

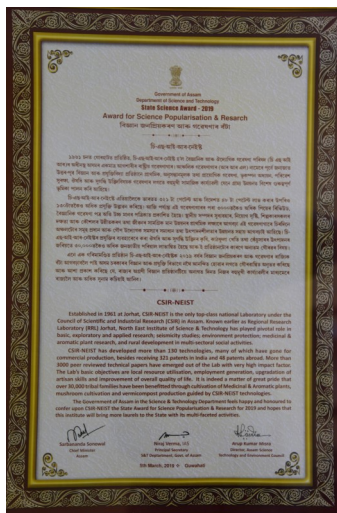
**CSIR-North East Institute of Science & Technology, Jorhat**  
*Connecting Science & Technology for a Brighter Tomorrow*

**CSIR-NEIST receives State Science Award 2019 for Science Popularisation and Research**



Dr G Narahari Sastry, Director, CSIR-NEIST receiving the award from Shri Sarbananda Sonowal, Hon'ble Chief Minister of Assam on 5<sup>th</sup> March 2019 in presence of Dr A K Misra, Director, ASTEC and other dignitaries.

CSIR-NEIST has been awarded the State Science Award 2019 by Govt. of Assam for Science Popularisation and Research in the state of Assam. Dr G Narahari Sastry, Director, CSIR-NEIST received the award from Shri Sarbananda Sonowal, Hon'ble Chief Minister of Assam on the occasion of National Science Day celebration programme of ASTEC on 5 March 2019 at Guwahati. Since its establishment in the year 1961, CSIR-NEIST has been playing a major role in basic, exploratory and applied research in multidisciplinary areas. Over the years, the Institute has developed expertise in herbal formulations, seismic studies; paper & paper products, environment protection; medicinal & aromatic plants, geo-technical investigations, membrane technologies, building materials, etc. Since inception, the Institute



The award citation

developed more than 130 technologies out of which about 60% were commercial successes culminating in setting up of various industrial ventures throughout the country.

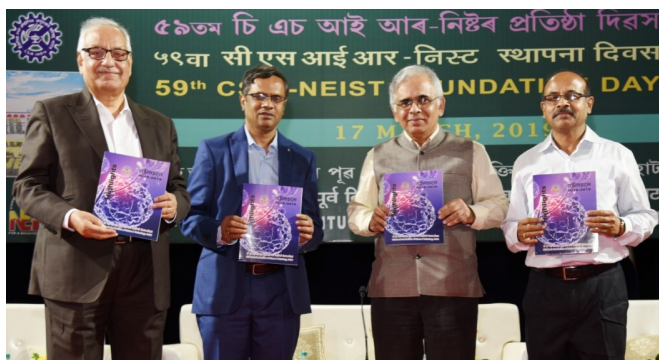
**Dr Shekhar C Mande, Director General, CSIR & Secretary, DSIR, Govt. of India delivers 59<sup>th</sup> CSIR-NEIST Foundation Day Lecture**



Dr Shekhar C Mande, Director General, CSIR & Secretary, DSIR, Govt. of India delivering the Foundation Day Lecture on 'Science & Technology in India- then and now... Role of CSIR'.

CSIR-North East Institute of Science & Technology celebrated its 59<sup>th</sup> Foundation Day on 17 March 2019 with much zeal and fervor at its premise. Held on the eve of the actual Foundation Day i.e 18 March, the 59<sup>th</sup> Foundation Day was celebrated in gracious presence of Dr Shekhar C Mande, Director General, CSIR & Secretary, DSIR, Govt. of India who incidentally was also visiting CSIR-NEIST for the first time. Befitting the occasion, a special Foundation Day programme was held at Dr J N Baruah auditorium wherein Dr Shekhar C Mande graced the occasion as Chief Guest and Dr G N Qazi, Chairman, Research Council, CSIR-NEIST was present as Guest of Honour. The event was attended by a galaxy of scientists, dignitaries, and invitees, besides CSIR-NEIST fraternity. Notable among them were members of Research Council, CSIR-NEIST viz., Dr P G Rao, Former Director, CSIR-NEIST; Dr Sanjay Kumar, Director, CSIR-IHBT, Palampur and Dr C T Rao, Sr. Vice President & Head, Medicinal Chemistry, SPARC Ltd.

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Above: Release of 'CSIR-NEIST Highlights 2018-19' by the dignitaries during the function.



Dr Q N Qazi, Chairman- Research Council, CSIR-NEIST delivering his speech as Guest of Honour.



