CSIR IN WEDLA



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Compiled by Science Communication and Dissemination Directorate (SCDD), CSIR, Anusandhan Bhawan, New Delhi



CBRI holds Student-Scientist Interaction event

CSIR-CBRI

20th December, 2024

CSIR-CBRI, Roorkee organised a Student-Scientist Interaction Programme under Jigyasa 2.0, here, today. Around 350 students and 20 teachers from PM Shri Central KV, DL, Meerut Cantt, and PM Shri Central KV, Muradnagar, made an educational visit to CSIR-CBRI, Roorkee.

Senior Scientists Dr Chandan Swaroop Meena, Dr Tabish Alam and Dr Hemlata welcomed the students and their teachers. During the programme, the students visited the Exhibition Gallery and Rural Technology Park, where the scientists and coordinators provided an overview of various housing technologies developed by CBRI. These included solar water heating systems, two-pit sanitation systems, energy-efficient rural housing, innovative rooftop technologies and water filtration systems commonly used in rural areas. The explanations covered the scientific principles behind these technologies and their practical applications in daily life. Notable projects highlighted during the visit included the construction of Ram Mandir, an iconic architectural achievement, and the controlled demolition of Supertech Twin Towers, a remarkable feat in modern engineering. In addition, the students visited the laboratory of the APEE Department, known as the Energy Building, during their visit. Dr Tabish Alam delivered a lecture on the establishment and contribution of CSIR-CBRI. He also shared valuable information about the Tribal Pride Year 2024-2025 celebrations at CBRI and emphasised the significant contributions of tribal heroes like Birsa Munda. The students and staff members expressed their gratitude to CBRI Roorkee for organising this wonderful and educational tour.

Published in:

Garhwalpost



NEERI to characterise hazardous waste dump at Cuncolim Ind Estate

CSIR-NEERI

20th December, 2024

The Goa State Pollution Control Board (GSPCB) has appointed National Environmental Engineering Research Institute (NEERI) for undertaking characterisation of hazardous waste dump of M/s Sunrise Zinc Ltd, located in Cuncolim Industrial Estate.

Sources informed that NEERI has already collected samples of the dump for analysis and the report will be submitted to the Board shortly. "The NEERI report will help us to understand the present condition of the dump and will be feasible to remediate or relocate to the Pissurlem landfill site, as proposed before," sources said.

Around 30,000 tons of hazardous zinc waste has piled up in the form of dump at Cuncolim industrial area since 2007. The dump is categorised as one of the contaminated sites by the Central Pollution Control Board (CPCB).

Sources informed that in 2021, the Board had decided to transport the hazardous waste from Cuncolim IDC to Pissurlem landfill site, and for which the State government had sanctioned Rs 5 crore. "However, it was decided to undertake study of the dump before relocating it," sources said.

The Board had sought a total grant of Rs 13 crore from the government to rid the Cuncolim Industrial Estate of the hazardous waste accumulated there.

Thousands of tonnes of hazardous waste has been lying abandoned by Nicomet and Sunrise Zinc factories which was shut following High Court order after two separate petitions highlighted the rising environmental pollution due to the industrial units.

Published in:

Thegoan



CSIR-Structural Engineering Research Centre conducts CSIR Jigyasa Scientific Aptitude Assessment for school students

CSIR-SERC, IGIB

20th December, 2024

CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai, organized the CSIR Jigyasa Scientist Aptitude Assessment on 20 December 2024 at its campus. 25 students and 2 teachers from PM SHRI Kendriya Vidhyalaya, Meenambakkam, Chennai participated in the event. As a part of this event, a hands-on session followed by a scientific aptitude assessment test was



organized. The students carried out a science experiment independently with the online guidance by the scientists of CSIR-IGIB, New Delhi.

Dr. N. Anandavalli, Director, CSIR-SERC interacted with the students regarding their handson experiment session and their future goals. She asked the students to be innovative and creative by engaging in science-related events and activities and encouraged them to take science as their career.

Dr. S. Maheswaran, Senior Principal Scientist & Nodal Officer Jigyasa, CSIR-SERC gave a brief on CSIR, CSIR-SERC and Jigyasa activities, which encourages school children to pursue science and research. The student participants also attended the CSIR Jigyasa EPIC Hackathon 2024 Finale through online mode. The students also visited various laboratories of CSIR-SERC, interacted with the scientists and had a glimpse of ongoing research activities of the centre.



ARPAN Advocates for Separate Time Zone in Northeast India to harness productivity and sustainability

CSIR-NPL

19th December, 2024

Ahead of the NEC Plenary Session in Agartala, ARPAN, an esteemed administration based in Tripura, has proposed a significant reform - the adoption of a separate time zone for India's Northeastern states in its latest communication dated December 17, 2024.

