

निस्ट न्यूज NEIST NEWS

सी एस आई आर-उत्तर पूर्व विज्ञान तथा प्रौद्योगिकी संस्थान, जोरहाट
CSIR-NORTH EAST INSTITUTE OF SCIENCE & TECHNOLOGY, JORHAT

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Connecting Science & Technology for a Brighter Tomorrow

SHRI Y S CHOWDARY, HONORABLE MINISTER OF STATE FOR MINISTRY OF SCIENCE & TECHNOLOGY AND EARTH SCIENCES, GOVERNMENT OF INDIA VISITED CSIR-NEIST, JORHAT



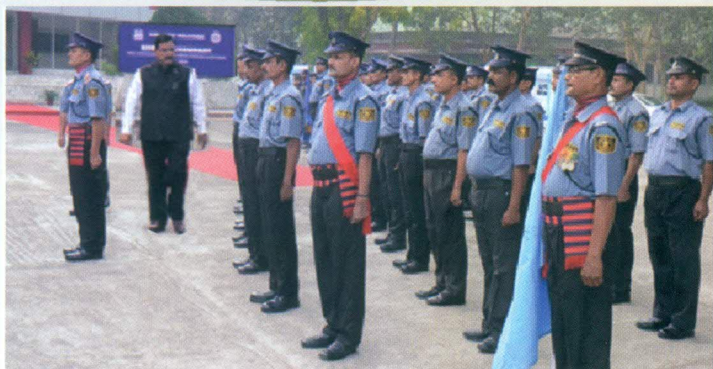
Shri Y S Chowdary, Hon'ble Minister of State for Ministry of Science & Technology and Earth Sciences, Government of India, interacting with a beneficiary in the exhibition stall accompanied by Dr D Ramaiah, Director, CSIR-NEIST, Shri Kamakhya P Tasa, Hon'ble Member of Parliament, Jorhat and other officials.



Hon'ble Minister delivering his address in the interactive session with the beneficiaries & entrepreneurs of CSIR-NEIST technologies.

Shri Y S Chowdary, Honorable Minister of State for Ministry of Science & Technology and Earth Sciences, Government of India, visited CSIR-NEIST during 25-26 January, 2016. On arrival at Jorhat on 25 January, 2016 the Hon'ble Minister visited an exhibition of CSIR-NEIST technologies accompanied by Shri Kamakhya Prasad Tasa, Hon'ble Member of Parliament, Jorhat constituency and Dr D Ramaiah, Director, CSIR-NEIST. The beneficiaries and entrepreneurs of CSIR-NEIST technologies exhibited their products in the exhibition stalls and interacted with the Hon'ble Minister. The Hon'ble Minister was happy to learn about the dissemination of small scale technologies like Mushroom cultivation & Banana fibre extraction to medium scale technology like TP-16 Biofertilizer in the region. He also appreciated the impact of Common Facility Centre set up by CSIR-NEIST (supported by DST, Govt. of India) in Mariani (Assam) for the local weavers to boost their skills and products with appropriate S&T intervention. An interactive program was further held at Dr J N

Baruah Auditorium wherein the beneficiaries and entrepreneurs of CSIR-NEIST technologies besides CSIR-NEIST fraternity interacted with the Hon'ble Minister. Dr D Ramaiah, Director, CSIR-NEIST delivered the welcome address and gave an overview of the Institute and its activities. Addressing the gathering, the Hon'ble Minister, Shri Y S Chowdary, emphasized on lab to land approach while mentioning the importance of commercialization and marketing aspects of technologies and products developed by the Institute. He encouraged the scientists to identify the gaps still present and take immediate remedial steps. Shri Kamakhya P Tasa, Hon'ble Member of Parliament in his address spoke about the potentiality of the region in terms of rich biodiversity and natural resources and urged the scientists & stake holders to further explore and reach out more to the people. During the open interaction & discussion, the Hon'ble Minister addressed the queries and issues raised by the beneficiaries & entrepreneurs such as fund for more cluster-wise projects for societal development, facilities for solar



Hon'ble Minister inspecting the guard of honour on the occasion of 67th Republic Day celebration at CSIR-NEIST on 26 January, 2016.



