

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

CSIR-NEIST organized outreach program under India International Science Festival-2016 (IISF-2016)



(From Top) Inauguration of the exhibition by Dr D Ramaiah, Director, CSIR-NEIST. Dr D Ramaiah interacting with an innovator of TOCIC, NEIST during the exhibition.

A one-day outreach program as a precursor to the 2nd India International Science Festival was organized at CSIR-NEIST on 22 November, 2016. The program was attended by 175 students guided by their 17 teachers, besides grass root innovators, entrepreneurs and members from various NGOs. The day was observed as 'Open Day' and began with the inauguration of the technologies exhibition by Dr D Ramaiah, Director, CSIR-NEIST. CSIR-NEIST showcased its technologies, products and processes through posters & other exhibit materials which greatly enthused the visitors. A flyer depicting the various aspects of science for the masses- 'India International Science Festival 2016



(From Top) Face-to-face interaction of the students with scientists. Dignitaries seated on the dais during technical session (from left), Dr Sunil Rai, Vice Chancellor, Kaziranga University, Jorhat & Chief Guest; Dr D Ramaiah, Director, CSIR-NEIST and Dr Uddhab Kr Bharali, a renowned innovator & Guest of Honour.

(IISF-2016)' was distributed among the participants. The exhibition also included display of working models of 'Micro Light Propeller Hydro Turbine' and 'Innovative Extraction of Bioproducts from Biomass' by the innovators, Mr Kamal Chandra Saikia and Mr Bhagaban Baruah respectively of TOCIC-NEIST under PRISM project sponsored by DSIR. The participants also visited various labs and interacted with the scientists in the face-to-face interactive session held during the day. Post lunch, a technical session was held at Dr J N Baruah auditorium wherein Dr Sunil Rai, Vice Chancellor, Kaziranga University graced the occasion as Chief Guest and Dr Uddhab Kr Bharali, a renowned innovator was present as Guest of Honour. Dr D Ramaiah presided over the session and delivered the welcome address wherein he spoke about the objective of the program. He said that the outreach program is a pre-event to the IISF-2016 which is

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aimed to celebrate the achievements and developments of the country in the field of Science & Technology along with the commoners & students with a view to improve their scientific understanding, temperament and appreciation for the Indian Science. He further informed that the IISF-2016 will be held during 7-11 December, 2016 at New Delhi and is a joint venture of the Ministry of Science & Technology, Ministry of Earth Sciences, Vijnana Bharati (VIBHA) and CSIR. Dr Bharali in his address gave a brilliant exposition of some of his innovations which have benefitted all strata of people and also to animals. He said that innovation becomes one in true sense only when it finds an end user. Dr Sunil Rai in his address called for introspection of the blessings of science and said that complicated problems can have simple solutions if common sense with good scientific understanding are applied together. He further recommended that innovations should be for the masses and environment friendly. On the occasion, child scientists namely, Ms. Bidisha Gogoi, Ms. Dimpri Deori, Mr Debojit Gogoi and Mr Prudom Priyangsa Dutta who represented the state in National level and the country in International level were felicitated on the occasion. Ms. Teetu Yoka, Secretary of the Action Aid Society, Arunachal Pradesh, a beneficiary of CSIR-NEIST also encouraged the participants while sharing her experience working in the society. The student participants and a member representative from NESSIA, Jorhat expressed their experience later during the program wherein they appreciated the institute for the inspirational and enriching program and further requested for such opportunities in future as well.

CSIR-NEIST participated in CSIR Platinum Jubilee Technofest under India International Trade Fair- 2016 (IITF-2016)

CSIR-NEIST participated in the CSIR Platinum Jubilee Technofest held during 14-27 November, 2016 at Pragati Maidan, New Delhi under India International Trade Fair-2016. Various theme-based information panels highlighting the science and the technology components of major CSIR contribu-



CSIR-NEIST's Anti-Arthritis product on display at the Technofest along with other healthcare products developed by CSIR Institutes.

tions, informative exhibits including demonstrable models were featured in this mega event. CSIR-NEIST participated in the theme area, 'CSIR 800: Societal Interventions' along with other CSIR Institutes. CSIR-NEIST has been contributing to the society through various technological interventions appropriate to the common man particularly in the rural areas of NE region. Cultivation of aromatic & economic plants is one such activity which has made huge impact in the lives of masses. Improved varieties of Citronella and Lemongrass have been developed by the Institute which will ultimately benefit the farmers and the essential oil industries. Under Affordable Healthcare, the Institute has developed herbal products against Arthritis and Fungal infections. The Institute exhibited its contributions through posters and sample materials of healthcare products and other rural technologies in the theme pavilion. As a part of the Technofest, CSIR-NEIST also signed two tripartite MoUs on 25 November, 2016 for technology transfer on Herbal Anti-Arthritis formulation to M/s Altis Life Sciences, Himachal Pradesh and M/s Multani Pharma Ltd., New Delhi through NRDC, New Delhi. It may be mentioned that the theme 'CSIR 800: Societal Interventions' was conferred the Platinum Award for excellence in display.