The organization appealed key stakeholders, including the Governors, Chief Ministers of the region, and the Union Minister for Development of North Eastern Region (DoNER), Jyotiraditya Scindia to discuss the matter at the 72nd North Eastern Council (NEC) Plenary Session in Agartala, scheduled for December 20-21, 2024.

The Core Proposal

ARPAN has advocated for advancing the daily schedule of Northeastern states by at least two hours relative to Indian Standard Time (IST). This proposal resonates with a prior recommendation by the CSIR-National Physical Laboratory (CSIR-NPL), which suggested a dual time-zone system in India. CSIR-NPL's framework proposed IST-I (UTC+5:30) for most of India and IST-II (UTC+6:30) for the Northeast and the Andaman & Nicobar Islands. Such a shift would better align with the Northeast's unique geographical positioning and facilitate the more efficient use of daylight hours.

Rationale for the Proposal

Geographical Considerations

India spans from 68°7'E to 97°25'E longitude, creating a time difference of nearly two hours between its easternmost and westernmost points. For states like Arunachal Pradesh, sunrise occurs as early as 4:00 AM during summer, while in Delhi, it is closer to 6:00 AM. This mismatch leads to wastage of precious daylight hours in the Northeast under the current IST framework.



Health and Productivity

Misalignment with natural light cycles disrupts the biological clock, leading to health issues such as sleep disorders and reduced efficiency. Starting daily activities earlier—in sync with sunrise—would optimize productivity and improve workforce satisfaction. Studies have shown that early morning hours are the most productive; however, these are underutilized under the current time zone system.

Environmental Impact

A separate time zone would maximize the use of natural daylight, significantly reducing reliance on artificial lighting. This aligns with India's climate commitments under the Paris Agreement, promoting energy conservation and lowering greenhouse gas emissions.

Proposed Implementation

Time Schedule: Northeastern states could adopt a revised schedule with offices and schools beginning at 9:00 AM in winter and 8:30 AM in summer. Closing times could be adjusted to 5:00 PM and 4:30 PM, respectively, allowing for optimal daylight utilization. An hour's break during the day would ensure flexibility and leisure.

Policy Discussion: ARPAN has recommended that the 72nd NEC Plenary Session, chaired by Hon'ble Home Minister Shri Amit Shah, include this agenda. Such discussions could unify the Northeastern states in pursuing this progressive initiative.

Benefits of the Proposal

Economic Growth: Aligning work schedules with natural light would enhance workforce efficiency, driving faster regional development and boosting economic output.

Improved Quality of Life: Reduced fatigue, better sleep patterns, and enhanced work-life balance would contribute to the well-being of the region's population. Sustainability Goals: Reduced energy consumption from artificial lighting would further India's environmental objectives, reinforcing its commitment to global climate agreements.



Scientific Validation

CSIR-NPL, the custodian of Indian Standard Time, has validated the feasibility of dual time zones in India. The scientific rationale for introducing IST-II considers longitudinal differences and solar patterns, ensuring practical and effective implementation. Although coordination across time zones may present initial challenges, the long-term benefits—including enhanced health, productivity, and energy efficiency—far outweigh these concerns.

Call to Action

ARPAN urges stakeholders to prioritize this proposal during the NEC forum and to work towards implementing a separate time zone for the Northeastern region. Such a move would symbolize a commitment to equitable development, enhanced productivity, and a sustainable future for one of India's most vibrant yet underutilized regions.

Background and Context

The ARPAN Society, an esteemed organization based in Tripura, has been at the forefront of research, advocacy, and sustainable development in Northeast India since its establishment in 2003. Registered under the Societies Registration Act of 1860 and recognized under Section 12A(A) of the Income Tax Act, ARPAN is known for its impactful initiatives aimed at improving public welfare in the region. In its latest communication dated December 17, 2024, ARPAN has proposed a significant reform: the adoption of a separate time zone for India's Northeastern states.

Conclusion

Experts believe, the proposal of the ARPAN Society for a separate time zone for Northeast India has a big transformative potential. By addressing regional disparities and optimizing resource utilization, this change could significantly contribute to India's sustainability and growth objectives. The upcoming 72nd NEC Plenary Session provides an ideal platform for policymakers to deliberate on this visionary idea.

Published in:

Enewstime



Lithium deposits in Reasi: Mineral samples submitted to IBM and IMMT, says Union Minister

CSIR-IMMT

19th December, 2024

Geological Survey of India (GSI) has submitted mineral samples of Lithium and Titanium resources, found during preliminary exploration in Salal-Haimna block of Reasi district in J&K, to Indian Bureau of Mines (IBM), Nagpur and Institute of Minerals and Materials Technology (IMMT), Bhubaneswar for carrying out beneficiation study. This has been revealed by the Union Minister of Coal and Mines, G Kishan Reddy, in reply to a question of MP Vishnu Datt Sharma in Lok Sabha on Wednesday.

