

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

CSIR Aroma Mission launched at Mizoram



Shri Lal Thanhawla, Hon'ble Chief Minister of Mizoram, delivering his address on the occasion.



Dr P Sengupta, Director-in-charge, CSIR-NEIST, speaking about CSIR Aroma Mission at the event.

Hon'ble Chief Minister of Mizoram, Shri Lal Thanhawla launched the 'CSIR-Aroma Mission' at Lunglei, Mizoram on 24 August 2017 in presence of CSIR-NEIST team led by Dr P Sengupta, Director-in-charge. Under this flagship programme of CSIR, CSIR-NEIST aims to boost cultivation of economically important aromatic plants like Citronella, Lemongrass and Patchouli in NE region, thus helping the farmers to take up farming of alternative crops with better economic value. The Institute will be working closely with several local NGOs to promote the cultivation of these plants which require less attention and can be done in unproductive waste lands including those affected by water scarcity. It is hoped that the initiative would not only boost the cultivation but also help in

value-addition of aromatic plants which will greatly benefit the aroma industries. At a solemn ceremony held at Convention Centre, Lunglei, Hon'ble Chief Minister, Shri Lal Thanhawla addressed an august gathering of farmers, members from the All Mizoram Farmers' Union and other dignitaries besides CSIR-NEIST team. Dr P Sengupta while speaking on the occasion highlighted the aims and objectives of the Mission programme and said that in the next three years, a minimum of 800 hectares of land in the North Eastern region is likely to be brought under cultivation of various aromatic crops while generating employment among rural youth and creating trained and skilled manpower leading to economic upliftment of the rural people.

CSIR-NEIST organized Student-Scientist interactive programme under JIGYASA



Participating students and teachers of JIGYASA program along with Director, CSIR-NEIST and organizing team members.

A 3-day programme under CSIR's Student-Scientist connect programme, 'JIGYASA' was organized by CSIR-NEIST at its premise during 28-30 August 2017. A total of 70 students of standard IX from Kendriya Vidyalaya-NEIST, Jorhat and Kendriya Vidyalaya-Air force Station, Jorhat attended the programme along with 4 teachers. It is to be mentioned that in its Platinum Jubilee celebration year, the Council of Scientific & Industrial Research (CSIR), New Delhi has 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 focus-

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Albert Einstein

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-sing on a well planned research laboratory based learning. The Programme is expected to connect 1151 KVs with 38 National Laboratories of CSIR and will target 100,000 students and nearly 1000 teachers annually. The 3-day programme at CSIR-NEIST commenced with a short inaugural function at Dr J N Baruah Auditorium on 28 August 2017. Mr Partha Paul, Scientist & Coordinator of the programme spoke about the genesis of the programme and the various activities to be covered during the period. Dr D Ramaiah, Director, CSIR-NEIST in his address to the students encouraged them to make the most of it by taking active participation in all the sessions. He further added that the younger generation are the future of our nation and through this programme, CSIR aims to reach out and nurture these young minds by exposing them to the scientific developments taking place in various Institutes and thus motivating them to be a part of nation's growth. The 3-day programme included notable presentations by various resource persons on topics like Astrophysics, Mathematics, Nano-science, Chemistry, Zoopharmacognosy Biology and alike with practical experiments. Besides technical lectures, a session on career guidance was also held wherein various career opportunities in the field of science & technology were apprised to the students. The programme received enthusiastic participation of the students. The programme concluded with a Valedictory function held on 30 August 2017 wherein certificates were distributed to all the students and the teachers.

CSIR-NEIST celebrated the 71st Independence Day

CSIR-NEIST celebrated the country's 71st Independence Day with great joy and enthusiasm on 15 August 2017 with a flag hoisting ceremony held in front of the Administrative Block. CSIR-NEIST staff members along with their families, students and teachers of NEIST Kendriya Vidyalaya (KV) turned in large numbers to celebrate the day. Dr D Ramaiah, Director, CSIR-NEIST inspected the Guard of Honour and unfurled the National Flag followed by the National Anthem song played to mark the celebration. Dr Ramaiah then took the salute of march past performed by CSIR-NEIST fraternity and students of KV. Delivering his address on the occasion, Dr Ramaiah re-



Dr D Ramaiah, Director, CSIR-NEIST inspecting the Guard of Honour.



