

**CSIR-North East Institute of Science & Technology, Jorhat**  
*Connecting Science & Technology for a Brighter Tomorrow*

**CSIR-NEIST celebrated National Science Day 2015**



Prof Harsh K Gupta, Member, Atomic Regulatory Board; President, Geological Society of India; President, International Union of Geodesy & Geophysics and Chairman, Research Council, CSIR-NEIST delivering the National Science Day lecture as Chief Guest.



Dignitaries on the dais (from left), Dr R C Boruah, Outstanding Scientist, CSIR-NEIST; Prof Harsh K Gupta, Member, Atomic Regulatory Board; President, Geological Society of India; President, International Union of Geodesy & Geophysics and Chairman, Research Council, CSIR-NEIST; Dr D Ramaiah, Director, CSIR-NEIST and Prof Kankan Bhattacharyya, Department of Physical Chemistry, Indian Association for the Cultivation of Science, Kolkata.

CSIR-NEIST celebrated National Science Day on 25 February at its premise. Befitting the occasion, a special programme was held at Dr J N Baruah Auditorium. Prof Harsh K Gupta, Member, Atomic Regulatory Board; President, Geological Society of

India; President, International Union of Geodesy & Geophysics and Chairman, Research Council, CSIR-NEIST delivered the Science Day Lecture on the topic, “Living with Earthquakes in the North-East India”, while gracing the event as Chief Guest. Prof Gupta in his lecture covered various aspects about earthquakes and its hazards, earthquake data analysis, seismic moment rate release, magnitude distribution of earthquakes, earthquake forecast, early earthquake warning system etc. wherein he focused particularly on the North East India and the Himalayan region. Prof Gupta also gave some highlights of the activities under NDMA funded project on M 8.7 1897 Shillong Earthquake for creating a repeat scenario of the earthquake in the North East which is being implemented by CSIR-NEIST with the association of NDRF, SDRF and SDMA of all NE states.

Prof Kankan Bhattacharyya, Department of Physical Chemistry, Indian Association for Cultivation of Science- Kolkata & Member-Research Council, CSIR-NEIST was present as Guest of Honour. In his address, Prof Bhattacharyya, very lucidly spoke about the works of Prof C V Raman from his early life and his extraordinary passion for the discovery of Raman Effect, for which he received the Nobel Prize in 1930. Prof Bhattacharyya encouraged all to cultivate such passion, confidence and the spirit of victory to reach one’s destiny.

Earlier Dr R C Boruah, Outstanding Scientist, CSIR-NEIST delivered the welcome address and introduced the Chief Guest to the gathering. Dr D Ramaiah, Director, CSIR-NEIST in his Presidential remarks said that National Science Day is celebrated every year in the country not only to celebrate the discovery of Raman Effect but also to popularize the benefits of scientific knowledge. He also recapitulated the vision of the Prime Minister, ‘Make in India’ and appealed to all to take on ‘Make in CSIR-NEIST’ spirit to translate our research into useful products and technologies.

A large number of invited guests, eminent personalities from Jorhat district and CSIR-NEIST fraternity attended the programme. It is also worthwhile to mention that on account of closed holiday on 28 February and also with the Research Council

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meeting held during the period, the programme was scheduled on 25 February.

### Dr Dipak Kr Dutta, Chief Scientist conferred the CRSI Bronze Medal

Dr Dipak Kr Dutta, Chief Scientist has been awarded the prestigious CRSI Bronze Medal and a certificate by the Chemical Research Society of India (CRSI) in recognition of his contribution to research in chemistry. The medal was presented in the 17th Annual CRSI National Symposium in Chemistry held during 5-8 February, 2015 at CSIR-NCL, Pune. Dr Dutta also delivered an invited talk on, "Potential metal-complexes and metal-nanoparticles for efficient catalytic applications" in the symposium.



