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Increasing urbanisation will significantly impact structural engineering, says NITI Aayog member

CSIR-SERC 10th June, 2024

Increasing urbanisation may have a significant impact on the future of structural engineering, and there is a need to have more resilient and sustainable structures, Vijay Kumar Saraswat, member of NITI Aayog, said here on Monday.

While delivering the G.S. Ramaswamy Memorial Lecture during the 60th Foundation Day of the Council of Scientific and Industrial Research-Structural Engineering Research Centre (CSIR-SERC) and the inauguration of diamond jubilee celebrations, he spoke about the advances in structural engineering methods. "The field of structural engineering is constantly evolving, with new technologies and materials being developed all the time. This is leading to new and innovative ways to design and build structures, which are efficient, safe, and sustainable," he said.

He noted that the creation of critical infrastructure such as bridges or roads is a catalyst for economic growth, and when this happens, it aids in generating a lot of jobs. "Availability of good infrastructure is key to achieving inclusive growth on a sustainable basis. Sustainability focused infrastructure growth can help accomplish the vision of making India a \$40 trillion economy by 2047."

A diamond jubilee logo was also released during the occasion. A memorandum of understanding was signed between the CSIR-SERC and Pedvak Technologies Private Limited, Hyderabad, to develop advanced protective structures and components for ballistic, bulletproof and baffle range products for protection of personnel and property in India in a phased manner. N. Anandavalli, director of CSIR-SERC, and S. Gomathinayagam, former Director General of the National Institute of Wind Energy, also spoke during the occasion.

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The Hindu



60th Foundation Day of CSIR-SERC celebrated at CSIR Campus, Chennai

CSIR-SERC 10th June, 2024

CSIR-Structural Engineering Research Centre (CSIR-SERC) celebrated its 60th Foundation Day and Inauguration of the Diamond Jubilee celebrations with great enthusiasm on 10 June 2024 at the CSIR Campus, Chennai. The function was presided over by Dr. N. Anandavalli, Director, CSIR-SERC and Coordinating Director, CMC. Dr. Vijay Kumar Saraswat, Hon'ble Member, NITI Aayog, was



the Chief Guest of the function. Dr. S. Gomathinayagam, Former Director General, National Institute of Wind Energy, was the Guest of Honour.

Dr. Anandavalli extended a warm welcome to the chief guest and guest of honour and congratulated all the staff members on the occasion of the 60th foundation day of CSIR-SERC. In her welcome address, the Director mentioned that civil engineering is a way of life and brought out the analogy between the five elements viz earth, air, fire, water, space, and structural engineering. She mentioned that the establishment of SERC as a National Laboratory under CSIR on 10th June 1965 was the result of the fore-sighted vision of Prof. G. S. Ramasamy. The journey of CSIR-SERC ever since and its role played in shaping the Infrastructure of the country through its significant achievements and societal contributions in the form of cyclone shelters, etc., were elaborated. She further emphasized the various researches and technologies developed at CSIR-SERC and said that at present, CSIR-SERC primally focuses on the six thrust areas viz. Structural Health Monitoring & Life Extension., Disaster Mitigation, Advanced Materials for Sustainable Structures, Special and Multifunctional Structures, Energy Infrastructure and Offshore Structures. She further highlighted that the Scientists at CSIR-SERC are part of many committees in the formulation of



standards and codal provisions in the field of Structural Engineering. She further mentioned that the Journal of Structural Engineering (JoSE), the unique Journal from CSIR-SERC in the field of Structural Engineering has been in existence for the past 50 years since its inception in 1973.

Dr. S. Parivallal, Chief Scientist and Advisor (M), CSIR-SERC, introduced the Guest of Honour, Dr. S. Gomathinayagam, to the audience.

Dr. Gomathinayagam delivered the First lecture of the CSIR-SERC Diamond Jubilee Series. In his address, he reminisced about his association with CSIR-SERC. His address was on the "Emerging Trends in Energy Engineering Structures." He reiterated the commitment of the Nation to generate 500GW of energy through renewable sources by 2030 and the roles and responsibilities of the structural engineers in achieving the target. The challenges in traditional energy engineering due to limited resources and the need for innovative materials and technologies to overcome these limitations to achieve net zero objectives by 2070 were enumerated in his detailed presentation. He portrayed that the future lay in energy-efficient strategies, passive design solutions, IOT-enabled operations, etc. He further showcased through a video the efforts of India in developing the world's biggest Solar park and said that the future of solar and wind power generation is not just limited to traditional superstructures but also has to foray into offshore floating structures and systems. He said that the future of Energy lies in Green Hydrogen Innovation, Renewal Energy dependency, Novel Engineering Solutions, Smart Grid Integration, Storage technologies, transportation innovations, etc.

Dr. J. Rajasankar, Chief Scientist, CSIR-SERC, introduced the Chief Guest, Dr. Vijay Kumar Saraswat, to the audience.

