# CSIR IN MEDIA

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CSIR
भारत का नवाचार इंजन
*The Innovation Engine of India*

## NEWS BULLETIN
## 01 TO 05 AUGUST 2023


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

CSIR-CBRI

5th August, 2023

# भूस्खलन आपदा न्यूनीकरण पर प्रशिक्षण

रुड़की, संवाददाता। सीबीआरआई में बुनियादी संरचनाओं के संदर्भ में भूस्खलन आपदा न्यूनीकरण पर प्रशिक्षण कार्यक्रम में भूस्खलन नियंत्रण की विधियों और ड्रोन मैपिंग से इसके अध्ययन को लेकर चर्चा हुई।

कार्यक्रम का उदघाटन सीबीआरआई के निदेशक प्रो. आर. प्रदीप कुमार ने किया। उन्होंने भूस्खलन आपदा से निपटने में बहुविज्ञानी दृष्टिकोण के महत्व पर जोर दिया। डॉ. डीपी कनुंगो ने कार्यक्रम के उद्देश्य, विषय के बारे में बताया। इसके बाद डॉ. धर्मराजू ने संस्थान की ओर से आयोजित किए जाने वाले विभिन्न प्रशिक्षण कार्यक्रमों की जानकारी दी। प्रशिक्षण में डॉ. पीकेएस चौहान, डॉ. आनिनद्य पाइन, डॉ. मनोजित समांथा, कौशिक पंडित, आशीष पीपल, डॉ. राजेश दास, एम. विनोथ ने भूस्खलन के विभिन्न पहलुओं पर व्याख्यान दिया। प्रशिक्षण कार्यक्रम के सह संयोजक डॉ. प्रदीप चौहान, डॉ. आनिनद्य पाइन व कौशिक पंडित थे। संचालन डॉ. प्रदीप चौहान ने किया।

रुड़की के सीबीआरआई में शुक्रवार को आयोजित कार्यक्रम में उपस्थित लोग। • हिन्दुस्तान

**Published in:**

Hindustan

# CSIR-IIIM observes Indian Organ Donation Day

CSIR-IIIM

4th August , 2023

CSIR-Indian Institute of Integrative Medicine, Jammu, organised a special programme to observe 'Indian Organ Donation Day' here today, during which various activities like pledge taking ceremony, lectures to disseminate the information among the stakeholders regarding organ and tissue donation were held.

Dr Zabeer Ahmed, Director, CSIR-IIIM, while addressing the staff and students on the occasion, said that statistically the rate of organ donation in India is 0.86 per million which is one of the lowest in the world. He also informed that according to an estimate, the total annual requirement of organs is 5.0 lakh whereas the organs available for donation are very less thus creating a huge difference between the requirement and availability, which is mainly attributed to lack of awareness, certain myths and misconception. "Organising of Indian Organ Donation day as part of Angdaan Mahotsav campaign, taking pledge to donate organ are the means to spread awareness among the society," he added.

Dr Ahmed also administered the pledge to whole staff and students for donating the organs and tissues, so that those in need of these organs can get a new life.

Later, Dr Amit Sharma, Medical Officer at IIIM Dispensary delivered a lecture and through a Power Point presentation, gave an insight into various aspect of organ and tissue donation at national level. He mentioned that there are various organisations like National, State and Regional level Organ, Tissue Transplant Organization (NOTTO, SOTTO, RTTO) those coordinate and facilitate the organ donation in India. He also talked about the hospitals in Jammu and Kashmir that are authorized as transplant centres.

The staff and students in large number also filled up forms for organ donation to support this noble cause.

Among other present on the occasion, were Er Abdul Rahim, Chief Scientist and Head RMBD & IST Division; Vikram Singh, Sr Controller of Administration; Dr Asha Chaubey, Dr Dhiraj Vyas, Dr Sumit Gandhi, Dr Qazi Naved Ahmed and Dr Deepika Singh (HODs).

**Published in:**
Dailyexcelsior

# NIT Jamshedpur and CGCRI join hands for Research and Innovation

CSIR-CGCRI

4th August , 2023

In a move to foster innovation and research collaboration, the National Institute of Technology (NIT) in Jamshedpur and the Central Glass and Ceramic Research Institute (CGCRI) in Kolkata have come together under a Knowledge Exchange Program. The institutes have mutually agreed to share their expertise and resources to explore the vast possibilities in the field of research and development.

