

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

CSIR-NEIST celebrated its 54th Foundation Day



Bharat Ratna Prof CNR Rao, FRS, National Research Professor, JNCASR, Bengaluru & Chief Guest of the programme, delivering the 54th CSIR-NEIST Foundation Lecture. Other dignitaries on the dais are (from left), Dr R C Boruah, Outstanding Scientist, Dr D Ramaiah, Director, CSIR-NEIST and Mrs Indumathi Rao present as Guest of honour.



Prof Rao inaugurating the SS Bhatnagar Building for Advanced Analytical Facility at CSIR-NEIST.

CSIR-NEIST celebrated its 54th Foundation Day on 18 March, 2015 with a day-long programme. Befitting the occasion, a special programme was held at Dr J N Baruah Auditorium. Bharat Ratna Prof CNR Rao, FRS, National Research Professor, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru graced the event as Chief

Guest and delivered the Foundation Day Lecture while Mrs Indumathi Rao was present as Guest of Honour. Delivering his lecture, on 'Science in India' Prof Rao posed the question, When India will be Great? Based on his personal research experience he mentioned that without being strong in Science, a country cannot prosper. India needs many better research Institutes with modern equipment facilities and more number of recruitment of bright scientists in the system, Prof Rao said. He emphasized on doing quality science despite of all odds or obstacles. One has to come out from selfishness to do good science as generosity is one important facet of a good scientist, he said. Mrs Indumathi Rao in her address emphasized on improving the education systems and motivating students to bring out the best potential from them. The poorest student must feel himself as the brightest chap and through this process if only a few students get transformed we will be approaching towards great India, she commented. Dr D Ramaiah, Director, CSIR-NEIST delivered the welcome address and introduced the Chief Guest to the audience. The programme was largely attended by eminent scientists, guests, members of press and media and CSIR-NEIST fraternity including the retired members. On the occasion, the Institute's 'Highlights 2014–2015' was released by the Chief Guest. Also, members of the staff who superannuated during the year 2014 – 2015 were felicitated and Certificates of Appreciation were awarded to staff members who showed exemplary performance during 2014 – 2015. The programme concluded with vote of thanks delivered by Dr RC Boruah, Outstanding Scientist, CSIR-NEIST. As a part of the celebration, the day was also observed as 'Open Day' during 9.00 am to 12.00 pm. About 500 students from various schools of Jorhat along with teachers visited the institute. It is worthy to mention here that Bharat Ratna Prof CNR Rao and Mrs Indumathi Rao visited CSIR-NEIST during 17-19 March, 2015 during which Prof Rao inaugurated the S S Bhatnagar building for Advanced Analytical Facility at CSIR-NEIST on 18 March, 2015 in the morning hours besides visiting various divisions of the Institute and interaction with the scientists.

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Bharat Ratna Prof CNR Rao delivers Public Lecture to school and college students



Bharat Ratna Prof CNR Rao delivering the public lecture at District Library, Jorhat.



The audience attending the lecture.

CSIR-NEIST, Jorhat organised a public lecture for school and college students on 19 March, 2015 at District Library, Jorhat. Bharat Ratna Prof CNR Rao, FRS, National Research Professor, Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru delivered the lecture before a galaxy of scientists, eminent personalities from Jorhat District Administration, members from Assam Science Society- Jorhat branch and students from various schools and colleges of Jorhat and neighbouring districts. Delivering his lecture on "Celebration of Science: Glorious Past and Challenging Future" Prof Rao spoke about Science and stories of great discoveries in Science. Prof Rao in his very elaborate lecture highlighted the discoveries which celebrated its glorious centenary year in 2011 and

