

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

World Environment Day 2015 observed at CSIR-NEIST



Above: Dignitaries seated on the dais (from left), Prof B K Sarmah, Director, DBT-Centre, Assam Agricultural University, Jorhat & Chief Guest of the function; Dr D Ramaiah, Director, CSIR-NEIST; Dr R C Boruah, Outstanding Scientist, CSIR-NEIST & President-Assam Science Society, Jorhat branch and Dr D Dutta, Scientist, RFRI-Jorhat & Guest of Honour.

CSIR-NEIST and Assam Science Society- Jorhat branch joined hands to celebrate this year's World Environment Day with a special function held at Dr J N Baruah Auditorium, CSIR-NEIST on 5 June, 2015. Convened under the global theme, "Seven Billion Dreams. One Planet. Consume with Care", the function was graced by Prof B K Sarmah, Director, DBT-Centre, Assam Agricultural University, Jorhat as Chief Guest while Dr D Dutta, Scientist, Rain forest Research Institute-Jorhat was present as Guest of Honour. The function was presided over by Dr R C Boruah, President, Assam Science Society-Jorhat branch & Outstanding Scientist, CSIR-NEIST. Delivering welcome address on the occasion, Dr D Ramaiah, Director, CSIR-NEIST emphasized the need to raise awareness on the importance of a healthy, safe and green environment. He pointed out that it is not the responsibility of only environment experts or regulatory bodies to protect and conserve the environment but it is something which every individual should be concerned and contribute at their own level. Prof Sarmah in his lecture entitled, 'Green Biotechnology for Green Environment', deliberated on the role of

Biotechnology for food security while keeping the environment green. He particularly stressed on the genetically modified crops which gained critical attention in the past few decades. As per ISAAA report he said that during 1996-2014, a number of GM crops with insect resistant ability were adopted. The world has also been able to protect the quality of soil due to development of microbe based formulations as fertilizers instead of chemicals, he said. As a proponent of GM crops he said that this method started long back and can be seen from the hybridization works of Scientist, Gregor Mendel during 1860s. Prof Sarmah further spoke about his work carried out in AAU for developing transgenic Chickpea which is resistant to stored grain pest. He said that In India until last year, Bt Cotton was the only approved GM crop hugely successful in the country, but now other crops such as Rice, Brinjal, Mustard and chickpea have also been approved by the new government for field cultivation. And this initiative will go a long way in meeting the food demand of the ever growing population without compromising the health of the environment, he said. Dr D Dutta in his address spoke about the importance of sustainable exploration and consumption of natural resources. He said that as per UN estimate, the world population would be 10 billion by 2050 which will be a great threat to the planet earth. It is high time that we focus more on exploring than exploiting, check depletion, check food security, check environment safety issues and so on, he opined. Sharing his message, he urged all to think of sustainability and future of mankind. Dr R C Boruah in his presidential remarks also advocated for optimum use of resources and to surge ahead without compromising the sustenance of future generations. He shared a famous quote by MK Gandhi which says that, 'What we are doing to the forests of the world is but a mirror reflection of what we are doing to ourselves and to one another'. The function concluded with vote of thanks proposed by Dr Jatini Kalita, Scientist, CSIR-NEIST. The function was well attended by invited guests, members from Assam Science Society- Jorhat branch and CSIR-NEIST fraternity.

The only way to do great work is to love what you do.

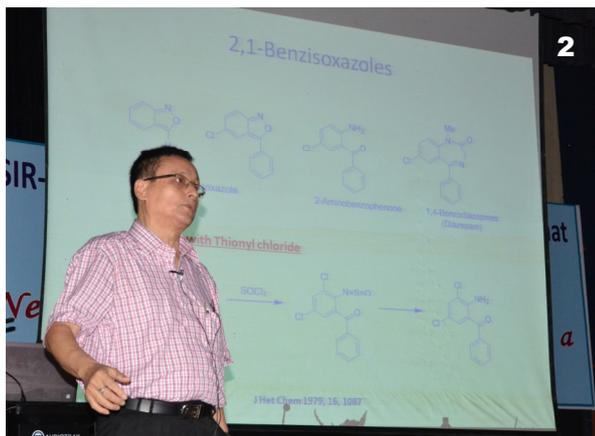
Steve Jobs

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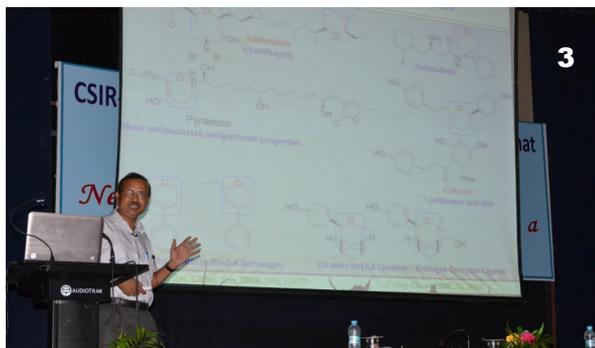
Glimpses of the 2nd one-day lecture series held on 'New trends in organic synthesis with a special focus on lead discovery' at CSIR-NEIST on 26 June, 2015



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1. Dr D Ramaiah, Director, CSIR-NEIST, addressing the inaugural session. Dr R C Boruah, Outstanding Scientist, CSIR-NEIST and Dr P J Das, Prof, Gauhati University are seen seated on the dais (from left).
2. Dr R C Boruah, Outstanding Scientist, delivering a talk entitled, 'Journey of four decades in heterocyclic synthesis'.
3. Dr Anil K Saikia, Prof, Dept. of Chemistry, IIT-Guwahati delivering a talk entitled, 'Synthetic strategy leading to bio-active molecules'.