Hon'ble Minister visiting the NEIST Experimental Farm.

power systems for rural entrepreneurs, etc. It may be mentioned that on the occasion, Mr Mustafa Ahmed, a class 8th student of Cinnamara Hr Secondary School, Jorhat was felicitated by the Hon'ble Minister in appreciation of his work on 'Scientific Seed Storage Device' for which he was honoured as the only child scientist from Assam at the National Children's Science Congress held in December, 2015. The interactive program was followed by Press Meet held at Director's Conference Room.

On 27 January, 2016 the Hon'ble Minister graced the 67th Republic Day celebration at CSIR-NEIST as Chief Guest. He inspected the Guard of Honour and unfurled the National Flag followed by the National Anthem.

Addressing a gathering of CSIR-NEIST family and students & faculty members of KV-NEIST, he urged everyone to review their responsibilities as a citizen and to follow the constitution in the right spirit with utmost respect and patronage for the country. A short cultural program was held later at Dr J N Baruah Auditorium wherein students from Kendriya Vidyalaya, NEIST performed various song and dance performances. Shri Kamakhya P Tasa, Hon'ble Member of Parliament, also graced the program. Dr D Ramaiah delivered the welcome address wherein he extended his gratitude to the Hon'ble Minister for his dedication and sparing valuable time to visit the institute despite his busy schedule. Addressing the occasion, Hon'ble Member of Parliament extended his greetings and expressed his appreciation to the Hon'ble Minister for gracing the Republic Day celebration and said that this may be the first time not only for the Institute but also for the entire district that any Central Minister has hoisted the flag on 26 January. Hon'ble Minister in his address extended his gratitude to the Institute and the school for organizing various programs to commemorate his visit. "I see a



Essential Oil Distillation Plant (300 L/Day capacity) inaugurated by the Hon'ble Minister in presence of Dr D Ramaiah, Director, CSIR-NEIST, Sh. Kamakhya P Tasa, Hon'ble MP, Jorhat and other officials from CSIR-NEIST.



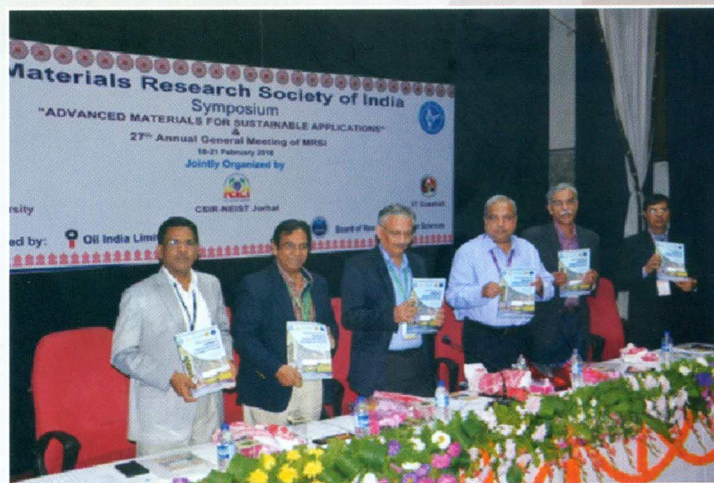
Hon'ble Minister visiting the Geosciences Division.

huge potential in the region and in the young people to progress and excel in various spheres of life", he said. He further mentioned that the Institute in collaboration with the Ministry may fund exposure trips for the students and young researchers to visit other Institutes and organisations in the country to broaden their horizon. The program concluded with vote of thanks proposed by Dr N C Barua, Chief Scientist, CSIR-NEIST.

