



# FIRE FRANKS

सी एस आई आर-उत्तर पूर्व विज्ञान तथा प्रौद्योगिकी संस्थान, जोरहाट CSIR-NORTH EAST INSTITUTE OF SCIENCE & TECHNOLOGY, JORHAT VOL. XXXVIII NO. 2 APRIL - JULY, 2015

# Connecting Science & Technology for a Brighter Tomorrow

## SEMINAR ON EU-INDIA COOPERATION OPPORTUNITIES IN RESEARCH & INNOVATION HELD





Left: Mr Denis Dambois, First Counselor and Head of Research & Innovation, European Union, New Delhi speaking on Horizon 2020 Framework Programme of European Union.Right: Members from EU delegation to India seen on the dais with Dr R C Boruah (3rd from left), Outstanding Scientist, CSIR-NEIST during the Seminar, (from right) Dr Marriane Jensen, Counselor-S&T, Royal Norwegian Embassy, New Delhi; Mr Arild Oksnevad, Counsellor, Head of Cooperation, Royal Norwegian Embassy, New Delhi; Mr Denis Dambois, First Counselor & Head of R&I, EU, New Delhi; Dr Vivek Dham, Advisor- R&I, EU, New Delhi and Mr Som Sekhar Ganguly, European Business & Technology Centre in India, Kolkata.

An awareness-raising and information seminar on 'Research, Innovation and Higher Education Cooperation & Opportunities between India and European Union' was held at CSIR-NEIST on 27 April, 2015. Various important aspects on EU-India collaboration, R&I funding, higher education opportunities (Master/PhD/Post-Doc),

mobility schemes/fellowships for Indian students and support services such as partner search tools were covered in the seminar. The Seminar was organized by European Union and its member states in collaboration with CSIR-NEIST wherein staff members, research scholars and students of the Institute participated.

# **CSIR-NEIST ORGANIZED SERIES OF SCIENCE MOTIVATIONAL PROGRAMMES**



A students interecting in the programme where Dr Dr D Ramaiah, Director, CSIR-NEIST chaired.

With an objective to motivate students towards basic science, CSIR-NEIST organized four one-day science motivational programmes during 11-12 June 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 CELEBRATED NATIONAL TECHNOLOGY DAY**



Shri P Padmanabhan, Managing Director, NRL, Numaligarh delivering the Technology Day Lecture as Chief Guest.

Other dignitaries present in the dais are (from left), Dr R C Boruah, Outstanding Scientist, CSIR-NEIST; Dr D Ramaiah,

Director, CSIR-NEIST and Dr N N Dutta, Chancellor, Assam down town University & Guest of Honour.

CSIR-NEIST celebrated National Technology Day on 11 May, 2015 with a well charted out programme held at Dr J N Baruah Auditorium. Shri P Padmanabhan, Managing Director, Numaligarh Refinery Ltd., Numaligarh graced the occasion as Chief Guest while Dr N N Dutta, Chancellor, Assam down town University was present as Guest of Honour. The programme was presided over by Dr D Ramaiah, Director, CSIR-NEIST wherein invitees, important personalities from academia, industry and press & media besides CSIR-NEIST fraternity attended in large number.

Delivering the Technology Day lecture, Shri Padmanabhan emphasized the power of technology in revolutionizing the world and improving the quality of lives. He mentioned that, technology is something which makes us do things differently for the benefit of the people/society. In this line, he urged the people to introspect and understand its proper use while citing instances of its misappropriation by the very human kind. Being from an oil industry sector, he mentioned some of the various challenges faced by the oil sector and said that it is not a technologically evolved industry unlike other industries such as Electronics, IT, etc. while hazards is also of high concern in the oil sector. In his message,