Known as one of the first four proposed laboratories by the Government of India under the Council of Scientific and Industrial Research (CSIR), CGCRI has earned global acclaim for its contributions to the development of optical glass and ceramics. The institute's notable advancements have positioned it as a distinguished player in the international scientific arena.

At the CGCRI Headquarters in Kolkata, Professor (Dr.) Goutam Sutradhar, Director of NIT-Jamshedpur, and Dr. Suman Kumari Mishra, Director of CGCRI-Kolkata, held a significant meeting, formally solidifying their commitment to collaborate in the realms of research and innovation.

The partnership aims to explore various research areas, including the development of optical

glasses, advancements in glass and ceramics technology, fundamental studies in glass-related evaluations, research on laser glass, infrared transmitting filters, synthetic quartz single crystals, high-temperature high alumina ceramic seals, spacers, and more. This collaboration elevates CGCRI's already esteemed position to greater heights.

NIT-Jamshedpur and CGCRI-Kolkata will soon enter into a joint Memorandum of Understanding (MoU) to formalize their collaboration and cooperation in research endeavours.

As part of the collaboration, both institutes will offer opportunities for research fellows and students to undertake internships in each other's institutions. This cross-learning approach will optimize the available resources and expertise of both NIT-Jamshedpur and CGCRI-Kolkata. Additionally, NIT-Jamshedpur's M.Tech. Students and PhD scholars will be guided by experts from CGCRI, further enriching their research experiences.

The collaboration will facilitate the exchange of technology, experiences, and research-related information between NIT-Jamshedpur and CGCRI-Kolkata. Through active involvement in joint projects, students and researchers from both institutions will gain expertise in cutting-edge technologies and advancements in their respective fields.

CGCRI has already conducted significant research in areas such as foam glass, glass-bonded mica, refractories for steel plants, and specialty ceramic materials, catering to the needs of Indian industries. The institute's world-class recognition extends to fields like telecommunications, production of glass fiber-based composites, and electronics. The utilization of local clay for pottery production has proved to be transformative for local artisans.

The meeting in Kolkata witnessed the participation of several senior scientists from CGCRI, who expressed their optimism about the collaboration. NIT Jamshedpur's spokesperson, Sunil Kumar Bhagat, highlighted the importance of this decision, emphasizing that it will

significantly impact the research landscape. The collaboration between NIT Jamshedpur and CGCRI Kolkata sets a remarkable precedent for knowledge exchange and innovation in the field of research. With shared expertise and resources, the institutes aspire to make pioneering contributions to scientific advancements and address crucial challenges faced by society.

**Published in:**
Avenuemail

# Training on leather products underway in Longleng

CSIR-CLRI

4th August , 2023


A comprehensive training for Self-Help Groups (SHGs), entrepreneurs, and graduates, aiming to enhance their skills and knowledge in leather products got underway on August 2 at Phom Baptist Christian Association (PBCA) Executive Hall, Longleng.

A comprehensive training for Self-Help Groups (SHGs), entrepreneurs, and graduates, aiming to enhance their skills and knowledge in leather products got underway on August 2 at Phom Baptist Christian Association (PBCA) Executive Hall, Longleng.

The training sessions are being conducted by experts from the CSIR-CLRI with senior principal scientist, P. Suresh Kumar; scientist, Dr. M. Sathish; technical officer, Amit Kumar Prajapati, and technician, Arun Raj as the resource persons.
At the launching programme, Suresh Kumar emphasised that the goal was to foster awareness and skill development in leather product manufacturing among SHGs, entrepreneurs, and graduates in the Longleng.

SDO Longleng, Meyazungba Jamir highlighted the growing trend of preferring entrepreneurship over traditional government jobs in Nagaland. He underlined the importance of breaking down societal stigmas attached to certain professions.

He said the leather training initiative, a first in the region, holds the potential to become a significant platform for the people of Longleng. Jamir then encouraged trainees to honour their trainers, interact with them, and aspire to establish the Longleng district as a hub for

leather product manufacturing. The program was chaired by literature cum development secretary PBCA, Philip Nyam; executive secretary PBCA, Tialemba Phom, welcomed the attendees, while vice principal of Yingli College, Dr. B. Henshat Phom delivered the closing remarks.