Later during the day, the Hon'ble Minister inaugurated an Essential Oil Distillation Plant (300 L/Day) at NEIST Experimental Farm. To mark the visit, Hon'ble Minister and Hon'ble Member of Parliament also planted saplings of *Mesua ferrea* L. (Family: Clusiaceae, Common name: Iron wood tree) in the Experimental Farm

As a part of Republic Day celebration, Sports Event was organized at CSIR-NEIST playground. Hon'ble Minister hoisted the CSIR-NEIST Staff Club Flag and addressed the gathering during the inauguration of the Event. Further, he laid the Foundation Stone of Experimental Animal House in Chemical Sciences Block and visited various divisions like Chemical Sciences & Technology Division (CSTD), Geosciences & Technology Division (GSTD), Biological Sciences & Technology Division (BSTD) and Herbal Drug Processing Unit (HDPU) and interacted with the staff members. He showed keen interest and discussed about the Microzonation study and Earthquake Risk Assessment for Cities undertaken by Geosciences Division and asked to submit projects under Smart Cities Mission program. He lauded the work carried out by the Institute in Bioremediation of crude oil contaminated land in Assam and encouraged to submit more such projects for funding from the Ministry to reclaim other contaminated sites.

CSIR-NEIST HOSTED THE MATERIALS RESEARCH SOCIETY OF INDIA (MRSI) SYMPOSIUM & 27TH ANNUAL GENERAL MEETING OF MRSI



Left: Dr G Sundararajan, Emeritus Scientist, ARCI-Hyderabad speaking during the inaugural program as Chief Guest. Right: Release of Souvenir by the dignitaries (from left), Dr D Ramaiah, Director, CSIR-NEIST & Chairman- Organizing Committee; Prof S B Krupanidhi, Vice President & General Secretary, MRSI; Dr Suresh Das, President, MRSI & Executive Vice President, Kerala State Council for Science & Technology, Trivandrum; Dr G Sundararajan, Professor, IIT-Madras & Distinguished Emeritus Scientist, ARCI-Hyderabad and Chief Guest; Dr Vijayamohan K Pillai, Director, CSIR-CECRI, Karaikudi & Acting Director, CSIR-NCL, Pune and Guest of Honour and Dr P Sengupta, Convenor cum Organizing Secretary.

The four-day program of Materials Research Society of India (MRSI) Symposium on "Advanced Materials for Sustainable Applications" was organized for the first time in North East India at CSIR-North East Institute of Science and Technology, Jorhat. The event which ran concurrently with the 27th Annual General Meeting of MRSI during 18-21 February, 2016 was hosted by CSIR-NEIST jointly with Tezpur University and Indian Institute of Technology, Guwahati.

The four-day program started off with a glittering inaugural program which was attended by eminent personalities, stake holders, council members of MRSI, dignitaries, student participants & researchers from various parts of the country besides CSIR-NEIST fraternity. Dr G Sundararajan, Professor, IIT-Madras & Distinguished Emeritus Scientist, ARCI-Hyderabad and Dr Vijayamohan K Pillai, Director, CSIR-CECRI, Karaikudi & Acting Director, CSIR-NCL, Pune graced the occasion as Chief Guest and Guest of Honour respectively. Dr D Ramaiah, Director, CSIR-NEIST & Chairman-Organizing Committee delivered the welcome address wherein he spoke briefly about CSIR-NEIST and the background of the Symposium. Prof S B Krupanidhi, Vice-President & General Secretary- MRSI spoke about MRSI and said that it is dedicated to attract & foster young scientists & researchers by exposing them to the world of Materials Science and the various advancements taking place by holding such events.