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Workshop on Bio-botanical sustainable approach for the agricultural pest management in North-East India held at CSIR-NEIST



(From top) Release of Souvenir by the dignitaries during inaugural session. Participants of the workshop along with the organizers and resource persons.

CSIR-NEIST in association with the Institute of Pesticide Formulation Technology (IPFT), Gurgaon organized a workshop on 'Bio-botanical sustainable approach for the agricultural pest management in North-East India' during 10-11 November, 2016 at its premise. The workshop was sponsored by IPFT, Gurgaon for popularizing biopesticides in crop protection among the stakeholders. A total of 58 participants comprising of progressive farmers, small tea growers, academicians and personnel from Bio-pesticide industries in Assam participated in the workshop. In the Inaugural session, Dr D Ramaiah, Director, CSIR-NEIST and Chairman of the session stressed the importance of organic agriculture and biopesticides for crop protection. He also informed the participants about the ongoing work of CSIR-NEIST on biopesticides, particularly on botanicals for crop protection. Dr A K Barooah, Director, TRA, Jorhat and Chief Guest of the inaugural

session spoke about the recent program of Govt of India on organic agriculture and quality control aspect of biopesticides. From IPFT, Gurgaon, Dr PK Patanjali briefed about their mission for popularizing the biopesticides in North East India. A souvenir on the workshop was also released in the inaugural session. In the two days workshop, Dr PK Patanjali, Chief Formulator & Scientist H, IPFT, Gurgaon, Dr Pinki Bhandari, Deputy Chief & Head, Bioscience Division, IPFT, Gurgaon, Dr LK Hazarika, Prof & Head, Department of Entomology, AAU, Jorhat, Dr A Babu, Dy. Director (Research) & Senior Principal Scientist, TRA Nagrakata, Dr Mantu Bhuyan, Senior Scientist, CSIR-NEIST, Jorhat and Mr Samir Bordoloi, Farm to Food Foundation Jorhat discussed on different aspect of biopesticides for crop protection. Participants actively took part in the deliberations and the workshop was concluded with a brainstorming session.

CSIR-NEIST Observed Vigilance Awareness Week



Dr D Prajapati, Director-in-charge, CSIR-NEIST addressing the staff members in valedictory function. Mr Vikram Singh, Administrative and Vigilance Officer and Mr J L Khongsai, Section Officer, Vigilance, are seen seated on the dais (from left).

CSIR-NEIST observed vigilance awareness week during 31 October, 2016 to 7 November, 2016 at its premise. The week started with a pledge taking ceremony held on 31 October, 2016 wherein Dr D Ramaiah, Director, CSIR-NEIST administered pledge to all the staff members of the institute. Banners/posters were displayed at various conspicuous places of the institute highlighting the im-

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importance of a corruption free system. Various competitions such as intra institutional quiz competition, slogan competition etc. were organised during the week. The week-long program concluded with a valedictory function held at Dr J N Baruah auditorium on 7 November. The function was presided over by Dr D Prajapati, Director –in charge, CSIR-NEIST Jorhat. Mr Vikram Singh, Administrative and Vigilance Officer, delivered the welcome address and stressed upon the need for preventive vigilance. Dr D Prajapati highlighted the importance of vigilance in daily life. On the occasion, prizes were distributed to the winners various competitions. The function was concluded with the vote of thanks offered by the Mr J L Khongsai Section Officer, (Vigilance).

Societal Activities

CSIR-NEIST Branch Lab, Itanagar organized training on Mushroom cultivation



Dr B C Baruah, Sr Technical Officer, Branch Lab., briefing on Mushroom cultivation during the training program.

CSIR-NEIST Branch Lab organized a training cum awareness program on Mushroom cultivation at Deotola, Bhugpur, Assam on 2 October, 2016 jointly with the Association For Environment & Rural Development (AFERD), Deotola. Altogether 30 women from different SHG Groups viz, Joytimoy SHG, Swagatam SHG, Ronam SHG, Bornali SHG, Pragati SHG, Adivashi SHG, Changalion SHG, Bapuji SHG and Trinayan

Krishi Sewa Deotola participated in the training programme. Dr B C Baruah, Sr Technical Officer, Branch Lab, briefed about Mushroom cultivation followed by its technical demonstration to the participants.