**Published in:**
Nagalandpost

# 300 startups/Incubatees supported through CSIR incubation centres: Dr Jitendra Singh

CSIR 3rd August , 2023

Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh today said, in order to foster innovation among the startups in the country, Department of Science & Technology launched an umbrella program NIDHI (National Initiative for Developing and Harnessing innovations) in 2016.

In a written reply to a question in the Rajya Sabha, Dr Jitendra Singh informed that NIDHI program has various components to support innovations, startups and startup incubation ecosystem in the country.

The NIDHI- PRAYAS (Promoting and Accelerating Young and Aspiring Innovators and Startups) program at Proof-of-Concept level provides mentoring and financial support to innovator for converting their ideas into prototypes. NIDHI Entrepreneurs-In-Residence (EIR) Program provides fellowships to the students opting for entrepreneurship. The NIDHI Seed Support Program provisions availability of early-stage seed support funding to startups and the NIDHI Accelerator program speeds up the investment readiness of the startups. The NIDHI program has been helpful in creating state-of-the art infrastructure for incubating startups in technology sectors through Technology Business Incubators (TBIs) and Centres of Excellence (CoE).

The Minister also underlined that the Council of Scientific and Industrial Research (CSIR) is playing an active role in conceptualizing and developing state-of-the-art Incubation facilities for translating technology & products and handholding entrepreneurs, start-ups, and MSMEs so as to ensure the transfer of the benefit of S&T interventions to the Society, Industry and the Country. Dr Jitendra said, CSIR today is one of the leading R&D organizations in the country to set up Incubation Centers across its labs using innovative models/approaches. In

addition to the above, few Common Research and Technology Development Hubs (CRTDHs) for industrial R&D innovation, dedicated for MSMEs, start-ups and individual innovators have also been set up at CSIR with the support of DSIR.

Department of Biotechnology through BIRAC (Biotechnology Industry Research Assistance Council) and its various schemes and initiatives encourages startups, entrepreneurs, innovators, scientists, technology experts, academicians to undertake translational research and innovations leading to development of affordable products & technologies for public at large. BIRAC schemes encourage setting up of biotech enterprises. Support is extended for mentoring, funding, validation/pilot testing of startup innovations and investor connect for the startups in biotechnology domain.

Innovations for Defence Excellence (iDEX) under Ministry of Defence supports creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes & academia. Ministry of Electronics & Information Technology (MeitY) has initiated Technology Incubation and Development of Entrepreneurs (TIDE 2.0) Scheme with an aim to promote technology-based entrepreneurship through financial and technical support to incubators.

National Agriculture Innovation Fund of ICAR (Indian Council of Agricultural Research) promotes the Startups related to agri-tech under incubation activities in ICAR Network wherein it has established Agri-business Incubator (ABIs) centres in 50 Institutes. The progress made in this respect so far that through DST's NIDHI program for promotion of innovation and entrepreneurship, 8 NIDHI CoEs and 40 NIDHI TBIs and 20 NIDHI Inclusive TBIs have been established in academic setups to extend incubation and mentoring support to innovative startups in various technology domains. Dr Jitendra Singh underlined that through CSIR incubation centres, 300 startups/Incubatees have been supported so far. The progress made through BIRACs incubation program include setting up of 75 Incubation Centres supported through BIRAC's BioNEST and E-YUVA (Empowering Youth for

Undertaking Value Added Innovative Translational Research) schemes of BIRAC across 21 states & UTs of the country, around 900 innovative projects supported under Biotech Ignition Grant (BIG).

DST is supporting TBIs/STEPs primarily in and around academic, research, technical and management institutes to tap innovations and technologies for startup creation. The program helps in crating expertise and S&T entrepreneurial infrastructure at the Host Institute. DST extends holistic end to end support from ideation to POC, Incubation to seed funding, by providing a strong platform for innovators and researchers, S&T faculties and entrepreneurs to form innovative startups.

