

CSIR IN MEDIA



सीएसआईआर

CSIR

भारत का नवाचार इंजन

The Innovation Engine of India

NEWS BULLETIN

11 TO 15 APRIL 2023



The students from KV-IIP Dehradun, DAV Public School Dehradun, St. Kabeer Academy Dehradun, SGRR Public School, Nehrugram, Dehradun and NSS Doiwala Dehradun actively participated in various competitions

CSIR-IIP

15th April , 2023



On the third day of its "One Week One lab" campaign, CSIR-IIP organized a half-day Jigyasa program for school students at its laboratory premises in Dehradun. The event's objective was to teach the scientific temperament among school children. The program included interactive scientific presentations by the research scholars at CSIR-IIP. Over 75 students from different schools in and around Dehradun participated in the event. The students from KV-IIP Dehradun, DAV Public School Dehradun, St. Kabeer Academy Dehradun, SGRR Public School, Nehrugram, Dehradun and NSS Doiwala Dehradun actively participated in various competitions arranged for the students. The program began with the introduction of the Jigyasa program by Dr Aarti, Pr. Scientist CSIR-IIP. Director CSIR-IIP Dr Anjan Ray, in his welcome address, motivated the students and emphasized the importance and significance of Science in our day-to-day life. He also addressed the issues of global warming and the measures to be taken to mitigate it by minimizing the overconsumption of energy. Citing various examples, Dr Ray stressed on reasonable consumption of energy and water resources. The conservation of water and energy is a necessity to save our future.

The presentations were made by Ms Sakshi Bhatt, Mr Ramesh N. Goswami, and Mr Ankit Mishra. Ms Sakshi discussed the impacts of Carbon Dioxide on the environment; Mr Ramesh

discussed carbon's origin and its allotropes, such as graphenes and their application. In contrast, Mr Ankit discussed different natural sources for the synthesis of biofuels.

The quiz and skit competitions were planned for the students. KV IIP Dehradun secured first prize, DAV Public School - Second Prize and Doiwala School secured third prize in the skit competition. The school students and audience actively participated in the quiz competition also. The DAV school secured first position, Doiwala school Second position and SGRR Nehrugram School and KV-IIP jointly secured third position in quiz completion. Director CSIR-IIP motivated the students by distributing the prize to the winners. Dr Deependra Tripathi delivered the vote of thanks for the program. Dr Jyoti Porwal and Miss Bhawna Sharma actively compeered the program while the Jigyasa team of CSIR-IIP played an active role in conducting the event.

Doors Of CSIR-NPL To Remain Open To Public Under 'One Week One Lab' Program

CSIR-NPL

15th April , 2023



CSIR-NPL is the custodian of Indian Standard Time (IST), generated using an atomic timescale consisting of Cesium atomic clocks and Hydrogen masers. Not just that, IST is kept traceable within few nanoseconds to the international reference time UTC (coordinated Universal Time) using ultra-precise satellite links. Come and witness how CSIR-NPL keeps the nation's time ticking!

The 'election ink' or the indelible ink used during elections to mark out voters who have exercised their franchise, was developed at CSIR-NPL in 1952, and is considered one of the most significant contributions to Indian democracy.

Union Minister (S&T) Dr. Jitendra Singh recently announced a unique campaign, called "One Week -One Lab" in which all labs of Council of Scientific and Industrial Research (CSIR) will reach out to public to not only showcase their technologies but also to ignite the minds of young innovators, students, start-ups, academia, and industry to look for opportunities through deep tech ventures. In the "One Week, One Lab" campaign, in successive weeks, each of the CSIR labs is showcasing their exclusive innovations and technological breakthroughs to the people of India. The CSIR laboratories are unique and specialize in the specific areas

which span from genome to geology, food to fuel, minerals to materials, and so on. CSIR-NPL Director, Prof Venugopal Achanta said, “CSIR-National Physical Laboratory (NPL) is going to organize the One Week- One Lab program from 17-21 April, 2023. The aim of this program is to create awareness about the available technologies and services present at NPL among potential stakeholders, to provide solutions to societal problems, to sensitize the masses about importance of precise measurements and to develop the scientific temperament among masses especially amongst students who are the future of the country”.

CSIR-National Physical Laboratory (NPL-India) is mandated to be India’s “National Metrology Institute” (NMI) by the act of Parliament and is the custodian of “National Standards” with a responsibility of the dissemination of measurements to the needs of the Country. CSIR-NPL is critically engaged in the development of India’s measurement standards that are internationally accepted and disseminating the measurement capabilities to industry, government, strategic and academia that underpin the India’s prosperity and quality of life.

It preserves and maintains the measurement standards of length, mass, temperature etc including the task of dissemination of the Indian Standard Time (IST). NPL is conducting multidisciplinary R&D with a mission to establish the futuristic quantum standards and upcoming technologies so that India remains on par with international measurement laboratories. It is developing sophisticated analytical equipment (i.e. import substitutes) under “Make in India” programme to cater the ever increasing demands of emerging India and training of young scientists and industry personnel in the area of measurements under “Skill India” programme.