Reddy stated, "Geological Survey of India (GSI), an attached office of Ministry of Mines, has carried out preliminary exploration (G3 stage) in Salal-Haimna block of Jammu and Kashmir's Reasi district, primarily for bauxite, where additional resources of lithium and titanium were also established." Earlier the Minister had stated that the second attempt of the auction of the block was annulled due to non-receipt of bids.

"GSI has submitted mineral samples to Indian Bureau of Mines, Nagpur and Institute of Minerals and Materials Technology, Bhubaneswar for carrying out beneficiation study. Additionally, two preliminary exploration (G3 stage) projects on Lithium in Salal East and Panasa areas of Reasi district have been taken up by GSI in the current field season 2024–25," the Union Minister stated.

Response has come to the query of MP whether it is a fact that Salal-Haimana area of Jammu and Kashmir's Reasi district has significant Lithium and Titanium resources and if so, the time likely to be taken for exploration level to reach G1 or at least to G2 level and to put the Salal-Haimna area for auction and starting commercial mining thereat.

According to Reddy, the Mines and Minerals (Development and Regulation) Act, 1957 has been amended through the MMDR Amendment Act, 2023 which has introduced major



reforms in the mining sector viz. inserting 24 critical and strategic minerals, including lithium, in Part D of the First Schedule to the MMDR Act, 1957 and empowering the Central Government to exclusively auction mineral concessions for these critical minerals.

"The Ministry of Mines has successfully auctioned Katghora block, Chhattisgarh as Composite Licence for Lithium and Rare Earth Elements (REE). Furthermore, a joint venture company named Khanij Bidesh India Limited (KABIL) has also been set up by the government for securing critical mineral assets abroad. KABIL has acquired an area of 15703 Ha in the Catamarca province of Argentina for exploration and mining of Lithium," Reddy informed.

Earlier on December 16, replying to a question of MP Sanjay Raut in Rajya Sabha, Reddy had admitted that second attempt to auction the Salal-Haimna Lithium block in Reasi district was annulled due to non receipt of bids. The Minister was responding to Raut's question if the second auction for Jammu and Kashmir's lithium blocks failed to attract any bids, and if so, what steps were taken by Government to address it.

Raut also asked whether the Government had assessed the quality and viability of the Lithium deposit in Reasi district and what steps were being taken to resolve concerns over its composition. "Salal-Haimna Lithium, Titanium and Bauxite (Aluminous Laterite) block in Jammu & Kashmir has been explored up to G3 level. The second attempt of the auction of the block has been annulled due to non-receipt of bids. Mineral samples collected by Geological Survey of India (GSI) from the block have been sent to IBM, Nagpur and IMMT, Bhubaneshwar for conducting beneficiation study," Reddy answered.

With regard to Raut's query about timeline for awarding mining rights for Lithium in J&K, Reddy had stated, "Auction of Lithium blocks in J&K is dependent on the reports of ongoing exploration investigations."

Published in:

Greaterkashmir



CSIR-CIMFR and royal society of Chemistry hold teacher training workshop in Ranchi

CSIR-CIMFR

19th December, 2024

CSIR-Central Institute of Mining and Fuel Research (CIMFR) partnered with the Royal Society of Chemistry to conduct a two-day teacher training workshop as part of the CSIR-Jigyasa programme.

The workshop focused on improving teaching techniques to make science education more interactive and learner-centred.

The event saw participation from 60 teachers in person, whilst 25 others attended virtually. The attendees expressed appreciation for the workshop's hands-on approach and engaging sessions.

Pallabi Das, Senior Scientist at CSIR-CIMFR, discussed the importance of the CSIR-Jigyasa programme, which creates connections between CSIR's 38 laboratories and schools across India to foster scientific interest amongst students.

The programme, which began in 2017, focuses on hands-on learning and interactive educational methods.

Arvind Kumar Mishra, who heads CSIR-CIMFR as Director, stressed the necessity of adapting teaching strategies to suit Generation Z students and commended the partnership with the Royal Society of Chemistry.



Belagavi Showcases Eco-Friendly Road Maintenance Breakthrough

CSIR-CRRI

18th December, 2024

In a groundbreaking step toward sustainable infrastructure, Karnataka unveiled a promising solution for eco-friendly road maintenance using Steel Slag-based ECOFIX technology. Chief Secretary Dr. Shalini Rajneesh, joined by PWD Chief Engineer H. Suresh and Belagavi Mayor Savita Kamble, witnessed a successful demonstration of this innovative pothole repair method on State Highway-141, Rakskoppa-Sutagatti.