he urged the scientists, technologists and all researchers to be more humanitarian, inquisitive and a good human being. Following the lecture, Shri Padmanabhan addressed various queries and questions from the audience ranging from technical to environmental issues concerning industries. Addressing the occasion, Dr technological spoke about the advancements made in Medical Science which have made so many sophisticated diagnostics, surgeries, etc. possible today. From advanced MRI, CT scan, Endoscope to technology applications in Stereotactic surgery are some notable developments over the years, he said. Dr Dutta also further laid emphasis on the importance to develop technologies for benefit of the people. Earlier, Dr Ramaiah, Director, CSIR-NEIST gave opening remarks and introduced the Chief Guest to the audience. He spoke in brief about the significance of the day and mentioned the importance of S&T for inclusive growth. Dr R C Boruah, Scientist, **CSIR-NEIST** Outstanding delivered the welcome address and briefly spoke about the Institute and its contribution in the field of S&T. Dr S B Wann, Principal Scientist, CSIR-NEIST introduced the Guest of Honour to the audience. The function concluded with vote of thanks proposed by Dr H P Deka Baruah, Head- Biotechnology Division & Coordinator of the function. As a part of the celebrations, the Institute observed 'Open day' during 0900 hrs to 1200 hrs for the visit of students and general public.

#### **WORLD ENVIRONMENT DAY 2015 OBSERVED AT CSIR-NEIST**



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 Outstanding Society-Jorhat branch & 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.

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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 M K 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 Jatin Kalita, Scientist, CSIR-NEIST. The function was well attended by invited guests, members from Assam Science Society- Jorhat branch and CSIR-NEIST fraternity.

#### 29TH TOWN OFFICIAL LANGUAGE IMPLEMENTATION COMMITTEE MEETING HELD AT CSIR-NEIST





Left: राजभाषा कार्यान्वयन समिति, जोरहाट की 29 वीं बैठक. Right: पत्रिका का विमोचन करते कार्यालयों के प्रधान.

जोरहाट नगर के सभी केंद्रीय कार्यालयों, बैकां, उपक्रमों एवं सैन्य (मिलिटरी/पारा मिलिटरी) कार्यालयों में राजभाषा के रूप में हिंदी के प्रयोग/प्रचालन को बढ़ाने के लिए भारत सरकार द्वारा गठित नगर राजभाषा कार्यान्वयन समिति, जोरहाट की 29 वीं बैठक 30 अप्रैल 2015 को संपन्न हो गया। भारत सरकार, राजभाषा विभाग (कार्यान्वयन) के उप निदेशक डॉ बी के सिंह की उपस्थिती में बैठक की अध्यक्षता भारत सरकार द्वारा नामित अध्यक्ष डा. डी रमैया, निदेशक, निस्ट, जोरहाट ने किया.

कार्यक्रम का संचालन समिति के सचिव श्री अजय कुमार ने किया। नेपाल के हृदय विदारक भूकंप त्रासदी एवं भारत में प्रभावित भूकंप से मारे गए व्यक्तियों के आत्मा की शांति के लिए सभी उपस्थित सदस्यों ने एक मिनट का मौन श्र्द्धांजली अर्पित किया। भारत सरकार, राजभाषा विभाग, क्षेत्रीय कार्यान्वयन कार्यालय गुवाहाटी के उप निदेशक डॉ बी के सिंह को फुलाम गमोछा से स्वागत किया गया। उपस्थित कार्यालयोंके प्रधान एवं प्रतिनिधियों नेअपना परिचय दिया। तत्पश्चात सिमिति के अध्यक्ष डा. डी रमैयाने उपस्थित कार्यालय प्रधान एवं प्रतिनिधियों का हार्दिक स्वागत किया गया एवं निस्ट, जोरहाट के उत्कृष्ट वैज्ञानिक डॉ आर सी बरुआ ने स्वागत भाषण देते हुए सिमिति के लक्ष्य को दोहराया। सभी सदस्यों से अनुरोध किया कि वे अपने कार्यालय के बाहर लगे बोर्ड तुभाषी अर्थात सबसे ऊपर असमियाँ, फिर हिन्दी तब अंत में अँग्रेजी के क्रम में हो। असिमयाँ संविधान कि आठवीं अनुसूची कि भाषा है इसलिए असम के सभी केंद्रीय कार्यालयों बाहरी बोर्ड में पहले असमियाँ ही होगा। राजभाषा हिंदी का कार्यालयों में प्रगति पर चर्चा के दौरान सभी कार्यालयों ने अपने-अपने प्रयास, प्रोत्साहन गतिविधियां एवं आने वाली समस्या ओं को समिति के सामने रखा। समिति ने राजभाषा विकास के लिए वर्ष 2015-16 के लिए राजभाषा विभाग द्वारा निर्धारित वार्षिक कार्यक्रम कि प्रति सभी सदस्यों को दिया ताकि तदनुरूप अपना कार्य कार्यालय में कर सकें। डॉ सिंहने टिप्पणी करते हुए, कुछ कार्यालयों बेहतर प्रयास को सराहा एवंकुछ कार्यालयों के समस्या ओं के समाधान का आश्वासन दिया एवं उनकी बात को सरकार तक पहँचने का वादा किया। बैठक में जोरहाट एयरपोर्ट निदेशक ने भाग लिया एवं अपने कार्यालय के राजभाषा गतिविधियों को प्रस्तुत किया। केंद्रीय रिजर्व पुलिस बल के द्वितीय कमान अधिकारी श्री पी के तिवारी ने अपने कार्यालय में हिन्दी प्रयोग का विवरण दिया। निस्ट के मुख्य वैज्ञानिक डॉ डी प्रजापित, ओएनजीसी की ओर से उप