“The “One Week-One Lab” program at CSIR-NPL comprises of several different activities, which will start from the press meet on April 14, 2023 (Friday, 12 Noon) at Press Club of India (PCI), New Delhi. The campaign will be inaugurated on April 17th by Honourable Minister Dr Jitendra Singh ji in the presence of Director General- CSIR, Dr.. N. Kalaiselvi. The major focus of the inaugural day is the Interaction with School/College students. The

students from various schools and colleges in Delhi-NCR will be participating in the program. Quiz competition and lab visits are two of the many activities scheduled for the day. The students will have the opportunity to interact with the NPL scientists,” added Prof Achanta. From April 18-20, there would be three days Start-up/MSME/Industry Meet. The aim of this event is to showcase various services extended by NPL to industries. In this event, all stakeholders have been invited whom NPL has helped/connected/provided technological support/consultancy/services. During this event each day, more than 20 industries will be joining where they will not only showcase their technologies/services (where NPL has contributed) but also talk about NPL’s scientific and technological help they have received. Several other crucial issues will be discussed related to innovation framework and ecosystem. MoUs with 4 new industry partners will be signed for technology transfer and development.

On 19th April, the Metrology Conclave will be organized where a Handbook on Advances in Metrology at CSIR-NPL will be released. CSIR-NPL’s Role and Efforts in the field of Metrology, CSIR-NPL Road Map for Future and Developing National and International Collaborations, panel discussion are the other attributes of the metrology conclave.

On 20th April, R&D Conclave & Women in STEM is planned where eminent scientists of the NPL family and alumni will share their vision and showcase the role of CSIR-NPL in recent advancements in science and technology. The focus of this one-day event will be on Women’s empowerment during the above-said event and a series of activities will be conducted by women scientists to discuss the recent trend in Research and Development, Challenges, and Opportunities for Women in STEM Careers. Also, there will be a documentary film to showcase renowned Women Scientists in India. On 21st April, a one-day Skill Conclave will be held. The prime focus of the conclave is to sensitize/educate masses about CSIR-NPL’s skill program and inspire locals by hosting various expert lectures and skill demonstrations in the fields related to all aspects of our lives. To train skilled manpower needed in the country by different industries, academia, and society, CSIR-NPL is carrying out, from time to time, many events.

Published in:

[Republicworld](http://Republicworld.com)

CSIR-Indian Institute of Petroleum celebrated its 64th Foundation Day and Dr BR Ambedkar Jayanti on its campus today.

CSIR-IIP, NEERI

14th April , 2023



The programme was initiated with a tribute to Bharat Ratna Dr B. R. Ambedkar, followed by an enlightening speech on Dr BR Ambedkar's life and his achievements by Shri Jagdish Kumar, President SC/ST employee's welfare society. Subsequently, Dr Anjan Ray, Director CSIR-IIP, welcomed the guests and provided the details concerning the planned events as part of the "One Week One Lab" campaign. He also explained the importance and significance of the new facilities like India's first D-methanol plant, FTL and Up-stream lab that will be inaugurated on this auspicious day.

Dr Suman Lata Jain, Senior Principal Scientist, presented the Institute's achievements and future focus areas like crude to petrochemicals, CCUS and energy efficiency, and sustainability using locally available domestic carbon resources over imported fossil feedstocks. She also informed the august gathering that the CSIR-IIP is the first CSIR lab to establish the Eco-campus by adopting the 4R (Reuse, Recycle, Reduce and Recover) strategies for proper waste management.

Shri Khajan Das remembered the struggle and efforts made by Dr B. R. Ambedkar to uplift women and social freedom for the Dalits. He also praised the Former Prime minister of India,

the Late Shri Atal Bihari Bajpai, for announcing the Bharat Ratna to Babasaheb posthumously. He also praised the Institute not only for its scientific achievements but also for its contributions to society and ordinary people. He extended his best wishes for the future growth and achievements of the Institute.

Later, Dr Sunil Pathak, Senior Principal Scientist, demonstrated the GIS mapping App developed by CSIR-IIP in collaboration with CSIR-NEERI, Nagpur.

In his address, Shri Arun Kumar Singh, Chairman ONGC group, said that Science and Technology in the recent era has played a vital role in our society. He cited the example of Google search that can provide instantaneous information to everyone irrespective of their status. He also mentioned that the next 30 years would grow for the Nation by following the 4D's like Demographic, Digitalization, Decarbonization and Deglobalization (partial). He said that India has tremendous opportunities to convert Crude to Chemicals and unconventional & Renewable energy resources for the self-reliance of the Nation. He noted that IIP could work on the Crude to Petchem (Petrochemical) and develop energy-efficient processes to reduce the energy intensity that will also help decrease the carbon footprints.

In the end, Shri C. A Bodh, Administrative Officer CSIR-IIP, delivered the Vote of thanks. Shri Someshwar Pandeya, Senior Hindi Officer of the Institute, compeered the programme.

NISAR satellite to map Himalayas' seismic zones

CSIR-NGRI

14th April , 2023

A forthcoming satellite, NISAR, jointly developed by the Indian Space Research Organisation (ISRO) and the National Aeronautics and Space Administration (NASA) of the U.S. will map the most earthquake-prone regions in the Himalayas with unprecedented regularity. The data this will generate can potentially give advance warning of land subsidence, as recently observed in Joshimath, Uttarakhand, as well point to places that are at greatest risk from earthquakes.

The NISAR satellite, expected to cost approximately \$900 million (with ISRO contributing about one-tenth) will use two frequency bands: the L-band and S-band to image the seismically active Himalayan region that will, every 12 days, create a “deformation map”, said Prakash Chauhan, Director, ISRO-National Remote Sensing Centre at a seminar here this week.