In his address, Dr Vijayamohan K Pillai mentioned the impact of MRSI in the scientific community and emphasized the need to develop affordable materials to address critical issues like water, energy, etc. Dr Suresh Das, President, MRSI &

Executive Vice President, Kerala State Council for Science & Technology, Trivandrum, in his Presidential Address, spoke in detail about the importance of developing new materials and applications of R&D to address problems in harnessing Solar Energy for mitigating the energy crisis in a sustainable way. Making a strong reference about the 'Valley of Death' that exists between basic research and industry, Dr Das stressed upon a systematic approach to cross over the gap. Later, the Souvenir of the Symposium was released by the Chief Guest. The inaugural program concluded with a vote of thanks from Dr P Sengupta, Chief Scientist, CSIR-NEIST and Convener, Organizing Committee.

On the eve of the inaugural function, the Asia Pacific Academy of Materials (APAM) India Chapter Meeting, 2016 was also held on 18 February, 2016, which was chaired by Prof SB Krupanidhi, IISc Bangalore in presence of Dr D Ramaiah, Director, CSIR-NEIST and Prof C Jagadish of ANU Australia. During the chapter meeting, three talks were delivered by the senior scientists of CSIR-NEIST Jorhat (Dr RL Goswamee: Hydrotalcite based nanocomposites- A group of materials with wide prospects; Dr (Mrs) S Hazarika: Development of indigenous membrane for emerging applications; and Dr T Goswami: Technology driven R & D for society: An Odyssey). About 70 scientists/faculty members and students from IISc Bangalore, Australian National University, CSIR-NEIST Jorhat, CSIR-NIIST Thiruvananthapuram, CSIR-CECRI Karaikudi, CSIR-CGCRl Kolkata, IACS Kolkata, IIT Jodhpur, IIT Hyderabad, IIT Kharagpur, S N Bose National Centre for Basic Sciences Kolkata, NIT Rourkela, Bharathidasan University Tiruchirapalli and Central Research Laboratory, BEL, Bangalore participated in the meeting.

The four-day Symposium was held in 9 Technical Sessions covering Award, Medal & Thematic Lectures by eminent scientists & subject experts besides 2 Poster Sessions wherein 163 Posters were presented by students, researchers and young scientists from different parts of the country. It is worthwhile to mention that the Board of Research in Nuclear Sciences (BRNS), Mumbai sponsored the first technical session (Award Lectures) while Oil India Limited, Duliajan sponsored the fourth technical session (Thematic Lectures).

Highlights of the technical sessions included Distinguished Material Scientist of the Year Award Lecture, CNR Rao Prize Lecture in Advanced Materials, MRSI Silver Jubilee International Medal Lecture, four MRSI-ICSC Superconductivity and Materials Science Annual Prize Lectures, seventeen MRSI Medal Lectures, five G C Jain Memorial Lectures and five Thematic Lectures. Dr G Sundarajan, ARCI, Hyderabad delivered the Distinguished Material Scientist of the Year Award Lecture on, 'Development of oxide dispersion strengthened steels at ARCI'. The CNR Rao Prize Lecture in Advanced Materials was delivered by Prof U V Waghmare, JNCASR, Bangalore on the topic, 'Theoretical predictions of novel structures, phenomena and functionality in 2-D materials' and Prof Chennupati Jagadish, Australian National University, Australia delivered the MRSI Silver Jubilee International Medal Lecture on, 'Semiconductor nanowires for

optoelectronics and energy applications'. The Technical sessions deliberated on subject areas like Superconductivity & Materials Science, Energy, Theoretical/Computational Material Sciences, Nano-Materials & Devices and Fine Chemicals & Soft Materials. It is also worthwhile to mention that the G C Jain Memorial Lecture delivered by Dr D Durgalakshmi, University of Madras entitled 'Investigation on various forms of nanobioglass 45S5 for orthopaedic and dentin regeneration' was adjudged as the Best G C Jain Memorial Award. Six posters presented by C V S Rosely of CSIR-NIIST Thiruvananthapuram, K Deka of Tezpur University, R R Behera of IIT Gauhati, R P Bhattacharjee of CSIR-NEIST Jorhat, S Sutradhar of IIT Chennai, and A Roy of CSIR-CGCRI Kolkata were adjudged and awarded as the best posters.

