciences
BSI	Botanical Survey of India
BSNL	Bharat Sanchar Nigam Limited
BSSS	Basic Sciences and Social Sciences
BTech	Bachelor of Technology
BU	Bilaspur University
BUGS	Board of Under-Graduate Studies
CAIAG	Central-Asian Institute for Applied Geosciences
CAPART	Council for Advancement of People's Action and Rural Technology
CAT	Common Admission Test
CBCS	Choice Based Credit System
CCC	Career and Counseling Cell
CCS	Chaudhary Charan Singh
CCS HAU	Chaudhary Charan Singh Haryana Agricultural University
CCTV	Closed-Circuit Television
CDC	College Development Council
CDE	Centre for Distance Education
CGCRI	Central Glass & Ceramic Research Institute
CIIL	Central Institute of Indian Languages
CIMPA	Centre International de Mathématiques Pures et Appliquées
CMC	Christian Medical College
CoRT	Cognitive Reasearch Trust
CPRHE	Centre for Policy Research in Higher Education
CPWD	Central Public Works Department
CrPC	Code of Criminal Procedure
CRSI	Chemical Research Society of India
CSE	Computer Science and Engineering
CSIR	Council of Scientific and Industrial Research
CSRD	Centre for Studies in Rural Development
CTE	Colleges of Teacher Education

Abbreviations and Acronyms

DAE	Department of Atomic Energy
DAV	Dayanand Anglo-Vedic
DBT	Department of Biotechnology
DC	Deputy Commissioner
DelCON	DBT e-Library Consortium
DERT	Directorate of Educational Research and Training
DIETs	District Institutes of Education and Training
DIT	Directorate of Information Technology
DLP	Data Loss Prevention
DMHO	District Medical Health Officer
DPhil	Doctor of Philosophy
DRDO	Defence Research and Development Organization
DRS	Departmental Research Support
DSAL	Department of South Asian Language
DSP	Deputy Superintendent of Police
DST	Department of Science and Technology
DSW	Dean of Students' Welfare
DU	Delhi University
DUBS	Delhi University Botanical Society
ECE	Electronics and Communication Engineering
EDII	Entrepreneurship Development Institute of India
EFLU	English and Foreign Languages University
EHSST	East Himalayan Society for Spermatophyte Taxonomy
EKH	East Khasi Hills
ENT	Elementary Number Theory
ENVIS	Environmental Information System
FC-SEDE	Foundation Course on Education of Children with Disability
FDP	Faculty Development Programme
FIST	Fund for Improvement of S&T Infrastructure
FMDP	Foreign Market Development Program
FRMS	Fatigue Risk Management System
GBPUA	Govind Ballabh Pant University
GEN	General
GGSIU	Guru Gobind Singh Indraprastha University

Abbreviations and Acronyms

GIAN	Global Initiative of Academic Networks
GIS	Geographic Information System
GNDU	Guru Nanak Dev University
GNRC	Guwahati Neurological Research Centre
GoI	Government of India
GoM	Government of Meghalaya
Govt	Government
GPS	Global Positioning System
GSI	Gesellschaft für Schwerionenforschung (Germany)
GST	Goods and Service Tax
GU	Gauhati University
HCU	Hyderabad Central University
HDFC	Housing Development Finance Corporation
HIV	Human Immunodeficiency Virus
AIDS	Acquired Immune Deficiency Syndrome
HR	Human Resource
HRDC	Human Resource Development Centre
HSG	Harisingh Gour University
HSGU	Dr. Hari Singh Gour University
HYC	Hynniewtrep Youth Council
IAAP	India Academy of Applied Psychology
IAEA	International Atomic Energy Agency
IAPQR	Indian Association For Productivity, Quality & Reliability
IARI	Indian Agricultural Research Institute
IAS	Indian Administrative Service
IASST	Institute of Advanced Study in Science & Technology
IBSD	Institute of Bioresources and Sustainable Development
ICAR	Indian Council of Agricultural Research
ICFAI	Institute of Chartered Financial Analysts of India
ICFI	Institute of Chartered Financial Analysts
ICHR	Indian Council for Historical Research
ICMR	Indian Council of Medical Research
ICPR	Indian Council of Philosophical Research
ICSSR	Indian Council of Social Science Research