“The geoscience community can use this to determine how strain is building up in various parts of the Himalayas,” he said. These two frequency bands will together provide high-resolution, all-weather data from the satellite that is expected to follow a sun-synchronous orbit and will be launched in January 2024.

Strain refers to the deformation that occurs in rocks when it is under pressure from other rocks, usually due to movements of continental plates that are sliding, colliding, or subducting against each other. The Indian Plate, for instance, collided into the Eurasian plate forming the Himalayas and continues to incrementally push it upwards.

Based on the intensity of past earthquakes, the knowledge of the speed at which plates move and the locations at which plates interact (called faults) can help geologists and seismologists map out regions that are most vulnerable to earthquakes and estimate how far the resultant

tremors can spread. What can't be deduced however is the timing. Ground-based observatories can pick up underground waves that result from an earthquake and provide early warning. Satellites, depending on how they are positioned and by virtue of their distance from the Earth can image a wide swathe and, if monitored frequently, can show how mountains and geological formations are changing over time.

Scientists from the Geological Survey of India in 2021 published a “strain map” of the Himalayas based on data from 1,252 GPS stations along the Himalayas. It identified regions that had the greatest odds of generating earthquakes of magnitude above 8 and their extent. “These many stations are still too few and there's only one satellite (Sentinel) that we rely on...with NISAR, the costliest space mission ever, we can have a game-changer in earth-science observation,” said Dr. Chauhan.

While satellite imagery to study deformation in land is already employed, the frequency at which observations are taken and the clarity of the images are critical, V.K. Gahalaut, of the National Geophysical Research Institute (NGRI), told The Hindu. “With a frequency of 12 days and the ability to be able to provide images even under cloudy conditions, NISAR would be a valuable tool to study deformation patterns, such as in Joshimath,” he added.

Land subsidence or the loosening of the sub-surface had caused several parts of Uttarakhand to “sink” and this caused water to seep via cracks and crevices into houses. In 2021, a large landslide of rock and ice triggered a flash flood in Chamoli, Uttarakhand that claimed close to 200 lives and destroyed two hydropower projects. It was satellite imagery that helped scientists decipher the cause of the flash floods.

Published in:

[The Hindu](#)

IICT scientist makes it to WHO advisory group on Trans Fats

CSIR-IICT

13th April , 2023

Senior Principal Scientist from city-based CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Dr Sanjit Kanjilal has been appointed as member of Trans Fat Elimination Technical Advisory Group (TFATAG) of WHO for three years, between 2023 and 2026, a press release on Thursday said.

As part of the Technical Advisory Group, Dr Kanjilal will monitor the performance of member states in implementing regulatory measures to eliminate trans-fatty acids and suggest WHO for granting validation certificates in order to be identified as trans-free nation. He has earlier served as expert member of WHO to review the WHO Global Protocol for the Estimation of Trans Fat and was instrumental in simplification of this protocol for ease of adoption by the Member States.

As scientific panel member of Food Safety and Standard Authority of India (FSSAI) during 2017-2022, Dr Kanjilal also played a major role in drafting FSSAI regulations of limiting the trans-fatty acids to 2 per cent by 2022. He has been working in the area of edible oils and fats for the last 25 years in the Department of Oils, Lipid Science and Technology.

Published in:

[Telanganatoday](https://www.telanganatoday.com)

RFec'23 concludes on buoyant note at CSIR-NML Jamshedpur

CSIR-NML

13th April , 2023

Three-day workshop on 'Remaining Life Assessment & Failure of Engineering Components (RFec'23)' concluded on a buoyant note at CSIR-National Metallurgical Laboratory, Jamshedpur on Thursday.



Participants from NTPC, Indian Navy, and BPCL attended the program.

A brief glimpse of the entire gamut of 'Remaining Life Assessment' and 'Failure Investigations' was imparted to the participants through a series of theoretical lectures as well as practical demonstrations.

The participants were acclimatized with state-of-the-art materials characterization facilities with the help of which component integrity assessment, as well as root cause of failures and material degradation, can be unraveled.

The valedictory function started with the opening remarks from Dr S Sivaprasad, Chief Scientist and Head-Human Resource Group, CSIR-NML followed by a brief feedback session with the participants.

Participants expressed their deep sense of gratitude to all the faculties from CSIR-NML for this unique workshop wherein they could get a rich flavor of metallurgical aspects of Remaining Life Assessment and Failure Investigations.

The participants were handed over the certificate of participation by Dr S Ghosh Chowdhury,

Chief Scientist, and Head Materials Engineering Division. Dr Raghuvir Singh, Chief Scientist and Group Leader of Corrosion Engineering, CSIR-NML extended the vote of thanks.

CSIR – IMMT Celebrated Its Diamond Jubilee Foundation Day

CSIR-IMMT

13th April , 2023

Bhubaneswar : The CSIR-IMMT (Institute of Minerals and Materials Technology), Bhubaneswar today celebrated its Diamond Jubilee foundation day in the presence of Hon'ble Chief Guest Prof. Karunakara Nanda, Director, Institute of Physics, Bhubaneswar, Guest of Honor Dr. Trilochan Mohapatra, Ex-Director General, ICAR & Secretary DARE, Dr. G Narahari Shastri, Director, CSIR-IMMT Bhubaneswar, Dr. Ashok Kumar Sahu, Coordinator, Foundation Day Celebration Committee & several other scientists, officials, and staff members.



