

Workshop cum Training Programme on Vehicular Emission and Control held at CSIR-NEIST.

A 3-day "Workshop cum Training Programme on Vehicular Emission and Control" for State Police and Transport Departments was held at CSIR-NEIST during 3-5 February, 2014. The programme was sponsored by the Ministry of Road Transport and Highways, New Delhi and organized by CSIR-Indian Institute of Petroleum, Dehradun in association with CSIR-NEIST. The programme covered lecture sessions on the following topics-

1. Engine technology, fuel quality and emission related to both gasoline and diesel- operated vehicles.
2. Alternative fuels.
3. Maintenance and calibration of portable emission analyser and smoke meter.
4. Health effects of automotive pollution.
5. Central motor vehicle rules for CNG and LPG vehicles.

Besides, a hands-on training on Smoke Measurement Operation and Maintenance of Portable Analyzers for CO, HC, CNG/LPG operated vehicles was also held. The 3-day programme was attended by participants from the states of Orissa, Kerala, Nagaland, Andhra Pradesh, Jammu & Kashmir and Assam. The organizing team from CSIR-IIP was headed by Dr Anil Kr Jain, Head- Training & HR, while participation of CSIR-NEIST was coordinated by Dr S C Kalita, Head- General Engineering division. The Inaugural session was presided over by Dr R C Boruah, Outstanding Scientist & Director-in-charge

CSIR-NEIST shines in Floriculture Show

Like previous years, this year also, the Floriculture section of CSIR-NEIST participated in the Flower competition organized by Lioness Club of Jorhat on 2 February, 2014 at Lions Multiple Project Centre, Jorhat. CSIR-NEIST was adjudged the Best Exhibit in the show. Besides, the Institute also received 2 first prizes in Pot Plant (Fern & Foliage) and Cut Flower (Dahlia) categories and 1 second prize in Pot Plant (Fern & Foliage).

Talk delivered

Dr B G Unni, Chief Scientist

- Delivered an invited talk on, "GST gene polymorphism and the impact of coal dust exposure and other factors in Chronic Obstructive Pulmonary Disease (COPD) in tribal population living near the open coal mine" at the 101st Indian Science Congress held at University of Jammu on 6 February, 2014.

Dr Mantu Bhuyan, Scientist

- Delivered a popular science talk on, "Our Daily Life and Science" at Solguri Higher Secondary School, Sivasagar on 1 February, 2014 on the occasion of the Golden Jubilee celebration of the school.

Honour/Recognition/Nomination

Dr B G Unni, Chief Scientist

Nominated to review research papers for the following Journals:

- International Journal Respiratory Care, UK.
- World Journal of Microbiology and Biotechnology
- International Journal of Asia Pacific Entomology.

Dr Gokul Baishya, Scientist

- Nominated to review research papers for Royalty Society of Chemistry Journals.

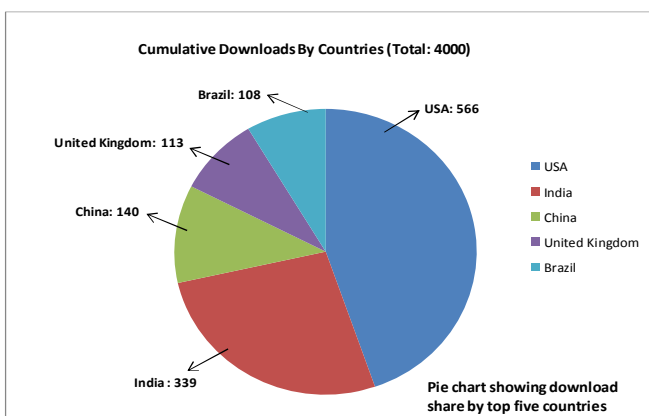
Seminar/Conference/Workshop/Meeting attended

Dr D Ramaiah, Director, CSIR-NEIST

- Attended Industry Meet held at Bangalore on 5 February, 2014.
- Attended CRSI Council meeting and Royal Society Conference held at IIT, Bombay during 6-8 February, 2014.