2012. The discovery of atomic structure by Rutherford, Super Conductivity by K Onnes, X-Ray Crystallography by W L Bragg and X-Rays by Roentgen are some he emphasized in his lecture. Prof Rao also mentioned the Solvay Conference of 1911 and 1927 which he called as the Golden Age of Science. The fundamental contribution by Lavoisier in Chemistry earned him the title of 'Father of Chemistry', he informed. Other great discoveries of Dalton, Michael Faraday, D Mendeleev, Seaborg, F Wohler, G N Lewis and Linus Pauling are some he further detailed in his lecture. Encouraging the students, he urged them to always have an inquisitive mind for doing Science. 'Pick an area where no research has been done much but fundamental research done' opined Prof Rao in his message to the budding students. Mrs Indumathi Rao who attended the programme as Guest of Honour presented a Multimedia Demonstration on "Nano World" which showed basic aspects of Nano Science and Nano Technology and its wide applications. Earlier, Dr D Ramaiah, Director, CSIR-NEIST delivered the welcome address and briefly introduced the Chief Guest, Bharat Ratna Prof CNR Rao to the audience. The programme concluded with vote of thanks by Dr R C Boruah, Outstanding Scientist, CSIR-NEIST. About 1000 students of Standard IX to College level (B.Sc) attended the lecture.

CSIR-NEIST celebrated International Women's Day 2015

CSIR-NEIST celebrated 'International Women's Day 2015' with various programmes which culminated with a special function on 10 March at Dr J N Baruah Auditorium. What began as a day to mark the struggle of women for equality and against injustice has over the time become a day to celebrate the very essence of being women and their achievements. The event was graced by Dr Neelima Saikia, Former Principal Scientist, CSIR-NEIST as Chief Guest while Dr Minakshi Pathak, Ex-Dean, Dept. of Home Science, AAU-Jorhat was present as Guest of Honour. Dr D Ramaiah, Director, CSIR-NEIST presided over the function

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Dr Neelima Saikia, Former Principal Scientist, CSIR-NEIST delivering her lecture as Chief Guest: Other dignitaries seated on the dais are (from right), Dr Minakshi Pathak, Guest of Honour and Dr D Ramaiah, Director, CSIR-NEIST.

which began with a welcome song performed by CSIR-NEIST staff members including research scholars, project fellows, etc. Addressing the occasion, Dr Neelima spoke about the role and contribution of women during ancient era which she said was huge and significant to the society. The status of women was also better during that era which sadly declined over the centuries with glaring instances of injustice to the women community, she said. Citing few examples she said Marie Curie is the only women scientist to have received Nobel Prize twice yet she was not given due recognition in her time. Ms. Lise Meitner, an Austrian Physicist was a part of the team that discovered Nuclear Fission for which her colleague Otto Hahn was awarded the Nobel Prize, is yet another example of the contribution of women's scientific community overlooked by the society, Dr Neelima said. She further said that the rise of struggle for women community erupted not only in India but all over the world for equality and greater achievements not only in workplaces but also at homes and the society in general. Dr Minakshi Pathak in her speech emphasized on the importance of creating awareness on women empowerment and safety through various programmes and workshops. She highlighted on the many schemes formulated by the Government for women and girl child empower-

ment. Dr D Ramaiah in his Presidential Address expressed gratitude to the Chief Guest and Guest of Honour for their inspiring deliberations. He also stressed on the importance of empowering women in the society for overall development and progress of the nation. As a part of the celebration, Extempore Speech and Musical Chair competitions were held on 4 March with much enthusiasm among the staff members who participated in large numbers. The winners of these competitions were awarded with Prizes and Certificates in the function. Earlier, Mrs Kuin Baruah, Sr Technical Officer delivered the welcome address. The function concluded with vote of thanks delivered by Dr Kalpataru Dutta Mu-doi, Sr Technical Officer. The function was attended largely by CSIR-NEIST fraternity including invited guests.

Societal Activities

CSIR-NEIST branch laboratory imparts training on rural based technologies to unemployed people



Dr Budhen C Baruah, Sr Technical Officer, demonstrating on Mushroom cultivation.

CSIR-NEIST Branch lab, Itanagar organised a training programme on Mushroom and Vermicompost cultivation at Karmajuli village, Nirjuli on 2 March. The programme covered theoretical and practical demonstration of the cultivation methods,

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appraisal on various health benefits of Mushroom and scope for income generation through these cultivation. Dr Chandan Tamuly, Scientist-in-charge, Branch lab and Dr Budhen C Baruah, Sr Technical Officer conducted the programme. Ten packets of Mushroom spawns were distributed to the trainees for trial cultivation. Thirty women participants attended the programme.