Colloquium held

- **Speaker:** Prof Dr Kunal K Majumder, K P C Medical College, Kolkata
- Topic:** The health effect of Arsenic toxicity
- Date:** 21.10.2016

Students visit CSIR-NEIST under Gyanjyoti programme



Mr Probin Boruah, Principal Technical Officer, interacting with the students of Gyanjyoti program at Dr J N Baruah Auditorium.

Under the Hon'ble Chief Minister's Gyanjyoti Programme, Govt. of Assam, CSIR-NEIST organized students' visit to the Institute on 25 October, 2016. Around 380 students of class VIII and IX along with 8 teacher guides visited various divisions and interacted with the scientists.

Talk delivered

Dr S P Saikia, Sr Scientist

- Delivered a talk on, 'Entrepreneurship development in North East' on 21 November, 2016 at the CSIR Platinum Jubilee Technofest held at New Delhi on the theme area presentation "CSIR for Societal Interventions".

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Papers published

In International Peer Reviewed Journals

- Dutta P, Dey T, Manna P, Kalita J: Antioxidant Potential of *Vespa affinis* L., a Traditional Edible Insect Species of North East India, *Ploseone*, 2016, 11(5), p: 2016.
- Borah H J, Singhal R, Hazarika S: *Artocarpus lakoocha* roxb.: An untapped bioresource of resveratrol from North East India, its extractive separation and antioxidant activity, *Industrial Crops and Products*, 2017, 95 p: 75-82.
- Neog K, Borah A, Gogoi P: Palladium(II)-Catalyzed C-H Bond Activation/C-C and C-O Bond Formation Reaction Cascade: Direct Synthesis of Coumestans, *The Journal of Organic Chemistry*, 2016, 81(23), p: 11971-11977.
- Saikia M, Kaichev V, Saikia L: Gold nanoparticles supported on nanoscale amine-functionalized MIL-101(Cr) as a highly active catalyst for epoxidation of styrene, *RSC Advances*, 2016, 6(108), p: 106856-106865.
- Saikia P K, Bhattacharjee R P, Sarmah P P, Saikia L, Dutta D K: A green synthesis of Pd nanoparticles supported on modified montmorillonite using aqueous: *Ocimum sanctum* leaf extract: A sustainable catalyst for hydrodechlorination of 4-chlorophenol, *RSC Advances*, 2016, 6(111), p: 110011-110018.
- Saikia J, Khare P, Saikia P, Saikia B K: Polycyclic aromatic hydrocarbons (PAHs) around tea processing industries using high-sulfur coals, *Environmental Geochemistry and Health*, 2016, 38(167), p: 1-16.
- Baruah S, Kaishap P P, Gogoi S: Ru(II)-Catalyzed C-H activation and annulation of salicylaldehydes with monosubstituted and disubstituted alkynes, *Chemical Communications*, 2016, 52(86), p: 13004-13007.

In Indian Peer Reviewed Journals

- Saikia B K, Baruah B P: Feasibility studies of formation of carbon foam from high sulfur Meghalaya coal, *Indian Journal of Chemical Technology*, 2016, 23(5), p: 433-436.
- Das T, Saikia A, Mahanta B, Choudhury R, Saikia B K: Thermogravimetric and model-free kinetic studies on CO₂ gasification of low-quality, high-sulphur Indian coals, *Journal of Earth System Science*, 2016, 125(7), p: 1365-1377.
- Sharma A, Saikia B K, Phukan S, Baruah B P: Petrographical and thermo-chemical investigation of some North East Indian high sulphur coals, *Journal of the Geological Society of India*, 2016, 88(5), p: 609-619.

Book chapter(s)

- Saikia B K, Saikia A, Baruah B P: Nature and Chemistry of Coal and Its Products, *In: Coal Production and Processing Technology*, Ed by M. R. Riaz and Rajender Gupta, CRC Press 2015, 2016 p: 3-29.

Farewell

The following members of the staff have retired from Council's service on superannuation from CSIR-NEIST during October-November, 2016.

1. Dr D Prajapati, Chief Scientist
2. Ms. Jogomaya Hazarika, Principal Technical Officer
3. Mr Prafulla Kalita, Lab Assistant

Condolence held

The Director and members of the staff of CSIR-NEIST deeply condoled the sad demise of its employee, Shri Tapi Tacho, Non-Tech (who breathed his last on 10.10.2016) at a condolence meeting held in front of the administrative building on 13.10.2016.