The symposium concluded with a Valedictory Function Chaired by Dr Suresh Das, President MRSI on 21 February, 2016. Prof S B Krupanidhi gave an overview of the four-day program.

The MRSI North East Chapter was formed giving a major boost to the materials research in this part of the country. Besides the scientific fraternity of CSIR-NEIST, the Symposium was attended by around 430 participants from various institutes, organizations and universities of the country. The symposium was partly sponsored by DAE-Board of Research in Nuclear Sciences (DAE-BRNS), Oil India Ltd. Duliajan and DST, Govt. of India.

DIRECTOR, CSIR-NEIST EXTENDS NEW YEAR'S DAY GREETINGS TO THE STAFF



Dr D Ramaiah (left), Director, CSIR-NEIST delivering New Year's Day Address. Dr N C Baruah (center), Chief Scientist and Mr Ajay Kumar (right), Hindi Officer, CSIR-NEIST are seen delivering the translated version of the same in Assamese and Hindi respectively.

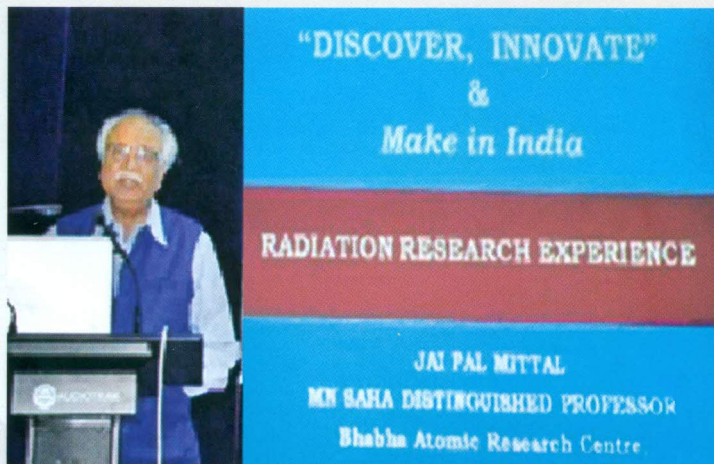
Dr D Ramaiah, Director, CSIR-NEIST addressed the staff members on 1 January, 2016 at a short program held at open air stage. He encouraged all to instil a new spirit to solve future challenges and turn them into opportunities. Declaring the year 2016 as the 'Year of Translation Research' he urged all to be proactive in translating science into technology to create a win-win situation for all the stakeholders. "Let us all aspire to fulfill the mandate of the Govt. by accepting the challenges to provide Science & Technology research findings for the development of the country and to achieve the targets of economic self-sufficiency in time targeted manner", he said.

He also reiterated the activities and achievements of the Institute during the year 2015 and extended gratitude to all for making it an eventful one. On the occasion, the staff members who joined the Institute in 2015 were introduced. Besides, the colleagues who received Awards in 2015 were given opportunity to speak about their contributions. Unlike previous years, this year, two students who completed Ph D in 2015 under Academy of CSIR (AcSIR) received certificates from the Director.

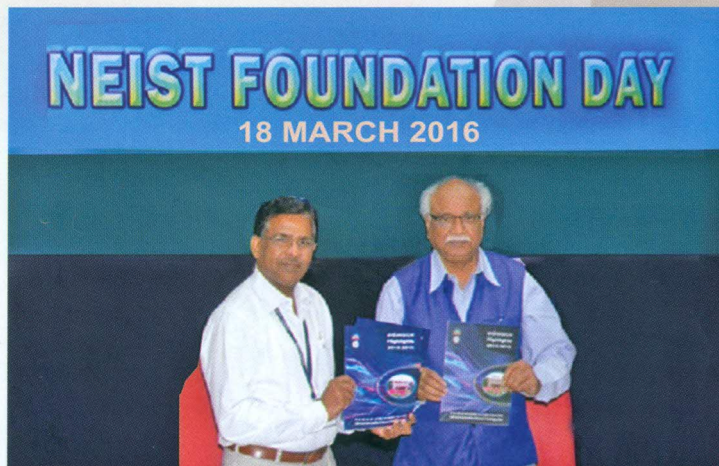
55TH CSIR-NEIST FOUNDATION DAY

CSIR-NEIST, Jorhat celebrated its 55th Foundation Day with a special function on 18 March, 2016. Padma Shri Prof J P Mittal,