Online inauguration of Advanced Computation and Data Sciences Division by Hon'ble Chief Guest, Dr Shekhar C Mande in presence of the dignitaries.



A section of audience attending the Foundation Day celebration programme.

Vadodara; Prof Samit Chattopadhyay, Director, CSIR-IICB, Kolkata; Prof Alok Dhawan, Director, CSIR-IITR, Lucknow; Dr D Ramaiah, Former Director, CSIR-NEIST; Dr U S N Murty, Director, National Institute of Pharmaceutical Education and Research, Guwahat; Dr V Y Mudkavi, Head of CSIR-Fourth Paradigm Institute, Bangalore, Prof Bhabesh Ch Goswami, Vice Chancellor, Cotton University, Guwahati; Shri Srinivas Lanka, Mentor-Industrialists, Corporate Boards and Govt. Initiatives; Air Commodore S K Verma, VSM, 10 Wing AF; Group Captain Abhay C Deshpande, 10 Wing AF; and Shri Amit Jain from Aroma India Pvt.Ltd., Guwahati. In his welcome address, Dr G Narahari Sastry, Director, CSIR-NEIST expressed his deep gratitude to the founding fathers and acknowledged the contribution of the past leaders & employees who steered the Institute to its present status. Sharing his vision for the Institute for the coming

years, Dr Sastry stressed on creating knowledge for empowerment and converging the Institute's strength to create a new paradigm of science in the area of Computational Modeling and Data Sciences. Delivering his Foundation Day Lecture on 'Science & Technology in India- then and now.... Role of CSIR', Dr Shekhar C Mande spoke in length about technological & scientific journey of CSIR since inception and discussed the different eras and how CSIR has evolved over the years while building & nurturing India's S&T ecosystem. Dr Mande shared important insights on some CSIR's technological interventions such as DRISHTI- an Indigenous Visibility Measuring System which are now fully operational at various airports across the country, he said. Dr Mande also elaborated on CSIR's role in preservation, protection and documentation of India's rich Traditional Knowledge and urged everyone to preserve the country's rich heritage. He urged upon everyone to

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Inauguration of Kids' World of Science by Dr Shekhar C Mande

accelerate public engagement, develop cutting edge technologies, and strive for becoming a global S&T leader. Dr Qazi emphasized the importance of plant breeding and aroma chemicals and mentioned vast scope available in North East for generating newer materials. He encouraged that CSIR-NEIST has vast potential to work in this line considering the immense biological resources of the region. In an effort to leverage documentation, digitization, deposition of data and data analysis by using machine learning and artificial intelligence applications, CSIR-NEIST created a new division christened, 'Advanced Computation and Data Sciences Division' which was inaugurated by Hon'ble Chief Guest, Dr Shekhar C Mande on the occasion. The annual publication, 'Highlights 2018-19' of CSIR-NEIST was also released by the Chief Guest. Further, the employees who retired during March 2018 to February 2019 were felicitated with mementoes. Also, 'Certificates of Appreciation' were awarded to employees for exemplary performance during 2018-19 in different categories. The function concluded with vote of thanks by Er S C Kalita, Chief Scientist & Chairman of the Organizing Committee. Earlier during the day, a tree plantation ceremony was held wherein Dr Shekhar C Mande and other dignitaries planted various tree saplings in the campus, followed by the inauguration of 'Kids' World of Science' in presence of Director, CSIR-NEIST and Chairman & Members of Research Council.