Measures taken by DST to ensure the success of established network of STEPs & TBIs, includes support via virtual incubation of the startups for a better outreach throughout the country. In addition, NIDHI-Promoting and Accelerating Young and Aspiring Innovators and Startups (PRAYAS) extends support at pre-incubation stage to the innovators and ensures creating a strong pipeline of startups. Another measure taken by the department is through NIDHI-Seed Support Program (NIDHI-SSP) which ensures availability of early-stage funding to incubated startups and strengthen the success of startups in the incubator. In order to motivate students to become job providers rather than job seekers, NIDHI Entrepreneurs-in-Residence (EIR) program is an additional measure taken by DST. In order to strengthen innovation and startup incubation ecosystem in Tier II and Tier III cities, a new program named NIDHI-Inclusive Technology Business Incubators (iTBI) program was launched by DST to support startup incubation centres in academic setups in tier II and tier III cities. The iTBI program has helped increasing entrepreneurial inclusiveness in terms of geographies, gender and persons with special abilities.

**Published in:**
Devdiscourse

# Scientists, experts discuss substitutes to single-use plastic

CSIR-CFTRI

3rd August , 2023

CSIR-CFTRI Director Sridevi Annapurna Singh on Thursday, August 3, said finding a suitable replacement to single-use plastic is not a simple challenge since a lot of factors need to be looked into when it comes to food packaging. Besides, food safety issues also need to be considered while working out paper alternatives to plastic, she added.


"As food is a perishable product, the packaging material has to meet various factors like protection from moisture. By and large, the single-use plastic goes into the packaging of beverages and food products and the challenge is to find an alternate packaging materials for these products," said Dr. Singh, in her address at the zonal seminar of Indian Pulp and Paper Technical Association (IPPTA) that got off to a start on the CSIR-CFTRI campus here. Replacing single-use plastic by paper with emphasis on food packaging is the theme of the seminar, which is supported by the CSIR-CFTRI.

Stating that the threat to the environment from mounting plastic waste was huge, she said the plastic waste was expected to reach alarming proportions by 2050, and the magnitude of plastic waste dumped in oceans would be much larger. "The time may come when we find more plastic waste than fish in the sea. The plastic particles will enter human bodies too with the aquatic life getting too affected from the menace," Dr. Singh cautioned.

"It's challenging to find a suitable paper alternative to plastic but some clues can be found and worked upon in addressing the issue in a more comprehensive way. The challenge that we have is too big yet we can work together to find a solution," the director said, while extending all

support from the CSIR-CFTRI for finding a suitable replacement for single use plastic with emphasis on food packaging. Earlier, Dr. Rajeshwar S. Matche, Chief Scientist, CSIR-CFTRI, who heads the Food Packaging Department, gave an overview of the seminar and challenges ahead with regard to packaging alternatives for food products.

IPPTA Honorary Secretary General M.K. Goyal expressed confidence in finding suitable paper alternatives to single-use plastic with the paper industry keen to join hands with the CSIR-CFTRI for the technology required for food packaging replacements. In his key-note address, P.N. Sridhar, DGM (Sustainable Products and Packaging), ITC Limited, PSPD, Secunderabad said the substitute to single-use plastic has to be compatible and cost-effective and therefore, a viable solution has to be found. He also spoke about Extended Producers' Responsibility (EPR), and the government's guidelines with regard to recycling, reuse and end of life disposal.

IPPTA president Ganesh Bhadti delivered a presidential address where he said the support from CSIR-CFTRI plays an important role in finding appropriate paper substitutions for packaging food products. On the occasion, an IPPTA journal was released and the people from the industry were felicitated. An exhibition of innovative products on paper is also part of the seminar.

The inaugural event was followed by panel discussions. The representatives from the industry and experts discussed on the topic "Replacement of plastic by paper – journey travelled so far and headwinds". Technical session was also conducted where various alternatives were discussed, like bamboo as a solution for food packaging, and developments in the area of paper as packaging material for food applications. The day two of the seminar will have technical sessions and the valedictory will be held on Friday afternoon. There is a special session on Friday, August 4, at 11:30 a.m. where Tanuja Abburi, DEI Leader Amazon, Asia Pacific/India/Latin America will speak on 'Out of box thinking to encourage innovation at workplace'.

**Published in:**

The Hindu

# CSIR-NAL develops airboat to remove weeds from lakes

CSIR-NAL

3rd August , 2023

Council of Scientific and Industrial Research-National Aerospace Laboratories (CSIR-NAL), Bengaluru Wednesday unveiled JALDOST, an airboat that removes aquatic weeds from lakes and rivers. An airboat is powered by an aircraft engine.