Abbreviations and Acronyms

ICSSR-NERC	Indian Council of Social Science Research for North-Eastern Region Centre
ICT	Information and Communication Technology
IESO	International Earth Sciences Olympiad
IGNOU	Indira Gandhi National Open University
IGRMS	Indira Gandhi Rashtriya Manav Sangrahalaya
IIAS	Indian Institute of Advanced Study
IIG	Indian Institute of Geomagnetism
IISc	Indian Institute of Science
IISER	Indian Institute of Science Education and Research
IIT	Indian Institute of Technology
ILI	Indian Law Institute
ILO	International Labour Organisation
IMC	Intelligent Management Center
IMTECH	Institute of Microbial Technology
INFLIBNET	Information and Library Network
INSA	Indian National Science Academy
INTACH	Indian National Trust for Art and Cultural Heritage
IoT	Internet of Things
IPS	Intrusion Prevention System
IQAC	Internal Quality Assurance Cell
ISBN	International Standard Book Number
ISDN	Integrated Services Digital Network
ISI	Indian Statistical Institute
ISM	Indian School of Mines (Also Institute for Supply Management)
ISRO	Indian Space Research Organization
ISSN	International Standard Serial Number
IT	Information Technology
IUCN	International Union for Conservation of Nature
JEC	Jabalpur Engineering College
JMI	Jamia Millia Islamia
JNU	Jawaharlal Nehru University
KSU	Khasi Students' Union
KVA	Kilo-Volt-Ampere
LAN	Local Area Network

Abbreviations and Acronyms

LCD	Liquid Crystal Display
LDAP	Lightweight Directory Access Protocol
LIS	Library and Information Science
LLB	Bachelor of Laws
LLM	Master of Laws
LNMU	Lalit Narayan Mithila University
MA	Master of Arts
MAKIAS	Maulana Abul Kalam Azad Institute of Asia Studies
MATI	Meghalaya Administrative Training Institute
MBA	Master of Business Administration
MBBS	Bachelor of Medicine
MBDA	Meghalaya Basin Development Authority
MBOSE	Meghalaya Board of School Education
MCA	Master of Computer Applications
MCom	Master of Commerce
MD	Doctor of Medicine
MDP	Management Development Programmes
ME	Master of Engineering
MEd	Master of Education
MGAHV	Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MHRD	Ministry of Human Resource Development
MICE	Meetings, Incentives, Conferences and Exhibitions
MIL	Major Indian Languages
MIMS	Manipur Institute of Management Studies
MLISc	Master of Library and Information Science
MLSC	Manipal Life Science Centre
MoEF	Ministry of Environment & Forests
MoEFCC	Ministry of Environment, Forest and Climate Change
MOOC	Massive Online Open Courses
MoU	Memorandum of Understandings
MPhil	Master of Philosophy
MS	Master of Surgery
MSCW	Meghalaya State Commission for Women
MSU	Maharaja Sayajirao University

Abbreviations and Acronyms

MSW	Master of Social Work
MTA	Master of Tourism Administration
MTech	Master of Technology
MTS	Multi-Tasking Staff
MTTM	Master of Tourism and Travel Management
MU	Mumbai University
NAAC	National Assessment and Accreditation Council
NABARD	National Bank for Agriculture and Rural Development
NASI	National Academy of Sciences, India
NBHM	National Board for Higher Mathematics
NCERT	National Council of Educational Research and Training
NCM	National Center for Mathematics
NCTE	National Council for Teacher Education
NDUAT	Narendra Dev University of Agriculture & Technology
NDVN	Data and Voice Network
NEC	North Eastern Council
NECHRI	North East Cancer Hospital and Research Institute
NEEPCO	North Eastern Electric Power Corporation Limited
NEHU	North-Eastern Hill University
NEHUSU	NEHU Students' Union
NEIAH	North Eastern Institute of Ayurveda Homoeopathy
NEICORD	North East India Committee on Relief and Development
NEICSSR	North-Eastern Indian Council of Social Science Research
NEIES	North East India Education Society
NEIGRIHMS	North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences
NEIGS	North-East India Geographical Society
NEIHPID	North-East India Helminth Parasite Information Database
NEMA	North Eastern Management Association
NERC	North-Eastern Regional Centre
NERC-ISM	North Eastern Region Chapter of the Institute for Supply Management
NERIE	North East Regional Institute of Education
NERIM	North Eastern Regional Institute of Management
NET	National Eligibility Test
NETD	National Electronic Theses and Dissertations