Dr. Saraswat congratulated CSIR-SERC for entering into its Diamond Jubilee year and delivered the Prof. G.S. Ramaswamy Memorial Lecture on Structural Engineering Advances. He mentioned that the Growth in infrastructural engineering is an indicator of the country's



economic growth, and therefore, investments made in infrastructures not only act as a catalyst to the economic growth of the country but also ensure public safety against disasters. He briefed on the evolution of Structural Engineering from the Pyramid era to the current Building Information Modelling. He insisted on the real-time approach to keep pace with the demand through proactive means. The advances in Structural Engineering methods, including design, analysis, and monitoring, were enumerated. The need for adopting Integrated Interdisciplinary tools and technologies, Artificial Intelligence and Machine Learning tools, and IoT were emphasized. He further added that advanced technologies, including digital twin technologies coupled with advanced sensors and predictive analysis, unmanned aerial vehicles for monitoring offshore structures, 3D printing, viz. additive manufacturing, advanced material composites, etc., are the future. Aerogel, Bioplastics, Cross-laminated timber, graphene, microbial concrete, etc., are the new sustainable materials. He pointed out that visual programming and parametric Modelling, prefabrication / onsite fabrication, performance-based design, analysis, modelling, and simulation will not only improve the project efficiency through reduced construction time but will also ensure a reduction in the carbon footprint. He emphasized that structural engineers have diverse responsibilities in analysis, design, and quality control, including compliance with regulations and guidelines, and should design structures through coordinated project management. The challenges in Structural Engineering mainly comprise sustainability and environmental concerns, aging of infrastructures, resilience to natural disasters and man-made disasters like cyber security threats in Smart cities, advances in materials, resource constraints, regulatory compliance, interdisciplinary collaboration, and globalization. Therefore, the way forward would be constantly evolving, adapting new techniques/ technologies, focusing on sustainability, develop skills to cope with the challenges to build structures that would enhance the quality of life.

Dr. Saraswat, Honourable Chief Guest, released the Diamond Jubilee Logo, launched the online submission portal of the Journal of Structural Engineering, and released the Compendium of Projects handled by CSIR-SERC. The CSIR-SERC Diamond Jubilee Conference Flyer of the International Conference on Monitoring, Assessment, and Predictive



Maintenance of Critical Infrastructures (i-MAP)was released by the Guest of Honour, Dr. S. Gomathinayagam.

An MoU was signed between CSIR-SERC and M/s. Pedvak Technologies Pvt. Ltd., Hyderabad. The broad scope of the MoU is for cooperation in Developing advanced protective structures/components for ballistic/bulletproof/baffle range products for advanced protection of personnel and property in India in a phased manner.

Shri Lokanath Patnayak, Administrative Officer, CSIR-SERC, proposed the vote of thanks.



Meet Indian genius who declined millions for his innovation, he is 'Father of...'

CSIR

10th June, 2024

India has seen many geniuses who contributed to society even before Independence. They also led various research centres in the country. Some even did not take any monetary benefit for their research. One such man was Shanti Swarup Bhatnagar, an Indian colloid chemist, academic and scientific administrator. He was the first director-general of the Council of Scientific and Industrial Research



(CSIR). Bhatnagar is revered as the Father of Research Laboratories in India. He was also the first chairman of the University Grants Commission (UGC).

Born in the Punjab region of British India in 1894, he provided innovative solutions to several industrial problems and did not take any personal monetary benefit. His major innovation was an improvement of the procedure for drilling crude oil. He played a remarkable part in the development and organization of scientific research in the country.

Bhatnagar completed his elementary education at the Dayanand Anglo-Vedic High School, Sikandrabad (Bulandshahr). He passed the Intermediate Examinations from the Punjab University in 1913. He did his graduation with a B.Sc. After completing his Master's degree, he went to England to complete his DSc (Doctorate in Science) from London University. In 1921, Bhatnagar returned to India and joined BHU as a professor of chemistry. He worked here for three years.

He played an instrumental role in establishing the National Research Development Corporation (NRDC) of India. He was awarded the Padma Vibhushan in 1954 by the



President of India. In 1958, to honour his name and legacy, CSIR instituted the Shanti Swarup Bhatnagar Prize for Science and Technology for scientists who have made significant contributions to various branches of science. Bhatnagar died of a heart attack on 1st January 1955 when he was 60.

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Dnaindia



NIO study finds substantial concentration of microplastics along Eastern Arabian Sea coast

CSIR-NIO 10th June, 2024

Substantial presence of microplastics (MPs) have been found along the Eastern Arabian Sea, with maximum presence of these pollutants off Mumbai, Cape Comorin (Kanyakumari) and Goa coasts, shows a latest study by CSIR-National Institute of Oceanography (NIO), Goa. "In the Arabian Sea scenario, as plastic waste travels from offshore and land-based areas, it tends to



accumulate in coastal regions, especially in the Indian Ocean's (IO) coastlines (west coast of India). Hence, this is our first comprehensive research on MPs accumulation in the IO, especially in the Eastern Arabian Sea (EAS)," said Mahua Saha, Principal Scientist at CSIR-NIO (Department of Chemical Oceanography).

"This study deals with the mapping of these MPs, which was essential to understand their abundance and sources in the EAS shelf area. Ecologically, EAS is known for its rich and diverse marine ecosystems, supporting a wide variety of marine species and providing a substantial portion of the global fisheries industry," Saha said.

The study area covered the coastline of Okha (Gujarat), Mumbai, Goa, Mangaluru, Calicut, Kochi and Cape (Kanyakumari). Speaking about the rationale behind selecting these locations, the study suggested that these locations provide a comprehensive geographic spread from the northernmost to the southernmost points of the eastern Arabian Sea shelf, ensuring a representative sample of the entire coastline. Specifically, the distances from the coast to the sampling sites generally ranged from approximately 50 km to 100 km offshore.



According to the study, approximate concentration range of MPs per kg dry weight (DW) in the selected study areas are as follows - Mumbai 1,600-4,000, Cape Comorin 1,700-1,900, Goa 700-2,800, Mangaluru 500-3,400, Kochi 1,200-1,500 Okha 1,250-1,350 and Calicut 400-1,500.

Inferring this data, Saha said, "Although there is a slight difference among the concentration level of MPs, all of them display an overlap in terms of concentration. We cannot conclude them as very distinctive highest or lowest values, since this was a one-time study where the concentration levels of MPs in all the locations are almost comparable to each other. More detailed study, on a large number of samples, will give a clear picture of the detailed concentration level of MPs."