CSIR-IMMT Bhubaneswar was founded on 13th April 1964. It's a journey from Regional Research Laboratory (RRL) to IMMT. Since its inception, CSIR-IMMT provided relentless service to industries, government agencies, and line ministries towards effective utilization & conservation of natural resources in the areas of mineral & material resource engineering with Sophisticated Equipment Facilities and Technical Testing Services. CSIR-IMMT also extended its service towards Scientific Social Responsibilities through AcSIR JIGYASA, Skill Development, CRTDH & Incubation Center-In Tec

Welcoming the guests and dignitaries Dr. G Narahari Shastri, Director, CSIR-IMMT Bhubaneswar presented the Annual Report of the Institution. Dr. Shastri Said, Dr. G Narhari Shastri Director, CSIR-IMMT thanked all the dignitaries present at the event. Along with this, he gave details about the 60-year glorious journey of CSIR-IMMT from RRL Laboratory. Presenting the annual report for 2022 he said, CSIR-IMMT has done a lot of research in the field of minerals and materials. which is helping many leading companies in

the country in their production sector. We conduct various workshops to strive for sustainable and better solutions for minerals in all areas. We will further enhance our capacity and capability so that India will find CSIR-IMMT suitable for solving all the problems in this field. I sincerely thank all the employees for whom we have come this far today. Hindi Magazine Abhivyakti was released on this occasion.

Delivering the Foundation Day Lecture, Dr. Trilochan Mohapatra, Ex-Director General, ICAR & Secretary DARE, said, Speaking on this occasion Prof A K Sahu, Coordinator, Diamond Jubilee Celebration committee CSIR-IMMT, discussed the glorious achievements of the institutes and announced different awards given on this occasion and also the MoUs signed between CSIR IMMT and several startups and institute.

On this occasion, CSIR-IMMT signed MOUs/Agreements with Institutes and Startups Dr. Ashok Kumar Sahu, Coordinator of, the Foundation Day Celebration Committee thanked all the guests, dignitaries, and delegates for their participation in the foundation day celebration.

Published in:

[Indiaeducationdiary](http://Indiaeducationdiary.com)

DG, ICMR and Director CSIR-NIScPR release Health Special issues of Vigyan Pragati & Science Reporter magazines

CSIR-NIScPR

12th April , 2023

Most of the people are concerned to their health and recent COVID pandemic has motivated laymen to know about the nitty-gritty of health and scientific research. Science communication brings behavioural changes and the popular science magazines like Vigyan Pragati and Science Reporter play a very effective role in this direction. Dr. Rajiv Bahl, Secretary, Department of Health Research



(DHR) and Director General, Indian Council of Medical research (ICMR) was sharing his thoughts on 10 April 2023 at ICMR Headquarter during the release function of Health Special issues of CSIR popular science magazines called 'Vigyan Pragati' & 'Science Reporter'.

Prof. Ranjana Aggarwal, Director, CSIR-NIScPR said on the occasion that these two magazines of CSIR carry a legacy of seven decades and serve the great responsibility to inculcate scientific temper in the society through the dissemination of authentic S&T knowledge.

The special issues comprise of several health-related articles such as mental health, epidemiology, lifestyle diseases, maternal & oral health, health consequences of child marriage. The authors of the issues are the working scientists of ICMR labs who came together in a workshop at CSIR-NIScPR on 16 Nov. 2022 and this is a tangible outcome of that workshop.

Shri Hasan Jawaid Khan, Editor of Science Reporter and Dr. Manish Mohan Gore, Editor, Vigyan Pragati also shared their views during the program. Dr. Rajeev, Sr. Financial Advisor,

DHR; Dr. Rajni Kant, Director, RMRC, Gorakhpur; Head of Departments at ICMR; Dr. Enna Dogra, Scientist, ICMR, Ms. Sonali Nagar, Sr. Scientist, CSIR-NIScPR & Ms. Shubhada Kapil, Assistant Editor, Vigyan Pragati; Shri Pallav Bagla, Science Journalist also joined the event.

Musi crops pose cancer risk in the long run, reveals study

CSIR-NGRI

12th April , 2023

HYDERABAD: Crops grown from Musi river water pose low to moderate risk of cancer in the long run as they contain heavy metals, according to a new study.



The project by researchers of city-based National Geophysical Research Institute (NGRI) and Jawaharlal Nehru Technological University (JNTU) covered 100 acres over four years where wastewater from Musi was being used for irrigation. The river receives partially treated municipal sewage mixed up with industrial wastewater.

Researchers analysed soil, water and crop samples for the presence of heavy metals as well as physical and biological parameters. Apart from low to moderate cancer risk identified due to exposure to heavy metals, researchers also found lead, biological contamination and groundwater salinity increasing yearly. The high values of lead may be due to the dumping of used electric batteries into soil and water bodies, and another source of lead pollution may be due to automobile exhausts, the study said.

The study, "Impact of urban wastewater reuse for irrigation on hydro-agro-ecological systems and human health risks: A case study from Musi river basin, South India", was published in HydroResearch. "Once a carcinogenic component reaches food chain, it is tough to eliminate and has a devastating carcinogenic impact on humans. The results of water, soil and crop samples at a slight stretch in Musi river indicated that heavy metals and significant ions are within permissible limits of wastewater reuse except lead. Salt content in soils and water is increasing, which impact agriculture. Human health risk assessment based on heavy metals

revealed lower to moderate health risks," researchers said. The hazard index and total cancer risk were evaluated from different waters for four years for different age groups - infant, children, teen, male and female. Study took into account consumption through drinking water and dermal adsorption. Results revealed that the carcinogenic values of infants, children and teens were lying in between total cancer risk limit of moderate risk and they are highly reactive towards it.