Led by Shri Satish Pandey, Principal Scientist at CSIR-CRRI and inventor of ECOFIX, the demonstration showcased the immediate repair of a waterlogged pothole without dewatering. Traffic resumed seamlessly after the quick fix, highlighting the efficiency of the ECOFIX mix.

Dr. Shalini Rajneesh emphasized the importance of preventive and periodic road maintenance to ensure a robust road network, especially during monsoons when traditional methods fail due to the shutdown of hot mix plants. ECOFIX, developed from metallurgical waste, aligns with Karnataka's "Waste to Wealth" vision by reducing reliance on natural aggregates and minimizing environmental impact.

India, the world's second-largest steel producer, generates around 19 million tonnes of steel slag annually, projected to reach 60 million tonnes by 2030. ECOFIX repurposes this waste into a high-strength, rut-resistant mix for road repairs, offering a cost-effective and sustainable solution.

According to Mr. Pandey, ECOFIX is 15-20% cheaper than conventional cold mix technology and suitable for all weather conditions, even fixing waterlogged potholes. Its mechanized process reduces labor requirements, and the repairs last 2-3 years, making it a game-changer for road maintenance.



The event also drew participation from industry leaders, including RAMUKA Global Services representatives, who collaborated with CSIR-CRRI to develop ECOFIX. Officials from Karnataka's PWD and City Corporation Belagavi, including Shri Arunkumar Patil and Shri Jaytheerth Savadatti, applauded the initiative, which they believe will revolutionize road maintenance in the state.

With Karnataka being a significant steel producer, the potential to utilize steel slag locally for road repairs and construction could set a national example for sustainable infrastructure development.

Published in:

Belgaummirror

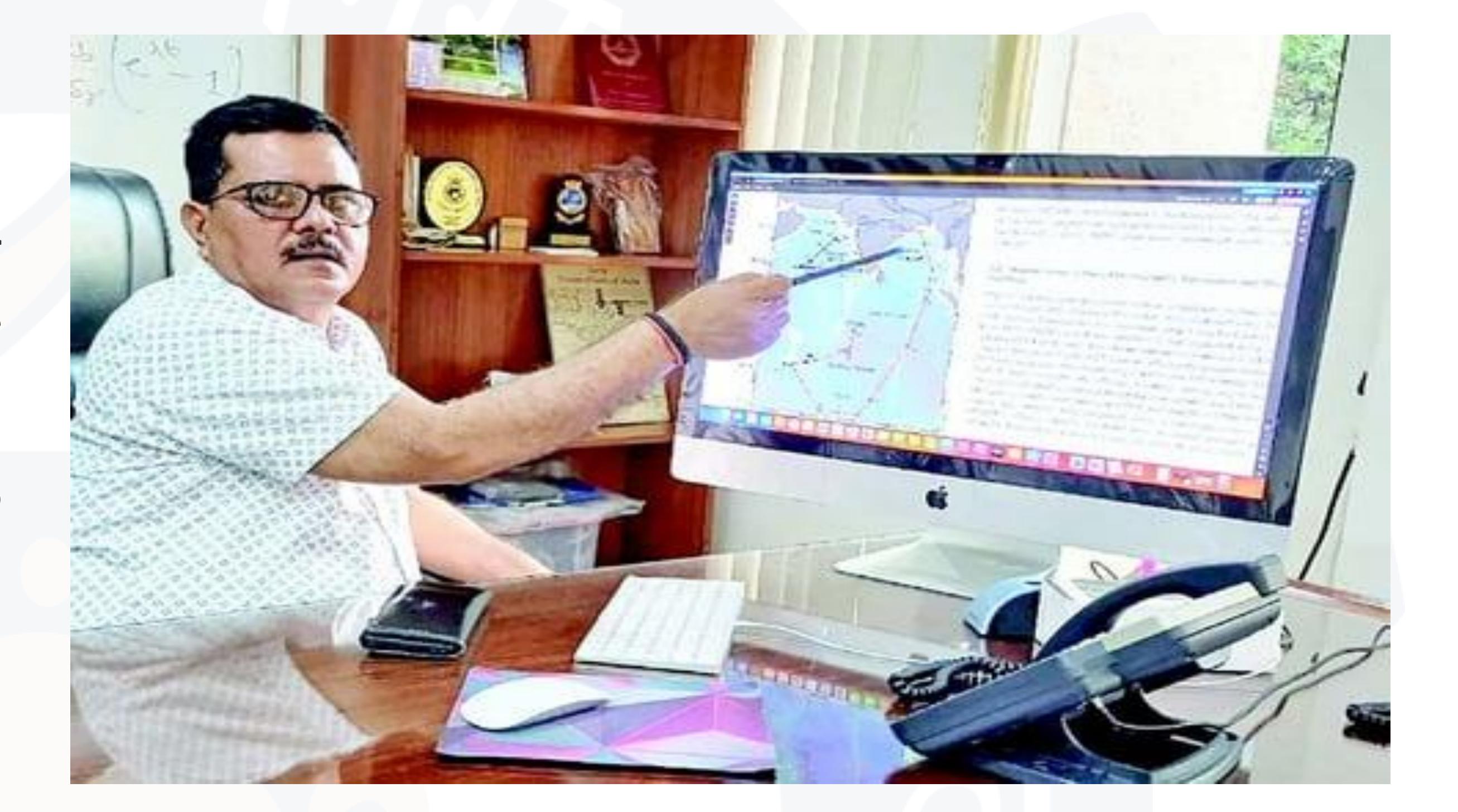


NIO finds large cobalt reserves in Indian Ocean, boosts India's renewable energy hopes