Speaking about the presence of these pollutants in Goa region, the NIO Principal Scientist highlighted the previous study on Mandovi-Zuari estuary and Sal estuary, "Although the Mandovi-Zuari estuary showed a marginally increased abundance of MPscompared to the Sal estuary, that cannot be concluded profoundly based on the preliminary study."

"However, the present visible differences in the abundance, shape, size, and polymer types of MPs between the Sal and Mandovi-Zuari estuaries can be explained by the hydrodynamic scenario. The Mandovi and Zuari are tropical estuaries and are strongly affected by tidal currents during the dry season and receive a large freshwater influx during the wet season. In both the estuarine system, fragments and fibers were the dominant shapes of MPs, which could be sourced from the local land-based inputs," she said.

When asked about the overall implications of the study's findings, Saha said, "The overall polymer identification of the microplastic samples found in the EAS shows that the probable sources of litter discharges were tyre-wear particles, ghost net disposal and others anthropogenic sources along the estuarine region. The risk assessment of MPs via both Pollution Load index (PLI) and Polymer Hazard Index (PHI) values exhibited a moderate to higher hazard level in the studied area." "Hence, the overall implication of this study focuses on the source and pathways of MPs which may lead to the goal of reducing the amount of



plastic waste that permeates the aquatic environment. It is important to create sustainable alternatives to plastic packaging and consumer goods as well as to improve waste management procedures," the NIO scientist said. "Undeniably, this study makes a strong mark for developing effective policies, legal limits, management actions and long-term strategies to mitigate the problem of plastics pollution," she said.

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Heraldgoa



Bougainvillea Festival in Lucknow: 'Discovered in Brazil, bougainvillea requires minimal care'

CSIR-NBRI 10th June, 2024

Bougainvillea was first discovered by the French botanist Philibert Commerson in Rio de Janeiro, Brazil in the 1760s, said Radha Rangarajan, a scientist and director of CSIR-CDRI, Lucknow, on Sunday during the Bougainvillea Festival. "The name Bougainvillea was named after his friend sailor Louis de Bougainville," added Rangarajan while sharing interesting historical facts at the



festival organised by CSIR-NBRI at its KN Kaul Block Lawn where she was the guest of honour.

"The splashing colours of bougainvillea refresh our heart and mind. This plant requires very little care and maintenance. This virtue of the plant can provide us insights to explore climate-resilient features," said PK Trivedi, director, CSIR-CIMAP, who was also the guest of honour at the one-day flower festival.

"Bougainvillea is widely used in beautification drives in Lucknow. This plant must be included in mass plantation drives for arid and semi-arid areas," said Satya Narain Sabat, DG, The Crime Branch, Crime Investigation Department (CB-CID), Lucknow, who was the chief guest later during the prize distribution. "It is our moral responsibility to take our floriculture and agricultural technologies from the lab to farmers so that their income and livelihood can be improved," said NBRI's director Ajit Kumar Shasany.

Over two dozen varieties with unique names on display "We have displayed more than two dozen Bougainvillea varieties developed by the institute



such as Begum Sikander, Shubhra, Arjuna, Archana, Mary Palmer Special, Los Banos Variegata, Aruna, among others at the festival," said SK Tewari, chief scientist & convener of the show. He further added that the festival was curated in 2022, with a focus on the major summer ornamental plant Bougainvillea, and this is the third Bougainvillea festival organised by the institute. A total of 19 exhibitors participated in the show with 46 entries.

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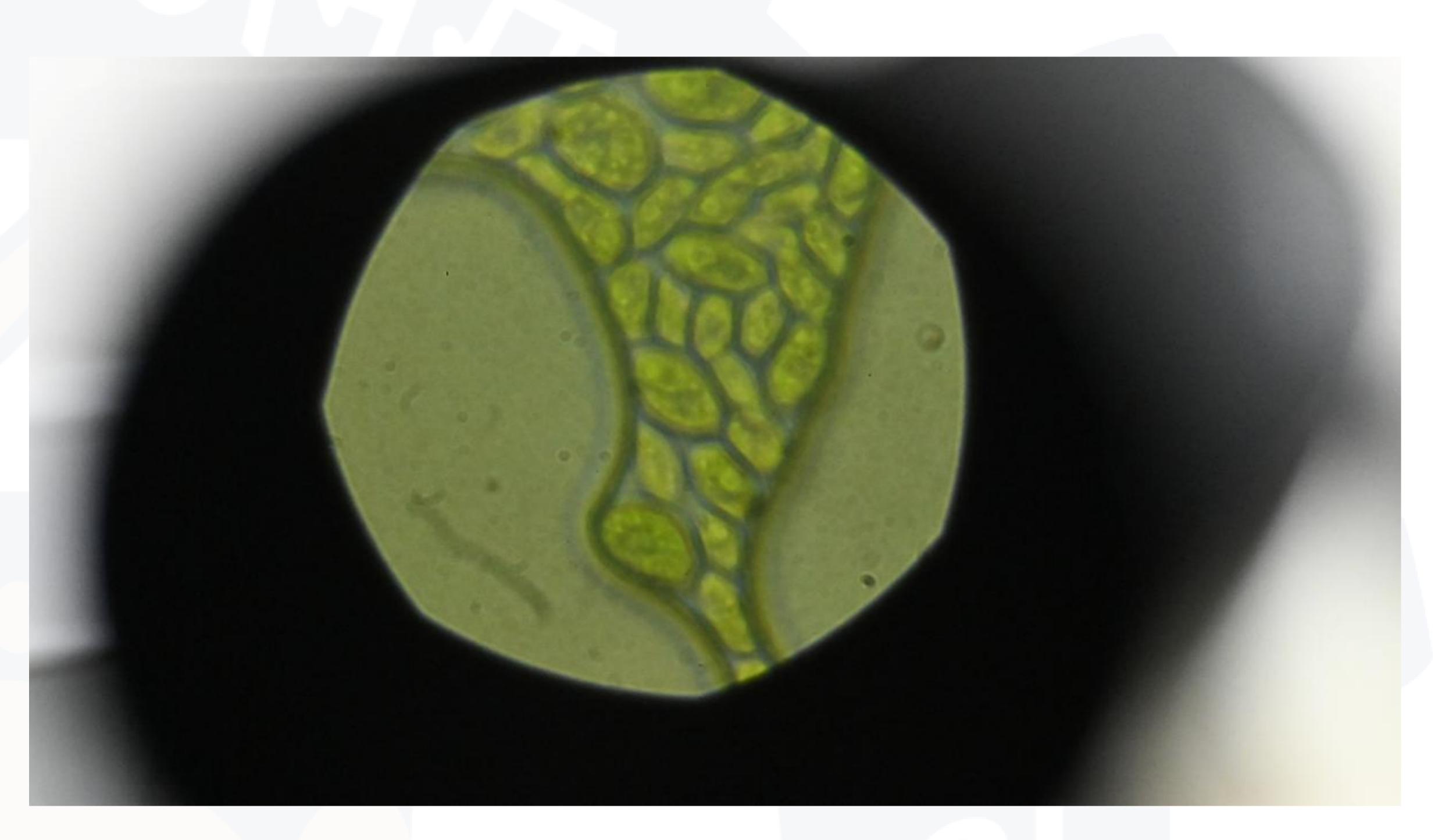
Hindustantimes