प्रबन्धक श्रीमित गीता हिंगने, बीएसएनएल के फेंचाईजी प्रबन्धक श्रीरिव कपूर, दूरदर्शन प्रसारण केंद्र से श्री रिपु दमन बोरा, केंद्रीय औद्योगिक सुरक्षा बलके उप कमांडेंट श्री कपिल वर्मन, भारतीयसेन 41 सवएरिया से श्री प्रदीप सिंह, इंडियन बैंक मुख्य प्रबन्धक श्री विकाश मोहंती,भारतीय जीवन बीमा निगम के सहायक प्रशासनिक अधिकारी श्री भृगु कुमार बोरा, यूको बैंक के राजभाषा अधिकारी श्री उदीप कुमार वर्मा, वर्षा वन अनुसंधान संस्थान के वज्ञानिक डॉ विपिन प्रकाश, ऑयल इंडिया पंप स्टेशन जोरहाट के प्रभारी अभियंता श्री डी के साइकिया, रबर बोर्ड के सह विकास अधिकारी श्री बिजय बरठाकुर, डाकविभाग निरीक्षक श्री प्रणव बरपात्र गोहाइन, नेशनल इन्शुरेंस के सहायक प्रबन्धक श्री सुनील राजगुरु, कोपोरेशन बैंक के प्रबन्धक श्री धनराज चिक बराईक, आईडीबीआई बैंक के प्रबन्धक सुश्री मधुस्मिता मोहंत ने अपने कार्यालयों में राजभाषा विकास एवं गतिविधियों को समिति के सामने प्रस्तुत किया। इसके अलावा केद्रीय मूगा एवं एरी अनुसंधान, कर्मचारी राज्य जीवन बीमा निगम, यूनाइटेड इंडिया इन्शुरेंस कंपनी, केंद्रीय जल आयोग, बैंक ऑफ बरोदा, इंडियन ओवेरसीज बैंक, देना बैंक, आयकर आयुक्त कार्यालय, केंद्रीय विद्यालय निस्ट के प्रतिनिधियों ने भी भाग लिया एवं अपने कार्यालय के हिन्दी प्रगति को प्रस्तुत किया।

अपने मार्ग दर्शन के दौरान उप निदेशक डॉ सिंहने कार्यालयों से अनुरोध किया साथ ही कार्यान्वयन कार्य राजभाषा नियम के अनुरूप करें तािक लक्ष्य पूरा किया जा सके। कार्यालयों में हिन्दी दिवस या सप्ताह के दौरान आयोजित राजभाषा हिन्दी के विकास हेतु आयोजित प्रतियोगिता ओं में कर्मचारीयों को आकर्षक उपहार एवं नकद पुरस्कार देने पर बल दिया तािक वे प्रोत्साहित हों।समिति के सदस्य कार्यालयों के सहयोग से तैयार हिन्दी कि "अनुनाद" ई-पित्रका के तृतीय अंक के प्रिंट एवं नेट वर्जन का विमोचन किया गया। पित्रका प्रकाशन पर सदस्यों ने संतृष्टि प्रकट की। ज्ञातव्य हो कि इस पित्रका में हिंदीतर भाषी द्वारा लिखित लेख, किवता आदिको विशेष रूप से प्रोत्साहित किया जाता है। सिमिति के अध्यक्ष डा. डी रमैया ने अपने अध्यक्षीय सम्बोधन में हिन्दी के विकास पर संतोष व्यक्त किया एवं बेहतर कार्य करने का अनुरोध किया। अंत में यूको बैंक के राजभाषा अधिकारी श्री उदीप वर्माने अपने वक्तव्य के साथ धन्यवाद ज्ञापित किया।

#### CSIR-NEIST TECHNOLOGY ON LIQUID DEODORANT CLEANER GOES IN TO PRODUCTION





M/s SAPMG, Agartala, Tripura has started commercial production of 'Liquid Deodorant Cleaner' under the brand name, Cleano. The process knowhow developed by the Institute was transferred to the party in February, 2015.