CSIR-NEIST research article receives wide readership

CSIR-NEIST research paper entitled, "An Alternative Eco-friendly Avenue for Castor Oil Biodiesel: Use of Solid Supported Acidic Salt Catalyst" authored by Dr Amrit Goswami, Chief Scientist from Synthetic Organic Chemistry division received impressive readership results with the article having been accessed 4000 times since its publication in November, 2011 in the book, 'Biodiesel- Feedstocks and Processing Technologies' published by InTech. The InTech- Open Access Publisher, in their e-mail communication dated 18 February, 2014 stated that while the paper achieved such a significant impact among the researchers, the top 5 countries from which the paper was accessed includes USA followed by India, China, United Kingdom and Brazil.



CSIR-NEIST scientist honoured with Fellow of Association for the Advancement of Biodiversity Science (FABSc)

Dr Mantu Bhuyan, Scientist, MAEP Division has been elected a Fellow of the prestigious Association for the Advancement of Biodiversity Science (FABSc) by its council, effective from 12 January, 2014. Association for the Advancement of Biodiversity Science is committed to create



Dr Mantu Bhuyan

wider knowledge and awareness to conserve biodiversity worldwide by means of providing platform for eminent researchers to share their experience, practical problems and solutions in conserving biodiversity. Dr Bhuyan is actively involved in insect biodiversity studies with particular emphasis on butterflies as well as bird

biodiversity and their conservation issues. His special interest include insect-plant interaction with an aim to understand the co-evolutionary process of insect and plants and to develop effective formulations for management of insect pests. So far, Dr Bhuyan has published 33 scientific papers in various journals of National and International repute, 3 Book Chapters and has 10 nos. of patents filed in India and abroad. He has developed 5 technologies out of which 4 have been commercialized and one is in process of commercialization. Besides, he is also a recipient of the prestigious CSIR Technology Award (Life Science) in 2013. Dr Bhuyan is also a member of Editorial Board of the Global Journal of Applied Agricultural Research (GJAAR), New Delhi and Associate Editor of the Journal of Environmental Science, Guwahati.

Talk delivered

Dr Mohan Lal, Scientist

- Delivered an invited talk on, "Ameliorative Potential of Vetiver for Reclamation of Sodic Soil" at an International Training Capacity Building Programme on 'Use of Poor Quality Water in Agriculture' organized by Central Soil Salinity Research Institute (ICAR), Karnal for the delegate members of African-Asian Rural Development Organization on 14 February, 2014. The programme was sponsored by Ministry of Rural Development, Govt. of India.

Seminar/Conference/Workshop/Meeting attended

Dr D Ramaiah, Director, CSIR-NEIST

- Attended Faculty Selection Committee meeting at Goa University on 18 February, 2014.

Dr B G Unni, Chief Scientist

- Attended a Screening Committee meeting at CSIR-IICB, Kolkata on 11 February, 2014.

Visit

A group of 31 students along with 3 teachers from the Department of Chemistry, Tinsukia College, Tinsukia, Assam visited CSIR-NEIST on 11 February, 2014.

National Science Day celebrated at CSIR-NEIST, Jorhat



Dr K M Bujarbaruah, VC, AAU delivering the Science Day lecture. Seated on the dais is Dr R C Boruah, Outstanding Scientist & Director-in-charge.