Dr Ramaiah delivering his address on the occasion.

called the vision, sacrifices and determination of our past leaders, freedom fighters and citizens which led to the country's independence and developments over its journey of 70 independent years. He exhorted everyone present to renew their responsibilities as a citizen and continue to work for national integrity and contribute in nation building process. He also emphasized the role of armed forces in protecting the country's sovereignty and integrity. He further mentioned a few remarkable achievements of the country post independence and the developments in various fields that catapulted India within the realm of any developed nation. Dr Ramaiah also gave a brief insight of the contribution of CSIR and particularly CSIR-NEIST towards the society over the years. He urged everyone to renew their sense of responsibilities, continue to work hard and to rededicate themselves in keeping

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the Institute's flag high and the country as a whole. As a part of the celebration, sweets and replicas of National Flag were later distributed to all present.

CSIR-NEIST transferred improved variety of Lemongrass and Liquid Deodorant Cleaner technology for commercialization



Dr D Ramaiah, Director, CSIR-NEIST handing over the technology package of Jor Lab L-8 to Mr Jayanta Saikia, Manager, M/s Radhabari Tea Company in presence of the technology team and other staff members.

CSIR-NEIST transferred the newly developed improved variety of Lemongrass, 'Jor Lab L-8', to M/s Radhabari Tea Company Private Limited, Golaghat (Assam) on 2 August 2017 for commercial cultivation and processing. Mr Jayanta Saikia, Manager of the company visited CSIR-NEIST on 2 August 2017 and signed the agreement, and also undertook demonstration of the cultivation practice and its oil processing under the supervision of Dr Mohan Lal, Scientist & technology team leader.



Dr D Ramaiah, Director, CSIR-NEIST handing over the technology package of Liquid Deodorant Cleaner to Mr Parsha P Bordoloi from M/s JPL Industries in presence of the technology team and other staff members.

The Institute also transferred its process technology on Liquid Deodorant Cleaner for commercialization to M/s JPL Industries, Tinsukia on 29 August 2017. Mr Parsha P Bordoloi, representative from the company visited CSIR-NEIST during 29-30 August 2017 for signing the technology transfer agreement. During his visit, he also undertook training/demonstration of the technology under the supervision of Dr Tridip Goswami, Pr Scientist & technology team leader.

Societal Activities

CSIR-NEIST extended training to school drop-outs under CSIR 800 programme



Trainees of the programme with CSIR-NEIST team during the hands-on demonstration.

Under the on-going series of training programmes held under CSIR 800 programme, CSIR-NEIST imparted training on Mushroom cultivation and Cultivation of aromatic plants and oil distillation techniques to 17 school dropout students of the Institute of Cultural and Rural Development (I-CARD), Baghchung, Jorhat at its premise during 2-3 August 2017. The main aim of the programme was to train and encourage the unemployed youth to adopt these low cost technologies for income generation by venturing into commercial production and be self sustained. The training programme included detailed demonstration and hands-on training on cultivation practice. The programme was coordinated by Dr S P Saikia, Sr Scientist.

Colloquium held

- **Speaker:** Dr K V Radhakrishnan, Pr Scientist,

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CSIR-NIIST, Trivandrum

Topic: Tapping the potential of hottest hotspot of the world biodiversity: Phytochemical profiling of medicinal plants from SAHYADRI (Western Ghats)