CSIR-NIO

18th December, 2024

The CSIR-National Institute of Oceanography (NIO) has found large deposits of dissolved cobalt, an important micronutrient for ocean productivity, in the northern Indian Ocean off the coast of India. If properly harnessed, this discovery can help in realising the country's ambitious target of meeting 50% of its primary energy needs from renewable energy by 2030 to combat climate change.



Incidentally, the two adjacent oceans, the Pacific and the Atlantic, do not have such high cobalt content. Cobalt is a key component in batteries for electric vehicles and magnets used in wind turbines and other green technology. Small deposits are known to exist in Odisha and Jharkhand, but India's reserves remain relatively modest.

Currently, there are no active mining leases for cobalt, nickel, lithium, and neodymium in the country for production purposes. The lack of sufficient reserves of this precious metal poses a major obstacle to the country's clean energy transition plans.

"Presently, there is no production of cobalt in the country from primary cobalt resources. The demand for cobalt is usually met through imports. In the climate change scenario, when we are going to decrease or eliminate the usage of power generated by coal or petroleum products, we have to go for renewable energy. We need to have energy storage devices like batteries, for which cobalt will be necessary," NIO Director Sunil Kumar Singh told O Heraldo. "Just like petroleum products, we will be dependent on somebody else for this critical metal. This is not



a feasible solution since we are pursuing clean energy in a big way. The encouraging news for us is that there are abundant cobalt resources in our seas, which will remain there for a long time as shelf sediments and dust will continue to supply cobalt in the northern Indian Ocean. The northern Indian Ocean and the Ganga-Brahmaputra river basin are the hub for this critical metal," Singh added.

It is now important to develop appropriate technology that can harness the metal from seawater and convert it for practical use. When asked whether there was any progress in this direction, the NIO director said efforts were underway to develop in-house technology at NIO.

"Work is going on in our own laboratory, but it is still at a very primitive stage. If this technology gets fully developed as envisaged, we will be able to extract nickel and copper along with cobalt. It can be a game changer," he said.

He further added that cobalt discovery will also have therapeutic applications, as it can help address vitamin B12 deficiency in humans.

The findings have been recorded in a study published in the peer-reviewed journal Global Biogeochemical Cycles. It has been co-authored by Singh and Nirmalya Malla from CSIR-NIO, Goa, and the Academy of Scientific and Innovative Research (AcSIR), Ghaziabad, Uttar Pradesh.



CSIR, New Delhi and AIIMS, New Delhi Sign MoU for Collaborative Research in Healthcare Domain

CSIR-CCMB

17th December, 2024

The Council of Scientific and Industrial Research (CSIR), New Delhi and All India Institute of Medical Sciences (AIIMS), New Delhi signed an Memorandum of Understanding (MoU) on December 17, 2024 at AIIMS, New Delhi aimed to provide a formal basis for initiating interaction between the two organizations to harness their respective strengths to advance medical



research, enhance healthcare delivery, and tackle critical health challenges in India through the collaboration. This strategic partnership marks a significant step forward in leveraging combined expertise and resources to address critical healthcare challenges and innovate solutions for improved patient outcomes.

During the event, under the Umbrella MoU between CSIR and AIIMS, another MoU was signed between CSIR's Centre for Cellular & Molecular Biology (CSIR-CCMB), Hyderabad and AIIMS, New Delhi for focused research projects and to extend the use of facilities at CSIR-CCMB to AIIMS.

The MoUs were signed in the presence of Prof M Srinivas, Director, AIIMS, CSIR lab Directors of Institutes under the Healthcare theme, Senior officials of CSIR Hqrs as well as Senior faculty & Heads of different Departments at AIIMS. Speaking at the signing ceremony, Prof. M. Srinivas, Director, AIIMS, New Delhi added, "We are excited about the potential of this partnership. Together, we can explore new frontiers in healthcare research and ensure that our findings lead to real-world applications that improve patient care."