CSIR-IICT scientists identify microalgae as a potential protein supplement

CSIR-IICT 10th June, 2024

CSIR-Indian Institute of Chemical Technology (IICT) scientists have spotlighted the potential of Chlorella Growth Factor (CGF), a protein-rich extract derived from the microalgae 'Chlorella sorokiniana', as an ideal ingredient for a wide range of food and feed applications. Microalgae are "under-exploited crops" and do not compete with traditional food crops for space and resources. The latest



research study by noted scientists S. Venkata Mohan and M. Hemalatha showed that CGF, with its rich amino acid content and superior protein quality, presents a promising alternative protein source that can significantly contribute to human and animal diets.

The scientists at the institute's bioengineering and environmental sciences lab asserted that its beneficial properties extend beyond basic nutrition, promoting overall health, immunity, and well-being. Hence, CGF could become a valuable supplement for enhancing dietary intake and supporting sustainable food and feed production systems.

This unique substance is said to be found exclusively in the cell nucleus of 'chlorella', is produced during photosynthesis and is laden with a variety of beneficial components, including peptides, amino acids, nucleotides, polysaccharides, glycoproteins, vitamins, and minerals. The researchers had first isolated 'Chlorella sorokiniana' in the lab and cultivated it using a specially formulated nutrient mix designed to enhance its biomass and protein content. The extraction of CGF from the harvested biomass employs a non-chemical autolysis process to preserve the integrity of the amino acids and other valuable components.



CGF is particularly rich in essential amino acids, which are vital for human and vertebrate health but cannot be synthesized by their bodies. The amino acid profile of CGF even surpasses that of commercially available soy meal as is evidenced by metrics such as Protein Efficiency Ratio (PER), Essential Amino Acid Index (EAAI), and Biological Value (BV), they explained.

Already, inclusion of CGF in poultry diets has been shown to enhance egg quality, indicating its potential as a superior protein supplement in animal nutrition. The study has underscored the importance of microalgae cultivation methods to maximize the yield and quality of protein-rich extracts, offering a sustainable solution to meet the growing global demand for high-quality protein sources, the scientists added.

The research findings of the study - Amino Acids Rich Biomass Cultivation: Trophic Mode Influence on Chlorella Growth Factor (CGF) Production" has been published in the latest issue of Algal Research journal.

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The Hindu



CSIR IIIM imparts capacity building to floriculture farmers in Batote

CSIR-IIIM 08th June, 2024

Indian Institute of Integrative Medicine
Jammu under the flagship initiative of CSIR
Floriculture Mission organized capacity
building workshop on scientific and innovative
crop production and management
technologies in commercial floriculture for the
farmers of Ramban, here at Batoteon Friday.
96 farmers which included women farmers
participated in the workshop, that was



organized in collaboration with Department of Agriculture, Batote. The farmers were also provided with the quality planting material of the high yielding variety of Marigold and package of crop production and management practices.

Speaking to our correspondent, Dr Zabeer Ahmed, Director CSIR IIIM, Jammu said that the significant work being done under the Mission since past three years has given impetus to the commercial floriculture sector in the UT and has led to the increased income generation and livelihood opportunities for farmers. The efforts made under the Mission has amplified the opportunities in commercial floriculture for creation of start-ups and agri-based entreprises and we are striving to enhance the proportion of agri-entreprises in the national startup ecosystem. He also commended the efforts of Mission team and the coordinating departments for an impactful outreach for farmer empowerment.

Dr Shahid Rasool, Nodal Scientist of the Mission, who spoke to our correspondent informed that concerted efforts are being made under the Mission to enhance the skill of the farmers, florists, nursery producers and other stakeholders, and area expansion through production of multiple types of ornamentals, cut and loose flower varieties to ensure their prosperity and



sustainable growth of the floriculture sector in this unique region. During the technical session, Dr Iqra Farooq, Senior Project Associate gave a detailed presentation on the innovative skills and practices for commercial nursery production, good crop husbandry, disease and insect-pest management of marigold and other floricultural crops, their utilization as fresh and dry flowers through different value addition technologies.