CSIR 800 programme

- **Training on Mushroom cultivation held**



Preparation of substrate material for Mushroom cultivation by the women trainees.

CSIR-NEIST organized an intensive one-day training programme on cultivation of Mushroom at its premise on 13 March under the project entitled, 'An integrative approach for development of low cost technologies for socio-economic upliftment of two backward areas of Jorhat district, Assam'. Eighteen unemployed women from Malowkhat under 44 No. Madhya Charusorai Goan Panchayat, Jorhat participated in the programme which was coordinated by Dr S P Saikia, Scientist, CSIR-NEIST.

- **Health camp held**

A Health Camp was organized under the 12 FYP project "S&T interventions to combat malnutrition in women and children" at the CSIR-800 Techvil in Sonitpur, Assam in collaboration with the Institute of Integrated Resource Management (IIRM), Tezpur on 19 March where anthropometric measurements and systemic examination of respiratory,

gastrointestinal, nervous, cardiovascular and locomotors system were undertaken. Besides, one kilogram of KomalChawl (Soft Rice) popularly known for its bran intact and rich dietary fiber, essential fatty acids and other significant quantities of starch, protein, vitamins, and dietary minerals was distributed to each 100 beneficiaries comprising the targeted malnourished population. The programme was coordinated by Dr S P Saikia, Nodal Scientist of the project.



Dr P K Baruah, Medical Officer & Head, Clinical Centre, CSIR-NEIST examining a beneficiary from the targeted malnourished population while Dr S P Saikia, Coordinator of the programme looks on.

Colloquium held

Dr V Ramamurthy, Professor & Chair Organic Chemistry, Dept. of Chemistry, University of Miami delivered talks on "Science & Scientist" and "Photochemistry in a Capsule" on 26 & 27 March at CSIR-NEIST.

Seminar/Conference/Workshop/Meeting attended

Dr D Ramaiah, Director, CSIR-NEIST

- Meeting of the Monitoring Committee on, 'M 8.2 Shillong 1897 Earthquake Scenario: NE Multi-state Preparedness Campaign' held at NDMA Bhawan, New Delhi on 3 March.

- Expert Committee meeting of WOS: Chemical Sciences held at Bhubaneswar, Orissa during 24-25 March.

Dr S P Saikia, Scientist

- First meeting of the reconstituted University Research Council of University of Science & Technology, Meghalaya (USTM) on 28 March.

Honour/Recognition/Nomination

Dr S P Saikia, Scientist

- Nominated as a member of the University Research Council of University of Science & Technology, Meghalaya (USTM).

Visit

- A group of 30 students of Graduate level (from all streams) along with 2 Faculty members from Doomdooma College, Tinsukia district, Assam visited CSIR-NEIST on 25 March.

RMSA programme

Under Rashtriya Madhyamik Siksha Abhiyan (RMSA) educational tour programme, around 3000 students of class IX along with their teachers from various schools of Jorhat district visited the Institute during 9-27 March.



Mr Probin Baruah, Principal Technical Officer and Mr Madhurjya Saikia, Technical Officer interacting with the students during their visit under Gyan Yatra programme.

Papers published

In International Peer Reviewed Journals

- Rajesh N, Prajapati D: Indium-catalyzed, novel route to β,β -disubstituted indanones via tandem Nakamura addition-hydroarylation-decarboxylation sequence, *Chemical Communications*, 2015, 51 (16), p: 3347-3350.
- Ghosh J, Sil Parames C: Chapter 11 - Natural Bioactive Molecules: Mechanism of Actions and Perspectives in Organ Pathophysiology, *Studies in Natural Products Chemistry*, 2015, 45 (Feb), p: 457-483.
- Seetham Naidu P, Kolita S, Majumder S, Bhuyan P J: Three-Component Domino Heteroannulation and Synthesis of Some Novel Hexahydropyrimido[4,5-b]-1,8-naphthyridine Derivatives, *Synthesis*, 2015, 47 (5), p: 701-711.
- Das T, Saikia B K, Dutta D K, Bordoloi D, Baruah B P: Agglomeration of low rank Indian coal fines with an organic binder and the thermal behavior of the agglomerate produced: Part I, *Fuel*, 2015, 147, p: 269-278.
- Borah P, Borah J M, Chowdhury P K: Microwave (MW) irradiated Ugi four-component reaction (Ugi-4CR): Expedited synthesis of steroid-amino acid conjugates- A novel class of hybrid compounds, *Steroids*, 2015, 98, p: 49-57.
- Das A M, Hazarika M P: Synthesis of some novel steroidal 1,2,4,5-tetraoxanes, *RSC Advances*, 2015, 5 (26), p: 19818-19822.
- Prakash R, Shekarrao K, Saikia P, Gogoi S, Boruah R C: Palladium mediated regioselective intramolecular Heck reaction: Synthesis of 1,3,4-trisubstituted pyrazolo[3,4-b]pyridines, 3H-pyrazolo[3,4-c]isoquinolines and 3H-pyrazolo[4,3-f][1,7]naphthyridines, *RSC Advances*, 2015, 5 (27), p: 21099-21102.

