National Workshop on
Synthesis and Characterization of
Photoactive Nanocomposites for Solar Application

11th-16th September, 2017

Jointly Organized By

Department of Energy Engineering
North-Eastern Hill University
Shillong-793022, Meghalaya, INDIA
http://www.nehu.ac.in/

Anton Paar India Pvt. Ltd.
Phase V, Udyog Vihar Industrial Area
Gurgaon – 122016
ABOUT THE UNIVERSITY

North-Eastern Hill University (NEHU) was set up by an Act of Parliament and notified on 19th July 1973. The objectives of the University, as laid down in the act, are "to disseminate and advance knowledge by providing instructional and research facilities in such branches of learning as it may deem fit; to pay special attention to the improvement of the social and economic conditions with aim to provide welfare of the people of the hill areas of the North-Eastern region, and in particular, the intellectual, academic and cultural advancement". In spite of serious constraints of communication and the general lack of infrastructure facilities in the region, NEHU has established itself as an institution of higher learning and research of very high quality. Various departments of the University receive special grants from UGC under its Special Assistance Programme. Apart from UGC grants, a large number of research projects have been awarded to individual faculty members by various national and international funding agencies. NEHU has around 1700 students in various Professional, Master's, M.Phil and Ph.D. degrees with faculty strength of over 500 members. At present there are fifty-three undergraduate colleges affiliated to the University including eight professional colleges with enrolment of about 18,000 students. Thus, in a short span of about 40 years NEHU has matured into an institution with a serious academic, social and cultural agenda and a clear vision for its future growth.

LOCAL ORGINIZING COMMITTEE

Patron-in-Chief
Prof. S K Srivastava
Honourable Vice Chancellor, NEHU

Patron
Dean, School of Technology, NEHU

Convener
Dr. Samrat Paul
Teacher In-charge and Assistant Professor
Department of Energy Engineering, NEHU

Co-Convener
Mr. Dharmesh Gala,
Head- Material Characterization, Anton Paar India

NATIONAL ADVISORY COMMITTEE

Prof B Ghosh
Director School of Energy Studies, JU

Prof. S C Mullick
Prof (Retd), Centre for Energy Studies, IIT Delhi

Prof. S K Samdarshi
Head Centre for Energy Engg. CUJ

Prof P Lingfa
Head Mechanical Engineering, NERIST

Prof A Kumar
Department of Physics, Tezpur University

Sri U N Madan
Director, MNREDA, Govt of Meghalaya

Dr. P Deb
Department of Physics, Tezpur University

IMPORTANT DATES

Start of Registration: 10th April, 2017
Spot Registration: 11th September 2017
Workshop: 11th-16th September 2017

FOCUS AREAS

- Synthesis of Photo active nanomaterials
  - Using Solgel Technique
  - Using Microwave Reactor

- Synthesis of nanocomposites
  - CNT, Graphene based nanocomposites
  - Bimetallic and Trimetallic nanocomposites

- Characterization Techniques
  - Zeeta potential
  - Particle Size and Distribution
  - Rheological Studies

- Fabrication of Dye Sensitized Solar Cells
- Characterization of Solar cell using AAA solar simulator

* The Make and model of the major equipment are given in the last page

ABOUT THE DEPARTMENT

Department of Energy Engineering in NEHU was established in the year 2012 with the specific purpose to promote studies in new emerging areas of Energy science and Technology. The Department’s prime focus to impart quality, career-oriented engineering education in order to produce manpower pool in the field of Energy Engineering, develop new and efficient energy technologies, R & D and extension activities in diverse areas of renewable energy. Currently The Department is offering B. Tech. and Ph. D. programme in Energy Engineering.

REACH AND CONNECTIVITY

Shillong is at distance of 100 km from Guwahati, which is well connected by Air and Railways. Guwahati is connected by Air to major cities with direct flights from Delhi, Kolkata, Mumbai and Bangalore. It is also connected with trains to other parts of the nation. It is about three hours journey by road from the Guwahati Railway Station as well as the Guwahati International. Taxis and buses are readily available from these locations.
REGISTRATION FORM

(please send hard copy of the form along with the payment details, Xerox of the Registration form may be also used)

Family Name.......................................................... First Name............................................................

Sex ............................. Designation..........................Organization............................................................

Address....................................................................................................................................................

..............................................................................................................................................................................Pin

Tel...................................................Mob.....................................E-mail.................................................................

<table>
<thead>
<tr>
<th>Category</th>
<th>Before 20th August 2017</th>
<th>After 20th August 2017</th>
<th>Payment Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academia Professionals</td>
<td>10,000/-</td>
<td>12,000/-</td>
<td>Payments must be made through Account payee cheque or by RTGS transfers</td>
</tr>
<tr>
<td>Industry Professionals</td>
<td>20,000/-</td>
<td>25,000/-</td>
<td>FOR Details please call Mr. Rajib Saha (99402517187), Department of Energy Engg. NEHU, Shillong</td>
</tr>
<tr>
<td>Students (ID proof required)</td>
<td>5,000/-</td>
<td>7,500/-</td>
<td></td>
</tr>
<tr>
<td>Accompanying Person (without conference kit)</td>
<td>5,000/-</td>
<td>7,500/-</td>
<td></td>
</tr>
</tbody>
</table>

Payment Details:

Cheque No................................. Amount............................................Date................................................

Date : ................................................ Signature ....................

Travel details (arrival): Date................................. Time................................. Place: Guwahati/Shillong

Mode of travel: Air/Train/any other...............................Flight no/Train no.................................................................

University Guest House Accommodation required (Y/N).................................................................

University Guest House Accommodations will be facilitated for the participants on twin sharing basis, depending on the availability of Rooms.
## Gold Sponsors (Rs 20,000/-)

- Complementary two free delegate pass (it includes Conference kit, attending all sessions of workshop and Food & refreshment during workshop)
- One Page (A4 size approx.) advertisement in the Published Study Material (if Published)
- Logo in every Back drop/banners

## Platinum Sponsors (Rs 40,000/-)

- Complementary three delegate pass (it includes Conference kit, attending all sessions of workshop and Food & refreshment during workshop)
- Two Page (A4 size approx.) advertisement in the Published Study Material (If Published)
- Logo in every Back drop/banners

---

### Equipment

- **Microwave Synthesizer**
  (Anton Paar, MONOWAVE 400)
- **Zeta Potential Analyser**
  (Anton Paar, LITESIZER 500)
- **Solar Simulator**
  (SS F5 3A)
- **Rheometer**
  (Anton Paar, MCR 92/MCR702)