"Our country is blessed with huge inland water bodies, which often get contaminated with waste materials and aquatic weeds. JALDOST is a remarkable feat of indigenous engineering aimed at conserving water bodies more effectively. It operates on water and is designed to remove excess aquatic weeds and floating waste from water bodies, thereby promoting a cleaner and healthier environment," CSIR-NAL said in a statement.

The technology is developed in a way that JALDOST while navigating on the water bodies will not sink.

"The JALDOST has a closed airtight pontoon to make it inherently unsinkable. It has a hybrid propulsion system comprising air propulsion and paddle wheel propulsion. Paddle wheel propulsion is useful for turning maneuvers and for reversing operations. Air propulsion provides additional thrust to travel faster to shore and return," an official working at CSIR-NAL explained.

"The ability to travel through weeds makes it an ideal platform to collect them and bring them to the shore. A steel mesh belt conveyor system fixed in the front collects the wastes continuously. The collected waste falls on the horizontal deck conveyor, which holds it on

board. After reaching the shore, the collected waste is unloaded by a rear conveyor system to trucks/tractors," stated the release.

NAL director Abhay Anant Pashilkar said, "We have 190 lakes in Bengaluru where this could be put to use. JALDOST will meet the civic body Bruhat Bengaluru Mahanagara Palike's (BBMP) requirements to remove weeds from the water bodies."

**Published in:**
Indianexpress

# CSIR-NIScPR organised Patents Boot Camp to Create Patent Awareness among the Youth

CSIR-NIScPR

3rd August , 2023



National Institute of Science Communication and Policy Research (NIScPR), a constituent institute of Council of Scientific and Industrial Research (CSIR) conducted a one-day boot camp on intellectual property rights (IPR) today on 31st July 2023. The aim was to create the awareness and enhance the understanding about Intellectual Property Rights among the research scholars, scientists and the youth. The event was organized under Azadi Ka Amrit Mahotsav to mark the culmination of Rashtriya Boudhik Sampada Mahotsav (National Intellectual Property Festival).

The event started with the welcome address of Dr. Tarakanta Jana, Senior Principal Scientist, CSIR-NIScPR and the Programme Coordinator of the Boot Camp. He welcomed all the participants and presented an overview of the boot camp including its aims and objectives. Dr. Sujit Bhattacharya, Head, Innovation Group, CSIR=NIScPR provided a brief introduction on patents and explained their necessity to the participants. Following this introduction, the Hon'ble Chief Guest, Prof. Unnat P. Pandit, Controller General of Patent, Design and Trademarks graced the occasion through his online inaugural speech. He talked about the importance of patents in protecting intellectual property and promoting IP-driven products

and services for economic advancement. Using the term, "Techade" which was coined by Hon'ble Prime Minister of India Shri Narendra Modi, meaning, "Technology Decade," the Chief Guest stressed upon the effective technology utilization for deriving economic benefits as well as satiating various societal needs and the role of IPR in ensuring all this. Such boot camps are a way to involve ourselves in the process.

During the first session, Dr. Jana spoke in detail on the concepts; creativity, invention and innovation, and how they all are interconnected. An informative presentation was given by Dr. Kanika Malik, Senior Principal Scientist, CSIR-NIScPR on the IPR, Patents and various processes involved. A Chandigarh-based start-up, XLSCOUT also presented their noble innovation.

In the second session, Mr. Gourav Krishna, Sr. Principal Scientist, Innovation Protection Unit (IPU), CSIR Headquarters, New Delhi talked about patent filing process (online/offline), documents required, fees, etc. The boot camp ended with the remarks from Hon'ble Chief Guest for valedictory and concluding session, Dr. S.N. Maity, former Controller General of Patent, Design, and Trade. Among other dignitaries who joined the valedictory session included Dr. Jyoti Jadav, Head, Recruitment and Assessment Board (CSIR-RAB), who shared her views saying such camp, which create and enhance the awareness of the public and scholars in various facets of intellectual property, are the need of the hour and should be organized frequently.

**Published in:**

Pib

# Demonstration of Cost-Effective Toilet units by CSIR-SERC at Govt Panchayat Middle School, Mootaikaaran Chavadi, Chennai

CSIR-SERC

3rd August , 2023

Sanitation is the basic fundamental requirement for the public and to have a hygienic and quality toilets. SWACHH BHARATH aims at promoting cleanliness and sanitation coverage for improving the quality of life in both rural and urban areas. CSIR 800 program was aimed at improving the quality of life of common people with the help of science and technology. Quality and speedy construction of toilets are essential to meet the massive demand of providing toile facilities to all for eradicating open defecation.