Date: 1 August 2017

Papers Published

In International Peer Reviewed Journals

- Phukan A, Borah S J, Bordoloi P, Sharma K, Borah B J, Sarmah P P, Dutta D K: An efficient and robust heterogeneous mesoporous montmorillonite clay catalyst for the Biginelli type reactions, *Advanced Powder Technology*, 2017, 28 (6), p: 1585-1592
- Borah G, Borah P, Patel P: Cp*Co(III)-catalyzed ortho-amidation of azobenzenes with dioxazolones, *Organic Biomolecular Chemistry*, 2017, 15, p: 3854
- Gawale Y, Sekar N, Adarsh N, Joseph J, Kalva S K, Pramanik M, Ramaiah D: Carbazole-Linked Near-Infrared Aza-BODIPY Dyes as Triplet Sensitizers and Photoacoustic Contrast Agents for Deep-Tissue Imaging, *Chemistry- A European Journal*, 2017, 23 p: 6570 - 6578
- Goswami L, Neog K, Sharmakumud, Gogoi P: A metal-free cascade reaction of β -halo- α,β -unsaturated aldehydes and 1,4-dithiane-2,5-diols: synthesis of polycyclic 2-formylthiophenes, *Organic Biomolecular Chemistry*, 2017, 15 p: 6470-6473
- Bhuyan D, Saikia L: Scavenging Pd²⁺ on Amine-Functionalized SBA-15: A Facile Synthesis of Leach-Free Pd⁰ Nanocatalyst for Base-Free Chemoselective Transfer Hydrogenation of Olefins, *Chemistry Select*, 2017, 2(22), p: 6350-6358
- Das B, Chakrabarty B, Barkakati P: Separation of oil from oily wastewater using low cost ceramic membrane, *Korean Journal of Chemical Engineering*, 2017, <https://doi.org/10.1007/s11814-017-0185-z>
- Bhuyan D, Saikia M, Saikia L: ZnO nanoparticles embedded in SBA-15 as an efficient heterogeneous catalyst for the synthesis of dihydropyrimidones via Biginelli condensation reaction, *Microporous and Mesoporous Materials*, 2017, 256, p: 39-48
- Velmurugan N, Lee H-M, Cha H-J, Lee Y-S: Proteomic analysis of the marine-derived fungus *Paecilomyces* sp. strain SF-8 in response to polycyclic aromatic hydrocarbons, *Botanica Marina*, 2017, 60(4), p: 381-392
- Dutta L, Bhuyan P J: Synthesis of highly functionalized indeno[1,2-b]furans, *Tetrahedron Letters*, 2017, 58(36), p: 3545-3548
- Saikia P, Goswami T, Dutta D, Dutta N K, Sengupta P, Neog D: Development of a flexible composite from leather industry waste and evaluation of their physico-chemical properties, *Clean Technologies and Environmental Policy*, 2017, p: 1-8
- Baruah Swagata, Borthakur Somadrita, Gogoi Sanjib: Directing group assisted copper-mediated arylation of phenols using 2-bromoacetophenones, *Chemical Communications*, 2017, 53(65), p: 9133-9135, **Highest IF-6.319**
- Borah A, Sharma A, Hazarika H, Sharma K, Gogoi P: Synthesis of 1-Azaanthraquinone: Sequential C-N Bond Formation/Lewis Acid Catalyzed Intramolecular Cyclization Strategy, *The Journal of Organic Chemistry*, 2017, 82 p: 8309-8316
- Khanraa R, Bhattacharjee N, Dua T K, Nandy A, Saha A, Kalita J, Manna P, Dewanjee S: Taraxerol, a pentacyclic triterpenoid, from *Abroma augusta* leaf attenuates diabetic nephropathy in type 2 diabetic rats, *Biomedicine Pharmacotherapy*, 2017, 94 p: 726-741
- Pal M, Khan R: Graphene oxide layer decorated gold nanoparticles based immunosensor for the detection of prostate cancer risk factor, *Analytical Biochemistry*, 2017, 536 p: 51-58

Farewell

The following members of the staff have retired from Council's service on superannuation from CSIR-NEIST in August 2017.

- Md. Mukibur Rahman, Sr Technical Officer
- Mr Padmeswar Saikia, Lab Assistant
- Mr Chandra K Pathak, Lab Assistant
- Mr Domai R Das, Lab Assistant
- Mr Biren Das, Group C (Non Tech)