At the event, Dr Vinay Nandicoori, Director CSIR-CCMB and Theme Director, Healthcare Theme of CSIR, presented the knowledgebase and developments involving nearly 15 out of 37 CSIR labs in areas such as affordable healthcare, drug development, per-clinical studies, surveillance activity of waste water, animal health, cannabis research, MTCC, infectious disease research, resourceful utilization of biomedical waste, early cancer detection, development of diagnostic and therapeutic devices, application of AI in medicine, ongoing R&D on sickle cell anemia, Phenome India COHORT of CSIR and more.

In an interactive session, faculty & heads from Departments of Endocrinology, Neurology, Gastroenterology, Biochemistry, Pulmonary Medicine and Cardiology of AIIMS presented the prospective areas of R&D and possible collaborations. Directors of CSIR Labs informed the available research potentials in the CSIR labs and detailed their area of interest for collaboration.

Through the MoU, CSIR and AIIMS strive to establish a synergistic partnership aimed at propelling medical research forward, enhancing healthcare delivery, and tackling pressing health challenges in India through joint research initiatives, knowledge sharing, innovation development, training and capacity building etc., leveraging the combined expertise of CSIR's scientific research and AIIMS's clinical insights. Joint development of new medical technologies, devices, and diagnostics are envisaged.

Both organizations are dedicated to promote ethical research practices and ensuring that all collaborative efforts are aligned with the highest standards of integrity and scientific rigor. The MoU set the foundation for ongoing collaboration and is expected to yield valuable insights and advancements in the healthcare sector.



BHU, IICT scientists get patent for low-cost membranes for MFCs

CSIR-IICT 17th December, 2024

Prof Neelam Srivastava, a faculty member from the department of physics, Mahila Mahavidyalaya, Banaras Hindu University, was awarded a patent for the development of 'Low-cost electrolyte membranes for microbial fuel cell applications, synthesized by complexing starch (wheat, corn and rice) with salt."

This breakthrough innovation, carried out in collaboration with S Venkata Mohan, chief scientist at the CSIR-Indian Institute of Chemical Technology (IICT), Hyderabad, aims to revolutionise microbial fuel cell (MFC) technology. MFCs are increasingly used for wastewater treatment, including sewage and industrial effluents, as they not only treat pollutants, but also generate electricity during the process.

Prof Srivastava said that microbial fuel cells offer a sustainable method for wastewater treatment by harnessing the power of bacteria to degrade organic matter while simultaneously producing electricity. However, a significant barrier to scaling up the technology for real-world applications was the high cost of the membrane material used in these systems. Currently, NAFION membranes are typically employed, but they are expensive and not environmentally friendly.

The patented work of Prof Srivastava and her team focuses on replacing the costly NAFION membrane with a much more affordable and environmentally benign alternative. The novel membrane is synthesised by complexing starch from common grains such as wheat, corn and rice with salt, resulting in a low-cost, biodegradable material that can perform effectively in microbial fuel cell applications.

Published in:

Times of India



CSIR-NML Hosts 52nd Shanti Swarup Bhatnagar Memorial Tournament

CSIR-NML

17th December, 2024

The 52nd Shanti Swarup Bhatnagar Memorial Tournament commenced at CSIR-National Metallurgical Laboratory with an impressive opening ceremony.

The three-day sporting event brings together teams from across India. The tournament celebrates CSIR's sporting spirit.



Distinguished Presence

Padma Shri Premlata Agrawal graced the occasion as chief guest. She emphasized sports' role in personality development. Meanwhile, Dr. Anuradha Madhukar, CSIR Sports Promotion Board Secretary, shared insights. She highlighted team spirit and leadership skills through sports.

Tournament Details

Eight laboratories will compete in cricket and volleyball. The participating teams represent premier CSIR institutions. Moreover, CSIR-NPL received recognition for best flag march. The competition continues through December 20.

Legacy and Leadership

NML Director Dr. Sandeep Ghosh Chowdhury welcomed participants. He remembered Dr. Bhatnagar's scientific contributions. Furthermore, the event aims to promote camaraderie. It strengthens bonds between CSIR employees through sports.

Published in:

Townpost



State Level Camp of Vidyarthi Vigyan Manthan concludes

CSIR-IIIM

17th December, 2024

The State Level Camp (SLC) of Vidyarthi Vigyan Manthan (VVM) 2024–25, India's largest digital science talent search program concluded at RRL High School, Jammu. The prize distribution and valedictory ceremony were held at the CSIR-IIIM Jammu Auditorium, marking the culmination of a one-day camp.



The event saw the participation of 131 students who excelled in the first-level exam held in October 2024, selected from over 2,500 participants. These students showcased their scientific aptitude in the State Level Camp, with the event inaugurated by Dr. Zabeer Ahmed, Director, CSIR-IIIM Jammu, as the chief guest. Other dignitaries included Prof. B.N. Tripathi, Vice Chancellor, SKUAST-J, and Prof. Rajnikant, Patron, VP, J&K, among others.