The study was done by Shivarajappa and S Ahmed of JNTU-H, L Surinaidu and MJ Nandan of NGRI, Mohd Hussain of Gokaraju Rangaraju Engineering College and Pankaj Kumar Gupta of University of Waterloo.

CSIR-CSMCRI

12th April, 2023

सीएसएमसीआरआई में जुटे देश भर के उद्योगी

भावनगर। सीएसआईआर-केन्द्रीय नमक व समुद्री रसायन अनुसंधान संस्थान (सीएसआईआर-सीएसएमसीआरआई), भावनगर, में मंगलवार का दिन स्टार्ट-अप एवं उद्योगों के नाम रहा। ज्ञात हो कि समाज को अपनी विरासत और उपलब्धियों को प्रदर्शित करने के लिए सीएसएमसीआरआई, भावनगर 10-14 अप्रैल, 2023 के दौरान 'वन-वीक-वन-लैब' कार्यक्रम मना रहा है। इसी संदर्भ में 11 अप्रैल को स्टार्ट-अप/इंडस्ट्री मीट का आयोजन किया गया था जिसमें देश भर से उद्यमियों ने भाग लिया। संस्थान के वरिष्ठ वैज्ञानिक एवं पीआरओ डॉ. कान्ति भूषण पाण्डेय ने बताया कि समारोह में 40 से अधिक उद्योगों/स्टार्ट-अप के 85 से अधिक प्रतिनिधियों ने भाग लिया और अपने विचार साझा किए। उद्योग समूहों ने संस्थान

के विभिन्न विभागों का दौरा किया और उत्पादों व तकनीकों के व्यावसायीकरण पर



चर्चा की। इस दौरान एक व्याख्यान कार्यक्रम का आयोजन किया गया जिसमें डॉ. डी.एस. रेड्डी, निदेशक, सीएसआईआर - आईआईसीटी, हैदराबाद व डॉ. रवि मारीवाला, सदस्य, अनुसंधान परिषद, सीएसआईआर-सीएसएमसीआरआई बातौर मुख्य व विशिष्ट अतिथि उपस्थित रहे।

सीएसएमसीआरआई के व्यवसाय विकास समूह के प्रमुख डॉ. कमलेश प्रसाद ने बताया कि समुद्री शैवाल जैव-उत्तेजक पर सीएसएमसीआरआई के लाइसेंसधारियों ने कृषि रसायन के क्षेत्र में अग्रणी बड़ी कंपनियों के साथ बी2बी बैठक की। इंडस्ट्रीज (लाइसेंसधारकों) ने सीएसएमसीआरआई की तकनीकों के अनुभवों को साझा किया। निदेशक डॉ. कन्नन श्रीनिवासन ने कहा कि उद्योग और सीएसएमसीआरआई मिलकर समाज के हित के लिए बेहतर उत्पाद/तकनीक विकसित कर सकते हैं। इस दौरान डॉ. पुयम सोभिंद्रो सिंह, डॉ. शिवाजी घोष, डॉ. विश्वजीत गांगुली, डॉ. वी के शाही आदि ने अपने विचार व्यक्त किए। कार्यक्रम का संचालन डॉ. शिल्पी कुशवाहा, वैज्ञानिक ने किया। quiaratvaibhav.com

Published in:

Gujarat Vaibhav, Saurashtra Samachar, Divya Bhaskar

CSIR-IIP

12th April, 2023

टाटा प्रोजेक्ट के मेरठ-गढ़मुक्तेश्वर सड़क परियोजना स्थल पर बायो डीजल मिश्रण के उपयोग का उद्घाटन समारोह

भास्कर समाचार सेवा

मेरठ। दुनिया में पहली बार कमरे के तापमान पर एक प्रोप्रायटरी प्रक्रिया द्वारा उपयोग किए गए खाद्य तेल से निर्मित बायोडीजल को कंस्ट्रक्शन उपकरणों में



इस्तेमाल होने वाले डीजल में पाँच प्रतिशत तक मिलाकर एक मिश्रण तैयार किया गया। इस सफल प्रयोग से मिलने वाले डीजल का उपयोग टाटा प्रोजेक्ट्स देश में अन्य प्रमुख कंस्ट्रक्शन स्थलों पर करने वाला है। कंपनी ड्रॉप-इन ग्रीन डीजल का उपयोग करने की योजना भी बना रही है। यह ग्रीन डीजल बायो डीजल से अलग है, और कंस्ट्रक्शन उपकरणों एवं जनरेटर्स में होने वाले जीवाश्म डीजल को पूरी तरह से प्रतिस्थापित कर सकता है। स्वच्छ ईंधन के उत्पादन की टेक्नोलॉजी - कमरे के तापमान पर बायोडीजल और ग्रीन डीजल का विकास अपने ही देश में काउंसिल ऑफ साइंटिफिक एंड इंडस्ट्रियल रिसर्च - इंडियन इंस्टीट्यूट ऑफ पेट्रोलियम (सीएसआईआर-आईआईपी) ने किया है। इस कार्यक्रम द्वारा टाटा प्रोजेक्ट्स ने