Dr D K Dutta,  
Chief Scientist

### CSIR-NEIST research articles receives wide readership

- A research article entitled, "Biosynthesis of Ag nanoparticles using pedicellamide and its photocatalytic activity: An eco-friendly approach" authored by Tamuly C, Hazarika M, Bordoloi M J, Bhattacharyya P K, Kar R published in *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2014 (May), 132, p: 687-691, has been downloaded or viewed 372 times since its publication (measured through January, 2015) as reported by Elsevier.
- A research article entitled, "Natural polyhydroxyalkanoate-gold nanocomposite based biosensor for detection of antimal drug artemisinin" authored by Phukon P, Radhapyari K, Konwar B K, Khan R published in *Materials Science and Engineering: C*, 2014 (January), 37, p: 314-320, has been downloaded or viewed 394 times since its publication (measured through December, 2014) as reported by Elsevier.

### Knowhow/technology transferred



Dr D Ramaiah (extreme right), Director, CSIR-NEIST handing over the knowhow package to the entrepreneur, Mr Arindam Ghosh (extreme left) while Dr Tridip Goswami (2nd from right), Head-CPP Division and inventor of the technology, Dr R L Bezbaruah (3rd from right), Head- I&BD Division and Mr N C Patra from Director's secretariat looks on.

CSIR-NEIST signed knowhow transfer agreement with Mr Arindam Ghosh, an entrepreneur from Agartala, Tripura on 17 February for transfer of technology/knowhow on Liquid Deodorant Cleaner.

### Patents

#### Granted abroad

- **Title:** A method for the extraction of Shikimic acid.  
**Patent No:** 8912357.  
**Inventors:** Manobjyoti Bordoloi, Jayanta Borah, Dipak Kumar Roy, Subhash Chandra Dutta, Nabin Chandra Baruah, Paruchuri Gangadhar Rao.  
**Granted on:** 16.12.2014.

## Filed abroad

- Title:** A synergistic pharmaceutical composition useful for the treatment of Lung cancer.  
**Application No.**35037823 filed in CN.  
**Inventors:** Mantu Bhuyan, Pranab Ram Bhattacharyya, Pranab Kumar Baruah, Nabin Chandra Barua, Paruchuri Gangadhar Rao, Sushmita Bhattacharya, Rakesh Kundu, Priyajit Chatterjee, Soma Seal, Sandeep Mukherjee, Suman Dasgupta, Sudipta Moitra, Shelley Bhattacharya, Samir Bhattacharya.  
**Complete filing date:** 25.12.2014.
- Title:** A process for the preparation of resin coated bauxite proppants.  
**Application No.**PCT/IN2014/000798.  
**Inventors:** Dipak Kumar Dutta, Pinaki Sen-gupta, Kokil Saikia, Podma Pollov Sarmah, Ankana Phukan.  
**Complete filing date:** 24.12.2014.
- Title:** A synergistic Pharmaceutical composition useful for the treatment of Lung cancer.  
**Application No.**14/410,844 filed in US.  
**Inventors:** Mantu Bhuyan, Pranab Ram Bhattacharyya, Pranab Kumar Baruah, Nabin Chandra Barua, Paruchuri Gangadhar Rao, Sushmita Bhattacharya, Rakesh Kundu, Priyajit Chatterjee, Soma Seal, Sandeep Mukherjee, Suman Dasgupta, Sudipta Moitra, Shelley Bhattacharya, Samir Bhattacharya.  
**Complete filing date:** 23.12.2014.
- Title:** A synergistic Pharmaceutical composition useful for the treatment of Lung cancer.  
**Application No.**12775317 filed in EP.  
**Inventors:** Mantu Bhuyan, Pranab Ram Bhattacharyya, Pranab Kumar Baruah, Nabin Chandra Barua, Paruchuri Gangadhar Rao, Sushmita Bhattacharya, Rakesh Kundu, Priyajit

Chatterjee, Soma Seal, Sandeep Mukherjee, Suman Dasgupta, Sudipta Moitra, Shelley Bhattacharya, Samir Bhattacharya.

**Complete filing date:** 17.12.2014.

- Title:** A process for reducing chloronitrobenzene catalyzed by Platinum-nanoparticles stabilized on modified Montmorillonite clay.

**Application No.**14/550373 filed in US.

**Inventors:** Dipak Kumar Dutta, Dipanka Dutta.

**Complete filing date:** 22.11.2014.

- Title:** A process for reducing chloronitrobenzene catalyzed by Platinum-nanoparticles stabilized on modified Montmorillonite clay.

