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पूर्वोत्तर पर्वतीय विश्वविद्यालय
जिलाः पूर्वी खासी हिल्स, शिलांग - 793022
मेघालय, भारत

North-Eastern Hill University
District: East Khasi Hills, Shillong - 793022
Meghalaya, India

F.No.38-7/Acad/R&D Cell/2024-327 Dated: 4 - 4 2024

NOTIFICATION

The Vice-Chancellor, NEHU, Shillong is pleased to constitute for functioning and organizational activities of R & D Cell with the following members.

Advisory Committee:

1. Prof. P.S Shukla, Vice-Chancellor NEHU, Shillong. - Chairman
2. Prof.N.Saha, Dean, School of Life Sciences, NEHU,Shillong. - Member
3. Prof. Streamlet Dkhar, Department of Khasi, NEHU,Shillong. - Member
4. Prof. S.Mitra, Department of Chemistry, NEHU, Shillong. - Member
5. Prof. S.K.Barik, Department of Botany, NEHU, Shillong. - Member
6. Prof. Cecile Mawlong, Department of History & Dean In-charge Humanities, NEHU, Shillong. - Member
7. Prof. Gautam Saha, Department of Information Technology NEHU, Shillong - Member

Central Committee:

1. Prof. P.S Shukla, Vice-Chancellor, NEHU Shillong. - Chairman

2. Prof. S.R. Joshi - Director
Deptt. Biotechnology & Bioinformatics,
NEHU, Shillong

3. Prof. T. Tripathi - Member
Deptt. Zoology
NEHU, Shillong.

4. Dr. S.Majaw, - Member
Associate Professor.
Deptt. Biotechnology & Bioinformatics,
NEHU, Shillong

5. Prof. Santosh Kumar - Member
Department of Mathematics,
NEHU, Shillong.

6. Prof. Rajesh Vajpayee, - Member
Associate Professor,
Department of Environmental Sciences,
NEHU,Shillong.

7. Dr. S.P. Pati - Member
Associate Professor,
Department of Physics,
NEHU,Shillong.

8. Dr.S .Shukla - Member
Department of Nanotechnology,
NEHU, Shillong

9. Dr. Manas Goswami - Member
Department of Jounalism & Mass Communication,
NEHU,Shillong.

10. Dr. Sunildro L. S. Akrjam - Member
Associate Professor,
Deptt. Management,
NEHU, Tura.

11. Dr. Madhukar Gampala - Member
    Associate Professor,
    Deptt. Education,
    NEHU, Tura

12. Prof. D.K.Biswal - Member
    Department of Zoology,
    NEHU, Shillong.

Registrar

Copy to:

1. P.S to the Vice-Chancellor,NEHU Shillong.
2. P.S to the Registrar,NEHU,Shillong.
3. Prof. S.R Joshi, Director, R&D Cell, Deptt. of Biotechnology & Bioinformatics, NEHU, Shillong.
4. To all concerned members.

Registrar

कुलसचिव / Registrar
नेहू, शिलांग
NEHU, Shillong

Policy

Research and Development Cell

North-Eastern Hill University

Shillong

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Preamble

The establishment of the Research and Development Cell (RDC) at North-Eastern Hill University (NEHU), Shillong, Meghalaya, is based on the objectives outlined in the National Education Policy (NEP) 2020 and the University Grants Commission (UGC) guidelines for promoting research and innovation in higher education institutions. The RDC is envisioned as a dynamic hub for promoting interdisciplinary research, supporting innovation, and enhancing the overall academic ecosystem of the university.

The RDC aims to create a conducive environment that encourages faculty, researchers, and students to engage in cutting-edge R&D activities. By providing necessary support, facilitating collaborations, and promoting a culture of research excellence, the RDC aspires to elevate the research ecosystem. Recognizing the vital role of research in addressing contemporary societal challenges and contributing to the nation's development, the RDC will prioritize translational research that bridges the gap between academic discoveries and real-world applications, thereby contributing to the socio-economic growth of the region and the country.

In line with the NEP 2020's emphasis on holistic and multi-disciplinary education, the RDC will promote a collaborative and inclusive research culture. It will provide platforms for knowledge exchange, capacity building, and dissemination of research outcomes through seminars, workshops, etc. Additionally, the RDC will implement robust mechanisms for monitoring and evaluating research activities to ensure adherence to ethical standards and research integrity, thereby contributing to the sustainable development and intellectual and economic growth of the Northeast region.

Vision

To establish NEHU as a dynamic hub for pioneering research and innovation through interdisciplinary collaborations and promoting faculty and student growth towards developing sustainable solutions for society.