Present at the event, prominent Floriculturist and Member J&K Kisan Advisory Board Tajinder Singh Wazir, informed that the capacity building of farmers for production of crops on scientific lines is imperative for maximizing the quality crop yields, and the Mission team of CSIR IIIM has been extensively training small and marginal farmers across the UT, besides providing quality planting material of different crop varieties.

Earlier while welcoming the farmers and the participating officials, Rakesh Padha, SMS Batote said that more than 75 farmers who were trained and provided the marigold seed under the Mission during the last cropping season reaped higher crop yields and substantial increase in overall net returns was fetched by the farmers growing the crop.

The participating farmers expressed their gratitude to the team of CSIR IIIM and Deptt of Agriculture for their outreach and extending the benefit under CSIR Floriculture Mission. Present at the event included Dr Ravinder Singh, Syed Irham, Dr Dawood Yousuf and Er Aafreen Naseer who presented the vote of thanks.

Published in:

Risingkashmir



Lucknow to get its first fragrance park in Hussainabad

CSIR-NBRI

08th June, 2024

The state capital will soon get its first fragrance park near the iconic Clock Tower in Hussainabad area. To come up on 2.20 acres, the park will house dozens of aromatic flowers from across species. To be built by Lucknow Development Authority (LDA), the selection of flowers will be done by National Botanical Research Institute (NBRI) experts.



According to LDA officials, the park, whose construction will cost ₹4 crore, is being developed on the stretch between Chota Imambara and Bada Imambara. It is a part of the proposed upgradation and beautification of the heritage zone in Hussainabad. Its design is being done by popular architect Ashish Srivastava. "This is the first such fragrance park in U.P. and the second in India. A fragrance park is situated at Rashtrapati Bhawan in New Delhi," said Srivastava. Ajit Kumar Shasany, the NBRI director, said, "Flowers for the project have been chosen in such a manner that the park will always have some blooming around the year." NBRI houses a replica of the park at its Lucknow campus where the visually impaired can read about the flowers through Braille. The park's design will be done with the needs of people with disabilities in mind. While braille information will be made available for the visually impaired, ramps will be built for people on wheelchairs. "The park will attract tourists mainly due to the presence of aromatic plants. Along with fragrant flowers, provision for an open-air theatre has also been made to entertain people," read a copy of a document with the project details shared by LDA. The officials said the park will also feature a pergola (outdoor garden) and gazebo (pavilion structure).

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Hindustantimes



Lemongrass saplings distributed

CSIR-NEIST 07th June, 2024

Encouraging organic farming, Jorhat (Assam)-based North East Institute of Science & Technology (NEIST) distributed more than 50,000 saplings of lemongrass to farmers here in West Kameng district on Friday, at the initiative of the West Kameng Organic Farmer Produce Company Ltd (WKOFPCL).

WKOFPCL CEO Tsering Thongdok said, "The motive of our company is to encourage people for organic farming. We cannot replace inorganic farming completely. However, it could minimise the use of chemicals for commercial agricultural produce."

"Use of chemicals in cultivation is harmful to the land, air and water of our fragile environment. Three years back, we established our company to encourage organic farming," he added.

WKOFPCL chairman, former minister DK Thongdok, said, "The NEIST has provided saplings of lemongrass, which will be ready for harvest within a month. It is a useful herb which drives away mosquitoes and other insects."

The land, as well as the climatic factors, here isfavourable for cultivation of other important herbs, including ashwagandha and citronella, which are being planned to be cultivated in order to supplement the farmers' income.

Once the lemongrass is harvested, it will be processed at the processing unit here, and the NEIST will assist in marketing it.

Published in:

Arunachaltimes



CSIR-CIMAP लखनऊ ने की बड़ी पहल, औषधीय पौधों और फूलों के उत्पादन से किसानों की बढ़ेगी आमदनी

CSIR-CIMAP

07th June, 2024

बाजार में औषधीय (Medicinal Plants) उत्पादों की मांग बढ़ गई है जो किसानों (Farmers) के लिए लाभकारी साबित हो रही है. उत्पादन कम और मांग अधिक होने के कारण किसानों को औषधीय फसलों के अच्छे दाम मिल रहे हैं. इसी कारण से किसान अधिक आमदनी की चाह में औषधीय पौधों की खेती की तरफ रुख कर रहे हैं. इसी क्रम में बिहार राज्य की कृषि प्रौद्योगिकी प्रबंधन अभिकरण (आत्मा) के द्वारा अपने किसानों को



औषधीय, संगंध पौधों व फूलों की खेती के प्रति जागरूक करने के लिए एक प्रशिक्षण कार्यक्रम का आयोजन सीएसआईआर-केन्द्रीय औषधीय एवं संगंध पौधा संस्थान (CSIR-CIMAP) लखनऊ मे आयोजित किया गया.

इस प्रशिक्षण कार्यक्रम में सीतामढ़ी जनपद, बिहार के 9 महिला किसान के साथ 26 प्रतिभागियों ने भाग लिया. किसानों को औषधीय, सगंध पौधों व फूलों के उत्पादन, प्राथमिक प्रसंस्करण व विपणन विषय पर प्रशिक्षित करने के लिए सीएसआईआर-केंद्रीय औषधीय एवं सगंध पौधा संस्थान में शुभारंभ किया गया था.