B N Saha Distinguished Professor, Bhabha Atomic Research Centre, Mumbai graced the function as Chief Guest and delivered

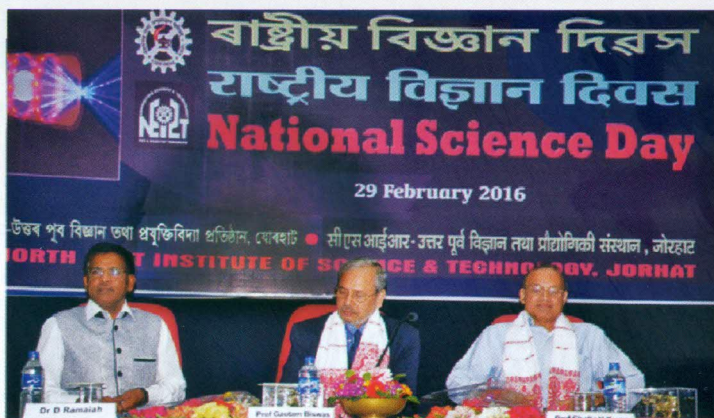


the Foundation Day Lecture on the topic, "Discover, Innovate & Make In India". An interactive session was held later with Prof Mittal and CSIR-NEIST scientists. Prof Mittal also released the

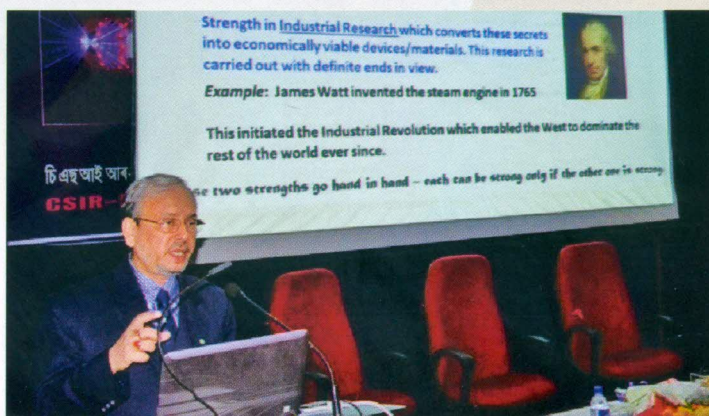


CSIR-NEIST Highlight-2015-16 in the celebration in presence of Dr D Ramaiah, Director, CSIR-NEIST.

National Science Day 2016



Left: Dignitaries on the dais (from left), Dr D Ramaiah, Director, CSIR-NEIST; Prof. Gautam Biswas, Director, IIT, Guwahati & Chief Guest of the program and Prof. Challa Vijaya Kumar; Professor, Dept. of Chemistry, University of Connecticut, USA & Guest of Honour. Right: Prof Biswas delivering the Science Day Lecture.



CSIR-NEIST observed National Science Day on 29 February, 2016 with a well charted out program. Prof. Gautam Biswas, Director IIT, Guwahati and Prof. Challa Vijaya Kumar, Professor, Dept. of Chemistry, University of Connecticut, USA graced the occasion as Chief Guest and Guest of Honour respectively.

Prof Biswas delivered Science Day Lecture on the topic, "Manifesto for Future: Knowledge Economy, Some Concerns and Suggestions". Prof. Challa Vijaya Kumar also delivered a talk entitled, "Nano-Science and Technology in everyday life".