Dr Shekhar C Mande interacting with students at Kids' World of Science

**CSIR-NEIST organized a workshop on empowering women on the occasion of International Women's Day 2019**

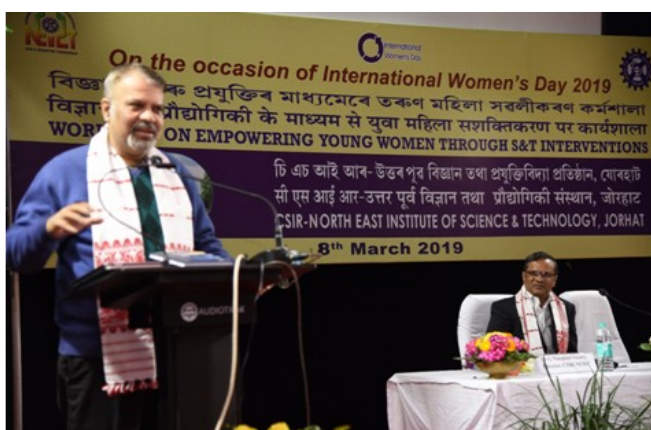
CSIR-NEIST organized a 'Workshop on Empowering Young Women through S&T interventions' on the occasion of International Women's Day on 08 March 2019. Addressing the participants, Dr G Narahari Sastry, Director, CSIR-NEIST mentioned that women will be equally responsible for development of the country in future and therefore women should have more visible roles in the society. To bring women back to science, he mentioned about the scheme 'KIRAN' by DBT, Govt. of India which allows women to take up projects in research institutes after a gap in their career. Dr Arup Kumar Misra, Director, ASTEC graced the inaugural session of the workshop as a Chief Guest. In his address, he spoke about the importance of women in shaping the main stream society. Describing about the number of sufferings of women witnessed by him in different corners of the country, he emphasized how women need to understand her rights so that she can be significant in her own sphere. The one-day workshop covered technical lectures and face to face interactive session between the resource persons and the participants. Dr Jatin Kalita, Head, Research Planning & Business Development Division, delivered a talk on 'S&T Interventions of CSIR-NEIST towards entrepreneurship development'. Dr Sunil Saikia, the former Director of Indian Institute of Entrepreneurship and the Direc-

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Dr G Narahari Sastry, Director, CSIR-NEIST addressing the participants of the workshop.



Dr Arup Kumar Misra, Director, ASTEC, Guwahati delivering his inaugural speech as Chief Guest.

-tor, GCMS delivered the keynote lecture where he emphasised the need of conducting special entrepreneurial training for women to enable them to start their own ventures. He informed about the financial institutions and banks that have special cells and plans to assist women entrepreneurs. Giving the examples of successful women entrepreneurs of Assam, he encouraged the participants to utilize the traditional knowledge and wealth to popularize it globally. Debanga Pallav Saikia, Founder of 'Kharkhowa Foods', Assam shared his journey from being a MNC employee to the owner of his company "Kharkhowa". He also shared his experiences and setbacks and explained how an



Participants of the workshop along with dignitaries and organizers.

entrepreneur can be different from a businessman. He advised the participants to have courage, faith and be bold enough in the field of entrepreneurship. In the interactive session, Dr Sunil Saikia, Dr Jatin Kalita, Shri Devanga Pallav Saikia, Dr Mantu Bhuyan, Shri JJ Bora, Dr Dipul Kalita, Er Dipankar Neog, and Dr SP Saikia discussed about the opportunities, available schemes, funding sources, registration of the farm, etc. About 110 girl students from Jorhat College, DR College, HPB Girl's College, Bahana College, Jorhat Science and Technology Institute, Jorhat Central College, Majuli College, JB College and DCB Girl's College participated in the programme. Later on the day, Dr Madhavi Sastry, wife of Dr G Narahari Sastry delivered a special invited lecture to the staff and students of CSIR-NEIST.

### CSIR-NEIST organized Student-Scientist interactive programme under JIGYASA

A 9-day programme under CSIR's Student-Scientist connect programme, 'JIGYASA' was organized by CSIR-NEIST at its premise during 21-29 March 2019. The programme was conducted in three sessions, each session of three days. A total of 180 students (Standard IX and XI) and 30 teachers of Kendriya Vidyalayas from different districts of Assam -, KV Diphu, KV Doomdooma, KV Gerukamukh, KV Khatkhathi, KV Lokra, KV Missamari, KV North Lakhimpur, KV Tezpur-1, KV Tezpur-2, KV Tezpur(CU), KV RRL( NEIST), KV Haflong, KV Lumding, KV Mangaldoi, KV Udalguri, KV Di-

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JIGYASA students and teachers interacting with Dr G Narahari Sastry, Director, CSIR-NEIST



Student & Faculty participants of Jigyasa programme with organizers

-garu, KV Tamulpur, KV Amerigog, KV Khanapara, KV Jagiroad, KV Maligaon, KV Narangi, KV IIT Guwahati, KV Borjhar, KV Noonmati, KV Panbari, KV New Bongaigaon, KV Rangia, KV Goalpara, KV Kokrajhar and KV Barpeta. It is to be mentioned that in its Platinum Jubilee celebration year, the Council of Scientific & Industrial Research (CSIR), New Delhi launched this special Student-Scientist interactive programme in July 2017 in collaboration with Kendriya Vidyalaya Sangathans (KVS) with the sole objective to motivate students in building scientific temperament by extending classroom learning and focussing on a well planned research laboratory based learning. The 9-day programme included notable presentation on Drugs and discovery of drugs, Nano science and Nano technology, Mathematics, Application of Natural Products in Drugs, Zoopharmacognosy, Astrophysics and alike along with practical experiments of sophisticated equipments and lab activi-

ties.