इंजीनियरिंग और कंस्ट्रक्शन उद्योग जैसे मुश्किल क्षेत्रों में भी डिकार्बनीकरण करने की ओर एक महत्वपूर्ण पहल की है। राष्ट्रनिर्माता के रूप में हमें भारत में सबसे महत्वपूर्ण ढांचागत परियोजनाओं का हिस्सा बनने की खुशी है, लेकिन, भारत के महत्वाकांक्षी नेट जीरो लक्ष्यों के अनुरूप टाटा प्रोजेक्ट्स भारत के भविष्य का निर्माण करते हुए पृथ्वी पर उनके असर को कम से कम करने का आकांक्षी है। टाटा प्रोजेक्ट्स के मैनेजिंग डायरेक्टर, विनायक पाइ ने कहा, टाटा समूह ने चुनौतीपूर्ण नेट जीरो 2045 लक्ष्य स्थापित किया है, और टाटा प्रोजेक्ट्स अपना यह उद्देश्य पूरा करने के लिए पूर्णतः प्रतिबद्ध है। टाटा के रूप में हम अग्रणी रहते हुए इंजीनियरिंग और कंस्ट्रक्शन उद्योग में मानक स्थापित करना चाहते हैं।

Y20 meet for youths to discuss & identify problems from Friday

CSIR-IMMT

11th April , 2023

A two-day Youth 20 consultation meet starting from Friday in the city will witness the participation of 50 international personalities and more than 50 national-level speakers. The Y20 meet is being conducted here to empower youths to discuss and identify problems and recommend a framework to be addressed during the official G20 Leadership Summit.



The theme of the Y20 consultation meet is 'Building Youths: Designing Sustainable, Resilient and Peace-Loving Working Community Driven by Disruptive Technologies'. It will have six panel sessions where 48 youth icons from across the globe will join as speakers, official sources said.

Kalinga Institute of Industrial Technology has been entrusted by the ministry of youth affairs and sports to host the meet that will also engage around 10,000 students from over 200 colleges in different events of Y20. Deliberations received from the events will be shared with the delegates during the event, the official sources said.

Higher educational institutions including IIT Bhubaneswar, CSIR-Institute of Minerals and Materials Technology, CIPET, NIT, Rourkela and IIM Sambalpur on Saturday launched Jan Bhagidari programmes in their respective areas ahead of the G20 Education Working Group meeting from April 23 to 29 here.

The Jan Bhagidari programmes have been started by higher educational institutes in Odisha from April 1 to generate interest about the G20 events. Month-long parallel brainstorming

sessions will be held on 'Future of Work' in the fields relevant to all districts. Institutes are holding different programmes like cyclothon, debate, essay and other competitions, mock G20 meets, Yuva Sambad and seminars. Delegations from G20 countries will participate in the main event from April 27 to 29. Precursor events to the G20 Education Working Group meeting will be conducted between April 23 and 25 in CSIR-IMMT.

BSI to felicitate “the trinity of bamboo sector in india ” on 16th April at NEERI

CSIR-NEERI

11th April , 2023

Nitin Gadkari to be felicitated by bamboo society of India. Bamboo Society of India, Maharashtra Chapter (BSI MC) and its Vidarbha Development and Promotion Committee (VBDPC) are felicitating the trinity, Nitin Gadkari, MoRTH, GoI, for his Fundamental Contribution that would set in motion to cause vibrant industrial development of bamboo sector in India.

Ganesh Verma, CMD, Bhavya Srishti Udyog Pvt Ltd, CG, and Dr Lal Singh, Sr Scientist, CSIR NEERI, Nagpur will also be felicitated on this occasion at hands of Dr Nitin Gadakari.

In the era of India being first in more than many fields of development, Shri Nitin Gadkari who 1st stimulated or spurred the idea of using eco-friendly bamboo crash barriers against use of steel, and adopting them along the Indian road network to reduce the accidental deaths, and yet, remaining an agri-rural industrial activity kick started technical innovations in bamboo sector a massive way.

For, Ganesh Verma, an industrial agriprenure, innovator and devout follower of Madhyastha Darshan Philosophy, from CG, it was an opportunity to testing his patented bamboo technology product for making 1st crash barrier successfully thereby making India and bamboo sector proud.

For, Dr Lal Singh, a Sr Scientist with NEERI, the tasks were little different ie to grow bamboo where nothing grows. He proved it successfully by example by enabling bamboo to grow on fly ash dumps to help combat air pollution and the menace thereof while helping the women folks learn plantation and find employment for themselves.

The Bamboo Society of India, a oldest society with PAN India presence, and vibrantly active

through its Maharashtra Chapter and its Vidarbha Bamboo Development and Promotion Committee headed by Dr Hemant Bedekar and Er Ajay Patil respectively feel proud and privileged to felicitate these threesome for their yeoman contribution to bamboo sector in India on Sunday, the 16th April 2023 at the auditorium of CSIR NEERI and request bamboo enthusiasts to be together on this occasion.

Er. Ajay Patil Chairman, Vidarbha Bamboo Development and Promotion Committee, BSI MC and Ar Sunil Joshi Convener, BSI MC has appealed to Vidarbians / Nagpurians and bamboo lovers to attend the function in large number. There will be a detailed presentation of crash barrier too.