60 वर्षों से किसानों को कर रहें प्रोत्साहित कार्यक्रम के समापन सत्र में सीमैप के निदेशक डॉ. प्रबोध कुमार त्रिवेदी ने प्रतिभागियों को संबोधित करते हुए कि सीएसआईआर-सीमैप पिछले 60 वर्षों से औषधीय एवं सगंध पौधों की खेती में किसानों को प्रोत्साहित कर रहा है, तथा नई-नई कृषि तकनीकी, पौध सामग्री एवं उन्नतशील प्रजातियां किसानों को उपलब्ध करा रहा है जिसके फलस्वरूप लाखों किसानों को प्रत्यक्ष तथा अप्रत्यक्ष रूप से लाभ पहुंचा है. उन्होंने कृषकों को संबोधित करते हुये कहा कि किसान गोष्ठी में कृषि तकनीकियों को जानने के बाद उसको अपने खेत पर अपनाकर किसानों को समय-समय पर वैज्ञानिकों से जानकारी लेनी चाहिए ताकि उस तकनीकी पर किसानों का विश्वास बना रहे.



किसानों के लिए बन रही आमदनी का बड़ा जिरया डॉ. त्रिवेदी ने कहा कि अश्वगंधा, गिलोय, भृंगराज, सतावर, पुदीना, मोगरा, तुलसी, घृतकुमारी, ब्राह्मी, शंखपुष्पी और गूलर आदि औषधीय पौधों की खेती किसानों के लिए वरदान साबित हो रही है. कुछ औषधीय पौधे ऐसे हैं, जिनका इस्तेमाल आयुर्वेदिक दवाओं में किया जाता है. वहीं तमाम अन्य पौधों का उपयोग कंपनियां सौदर्य प्रसाधन बनाने में करती हैं. इस्तेमाल चाहें जो भी हो, दोनों रूप में किसानों को यह कमाई का मौका देता है. सबसे खास बात है कि पारंपिरक फसलों की खेती के मुकाबले इसमें लाभ कई गुना अधिक होता है.

इन औषधीय पौधों से होगी कमाई तमाम औषधीय फूलों और फलों का इस्तेमाल आयुर्वेदिक दवाएं बनाने में किया जाता है. इसमें आंवला, नीम और चंदन महत्वपूर्ण हैं. ये रोपाई के बाद पहले पेड़ का रूप लेते हैं और आगे चलकर इनकी पितयां, खाल, फूल, फल, जड़ और तना जैसे तमाम हिस्सों का इस्तेमाल दवाओं में किया जाता है. हालांकि इसमें कमाई लंबे समय में होती है.

Published in:



सीएसआईआर-एनएमएल में रक्तदान शिविर का आयोजन

CSIR-NML 06th June, 2024

जमशेदपुर के वर्मा माइंस स्तिथ सी एस आई आर -एनएमएल में रक्तदान शिविर का आयोजन किया गया। इस रक्तदान शिविर में एनएमएल के वैज्ञानिकों, तकनीकी शोधकर्ताओं, प्रशासनिक स्तर कार्मिकों, विद्यार्थियों, अस्थाई कार्मिकों एवं उनके परिजनों ने रक्तदान किया। शिविर में कुल 90 यूनिट रक्तदान संगृहीत किया गया। इस अवसर पर सीएसआईआर-एनएमएल के निदेशक डॉ संदीप घोष चौधरी के कुशल निर्देशन एवं श्री अदित्य मैनाक, विष्ठ प्रशासनिक अधिकारी एवं श्री विप्लव विशाल, प्रशासनिक अधिकारी के मार्गदर्शन से आयोजित इस रक्तदान शिविर को सफल बनाने में एनएमएल स्टाफ क्लब के डॉ एमएम हुमने, डॉ कृष्ण कुमार, परमार्थ सुमन, नईम अंसारी के साथ-साथ अभिषेक कुमार सिंह, डॉ अंजनी कुमार साहू एवं वेद प्रकाश ने उल्लेखनीय योगदान दिया।रक्तदान शिविर के संचालन में जमशेदपुर ब्लड बैंक तथा वीबीडीए के पदाधिकारियों का भी महत्वपूर्ण योगदान रहा।

Published in: Livehindustan



'Waste dumping sites need scientific disposal'

CSIR-NEERI 06th June, 2024

The waste management vertical of CSIR-NEERI showcased its recent achievements in land reclamation through remediation and ecological restoration of wasteland, at its auditorium, on World Environment Day, on Wednesday.

Chief scientist Dr Mahendra Patil, who is the head of the waste management vertical, and its principal scientist Dr Lal Singh, presented the national research institute's remediation achievements at Kodaikanal in Tamil Nadu and Koradi-Khaparkheda near Nagpur.

Dr Patil said a detailed assessment of most hazardous waste-contaminated sites has not been done yet. "There are more than 3,000 municipal solid waste dumping sites in the country that need scientific disposal," he said. Dr Patil also discussed projects implemented in different industries for the remediation of hazardous waste-contaminated sites.

Dr Singh spoke of the bamboo plantation projects implemented for ecological restoration of wasteland at the fly ash dump sites of Koradi and Khaparkheda thermal power stations to arrest air pollution.

Neeri director Dr Atul Vaidya said that restoring natural resources is critical for a sustainable future. "It requires a comprehensive approach involving conservation, sustainable management and policy enforcement," he said.

Dr Nitin Labhsetwar briefed about the MoU signed between CSIR-NEERI and Gondwana University. Senior principal scientist CSIR-NEERI Prakash Kumbhare proposed a vote of thanks.