Mission

- Fostering a culture of curiosity, innovation, and excellence across various fields, nurturing a vibrant research community.
- Encouraging interdisciplinary collaborations to address pressing societal issues, using the collective expertise of academia, industry, and government stakeholders.
- Aid researchers to develop cutting-edge infrastructure resources and provide guidance to drive transformative breakthroughs.
- Facilitating knowledge exchange and technology transfer, translating research findings into impactful solutions for economic and societal advancement.
- Creating an inclusive and supportive environment that nurtures talent, promotes inclusivity, and upholds ethical research standards.

Objectives

1. To help conduct cutting-edge research across various disciplines to contribute to the advancement of knowledge.
2. To create a supportive ecosystem for interdisciplinary research, encouraging the exchange of ideas and expertise from diverse academic disciplines.
3. To identify and prioritize thrust areas of research by forming specialized cluster groups or frontline teams comprising experts in the field.
4. To develop and implement a comprehensive research policy framework designed for the specific needs and goals of the northeast region.
5. To facilitate the advancement of research infrastructure through the development of state-of-the-art laboratories and the establishment of centres of excellence dedicated to addressing key areas of national and global importance.

6. To offer support and guidance in developing and submitting grant proposals by acting as a bridge between researchers and funding bodies, promoting collaboration and synergy through encouraging and facilitating joint research projects across various departments or institutions.

7. To assist researchers in identifying external funding opportunities from government agencies, industry partners, and other organizations and to ensure informed access for women-specific grant opportunities.

8. To establish clear provisions in research policies for recruiting research personnel, procuring equipment, and managing finances.

9. To develop an institutional research information system that uses information technology to streamline knowledge exchange, collaboration, and resource allocation for research projects and to improve coordination and cooperation among various university entities involved in activities such as university-industry connections, incubation, innovation, entrepreneurship development, and intellectual property rights.

10. To facilitate collaboration among researchers, innovators, government agencies, industry partners, and academic institutions to translate research findings into practical applications and assist with technology transfer, commercialization, and providing guidance on intellectual property protection for innovative discoveries.

11. To develop strategic alliances with international institutions to promote collaborative research at the global level.

12. To organize seminars, workshops, training programs, and conferences to promote knowledge exchange and networking while also serving as a focal point for the ideation and conceptualization of research themes.

13. To provide training and mentorship programs for early-career researchers to develop their research skills and leadership capabilities.

14. To promote the dissemination of research findings in high-impact journals, patents, and other forms of knowledge transfer and recognize and reward exceptional research contributions and achievements.

15. To establish mechanisms to monitor and evaluate research outcomes and impact, while promoting a culture of ethical research conduct and integrity.

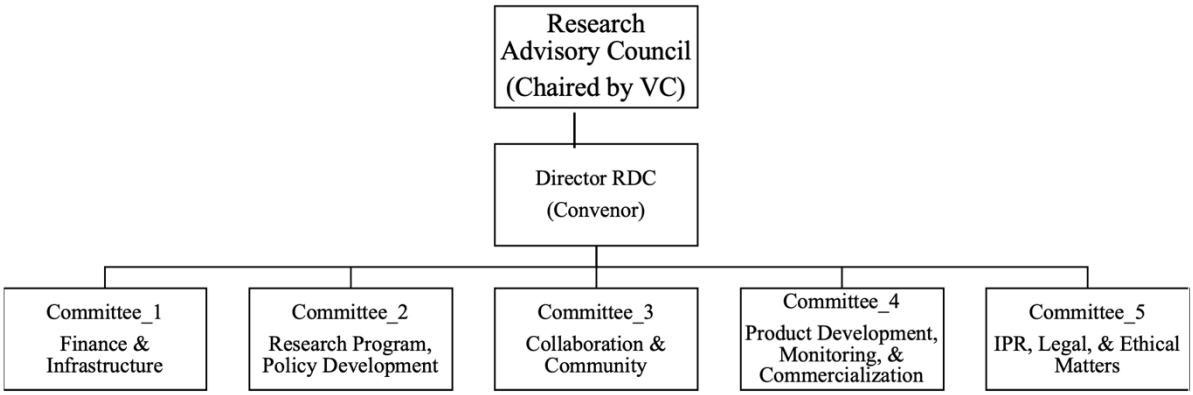
Functions

The RDC would help to create a research ecosystem for reliable, impactful, and sustained research output. The essential elements of such an ecosystem, viz., generation of knowledge and facilitation of research, innovation and technology development for industrial & societal benefits, are addressed by human resource (researcher & faculty), intellectual capital (knowledge & skills), governance (regulation & policies) and financial resources (funding & grants).