## Dr Anjan Ray, Director, CSIR-IIP, Dehradun visited CSIR-NEIST



Dr G Narahari Sastry, Director, CSIR-NEIST felicitating Dr Anjan Ray, Director, CSIR-IIP during his visit.

Dr Anjan Ray, Director, CSIR-IIP, Dehradun, visited CSIR-NEIST during 8-9 March 2019. During his stay, Dr Anjan Ray visited various R&D labs and interacted with scientists. Dr Ray also had detailed discussion with Dr G Narahari Sastry, Director, CSIR-NEIST and scientists for future collaborative research in oil sector.

## CSIR-NEIST participated in State Science Festival

CSIR-NEIST participated in the 'State Science Festival' organised by Assam Science Technology & Environment Council, (ASTEC) under the aegis of Department of Science & Technology, Govt. of Assam with the active support of Tezpur University during 23 to 25 March 2019 at Tezpur University. The purpose of the fest was to showcase Science, Technology and Innovation activities of different institutions of North Eastern region in the form of experiments, exhibitions and demonstrations. During the fest, a large number of people visited the CSIR-NEIST stall and interacted with the staff. The inauguration program was attended by many dignitaries such as Dr Arup Kumar Misra, Director, ASTEC, Prof V K Jain, Vice chancellor, Tezpur University, Shri Hemen Das, ACS Secretary, Depart-

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Prof Sourav Pal, Director, IISER Kolkata at CSIR-NEIST Stall along with other dignitaries

ment of Science & Technology, Government of Assam and Prof Sourav Pal, Director, IISER Kolkata. The fest included activities such as Demonstration of Sky observation techniques, Scientific Art Competition for school students of Class: IV-VIII, Scientific Demonstration for UG/PG/PhD Students, Science Quiz Displaying Research Posters for PG & PhD Students/Research Staff and S&T Exhibition. A large number of students and researchers from various parts of NE region enthusiastically participated in various programmes.

## Papers published

### In International Peer Reviewed Journals

- Duarah G, Kaishap P P, Begum T, Gogoi S: Recent Advances in Ruthenium(II)-Catalyzed C-H Bond Activation and Alkyne Annulation Reactions, *Advanced Synthesis Catalysis*, 2019, 361 p: 654 - 672
- Hussain F L, Suri M, Namdeo A, Borah G, Dutta D, Goswami T, Pahari P: A mild aerobic oxidation of benzyl alcohols and oxidative decarboxylation of phenylacetic acids by cellulose-supported Ag-Ag<sub>2</sub>S nanoparticles, *Catalysis Communications*, 2019, 124 p: 76-80
- Abou-Elanwar A M, Shirke Y M, Ingole P G, Choi Won-Kil, Lee H, Hong S U K, Lee H K,

Jeon Jae-Deok: Nanocomposite hollow fiber membranes with recyclable  $\beta$ -cyclodextrin encapsulated magnetite nanoparticles for water vapor separation+, *Journal of Materials Chemistry A*, 2018, 6 p: 24569-24579. **Highest Impact factor Paper (IF: 9.931)**

- Choi O, Ingole P G, Lee H-K: Preparation and characterization of thin film composite membrane for the removal of water vapor from the flue gas at bench scale, *Separation and Purification Technology*, 2019, 211 p: 401-407
- Saikia S, Bordoloi M J: Molecular Docking: Challenges, Advances and its Use in Drug Discovery Perspective, *Current Drug Targets*, 2019, 20(5), p: 501-521
- Bam P, Bhatta A, Krishnamoorthy G: Design of biostable scaffold based on collagen crosslinked by dialdehyde chitosan with presence of gallic acid, *International Journal of Biological Macromolecules*, 201, 130 p: 836-844

## Book chapter

- Ingole P G: Application of Sustainable Nanocomposites in Membrane Technology, In: Inamuddin, Thomas S., Kumar Mishra R., Asiri A. (eds) Sustainable Polymer Composites and Nanocomposites. Springer, Cham, 2019 p: 935 -960

## Farewell

The following member(s) of the staff have retired from Council's service on superannuation from CSIR-NEIST w.e.f 31 March 2019.

1. Mr Jiten Chandra Mohrang, Lab Assistant