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Times of India



Need healthy saplings? Head to NBRI's centre in Banthra

CSIR-NBRI

06th June, 2024

On World Environment Day, CSIR-National Botanical Research Institute (NBRI) opened a new nursery and floriculture centre on its second campus in Banthara on Wednesday where nature lovers and farmers can get healthy plants and saplings. Visitors will also get guidance like dos and don'ts while taking home a new plant, how to get full bloom and good yield by scientists.



This is NBRIs' second nursery and floriculture research centre after one at the institute's main campus near Sikanderbagh cross-section.

"This facility is being started under CSIR-floriculture mission and will work as an exclusive centre for beneficiaries to know about various initiatives. Plants are also available for sale at the facility which will also serve as an information centre for products, technologies and plant varieties developed by the institute," said NBRI director AK Shasany.

He said this during World Environment Day celebrations held at the institute in association with the International Society of Environmental Botanists (ISEB).

Addressing scientists, students, and researchers, Shasany highlighted the importance of this year's theme of World Environment Day -- 'Land Restoration, Desertification and Drought Resilience'. "We have to change our lifestyle to save the environment. We must do a self-assessment for sustainable utilisation of our natural resources and conserve them for future generations," he said.



Scientists and around 100 participants from 12 degree colleges, universities, NGOs and others took a pledge to save the environment and carried out a plantation drive under the "Vriksh Parigrah" initiative.

Meanwhile, plantation drives were carried out at Lucknow University hostel, Tagore Lawn Old Campus and second campus by vice-chancellor Prof Alok Kumar Rai and Dr APJ Abdul Kalam Technical University vice-chancellor Prof JP Pandey. A national seminar was held at LU's biochemistry department and at Babsaheb Bhimrao Ambedkar University.

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Times of India



'Warmer temperatures are likely to reduce yields of major crops'

CSIR-NBRI

06th June, 2024

Warmer temperatures are likely to reduce yields of major crops such as rice, maize, wheat, and soybean, and as climate patterns become more erratic, crops may face floods, droughts, and heat within a single year, said Prof Ramesh V Sonti, director of the international centre for genetic engineering and biotechnology, New Delhi. Sonti was speaking at the World Environment Day



event celebrated by CSIR-NBRI, Lucknow in collaboration with the International Society of Environmental Botanists (ISEB) on Wednesday. "We need to develop crop varieties with broad adaptation to multiple climate change stresses. All modern plant breeding technologies, including genomic selection, genome editing, and genetic transformation, must be utilized to develop new crops for food security. We must reduce pesticide usage and adopt alternatives such as microbial fertilizers to improve crop yields," suggested Sonti, who was also the chief guest of the function. While welcoming the guests, Dr AK Shasany, director of CSIR-NBRI, highlighted the importance of this year's World Environment Day theme, 'Land Restoration, Desertification, and Drought Resilience.' Dr PV Sane, former director of CSIR-NBRI, graced the occasion as the guest of honour.

'Neelkamal' nursery inaugurated

Dr N Kalaiselvi, DG, CSIR, New Delhi & Secretary, DSIR, Ministry of Science & Technology, Government of India, inaugurated the newly established 'Nursery & Floriculture Centre' named 'Neelkamal' at the centre.

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Hindustantimes



IIIM holds workshop on IPR, entrepreneurship, startup ecosystem

CSIR-IIIM

06th June, 2024

BioNEST Bioincubation Centre (IIIM-TBI) under the aegis of CSIR-Indian Institute of Integrative Medicine, Jammu today organized one day workshop on "Intellectual Property Rights (IPR), Entrepreneurship & Startup Ecosystem" in which 40 students drawn from Law School, University of Jammu and Dogra Law College, Jammu participated.



Dr. Zabeer Ahmed, Director, CSIR-IIIM, in his presidential address, highlighted the importance of enhancing awareness of IPR and patents among the students. He also spoke on the significance of acquiring patents, copyrights and trademarks by the scientific establishments. Further, talking about IIIM initiatives, he underscored the significant role of the IIIM BioNEST incubator in creating awareness among the local community in the UT of Jammu & Kashmir via its road shows, city camps, workshops and similar initiatives. Such workshops are pivotal to achieve the goals of Viksit Bharat, he added.

Earlier Dr. Saurabh Saran, Principal Investigator, IIIM-TBI in his welcome address provided an overview of the workshop organized. He encouraged participants to take maximum benefit of one day workshop on Intellectual Property Rights (IPR), entrepreneurship and Startup ecosystem. He said that these workshops also provide a flavour of enthusiasm to young college students and may encourage them to take up IPR and entrepreneurship as a career.

The programme included a technical session where domain experts, Rajesh Gupta, Administrative Officer CSIR-IIIM delivered a talk on Right to Information, Dr. Kanchrela Prasad, Senior Scientist, CSIR-IIIM detailed presentation on Intellectual Property Rights and



Ankush Varma, coordinator, IIIM-TBI delivered a talk on entrepreneurship and Startup ecosystem. The workshop aimed to empower youth with knowledge and resources, contributing to the IPRs and Startup India initiative in the region.

The proceeding of the inauguration session was conducted by Ankush Varma and Dr. Saurabh Saran presented the formal vote of thanks.

The one day workshop was conducted under the patronage of Dr. Zabeer Ahmed, Director, CSIR-IIIM and Chairman, BioNEST Bioincubation Centre (IIIM-TBI) and under the overall supervision of Abdul Rahim, Chief Scientist and Vice Chairman, BioNEST Bioincubation Centre (IIIM-TBI).