Considering this, CSIR-SERC has developed cost-effective and durable toilet units with thin precast concrete segmental panels for rapid installation. The components of the toilet unit are precast and lightweight, while ensuring good corrosion resistance. The units are easy to transport, and assemble at the site in few hours. The total cost of a toilet unit at the user end is about Rs.15000/-. Mass production will reduce the cost further. The developed technology is modular and can be made use for cluster of toilet units.

Rotary Club of Madras has visited CSIR-SERC and shown interest in this technology with the aim of providing toilet facilities in various government schools in Tamil Nadu. In view of this, CSIR-SERC has demonstrated the cost-effective toilet technology in one of the government schools in Chennai, where there is a shortage of toilet facilities, and for wider reach to the public, government authorities and NGOs. CSIR-SERC has demonstrated the technology by installing two precast service core units at the government panchayat middle school, Mootaikaaran Chavadi, Chennai. Director, CSIR-SERC has inaugurated facility and handed over to the above government panchayat middle school on 2nd August 2023. During the inauguration of technology demonstration, Advisor management, Head, ACTEL, Dr. J. Prabhakar, Chief Scientist, developer of the technology, Dr. Lakshmikandhan, Senior scientist, CSIR-SERC, students, staff members, head master of the school, local Panchayat ward member, Mr. Ravindran (Asst Governor).

Mr. Gopi Ramu (President), Mr. Sriram Natesh (Director Community development), Mr. Santhosh (Director - Vocational service), Mr. Raja (Chairman Disaster management) from the Madras Rotary club participated during the inauguration.

**Published in:**

Pib

# 3-day training for seaweed farming conducted

CSIR-CSMCRI

3rd August , 2023

he department of marine and coastal studies, Marine Field Research Facility, Madurai Kamaraj University (MKU), Pudumadam, Ramanathapuram, inaugurated a three-day entrepreneurship training on seaweed farming and trade for the fisherman community, unemployed youth, potential entrepreneurs, and students from Ramanathapuram district in the Gulf of Mannar on Wednesday.

MKU vice-chancellor Dr J Kumar said the department of marine and coastal studies initiated the programme to impart marine-based entrepreneur skills as seaweed farming increases employment opportunities among coastal communities.

The programme, funded by RUSA-MKU, was inaugurated by Dr V Veeragurunathan, principal scientist, CSIR-CSMCRI, Marine Algal Research Station, Mandapam.

Prof Dr S Kannan, chairperson, School of Energy, Environment and Natural Resources, spoke. Hands-on training was imparted to around 20 participants.

**Published in:**
Times of India

CSIR-CFTRI

3rd August, 2023

# Experts to deliberate on replacing single-use plastic with paper today

EXPRESS NEWS SERVICE @Mysuru

INDIAN Pulp and Paper Technical Association (IPPTA) in association with Central Food Technological Research Institute (CFTRI) will deliberate on the progress made and headwinds faced in replacing single-use plastic by paper during the two-day seminar to begin from Thursday.

Over 350 experts and stakeholders like technologists and engineers from India and abroad will speak on replacing single-use plastic by paper with emphasis on food packaging.

There are around 650 industries in the country which are into paper production which include paper for writing, printing, packaging and newsprint. They are generated two million direct and indirect jobs with an estimated turnover of ₹50,000 crore.

IPPTA president Ganesh Bhadti said paper mills are ready to make use of the opportunity after the government announced ban of single-use plastic. They are ready to produce paper bags, paper food packaging boxes. The Food Packaging Technology department at CSIR-CFTRI has been working on the thermal processing of foods, active and intelligent packaging, biodegradable packaging, safety evaluation of food packaging materials and shelf-life analysis of foods.

IPPTA general secretary M K Goyal speaks to the media in Mysuru on Wednesday while CFTRI director Sridevi Annapurna Singh and IPPTA president Ganesh Bhadti look on | EXPRESS

When asked about the paper industry cutting trees in forests, he clarified that the paper industry does not cut trees and it produces 80 per cent of its paper with recycled paper.