International Women's Day 2016

CSIR-NEIST celebrated International Women's Day 2016 with a symposium on the theme, 'Pledge for parity in science from Mangalyaan to Mushroom' on 8 March, 2016. Mrs Anuradha Sarma Puzari, renowned writer and Editor of popular Assamese

magazines, 'SaaDin' and 'Satsari' and Dr Aditi Bezbaruah, Associate Professor & Head— Dept. of Physics, Jorhat Engineering College graced the occasion as Chief Guest and Guest of Honour respectively. Mrs Anuradha spoke on the



Left: Dignitaries on the dais (from right) Dr Aditi Bezbaruah, Assoc. Prof & Head- Dept. of Physics, Jorhat Engineering College and Guest of Honour; Dr D Ramaiah, Director, CSIR-NEIST and Ms. Anuradha Sarma Puzari, Editor, 'Saadin' & 'Satsari' and Chief Guest of the program. Right: Ms. Anuradha Sarma Puzari, delivering her speech as Chief Guest on the occasion.



occasion on the topic, "Women-Today and Tomorrow" while Dr Bezbaruah delivered a presentation entitled, "Women in science- looking backward and forward". An interactive session was held later with CSIR-NEIST staff members

wherein Mrs Anuradha and Dr Bezbaruah participated as resource persons. Issues on women & career and essence of women & their day-to-day lives were discussed in the session.

AWARD/HONOUR/RECOGNITION

IIME COAL BENEFICIATION AWARD 2015



Dr Binoy K Saikia

Dr Binoy K Saikia, Scientist of Polymer Petroleum & Coal Chemistry Group, has been awarded with Indian Institute of Mineral Engineering (IIME) Coal Beneficiation Award (Academic/R&D) - 2015 for his contribution in the field of Mineral Engineering. The award which consisted of a plaque was given during the inauguration of the

International Seminar on Mineral Processing Technology (MPT-2016) held on 5 January, 2016 at Tata Consultancy Services (TCS), Pune. Dr Saikia has research interests in advanced characterization and gainful utilization of high sulphur North East Indian coals, green methods of coal beneficiation, nano-mineralogy and value addition to low quality coals. He has published so far 46 papers in reputed journals (SCI) along with 5 book chapters (ISBN). He has also been elected recently as Life Member of Mining, Geological & Metallurgical Institute of India (MGMI).

VICAL AWARD

Dr Swapnali Hazarika, Sr. Scientist and Ms. Indumoni Das, Research Fellow of Chemical Engineering Group, have been awarded the VICAL Award 2015 for their paper adjudged as best student's paper presentation in SCHEMCON-2014. The award was given during 68th Annual Session of Indian Institute of Chemical Engineers CHEMCON 2015 held at IIT-Guwahati on 27 December, 2015.



Dr Swapnali Hazarika



Ms Indumoni Das

STATE SCIENCE COMMUNICATOR AWARD 2016



Dr H B Singh

Dr H B Singh, Principal Scientist & Scientist-in-charge, CSIR-NEIST branch lab., Imphal has been awarded the 'State Science Communicator Award 2016' by the Govt. of Manipur in recognition of his contribution in science popularization. The Award which carried a cash of INR 10,000/-, Citation, Memento & Shawl was awarded on the occasion of National Science Day 2016. The award is shared with Prof N Rajmuhon Singh of Manipur University.

CERTIFICATE OF OUTSTANDING CONTRIBUTION IN REVIEWING



Dr Pranjal Gogoi

Dr Pranjal Gogoi, Scientist, Medicinal Chemistry Group has been honoured with 'Certificate of Outstanding Contribution in Reviewing' by Tetrahedron Letters, Elsevier, in recognition of his contribution to the quality of the journal.