CSIR-CSMCRI

11th April, 2023

सीएसएमसीआरआई में वन-वीक-वन-लैब अभियान का आगाज

भावनगर। सीएसआईआर-केन्द्रीय नमक व समुद्री रसायन अनुसंधान संस्थान (सीएसआईआर-सीएसएमसीआरआई), भावनगर, में प्रयोगशाला की विरासत और उपलब्धियों को प्रदर्शित करने के लिए एक सप्ताह तक चलने वाले 'वन-वीक-वन-लैब' अभियान का आगाज 10 अप्रैल को एक भव्य समारोह से हुआ। समारोह का उद्घाटन विशिष्ट अतिथि राजेंद्रसिंह राणा, माननीय पूर्व सांसद, भावनगर द्वारा किया गया। इस अवसर पर अपने सम्बोधन में राजेंद्रसिंह राणा ने विद्यार्थियों, उद्योगों और शोध संस्थानों से ऐसे विकसित भारत बनाने की अपील की जिसमें तकनीक, मानव पर

हावी न होने पाये। उन्होंने संस्थान की अनुसंधान गतिविधियों पर



मॉडल प्रदर्शनियां और पोस्टर प्रदर्शन का भी निरीक्षण किया और हो रहे कार्यों की सराहना की। इस दौरान संस्थान द्वारा हिन्दी में प्रकाशित 'प्रौद्योगिकी संग्रह' का भी विमोचन किया गया। संस्थान के वरिष्ठ वैज्ञानिक एवं पीआरओ डॉ. कान्ति भूषण पाण्डेय ने बताया

कि समारोह में कई उद्योगों तथा स्टार्ट-अप के साथ एमओयू भी

साइन किए गए। पूरे दिन लगभग 500 से अधिक स्कूल छात्रों और आम जन ने संस्थान का दौरा किया। निदेशक डॉ. कन्नन श्रीनिवासन ने कहा कि सभी को यह आयोजन दिलचस्प और उपयोगी लगेगा। इस समारोह में डॉ. पुयम सोभिंद्रो सिंह, डॉ

कमलेश सिंह, डॉ. बिश्वजीत गांगुली ने अपने विचार व्यक्त किए। समारोह के द्वितीय चरण में 3.00 बजे से संस्थान का 70वां स्थापना दिवस बड़े धूमधाम से मनाया गया। इस कार्यक्रम में डॉ. बालासुब्रमण्यम गोपालन वैज्ञानिक सलाहकार, आईआईसीटी, हैदराबाद तथा नीलेश एम. देसाई, निदेशक, अंतरिक्ष उपयोग केंद्र, भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो), अहमदाबाद रहे। समस्त कार्यक्रमों का संचालन डॉ. पारुल साहू, वैज्ञानिक ने किया। यह दिन आमंत्रित छात्रों और अन्य सभी इच्छुक व्यक्तियों के लिए संस्थान के अनुसंधान एवं विकास को देखने के लिए खुला रहा।

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Rural outreach programme at NEERI gets overwhelming response from stakeholders

■ Staff Reporter

ON THE third day of the 'One Week One Lab' campaign, the 'Rural Outreach' programme was organised by CSIR-National Environmental Engineering Research Institute (CSIR-NEERI) on Monday to update the farmers about latest scientific and technological developments available to them.

Yogesh Kumbhejkar, Collector, Bhandara was the chief guest and Dr Tarak Kate, an eminent scientist, was the guest of honour of the programme. Dr Atul Vaidya, Director, CSIR-NEERI, Dr Pawan Kumar Labhasetwar, Chief Scientist and Head, Water Technology and Management Division, CSIR-NEERI and Dr G K Khadse, Senior Principal Scientist, CSIR-NEERI were also present during the inauguration function.

Farmers from Vidarbha region participated in the programme. Addressing the gathering, Kumbhejkar described about the government's flagship programmes for rural development. He informed that the Swachh Bharat Mission focuses on providing interventions for the safe management of solid and liquid waste in villages. CSIR-NEERI can play a major role in rural areas for adoption of eco-friendly agricultural practices.

He urged the scientists to develop a low-cost technique for sewage treatment for its deployment in villages having a population of 2,000-3,000 persons. He also briefed about the Jal Jeevan Mission, Atal Bhujal Yojana and Jalyukta Shivar



Chief Guest Yogesh Kumbhejkar addressing the gathering.

2.0 during the event.

Dr Kate said that 65% population of India lives in rural area and unemployment, malnutrition, climate change are major challenges they are facing. In order to prevent young farmers from leaving the farm, scientists should develop affordable soil and water conservation methods. Dr Vaidya, in his welcome address, said that scientists should take every possible initiative to strengthen the farmers to make them self-reliant. Dr Labhasetwar gave an overview of the programme. Dr Khadse proposed a vote of thanks. Dr Sunita Shastri introduced the guests and Dr Sharda Kosankar compered the programme.

In the technical sessions, Dr G K Khadse briefed about various water management techniques. Dr S Y Bodkhe elaborated on solid waste management. Dr Lal Singh addressed the issue of degraded agricultural lands and how to rejuvenate such degraded lands. Roshan Wathore suggested 'NEER-



Dnyandeep Gaikwad, a speaker of the technical session addressing the students and researchers. (Pic By Satish Raut)

DHUR' as a solution to health problems associated with indoor air quality of household kitchens in rural areas.