Abbreviations and Acronyms

NFHE	National Fellowship for Higher Education to ST Students
NGO	Non-governmental Organization
NGS	Next Generation Sequencing
NICPR	National Institute of Cancer Prevention and Research
NIRD	National Institute of Rural Development
NISER	National Institute of Science Education and Research
NIT	National Institute of Technology
NKN	National Knowledge Network
NMEICT	National Mission on Education through Information and Communication Technology
NMML	Nehru Memorial Museum and Library
NRC	National Register of Citizens
NSD	National School of Drama
NSS	National Service Scheme
NSTEDB	National Science & Technology Entrepreneurship Development Board
NTU	Nanyang Technological University
NUEPA	Nehru Yuva Kendra
OAFRL	Online Access Facility of Library Resources
OBC	Other Backward Communities
ODE	Ordinary Differential Equation
OIL	Oil India Limited
OKDISCD	Omeo Kumar Das Institute of Social Change and Development
OP	Orientation Programme
OPAC	Online Public Access Catalogue
PAUP	Phylogenetic Analysis Using Parsimony
PDE	Partial Differential Equation
PG	Postgraduate
PGDCA	Postgraduate Diploma in Computer Application
PGSU	Post-Graduate Students' Union
PhD	Doctor of Philosophy
PI	Principal Investigator
PRADAN	Professional Assistance for Development Action
PVC	Pro-Vice-Chancellor
PWD	Persons with Disabilities
R&D	Research and Development

Abbreviations and Acronyms

RBD	Ri-Bhoi District
RBI	Reserve Bank of India
RC	Refresher Course
RCC	Reinforced Cement Concrete
RDAP	Rural Development and Agricultural Production
REC	Regional Engineering College
RFBR	Russian Foundation for Basic Research
RFID	Radio-Frequency Identification
RMK	Rajkiya Mahavidyalaya Kalka
RSC	Royal Society of Chemistry
RUSA	Rashtriya Uchchatar Shiksha Abhiyan
SAARC	South Asian Association for Regional Cooperation
SAIF	Sophisticated Analytical Instrument Facilities
SAP	Special Assistance Programme
SBI	State Bank of India
SC	Schedules Castes
SCXRD	Single Crystal X-ray Diffraction
SEMIS	School of Economics, Management and Information Sciences
SERB	Science and Engineering Research Board
SHG	Shillong
SKM	Sido Kanhu Murmu
SMIT	Sikkim Manipal Institute of Technology
SMO	Senior Medical Officer
SMU	Sikkim Manipal University
SNDT	Shreemati Nathibai Damodar Thackersey
SOT	School of Technology
SP	Superintendent of Police
SPA	School of Planning and Architecture
SPSS	Statistical Package for the Social Sciences
SQL	Structured Query Language
SRM	Sri Ramaswami Memorial University
SSA	Sarva Shiksha Abhiyan
ST	Scheduled Tribes
SVU	Sri Venkateswara University

Abbreviations and Acronyms

SWOT	Strengths, Weaknesses, Opportunities, and Threats
TDM	Time Division Multiplexing
TISS	Tata Institute of Social Sciences
UAS	University of Agricultural Sciences
UCC	Union Christian College
UGC	University Grants Commission
UGC-HRDC	UGC-Human Development Centre
UH	University of Hyderabad
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
Univ	University
USTM	University of Science and Technology, Meghalaya
VC	Vice-Chancellor
VLAN	Virtual Local Area Network
VSAT	Very Small Aperture Terminal
WBUT	West Bengal University of Technology
WDF	World Diabetes Foundation