Commercial samples of Liquid Deodorant Cleaner produced by M/s SAPMG, Agartala.

#### CSIR-NEIST SIGNED MEMORANDUM OF UNDERSTANDING WITH ASSAM DOWN TOWN UNIVERSITY



Dr D Ramaiah (5th from right), Director, CSIR-NEIST and Dr N N Dutta, (4th from left), Chancellor, AdtU with the signed MoU in presence of CSIR-NEIST scientists and officials from AdtU..

#### **SOCIETAL ACTIVITIES**



A section of trainees with compact bags prepared during the training programme seen with Dr S P Saikia, Nodal Scientist.

Under the on-going project, "S&T interventions to combat malnutrition in women and children", CSIR-NEIST organized training programmes on Mushroom cultivation at CSIR-800 Techvil in Sonitpur district, Assam in collaboration with the NGO, Institute of Integrated Resource Management (IIRM), Tezpur on 14 June, 2015 and 12 July, 2015. Altogether 104 persons from surrounding areas of Sonitpur district were imparted the training from which a batch of 27 rural women (selected out of the 185 persons trained in earlier programmes) was trained as master trainers who would reach out to over 150 households.

Besides imparting the training, the Institute also distributed packets of ready to eat nutritious food product developed from soft rice to the trainees. The programmes were coordinated by Dr S P Saikia, Nodal Scientist of the project.

#### PAPERS PUBLISHED

- \* In International Peer Reviewed Journals: 30
- \* In National Peer Reviewed Journals: 2

#### **CONDOLENCE HELD**

The Director and members of the staff of CSIR-NEIST deeply condoled the sad demise of its former employees, Shri Ananda Sarmah, Shri Prema Gogoi (who breathed their last on 19.04.2015), Shri Surendranath N Bordoloi (who breathed his last on 26.04.2015) and Shri G K Bayan (who breathed his last on 29.04.2015) at

#### **FAREWELL**

The following members of the staff have retired from Council's service on superannuation from CSIR-NEIST during April-July, 2015.

- 1. Dr R C Boruah, Oustanding Scientist
- 2. Dr Prabhat Kotoky, Chief Scientist
- 3. Dr Pabon Kr Bora, Chief Scientist
- 4. Mr Mondip Boruah, Sr Tech (2)
- 5. Mr Monuj Kr Das, Lab Assistant

A Memorandum of Understanding was signed between CSIR-NEIST and Assam down town University (AdtU), Guwahati on 11 May, 2015. The MoU is aimed to provide a broad framework for exchange of ideas, expertise and infrastructure to achieve goals of mutual interest. A team of officials led by Dr N N Dutta, Chancellor, Assam down town University visited CSIR-NEIST on 11 May, 2015 for signing the MoU.

Dr B G Unni, Director (Research, Biological Sciences), Assam down town University delivered a brief presentation on the various research activities ongoing at the university and highlighted on the areas where CSIR-NEIST and AdtU can collaborate. After MoU signing, the team also visited various divisions of the Institute and interacted with the scientists.

## PH D AWARDED



Dr. Rumi Kotoky, Technical Officer

Rumi Kotoky, Technical Officer, Medicinal Aromatic & Economic Plants Division, has been awarded the Degree of Doctor of Philosophy by Gauhati University for her thesis entitled, "Impact of oil field activities on soil quality in and around Lakwa Oil Field, Assam- an appraisal of its phytoremediation by Vetiveria zizanioides (L) Nash". Ms. Kotoky had carried out her research work under the joint supervision and guidance of Dr S C Nath, Chief Scientist, **CSIR-NEIST** Prof S and Gauhati Environmental Science Dept., University, Assam.

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