SOCIETAL ACTIVITIES

TRAINING PROGRAM ON MUSHROOM CULTIVATION HELD



Training held at Banderdewa on 21.03.2016



Training held at CSIR-NEIST premise on 15.03.2016

■ Training organized by CSIR-NEIST branch lab., Itanagar on 14 December, 2015 at SIB colony, Naharlagun. About 40 nos. of unemployed women from Naharlagun and other adjoining areas of Itanagar were trained. Dr B Baruah, Sr. Technical Officer, branch lab imparted the training and gave detailed demonstration of the cultivation to the trainees. Dr Chandan Tamuly, Sc-in-charge, branch lab., distributed 30 packets of Mushroom spawn to the trainees for trial basis cultivation

■ Training organized by CSIR-NEIST branch lab., Itanagar on 14 December, 2015 at SIB colony, Naharlagun. About 40 nos. of unemployed women from Naharlagun and other adjoining areas of Itanagar were trained. Dr B Baruah, Sr. Technical Officer, branch lab imparted the training and gave detailed demonstration of the cultivation to the trainees. Dr Chandan Tamuly, Sc-in-charge, branch lab., distributed 30 packets of Mushroom spawn to the trainees for trial basis cultivation

■ Training organized by CSIR-NEIST branch lab., Itanagar at Banderdewa on 21 March, 2016. About 15 nos. of farmers and women entrepreneurs from Banderdewa received the training. Dr B C Baruah, Sr Technical Officer, Branch lab, provided detail demonstration of the cultivation. About 20 packets of mushroom spawn were distributed to the trainees for trial cultivation

■ Training organized by CSIR-NEIST branch lab., Itanagar at Dobum village, Banderdewa on 3 February, 2016 in collaboration with Dobum Child Development Centre (DCDC), Dobum village, Banderdewa. About 40 nos. of farmers and villagers received the training. Dr B C Baruah, Sr Technical Officer, Branch lab provided detail demonstration of the Mushroom cultivation. Dr Chandan Tamuly, Scientist-in charge, branch lab deliberated on the importance and nutritional values of edible mushroom

■ Training held under CSIR 800 project, "Rural Entrepreneurship and Skill Development through Demonstration and Training of Appropriate Technologies of CSIR-NEIST" on 27 February, 2016 at Bokakhat, Golaghat. About 29 women from Bokaghat were trained. Mushroom spawn packets were also distributed to the trainees for trial cultivation. The programme was coordinated by Dr S P Saikia, Senior Scientist & PI of the project

■ Training held under CSIR 800 project, "Rural Entrepreneurship and Skill Development through Demonstration and Training of Appropriate Technologies of CSIR-NEIST" on 15 March, 2016. About 26 women from Jorhat received the training held at institute's premise

TRAINING PROGRAM ON AROMATIC & MEDICINAL PLANT CULTIVATION HELD

■ Training cum awareness programme organized by CSIR-NEIST branch lab., Itanagar on "Cultivation of Medicinal and Aromatic plants" at Yupia village, Yupia on 30 November, 2015. Dr Budhen C Baruah, Sr. Technical Officer, branch lab spoke about the importance of medicinal, aromatic plants and its agro-technology. Dr Chandan Tamuly, Sc in Charge, branch lab talked about promotion, conservation and sustainable utilization of medicinal & aromatic plants for socio-economic development of the people. For promoting trial basis cultivation, 40 nos. of Lemon grass (BLI-ARUN variety) slips were distributed to the trainees. Total 30 nos. of tribal youth from Yupia village actively participated in the program

■ Training on Citronella cultivation & oil distillation held under CSIR 800 project, "Rural Entrepreneurship and Skill Development through Demonstration and Training of Appropriate Technologies of CSIR-NEIST" on 29 March, 2016. About 26 unemployed men and women from Jorhat were trained. The program was held at NEIST experimental farm. The programs were coordinated by Dr S P Saikia, Senior Scientist & PI of the project



Training held at Yupia village, Yupia on 30.11.2015