CSIR-NEIST organized series of science motivational programme



Dr D Ramaiah, Director, CSIR-NEIST addressing the students of a programme held.

With an objective to motivate students towards basic science, CSIR-NEIST organized four one-day science motivational programme during 11-12 and 24-25 June, 2015 at its premise. Altogether 183 students of class XII (science stream) along with 25 teachers from various schools of Jorhat district, Assam attended the programmes. The programmes included popular science talks delivered by CSIR-NEIST scientists & experts from other institutes/universities and visit to various divisions of the institute.

CSIR-NEIST organized training programme on Mushroom cultivation

Under its on-going project, "S&T interventions to combat malnutrition in women and children", CSIR-NEIST organized a training programme on Mushroom cultivation at CSIR-800 Techvil in Sonitpur, Assam in collaboration with the NGO, Institute of Integrated Resource Management (IIRM), Tezpur on 14 June, 2015. The training was imparted to 77 nos. of malnourished rural women from the surrounding areas. One kilo-



Participants with compact bags prepared during the training programme seen with the organizers.

-gram of ready to eat product developed from soft rice popularly known for its rich dietary fibre, essential fatty acids and other significant quantities of starch, protein, vitamins and dietary minerals were also distributed to all the participants.

CSIR-NEIST technology on liquid deodorant cleaner goes in to production



Commercial samples of liquid deodorant cleaner manufactured by M/s SAPMG, Agartala.

M/s SAPMG, Agartala, Tripura has started commercial production of 'Liquid Deodorant Cleaner'. The knowhow developed by Cellulose, Pulp & Paper division was transferred to the party in February, 2015.

Papers published

In International Peer Reviewed Journals

- Bhau B S, Ghosh S, Puri S, Borah B, Sarmah D K, Khan R: Green synthesis of gold nanoparticles from the leaf extract of *Nepenthes khasiana* and antimicrobial assay, *Advance Material Letters*, 2015, 6(1), p: 55-58.
- Radhapyari K, Khan R: Biosensor for detection of selective anticancer drug gemcitabine based on polyaniline-gold nanocomposite, *Advance Material Letters*, 2015, 6(1), p: 13-18.
- Sarma K, Goswami A, Das M R: Selective Insertion of Nucleophiles to Terminal Epoxides through Ring Opening Sans Solvent, *Current Organic Synthesis*, 2015, 12(3), p: 363-371.
- Chatterjee P, Seal S, Mukherjee S, Kundu R, Bhuyan M, Barua N C, Baruah P K, Sinha B S P, Bhattacharya S: A carbazole alkaloid deactivates mTOR through the suppression of rictor and that

induces apoptosis in lung cancer cells, *Molecular and Cellular Biochemistry*, 2015, 405(1-2), p: 149-158.

- Borah P, Naidu P S, Bhuyan P J : Synthesis of Functionalized Dihydrofurocoumarin Derivatives from 3-Aminoalkyl-4-hydroxycoumarin, *Synthetic Communication*, 2015, 43(13), p: 1533-1540.
- Prakash R, Shekarrao K, Gogoi S, Boruah R C: Ruthenium-catalyzed decarbonylative addition reaction of anhydrides with alkynes: a facile synthesis of isocoumarins and α -pyrones, *Chemical Communications*, 2015, 51 p: 9972-9974.
- Passari A K, Mishra V K, Saikia R, Gupta V K, Singh B P: Isolation, abundance and phylogenetic affiliation of endophytic actinomycetes associated with medicinal plants and screening for their in vitro antimicrobial biosynthetic potential, *Frontiers in Microbiology*, 2015, 6(APR), p: 273.
- Saikia B K, Hower J C, Hood M M, Baruah R, DekaBaruah H P, Boruah R, Sharma A, Baruah B P: Petrological and biological studies on some fly and bottom ashes collected at different times from an Indian coal-based captive power plant, *Fuel*, 2015, 158 p: 572-581.
- Gogoi J, Gogoi P, Goswami L, Boruah R C : Microwave-Assisted Synthesis of Fused and Substituted 2-Aminopyridines from β -Halo α,β -Unsaturated Aldehydes, *Synthesis*, 2015, 47(13), p: 1905-1912.

Indian Journal

- Saikia B K, Das T, Baruah B P: Size distribution of particles in high sulphur coal ash and their chemistry: a computer-controlled scanning electron microscopic study, *Journal of the Geological Society of India*, 2015, 85(2), p: 206-214.

Farewell

The following staff members have retired from the Council's service on superannuation from CSIR-NEIST on 30 June, 2015.

1. Dr R C Boruah, Outstanding Scientist.
2. Mr Mondip Boruah, Sr Tech (2).