1. Governance

An efficient governance mechanism ensures functional autonomy, transparency, accountability, and adaptability by strengthening interlinkages to create a conducive research environment. RDC will foster the human elements (faculty, staff, scholars, and students), logistics (land, buildings, and facilities), knowledge resources (research equipment, project utilities, and consumables), fund flow, etc., through a steady, proficient, effective governance (Rules, Norms, and Policies) and financial (Grants and Funds) management. A dedicated leadership and administrative structure for research, led by experienced researchers, will be used to establish an effective and robust Research Governance in the RDC.

The Research Governance will have a Research Advisory Council (RAC) headed by the Vice-Chancellor as the apex body of RDC. The Director, nominated by the Vice-Chancellor among the distinguished researchers from the university, will head various committees to drive the governance. RDC will form multiple committees to smoothen its functioning with respective committee members nominated by the Director – RDC and approved by RAC. To start with, the organizational structure of RDC will comprise various committees for specified functions, as follows:



Additional committees and/or sub-committees will be formed and developed as per requirement.

2. Administration

Established organizational structures (Bodies, Authorities, and Committees) will facilitate the planning, implementation, and monitoring of research activities and formulate rules, regulations, and policy frameworks for utilizing facilities and resources. A strategy adopted to integrate multiple functional units will support institutional research under a single-window operational system for effective administration.

The activities of RDC will be mentored and monitored by various committees for devising research models, technology, appraisal, foresight & review functions, mediating sectoral R&D progress, and IPR protection. RDC will keep close contact with the Ministry Innovation Cell to use various innovative plans to facilitate research.

3. Research Ecosystem/Collaboration

A vibrant research ecosystem aims to provide meaningful thrust for sustainable research and innovation and promote collaboration between government, universities, research institutes and industries. RDC will build a sustainable research ecosystem that leads to consistent quality research outcomes and enhanced productivity.

The RDC will act as a facilitator for networking and collaborative research with other regional, national and international institutions working in inter-disciplinary, trans-disciplinary, and multi-disciplinary research areas. A reformed administrative structure will reach out to key industry players, research organizations, institutions, associations, NGOs, and government bodies to forge strategic partnerships. The RDC will also help establish collaborations, teams/consortia, partnerships, and combined ventures for joint research activities through clustering institutions and organizations to facilitate the exchange of students, scholars, and faculty.

The RDC will act as a bridge to strengthen resource sharing in content and infrastructure within the university and among universities, funding agencies, industries, corporates and government.

4. Information Management System

The RDC will put in place a Research Information Management System (RIMS) to collect and manage research-oriented information, databases, publications, research projects, fellowships, collaborations, patents, thrust areas, innovations, etc. RIMS would also provide a platform for accessing resource-centric information pertaining to human capital (Expertise), physical capital (State-of-the-art Research Laboratories and Sophisticated Instrumentation Facility), and knowledge capital (Digital Library & Information, Intellectual Property Facilitation, Quantitative Methods & Data Analysis, Analytical and Consultancy Services).

As per the requirements of various regulatory agencies, researchers can submit, modify, or update their research compliances, such as protocol approval, training records, equipment lists, etc. RIMS will provide a centralized and integrated database to manage issues related to radioactive safety approval clearances for the use and disposal of biological, chemical, and radioactive hazardous materials, protective equipment measures, staff surveillance, appropriate training/workshops, etc.

The RDC will create a blog or portal for Institutional Research Information and Institutional Repository and sign an MoU with UGC-INFLIBNET to access and upload the research information through Shodh Ganga, Shodh Gangotri, Shodh Sindhu, Shodh Shuddhi, and Shodh Chakra.

Innovation Management (ISO 56002:2019) can also be implemented as a common framework to develop and deploy innovation capabilities, evaluate performance, and achieve the intended outcomes of global standards.

5. Human Resources

The Director RDC, the Conveners and members of various committees (nominated by the Director RDC from the existing faculties with research credentials) and supporting administrative/technical staff would ensure the smooth conduct of the research activities. In addition, the RDC will facilitate doctoral and post-doctoral research works and assist in managing the PhD program at the university.

The RDC will also explore the opportunity to re-employ or designate superannuated faculty/scientists with exceptional research profiles as Mentors/ Scientists/ Professor Emeritus on a selective basis to help build a resilient research ecosystem.

6. Research Promotion & Guidance

The research promotion activities will be aligned with the mandates of various National Missions, SDGs, and Start-up India, leading to a Self-Reliant India (Atma-Nirbhar Bharat).