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CFTRI campus in Mysuru may soon become a 'zero-waste' campus

CSIR-CFTRI

06th June, 2024

Sridevi Annapurna Singh, Director, CSIR-CFTRI, Mysuru, on Wednesday said efforts are on to make the CFTRI a "zero-waste campus" and develop alternatives to plastic for food packaging as a measure to address plastic pollution and climate change. While speaking on the effects of microplastics on the body, food chain, carbon footprint, waste generation, and implementation of solar energy on the



campus, Dr. Singh, during the World Environment Day celebrations, said the CSIR-CFTRI campus has a large tree cover which makes it cooler, with the temperature lower by around two to three degrees when compared to that outside the campus.

The management has commended all the agri-horticulture staff and the others associated with the institute for keeping the CFTRI campus neat and green through their hard work, she said. The Director spoke on climate change, biodiversity, pollution control, and the dangers of conversion of productive land into deserts, and said the people should take care of restoring the past glory of the land and conserving the planet.

Environmentalist U.N. Ravi Kumar was the chief guest at the World Environment Day celebrations at CSIR-Central Food Technological Research Institute on Wednesday. This year, the theme was "Land Restoration, Desertification and Drought Resilience."

On the occasion, Mr. Ravi Kumar, who is a former Director, Centre for Appropriate Rural Technologies (CART), NIE, Mysuru, and Dr. Singh planted saplings. In his address, he advised the people to plant trees and take good care of them for the future generations.



At the World Environment Day celebrations held at the Cheluvamba Hall in the main building of the institute, Sandeep N. Mudliar, Chief Scientist and Head, Food Protectants and Infestation Control Department, spoke on the importance of environment day with respect to the theme.

Later, addressing a gathering of scientists and others, Mr. Ravi Kumar spoke about climate change, the crisis faced by nature, biodiversity loss, and pollution and said they are putting the ecosystems under threat. He emphasised the need for reducing carbon degree in our daily activities, and suggested harvesting rainwater and recharging ground water.

He also spoke on sustainable sanitation (ecosan); grey water treatment and reuse, and decentralised sewage treatment and reuse.

He also gave an overview of the works that he undertook in different villages in and around Mysuru and also for some organisations, and spoke on the importance of biochar in carbon sequestration. Lastly, he advised the people to put in their best efforts for water conservation.

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The Hindu



World Environment Day Celebrated By CSIR-Institute Of Minerals And Materials Technology, Bhubaneswar

CSIR-IMMT

06th June, 2024

Today, on June 5th, 2024, the CSIR-Institute of Minerals and Materials Technology, Bhubaneswar celebrated World Environment Day as part of the JIGYASA program. The focus of the day centered around the theme of land restoration, desertification, and drought resilience. During the event, Shri. Sudhansu S Khora, IFS, RCCF, Angul, and Executive Director of the Forest & Environment section



at Odisha Mining Corporation, honored the occasion as the chief guest. Accompanying him was Shri. Sanjay K. Bhar, Regional Director of CMPDI, Bhubaneswar, who attended as the guest of honor.

The event commenced with the planting of mango fruit-bearing trees at the Bose Einstein International Residence, CSIR-IMMT, led by Dr. Ramanuj Narayan, Director of CSIR-IMMT, Bhubaneswar. Also present were Dr. N K Dhal, Head of the Environment & Sustainability Department, along with scientists, research scholars, and children from CSIR-IMMT.

During the opening ceremony, Dr. Ramanuj Narayan, Director of CSIR-IMMT, extended a warm welcome to all the guests and students from various schools. He emphasized the importance of environmental initiatives and highlighted the ongoing activities related to the environment on the CSIR-IMMT campus.

Shri Sanjay K Bhar discussed about mining (primarily coal mining) and associated environmental challenges. He highlighted the activities of eco-restoration post mining.



Shri Sudhanshu S Khora briefed about forests of Odisha and departmental program towards protection, restoration and management practices. He emphasised the role of research institutions contribution for the sustainable environment.

Dr. N K Dhal, Head, E & S spoke about the Environment & Sustainability department and its research work. On the occasion, Dr. D P Das, Jigyasa Nodal Scientist highlighted the role of scientific dissemination to school students and their importance of demonstration by the scientist to school children on electricity, electro chemistry, optics etc.

During the function, former scientist of Environment & Sustainability Department Dr. R N Kar and Dr. P Chattopadhyay were felicitated for their contribution towards environmental research at CSIR-IMMT.

Drawing competitions were organized to foster environmental awareness among school children up to the 10th standard. Additionally, a photography competition was held for staff, students, research scholars, and staff wards of CSIR-IMMT to further engage the community in environmental consciousness. The winners were honored with their prizes at the World Environment Day 2024 event, coordinated by Dr. Manish Kumar, Principal Scientist, and Er. R Sathish, Senior Scientist.

Published in:



CSIR-IHBT Hosts World Bioresource Technology Summit on Environment Day

CSIR-IHBT

06th June, 2024

The CSIR-Institute of Himalayan Bioresource Technology announced the launch of the World Bioresource Technology Summit on June 5, 2024. This date coincides with Environment Day, a global celebration dedicated to the protection and conservation of the environment. During the welcome address, the Institute's Director, Dr. Sudesh Kumar Yadav, highlighted the significance of



World Environment Day and discussed its history. She emphasized the unique bio-wealth of the Himalayas and the visible impacts of pollution and climate change on this region. Dr. Yadav noted the Institute's efforts in environmental conservation through research and various projects aimed at preserving natural resources in the Himalayan area.

The chief guest, Prof. Sudesh Yadav from the School of Environmental Sciences at Jawaharlal Nehru University, New Delhi, delivered a lecture on "Sustainability for Life." He stressed that human existence is intrinsically linked to the environment, pointing out that a polluted environment poses a severe threat to life. Prof. Yadav advocated for significant changes in our lifestyles to adopt more environmentally friendly practices.

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