CSIR-NEIST celebrated the National Science Day, 2014 at its premises on 28 February. Dr K M Bujarbaruah, Vice Chancellor, Assam Agricultural University (AAU), Jorhat graced the function as the Chief Guest. The function began with the welcome address by Dr P J Saikia, Scientist. Delivering the National Science Day lecture on "Negating the impact of climate change in agriculture", Dr Bujarbaruah said that the *Intergovernmental Panel on Climate Change* has reaffirmed that climate is changing. He said that people should not be confused with the concepts of Climate Change and Climate Variability. He said according to Maplecroft's Climate Change Vulnerability Index (CCVI), economy of India is at high risk and will be highly affected with the country placed at the 20th rank with Bangladesh being the country to be most affected placed at 1st rank. He further emphasized that it is time now to shift focus to mitigation measures to negate the climate change impacts. He talked about initiatives of AAU to combat climate change like bio-prospecting of rice gene to identify the heat tolerant genes, soil analysis to identify the lacking nutrients which may aid in improving crop productivity, adoption of precision watering and SRI (System of Rice Intensification) to improve productivity. He said it is the need of the hour to rejuvenate the natural resources. He further talked about measures like identification of acid tolerant gene in microbes which may help as the soil in Assam is mostly acidic, smart farming for small farmers, roof top cultivation, gene identification in animals for heat and cold temperature tolerance, fish breeding in green house conditions etc. which may help in combating and negating the impact of climate change. In the presidential remark, Dr R C Boruah, Outstanding Scientist & Director-in-

charge, CSIR-NEIST extended his appreciation for the informative lecture delivered by the Chief Guest and briefly highlighted the significance of the day. The function concluded with vote of thanks proposed by Dr Arvind Gautam, Scientist. The day was also observed as 'Open Day' where a large number of students, teachers and general public visited different R&D departments of the laboratory.

1st Annual Meeting Of Society Of Biological Chemists –India and Symposium held at CSIR-NEIST



Dr R C Boruah, Outstanding Scientist, CSIR-NEIST & President, SBC-I, NE chapter speaking at the Inaugural function. Other dignitaries present on the dais (from left) are, Dr B G Unni, Chief Scientist, CSIR-NEIST & Convenor, SBC-I, NE chapter; Dr D Ramaiah, Director, CSIR-NEIST and Prof D Chattopadhyaya, Pro Vice Chancellor, Calcutta University.

The 1st Annual meeting of the Society of Biological Chemists (India) (SBC-I), North-East Chapter and a special symposium on "Science Trends" was held at CSIR-NEIST on 22 February, 2014. The meeting discussed the recent trend in Biochemistry, Biotechnology, Molecular Biology research in NE India and a road map for future research was framed on the day. A galaxy of researchers, faculties, students, etc. from Assam Central University Silchar, Tezpur Central University, Tezpur, Rajiv Gandhi Central University, Arunachal Pradesh, Regional Center of Institute Bioresources & Sustainable Development, Sikkim, Indian Institute of Technology, Gauhati, North Eastern Hill University, Meghalaya, University of Dibrugarh, Assam Agricultural University, Jorhat, University of Tripura, Agartala, University of Manipur, Manipur, Rain Forest Research Institute, Jorhat, Tea Research Association, Jorhat besides CSIR-NEIST fraternity attended the symposium, also held on the day. The Symposium covered presentations and discussions on various important and burning issues related to Metagenomics, Biochemical/Molecular aspects of cancer, COPD, medicinal plants, crop improvement using genetic engineering, implications of toxic heavy

metals in health, Microbe and plant based bio-molecules and its application, genomics in biodiversity from North East India, application of biotechnological tools in tea research and other related topics. Dr D Chattopadhyaya Pro-Vice Chancellor, Calcutta University and President-Society of Biological Chemists (India) from SBC(I) HQ Indian Institute of Science and others attended the symposium.

Talk delivered

Dr Amrit Goswami, Chief Scientist

- Delivered a popular talk on "Science, Scientific Temper, Few of Our Revolutionizing Scientists and Some Aspects of Chemistry Against Feeling in Human Mind" on the occasion of National Science Day jointly organized by Jorhat District Secondary Teachers' Association, Jorhat District Children Science Academy, Jorhat Branch Assam Science Society, Arya Bhatta Science Centre, North West Block, Jorhat and Assam Academic Centre, Jorhat at Sasusarai Gharphalia Usha Engraji Vidyalaya, Jorhat on 28 February, 2014.

Seminar/Conference/Workshop/Meeting attended

Dr B G Unni, Chief Scientist

- Attended a health camp related meeting at Primary Health Centre, Jaintia hill (Near coal mine site), Meghalaya on 28 February, 2014.