Dr Prakash Itankar described about various forest products whereas Dnyandeep Gaikwad illustrated the customisation of agricultural and forest resources.

Kapil Chandrayan explained the ways how to create employment in rural areas.

CSIR-IMTECH

10th April, 2023

मंडे पॉजिटिव ■ • लेह में दीहार के साथ शुरू किया प्रोजेक्ट, क्वालिटी के लिए माइक्रोब्स व सांयल सैंपल लिए फौजियों को मिलेंगी बेहतरीन क्वालिटी की फल-सब्जियां

नन जोगिंदर सिंह | चंडीगढ़

लेह-लद्दाख और हाई एल्टीट्यूड वाले एरिया में ट्रेच ग्रीन हाउसेज के अंदर होने वाली सब्जियों के बीज किसी भी सामान्य मैदानों इलाके वाले ही होते हैं, लेकिन यहां पर आम एरिया से डबल या ट्रिपल साइज की सब्जियां होती हैं। इनकी शेल्फ लाइफ भी ज्यादा रहती है। लेकिन ग्रीन हाउसेज के अंदर ही देश के बाकी हिस्सों में होने वाली प्रोडक्शन की क्वालिटी यह नहीं रहती।

दोनों के इस अंतर को खत्म करने और बाकी हिस्सों में भी डिफेंस कर्मियों को बेहतर क्वालिटी की सब्जियां उपलब्ध कराने में अब मदद करेगा इंस्टीट्यूट ऑफ माइक्रोबियल टेक्नोलॉजी (इमटेक)। इमटेक के डायरेक्टर डॉ. संजीव खोसला और तीन मुख्य वैज्ञानिकों



वैज्ञानिकों की टीम में डॉ. पी अनिल, डॉ. अश्वनी और डॉ. दीपक।

की टीम इस दिशा में काम कर रही है। डिफेंस इंस्टीट्यूट ऑफ हाई एल्टीट्यूड रिसर्च (दीहार) ने ग्रीन हाउस के मुकाबले 8 से 12 डिग्री अधिक तापमान वाले ग्रीन हाउस तैयार किए हैं। इसकी वजह से माइनस 25 डिग्री वाले तापमान में भी टमाटर, बंदगोभी, गोभी और अन्य कुछ सब्जियां व फल पैदा हो रहे हैं। टूप्स की जरूरतों को पूरा करने के लिए ये टेक्नोलॉजी लोकल किसानों को दी

गई है और करीब 50 फीसदी सब्सिडी भी दी जाती रही है। इनमें पैदा होने वाले फल-सब्जियों का साइज लगभग दोगुना होता है। शेल्फ लाइफ भी ज्यादा होती है। इसलिए अब दीहार के वैज्ञानिक चाहते हैं कि पूरे देश में इसी क्वालिटी का सामान उपलब्ध हो।

शिमला और इसके आसपास नेहरी व ठियोग के इलाकों में हो रही जीरो बजट नैचुरल फार्मिंग से पैदा होने वाली उपज

का कारण भी इमटेक के वैज्ञानिकों को तलाशना है। ये प्रोजेक्ट काफी समय से चल रहा है। डॉ. दीपक शर्मा बताते हैं कि वे इस फसल के लिए देसी घोल का उपयोग कर रहे हैं, जिसमें देसी गाय के गोबर के अलावा बेसन, गुड़ व पानी आदि है। इसकी वजह से पैदा होने वाली फसल की उपज केमिकल से होने वाली खेती से ज्यादा है। टेस्टिंग के दौरान भी एक महीना सामान्य तापमान में

सेब को कीड़े नहीं लगते, हालांकि करीब 20-22 दिन बाद इसका मॉइश्चर कम होना शुरू हो जाता है। ये तकनीक मूल तौर पर महाराष्ट्र से ली गई है। अब वे चाहते हैं कि इस देसी किस्म के घोल या फर्मेंटेशन में कौन सा बैक्टीरिया है, जो ये काम कर रहा है। इसके लिए वह करीब 200 मिट्टी के सैंपल ला चुके हैं, जिनका एनालिसिस शुरू कर दिया गया है।

• पता कर रहे हैं कि फल-सब्जियों का साइज बड़ा क्यों... इमटेक के डायरेक्टर डॉ. संजीव बताते हैं कि एक मॉनिटिंग के दौरान डीअरडीओ के अधिकारियों ने इस विषय पर उनसे बात की और इसका सॉल्यूशन चाहा। ये पता लगाना जरूरी है कि इन एरिया में ऐसे कौन से माइक्रोब्स हैं, जिनकी वजह से फल व सब्जियों की क्वालिटी व साइज बड़ा है। एक साल पहले उन्होंने इसके लिए अधिकारिक एमओयू किया। इस पर डॉ. दीपक शर्मा, अश्वनी कुमार और पी अनिल कुमार की टीम काम कर रही है। जिन इलाकों में ये खेती होती है, वहां से वे सैंपल लेकर आए हैं। मिट्टी के सैंपल के जरिए माइक्रोब्स व बैक्टीरिया का पता लगेगा, ताकि अब इन एरियाज में से अच्छे माइक्रोब्स व बैक्टीरिया को चुना जा सके। उन्हें लैब स्तर पर बनाकर, उनका छिड़काव बाकी जगह होने वाली खेती में हो सके, ताकि सब्जियों व फलों की सप्लाई बेहतर हो।

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