**Application No.**1420745 filed in GB.

**Inventors:** Dipak Kumar Dutta, Dipanka Dutta.

**Complete filing date:** 21.11.2014

## Granted in India

- Title:** A process for preparation of a surface active agent useful as chemical additive polyelectrolyte for the removal of aluminous gangue minerals from ore fines.

**Application No.**264422.

**Inventors:** Sekh Mahiuddin, Ajit Chandra Baruah, Prakash Chandra Borthakur.

**Complete filing date:** 29.12.2014.

## Filed in India

- Title:** Steroid-chitosan ketimine nanoparticles for antibacterial and anti-fungal activity.

**Application No.**3867DEL2014.

**Inventors:** Archana Moni Das, Abdul Aziz Ali, Pritish Kumar Chowdhury, Manash Protim Hazarika, Archana Yadav, Purnajyoti Deka Bhuyan.

**Complete filing date:** 23.12.2014.



## CSIR-NEIST branch laboratory organised training programme on Mushroom cultivation



Women participants during the training with the organizing team from CSIR-NEIST branch lab, Itanagar.

CSIR-NEIST branch lab, Itanagar, Arunachal Pradesh organised training and awareness programme on Mushroom cultivation in association with Gungma Dene Self Help Group on 3 February at Lorr village, Itanagar. The training programme covered theoretical and practical demonstration on the cultivation method, appraisal on various health benefits of Mushroom and scope for income generation through its cultivation. Dr Chandan Tamuly, Scientist-in-charge, Branch lab and Dr Budhen C Baruah, Sr Technical Officer conducted the programme. Altogether 20 women representatives from the SHG participated in the training.

## Seminar/Conference/Workshop/Meeting attended

- Dr S P Saikia, Scientist, attended a workshop on Biomedical Engineering & Biotechnology as a resource person organised by Assam Medical College, Dibrugarh for school students on 8 February.
- Dr Mohan Lal, Scientist, attended XIIth Agricultural Science Congress held at NDRI, Karnal during 3-6 February, 2015 and presented a paper entitled, "Assessment of selection criteria in Sesame by using correlation and path coefficient analysis".

## Paper(s) published

### In International Peer Reviewed Journals

- Tamuly C, Buragohain R, Hazarika M, Bora J, Gajurel P R: Assessment of Antioxidant Activity of Six Ficus Species - Underutilized Fruits from Arunachal Pradesh in North East India, *International Journal of Fruit Science*, 2015, 15(1), p: 85-99.
- Dommaraju Y, Prajapati D: A highly efficient group-assisted purification method for the synthesis of poly-functionalized pyrimidin-5-yl-pyrroles via one-pot four-component domino reaction, *Molecular Diversity*, 2015, 19(1), p: 173-187.
- Sarmah M M, Bhuyan D, Prajapati D: Indium-catalyzed microwave-accelerated pot economic C-C bond formation process towards the 'dry-media' synthesis of pyrimidine derivatives, *RSC Advances*, 2015, 5(17), p: 12506-12510.
- Hussain N, Gogoi P, Azhaganand V K, Shelkecd M V, Das M R: Green synthesis of stable Cu(0) nanoparticles onto reduced graphene oxide nanosheets: a reusable catalyst for the synthesis of symmetrical biaryls from arylboronic acids under base-free conditions, *Catalysis Science and Technology*, 2015, 5, p: 1251-1260.
- Singh P, Sharma H, Nag A, Bhau B S, Sharma R K: Development and characterization of polymorphic microsatellites markers in endangered *Aquilaria malaccensis*, *Conservation Genetics Resources*, 2015, 7(1), p: 61-63.
- Das D, Baruah R, Sarma R A, Singh A K, Deka Boruah H P, Kalita J, Bora T C: Complete genome sequence analysis of *Pseudomonas aeruginosa* N002 reveals its genetic adaptation for crude oil degradation, *Genomics*, 2015, 105(3), p: 182-190.

## Farewell

The following staff member has retired from Council's service on superannuation from CSIR-NEIST w.e.f 28 February.

1. Mr Norendra Nath Borah, Sr Technician (2).