The event featured sessions on Vidyarthi Vigyan Manthan, reports on camp activities, and speeches from key figures. Dr. Zabeer Ahmed emphasized the importance of fostering scientific curiosity and critical thinking in students, while Prof. Tripathi highlighted the need for young minds to strengthen India's scientific future.

The camp tested students through various rounds, including the Application Oriented Scholastic Aptitude Test (AOSAT) and an Experimental Skill Test (EST). A total of 18 students were declared winners, with 12 selected to represent Jammu & Kashmir in the national camp scheduled for May 2025.

Top students were awarded cash prizes, with Rs 5,000 for 1st Rank, Rs 4,000 for 2nd Rank



and Rs 3,000 for 3rd Rank. Among the top-performing students were Soham Singh, Syed Hansa, Guransh Singh, Paras Gupta, Mohd Umair Malik, Sweksha Singh, Chirag Luthra, Mhotsav Gandotra, Jayendra Singh Jasrotia, Ayanna Khajuria, Taransh Mahajan, Arjunvir Singh, Radhika Verma, Tarini Gupta, Aditya Narain Singh, Danish Talwar, Adhiraj Singh and Manaswin Mahajan. The event concluded with a heartfelt vote of thanks by Samir Vohra, Organizing Secretary, VP, J&K.

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Humansy currently consuming resources at 1.4 times Earth's capacity: Scientist

CSIR-NEERI

17th December, 2024

Padma Shri Sharad Kale, former scientist at Bhabha Atomic Research Centre (BARC), on Monday emphasised the importance of maintaining nature's equilibrium. He stated that whatever we take from nature, we must give back to preserve its balance. He cautioned that humans are currently consuming resources at 1.4 times the Earth's capacity and highlighted the urgent need to achieve 100% resource recovery to sustain future generations.



He spoke during a one-day workshop on 'Sustainable Waste Management: Challenges & Opportunities' at CSIR-National Environmental Engineering Research Institute (CSIR-Neeri). Kale underscored the critical role of sustainability in resource management and stressed the importance of recognising our responsibilities towards nature. He called for the development of practical, replicable methods that can be easily adopted by others to promote sustainable practices on a larger scale.

During the panel discussions, experts shared valuable insights and explored innovative strategies on topics such as the remediation of contaminated sites, solid waste management, and the circular economy, with a focus on advancing sustainable waste management practices. Mahesh Patil, chairman of the Goa State Pollution Control Board, was the guest of honour and inaugurated the workshop.

Several eminent dignitaries, including Sukumar Devotta, former director of CSIR-Neeri, NK Verma, former additional director of the Central Pollution Control Board, PN Parameswaran



of BEIL Infrastructure Ltd, V Vinay, chief sustainability officer at PPL, Nitin Labhsetwar, chief scientist and chair of the environmental resource planning and management vertical, MP Patil, chief scientist and chair of the waste management vertical at CSIR-Neeri, Amit Bansiwal, senior principal scientist and co-chair of the sustainable environmental processes vertical at Neeri, and A Ramesh Kumar, principal scientist of the waste management vertical, participated in panel discussions.

Mahesh Patil shared his long association with Neeri, which began in 1978 when he worked on mine reclamation projects. He emphasised that waste should not be viewed merely as 'waste' but as a valuable 'resource'. Patil highlighted the importance of convincing industries to adopt effective waste management practices by demonstrating their economic benefits. He pointed out that the focus has expanded from just industrial waste to also addressing the increasing problems of urban waste. He underscored the need for widespread environmental education and collective efforts to address waste management challenges and promote sustainable practices.

Atul Vaidya, director of Neeri, emphasised the need to move beyond mere compliance and focus on the sustainability of resources rather than treating them as waste. He highlighted the importance of viewing sustainability from the perspective of resource management. Vaidya provided an example, pointing out the need to assess whether supply chains are environmentally sustainable, stressing the importance of adopting green practices in all aspects of resource utilisation.



Gujarat: 200 researchers to take part in 33rd Asian Test Symposium

CSIR-CEERI 17th December, 2024

Over 200 researchers will take part in the 33rd Asian Test Symposium (ATS-2024) — an event in the field of semiconductor design, fabrication, and testing — to be organised by the Nirma University, Ahmedabad, from December 17 to 20.

Researchers from countries such as the USA, Germany, Japan, France, Singapore, and Taiwan, along with industry giants such as Cadence, Texas Instruments, Synopsys, QuantumAI, and eInfochips, will take part in the event.

Indian research organisations such as CSIR, CEERI, SAC, and ISRO will also showcase their advancements in the semiconductor domain.

The symposium boasts a rich technical programme, including eight pre-conference tutorials, 12 keynote speeches by global experts, a panel discussion, special sessions, fireside chats, industry forums, and over 60 paper presentations. During the symposium, contributors to the semiconductor field will also be felicitated.