Clearing some misconceptions about the paper industry, IPPTA clarified that the paper industry doesn't cut forests as assumed for manufacturing paper since nearly 80 per cent of the paper that is produced in the country was by using recycled paper and the rest by using baggage and other agriculture produce.

He said paper mills grow trees and even distribute seeds to farmers to grow trees that are used for producing 15 per cent of the paper.

When asked why is the cost of paper and newsprint increasing when the paper is made out of recycled paper in India, he said the government should encourage and fund paper mills and also maintained that the newsprint cost has increased as the majority of the newspaper industry use imported newsprint nowadays.

**Published in:**

Indian Express, The Hindu

# Union Minister Dr Jitendra Singh says, battery operated vehicles pose a major demand in inventions of battery storage technology and battery recycling technology

CSIR-CECRI, NML

2nd August , 2023

Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh today said, battery operated vehicles pose a major demand in inventions of battery storage technology and battery recycling technology.

In a written reply to a question in the Lok Sabha, Dr Jitendra Singh informed that all Electric Vehicles (EVs) have energy storage systems, typically batteries to power the vehicle, which requires advancement in storage technologies to make it affordable and attractive in market adoption. He said, in order to balance the supply of raw materials for batteries and keeping in view the thrust on sustainability & circular economy, inventions in battery recycling technologies are also important.

The Minister informed that the Government is supporting research to develop indigenous capabilities in the area of Lithium-ion (Li-ion) battery electrode materials, cells and battery packs for EVs. Several research projects with significant funding are in progress with an aim to enable indigenous development of battery technologies. Department of Science & Technology (DST) have supported approximately thirty- two R&D-related projects in the area of battery storage, which resulted in several publications and lab level prototypes. Indian Institute of Technology Bhubaneswar & Indian Institute of Technology Kharagpur has developed a Sodium (Na) ion battery pack, a battery management system, a charger, and a cell balancing system for e-bicycle. In addition; two battery recycling technology research projects are also being supported.

Central Electro Chemical Research Institute, (CECRI), a lab under Council of Scientific and Industrial Research (CSIR) has established a small scale (1000 cells per day) Lithium- ion cell manufacturing line at its Chennai unit. CSIR also initiated a Bulk Chemical Mission Project to

develop a technology that dismantles 100kg spent Lithium Ion Battery (LIB)s and can extract all metals from LIB electrode material and demonstrate at 1kg product level.

The key challenge faced by the Government in the research of battery storage technologies is primarily in sourcing of raw materials. Though country's Lithium-ion (Li-ion) battery requirement is huge, there is no domestic manufacturing of Li-ion batteries at present and the majority of the demand is catered through imports. Further, the important raw material resources required such as Lithium, Cobalt are scarce and needs to be imported. There is no established supply chain for electrode materials and components yet in our country. CSIR-National Metallurgical Laboratory (CSIR-NML), Jamshedpur has developed and patented CSIR's first holistic process that can tackle any type of Lithium based batteries, to extract and separate high pure salt products from Lithium, Nickel, Cobalt, Manganese, Aluminium, Copper, and Reusable Graphite.

**Published in:**

Pib

# Climate change driving fish away from Goa: NIO chief

CSIR-NIO

2nd August , 2023

Climate change is driving fishes along India's east and west coasts to migrate towards the polar regions. The catch of mackerel and other fishes increased in Goa this year because the fishes were migrating off the Kerala coast and moved slightly towards Goa. But the fishes are headed out of Goa's coast towards the polar regions. This migration will severely affect Goa fisheries, said Sunil Kumar Singh, director of CSIR-National Institute of Oceanography (NIO).

Singh was speaking on Tuesday on the BITS Pilani KK Birla Goa campus. "This year, we are told that the catch of mackerel and other fishes was high," Singh said. "Because of climate change, fishes are moving towards the poles, so oil sardine and other fishes are reducing along the Kerala coast and are slowly coming towards Goa. But they will move further towards the polar regions.“

Singh added, "Migration of fishes is occurring in the entire Atlantic too." He said that the 'dead zone' along Goa's coast will increase over the years. The zone signifies the area in which dead fish wash ashore.