- Dommaraju Y, Borthakur S, Rajesh N, Prajapati D: An efficient catalyst-free chemoselective multicomponent reaction for the synthesis of pyrimidine functionalized pyrrolo-annelated derivatives, *RSC Advances*, 2015, 5 (31), p: 24327-24335.
- Saikia B K, Wang P, Saikia A, Song H, Liu J, Wei J, Gupta U N: Mineralogical and Elemental Analysis of Some High-Sulfur Indian Paleogene Coals: A Statistical Approach, *Energy and Fuels*, 2015, 29 (3), p: 1407-1420.

In Indian Peer Reviewed Journals

- Talukdar M, Sarma R, Talukdar S, Yadav A, Jha D K, Bora T C: Optimization of process parameters for the production of antibacterial compound by a newly isolated nocardia cyriacigeorgica, KD-15 strain from kaziranga national park of north east India, *International Journal of Pharmacy and Pharmaceutical Sciences*, 2015, 7(3), p: 258-262.

In Proceedings of Seminar/Conferences

- Borthakur M P, Mudoi K D, Sarmah D, Saikia S P, Nath S C: In-vitro multiplication of *Aqualaria malaccensis* Lamk., In-Souvenir cum Abstract Book of Seminar "Recent advances in Agarwood Research in India" held at RFRI, Jorhat during 10-11 March, 2015(OP: III-22), p: 46.
- Borthakur M P, Mudoi K D, Hazarika J, Saikia S P, Bhattacharyya P R, Nath S C: Conservation of underutilized potential bioresources: *Homalomena aromatica* Schott., In-Book of Abstract of Intl. Conf on "Harnessing the sub-Himalayan Plant Diversity for Human Welfare" held at Dibrugarh University, Dibrugarh during 11-13 March, 2015 (p: 134), p: 190.

Condolence held

The Director and members of the staff of CSIR-NEIST deeply condoled the sad demise of its for-

mer employee, Dr J L Ghose (who breathed his last on 2 March) and Mr M Thambou Singh, Lab Attendant (who breathed his last on 8 March) at condolence meetings held in front of the administrative building on 5 and 9 March respectively.

Call for Participation in Awareness cum Information Seminar

An Awareness Seminar on 'Research, Innovation and Higher Education Cooperation & Opportunities Between India and European Union' will be held at CSIR-NEIST on 27 April, 2015. The programme is one of its series jointly organised by the European Union and its Member States throughout India to raise awareness amongst Indian Research and Innovation (R&I) community about EU-India co-operation opportunities in R&I and higher education, including mobility schemes open to Indian students and support services such as partner search tools. The Seminar will include Awareness Raising and Information Session which will highlight many important aspects on EU-India collaboration, R&I funding, mobility fellowships and higher education opportunities (Master/PhD/Post-Doc) besides direct interaction with the organizers of European R&I funding programs and support services. All staff members of CSIR-NEIST including Research Fellows/Scholars, Project Assistants, Research Scholars, Students (undergoing training), etc. are encouraged to participate in the seminar. Details of the programme can be viewed from the Institute's intranet and all Notice Boards.

Farewell

The following staff member has retired from the Council's service on superannuation from CSIR-NEIST w.e.f 31 March.

1. Dr T C Bora, Chief Scientist.