The Conference Chair and Head of the Electronics and Communication Department at Nirma University, Prof Usha Mehta, described the event as a "landmark moment" for Gujarat's semiconductor ecosystem. Mehta further said, "This symposium offers a platform to forge stronger connections between academia and industry, fostering innovation and growth in the region."

Published in:

Indianexpress



CSIR-IIIM Lavender kit included in souvenir at conference of CSs

CSIR-IIIM 17th December, 2024

CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu, today informed that its Lavender kit, developed under the CSIR Aroma Mission Phase — III, was showcased in the souvenir at the 4th National Conference of Chief Secretaries.

The event, chaired by the Prime Minister Narendra Modi in New Delhi, highlighted India's progress in innovation and sustainability. The Lavender kit is designed to provide a refreshing and revitalizing experience. It includes a selection of aroma products such as Perfume, Roll-on Perfume, Agarbatti, a dried Lavender flower packet, and a car diffuser. Each product is crafted to offer practical benefits while promoting relaxation, well-being, and a harmonious atmosphere.

Giving the details of Aroma Mission activities, Dr Zabeer Ahmed, Director, CSIR-IIIM Jammu, expressed pride in this achievement, emphasizing that the recognition of the Lavender Kit at such a prestigious platform reflects the institute's commitment to scientific innovation and sustainability.

Dr Ahmed further highlighted that the Purple Revolution is not merely about lavender cultivation but also about empowering farmers, startups, and entrepreneurs through the intervention of science and technology.

The CSIR Aroma Mission was launched by Dr Jitendra Singh, Union Minister of State (I/C) for Science & Technology, and Minister of State for PMO, Personnel, Public Grievances, Pensions, Atomic Energy, and Space and Vice President, CSIR.

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NIO hosts conclave on ecology, environment, earth, ocean sciences and water

CSIR-NIO, NEERI, NGRI, CSMCRI,

17th December, 2024

The CSIR-National Institute of Oceanography (CSIR-NIO), in collaboration with CSIR-NEERI, Nagpur; CSIR-NGRI, Hyderabad; and CSIR-CSMCRI, Bhavnagar, hosted a stakeholder conclave on Ecology, Environment, Earth, Ocean Sciences and Water (E3OW).

The event, organised in a hybrid mode, was held at the CSIR-NIO, Dona Paula, as a part of the 'One Week One Theme' campaign of the CSIR, which aims to showcase and strengthen research and technological advancements aligned with national priorities.

The event brought together industry representatives, academic partners, and research scientists to foster collaborations and advance research and development (R&D) initiatives. The inaugural session was chaired by Dr. Atul Vaidya, Director, CSIR-NEERI and Prof Sunil Kumar Singh, Director of CSIR-NIO, alongside Dr Prakash Kumar, Director, CSIR-NGRI, and Dr Kannan Srinivasan, Director, CSIR-CSMCRI.

The leaders emphasised the critical role of stakeholder engagement in developing impactful technologies and achieving the Government of India's Vikasit Bharat 2047 vision.

A significant highlight of the conclave was the signing of a Non-Disclosure Agreement between CSIR-NIO and The Kelp Agro and Minerals, Raigad, to develop Type II collagen from jellyfish. This pioneering technology, developed by Dr Supriya Tilvi and her team at CSIR-NIO, offers promising applications in biomedicine and nutraceuticals.

The second session featured detailed presentations from participating CSIR institutes:DrSanil Kumar provided an overview of the institute's R&D services, followed by Dr Prakash Mehra's insights on marine robotics, and Dr Narsinh Thakur's updates on sustainable marine biotechnology initiatives.



Dr MP Patil shared technologies addressing environmental challenges. Dr EVSSK Babu presented advanced geophysical technologies, with SK Saxena, Executive Director of NPCIL, expressing appreciation for CSIR-NGRI's contributions to nuclear energy projects.

Dr Puyam Singh highlighted water-sector innovations, and Dr Soumya Haldar discussed achievements in marine environmental research.

The event concluded with an interactive session where stakeholders provided valuable feedback, fostering collaboration opportunities between academia, industry, and research institutions. Dr Rahul Kaushik, CSIR-NIO, summarized the proceedings and the sessions were hosted by Dr. Tanuja Nigam, CSIR-NIO.

The conclave was coordinated by Dr Sanil Kumar, Chief Scientist and Head, Business Development Group, CSIR-NIO, and Dr Narsinh L Thakur, Senior Principal Scientist & Head, Chemical Oceanography Division, CSIR-NIO.

The conclave demonstrated the CSIR's dedication to leveraging scientific innovation for societal benefit, reinforcing India's journey toward sustainable development under the 'One Week One Theme' campaign.



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