Papers published

International Journals

- Dutta S, Morang P, Nishanth Kumar S, Dileep Kumar B S: Fusarial wilt control and growth promotion of pigeon pea through bioactive metabolites produced by two plant growth promoting rhizobacteria, *World Journal of Microbiology and Biotechnology*, 2014, 30 (3), p: 1111-1121.
- Bhuyan Debajyoti, Sarma Rupam, Dommarajua Yuvaraj, Prajapati D: Catalyst- and solvent-free, pot, atom and step economic synthesis of tetrahydroquinazolines by an aza-Diels-Alder reaction strategy, *Green Chemistry*, 2014, 16 p: 1158-62.
- Naidu P Seetham, Bhuyan P J: A novel one-pot three-component reaction for the synthesis of 5-arylamino-pyrrolo[2,3-d]pyrimidines under microwave irradiation, *RSC Advances*, 2014, 4 p: 9942-9945.
- Kakati Dwipen, Barua N C: Total synthesis and assignment of the absolute stereochemistry of xanthoangelol J: Development of a highly efficient method for Claisen-Schmidt condensation Dedicated to Late (Dr.) Jadab C. Sarma on his 55th birthday on

first May 2013, *Tetrahedron*, 2014, 70(3), p: 637-642.

- Rajesh Nimmakuri, Sarma Rupam, Prajapati D: Microwave-promoted regio- and stereoselective vinylation of heterocyclic thiols, *RSC Advances*, 2014, 4 p: 7834-7837.
- Yenn R, Borah M, Deka Boruah H P, Sarma Roy A, Baruah R, Saikia N, Sahu O P, Tamuli A K: Phytoremediation of Abandoned Crude Oil Contaminated Drill Sites of Assam with the Aid of a Hydrocarbon-Degrading Bacterial Formulation, *International Journal of Phytoremediation*, 2014, 16 (9), p: 909-925.
- Yenn R, Borah M, Deka Boruah H P, Sarma Roy A, Baruah R, Saikia N, Sahu O P, Tamuli A K: Phytoremediation of Abandoned Crude Oil contaminated Drill Sites of Assam with the Aid of a Hydrocarbon-Degrading Bacterial Formulation, *International Journal of Phytoremediation*, 2014, 16 (9), p: 909-925.
- Saikia Binoy K, Dutta Arju M, Baruah B P: Feasibility studies of de-sulfurization and de-ashing of low grade medium to high sulfur coals by low energy ultrasonication, *Fuel*, 2014, 123 p: 12-18.

In Proc. of Seminars/Conferences

- Gogoi Animesh, Saikia S P, Dutta Mudoi K, Bhattacharjee P R, Sarmah G, Sarmah R K: Comparative evaluation of physicochemical properties of *Jatropha curcas* L. for high yield and adaptability in Assam environment, In-Book of Abstract of International Conference on harnessing natural resources for sustainable development : Global trends, held at Cotton College, Guwahati, Jan 29-31, 2014, (Abstract No. OP-8), p: 64.
- Dutta Mudoi K, Sarmah D K, Nath S C, Borthakur M: Plant tissue culture as an appropriate tools for conservation of endangered species *Nepenthes khasiana*: a case study, In-Book of Abstract of International Conference on harnessing natural resources for sustainable development : Global trends, held at Cotton College, Guwahati, Jan 29-31, 2014, (Abstract No. OP-9), p: 241.
- Duarah Aparajita, Borthakur M P, Bhattacharjee P R: Tissue culture studies on *Acorus calamus* : a valuable endangered medicinal herb, In- Book of Abstract of International Conference on harnessing natural resources for sustainable development : Global trends, held at Cotton College, Guwahati, Jan 29-31, 2014, (Abstract No. OP-2), p: 234.

Farewell

The following member(s) of the staff have retired from Council's service on superannuation from CSIR-NEIST on 28 February, 2014.

- Mr Jiban Ch Baruah, Private Secretary.