Research Guidance from RDC will encourage faculties to conceive ideas through enhanced industry-academia interactions and prepare research proposals for funding from various agencies. Organizing events like capacity-building programs (Research Methodology and Research Techniques) and specific research theme-based workshops and Research Internships will motivate the end-users (students, scholars, and faculties) to participate actively in the process of ideation and innovative research and identify entrepreneurial opportunities in emerging areas. In addition, RDC will guide researchers in connecting to other bodies within NEHU, such as the IPR cell, incubation cell, DIC, etc.

6.1. Research Thrust and Clustered Areas

Thrust areas for Research in NEHU will be identified, underpinning the societal needs and the availability of key resources, including in-house human resources, faculty research competencies, and support systems. This would enable RDC to consider establishing a Center of Excellence (CoE) in these identified contemporary areas of research.

RDC will form Research Clusters and/or Regional Research Consortia to bring all researchers, faculty, students, scholars, and post-doctoral fellows for joint high-value (interdisciplinary and trans-disciplinary) research projects to avail national and international funding opportunities. Shared infrastructure and expertise will enable the cross-fertilization of ideas and the mobilization of resources. Further, forming Regional Research Consortia will add a synergistic advantage in finding solutions in inter-disciplinary, trans-disciplinary, and multi-disciplinary areas.

The CoEs can serve as Incubation Centres to transform innovative ideas into processes and products administered and monitored by the proposed RDC. RDC will also provide an avenue for community talent with prior learning/expertise to engage in research and innovation activities.

6.2. Research Incentives and Recognition

Incentives play a significant role in triggering and catalyzing research interest among scholars and faculties. Incentivizing quality publications and patents by students and faculty will have an enduring positive impact. Institution of Excellence Awards for accomplishments/achievements in the form of impactful quality research and/or research-

based teaching will further stimulate and invigorate the research and innovation activities of the HEI.

RDC will also explore developing a policy that focuses on identifying specific incentives for research students and faculty and creating a unique Research Career ladder for strengthening the mission of "Research".

6.3. Technology Development and Business-Centred Facility

The Technology Development and Business-Centered Facility will be a hub for strategic partnerships/collaborations, industry-institute interface, sponsored or contract research, new knowledge generation, IPR and patent services, venture capital, trade/market portfolio, technology transfer, and commercialization of research to facilitate innovation, incubation, entrepreneurship and start-up ventures.

6.4. Finance

RDC will facilitate resource mobilization and explore the possibility of creating a Corpus for R&D from government, industry, and other funding agencies and channel Corporate Social Responsibility (CSR) funds to sustain and further research activities. Apart from creating a Corpus fund exclusively for R&D, RDC will also try to find venture capitalists and angel investors for funding in research and innovation. It will liaise with funding agencies and track funding opportunities from industrial consortia. The corpus created for research can also be used to support seed funding for newly recruited faculty to develop basic research facilities.

7. Integrity and Ethics

Regular initiatives by RDC will ensure that researchers understand the importance of integrity and ethics and comply with ethical codes of research and publishing practices at institutional, national, and global levels. A standard plagiarism check mechanism is already available at NEHU, and the requisite software is also accessible to all researchers. In addition, it will facilitate researchers to collaborate with the Central Library facility of NEHU for awareness and utilization of plagiarism software. The RDC will sensitize the research community about research integrity, dubious research, publishing practices and predatory journals.

8. Capacity Building

RDC would help build the capacity of faculty and students to undertake research problems in line with the latest advances in various disciplines, push the boundaries of knowledge through publications, and contribute to technological developments relevant to societal needs. It would also help to attract more research grants under norm-based funding, improve the accreditation ranking and enhance its brand image. Regular events such as refresher courses, workshops, trainings/internships, group discussions and seminars/conferences will be organized for capacity building. RDC would help create central R&D facilities by providing associated training/internships to faculty members and students.

9. Research Monitoring

The current policy in India encourages universities and institutions to be responsible and accountable for R&D and innovation activities by creating infrastructure, generating resources, promoting business, and facilitating policy frameworks to nurture the culture of quality research by adhering to ethical practices. Among the standard functions, the RDC will monitor and oversee research progress, coordinate programs, manage and facilitate optimizing resources, and timely review of research activities for completion of the projects as per schedule.

RDC will formulate and adhere to specific quality benchmarks for research to meet global/international standards. The RDC will conduct a quality review (SWOC Analysis) or internal evaluation of the research papers and suggest Scopus Indexed, Web of Science (WoS), or UGC-CARE journals for appropriate publications.

RDC will also ensure that all the Research Labs in the institution fulfill the norms of Good Laboratory Practices (GLP) and Safety (Bio and Chemical) measures, recognized as QIP centers and by the National Accreditation Board of Laboratories (NABL).