"We have already witnessed a chaotic problem during the monsoon, with intermediate water getting into the coastal region. We observe tonnes of fishes dying in the estuary of the Mandovi near Caranzalem," Singh said. "This is an annual phenomenon. Now, because of climate change, when the deepwater formation is reduced by half, the oxygen level will go down further and the dead zone will increase.“

In Goa, people are heavily dependent on fisheries, Singh said. "Fishes are dying and this will be a very chaotic situation," he said. "The problem is a global problem and a huge problem." Singh was speaking at the half-day Youth 20 (a part of G20 events) organised by BITS Pilani Goa campus in collaboration with Goa State Biodiversity Board (GSBB) and Goa State Climate Change Cell.

**Published in:**
Times Of India

# CSIR launches 5-day One Week One Lab' programme

CSIR-CCMB

2nd August , 2023

As part of a countrywide campaign to showcase technological developments, the Council of Scientific and Industrial Research (CSIR) on Tuesday kicked off the 'One Week One Lab' programme at the Centre for Cellular and Molecular Biology.

The first day of the five-day event showcased how science creates better things for human living, which was attended by school and college students, educators, industrialists, farmers, wildlife officials and policymakers.

Students of Classes 7-9 of Vedam High School in Nirmal district were among those in attendance at the expo on the day.

Trishul, a student, said: "There is so much of learning for us. There are a few students who wanted to take up research in their career after attending this event. This gave us an insight into how science can help us."

Apoorva, of CCMB, said: "Our development and collaboration works are displayed here. For us too, the interaction with the visitors gave more information about what people really want."

Varshini, a second-year undergraduate student of Kasturba Gandhi College, Marredpalli, who was attending the event with her classmates, said: "We are able to know futuristic developments and how science can capture the market through need-based production. After coming here, we got an idea of how bring in an idea, develop and establish our start-up."

Anusha Gopali, of Bhavan's College in Sainikpuri, said: "Our life sciences students got so much of learning here as they got to see many new innovations."

A stall on how science and research helped in improving rice cultivation, by making crops disease-free and high-yielding, was a hit among all.

Earlier in the day, the campaign was inaugurated by Dr N. Kalaiselvi, director-general of CSIR.

She said, "Sustainability is the call of the nation today, and it requires different labs, scientists, entrepreneurs and industry to collaborate together. Covid-19 brought many of these stakeholders together, and it is now important to maintain the momentum and solve the many problems in our society."

The gathering was also addressed by Dr Madhusudhana Rao, CEO of Atal Incubation Centre-CCMB, who emphasised the importance of bridging the gap between academia and entrepreneurship.

This was followed by a brainstorming session between scientists and policymakers on how wastewater surveillance can be used effectively in Indian cities to track and curb infectious diseases. The session ended with a discussion of suggestions.

**Published in:**
Deccanchronicle

# Russian scientists eye Brics quantum lab with India-China role

CSIR-NPL

2nd August , 2023

Russian scientists have asserted their interest in building close quantum technology collaborations with India and China. Russia hopes to present its case at the Brics (Brazil, Russia, India, China, and South Africa) summit next year when its city of Kazan plays host.

“Last year, we had a wonderful trip to India. We saw many wonderful institutions there. In Pune, Bangalore, in Delhi. We met many scientists and we see a lot of potential for collaboration. From my perspective, my answer was very practical. We need to create a Brics quantum laboratory. And this network of labs which we will create in different countries, (will) work under maybe a joint research program,” said Alexey Fedorov, principal investigator of the “Quantum Information Technologies” group at Moscow-based Russian Quantum Center.

The 29-year-old Russian scientist said it’s very important for India and China to collaborate. “Because together we can make things which are very hard to do alone. We can collaborate about quantum computing, maybe solving problems and exchanging opinions and we collaborate about quantum sensing and different technologies and make our Brics alliance to be stronger,” Fedorov said.

He was talking to a group of Indian mediapersons on the sidelines of a plenary session at the Future Technologies Forum recently attended by Russian President Vladimir Putin. The Rose Congress organised the forum at the Russian Quantum Centre in Moscow.

Fedorov said that technical sovereignty of each country is important and should be respected. “But at the same time, the topics that we are able to share will be beneficial to each party. That can be the basis for making a research program for this institution,” he said.

Chief executive and co-founder of RQC, Ruslan Yunusov, said that Russia will present a detailed proposal to India for possible collaboration at the Brics summit next year. “We have great plans for mutual collaborations with India. Next year, we will discuss it on the platform of Brics. The collaboration will be around setting up joint laboratories in cold atoms, 2D materials and semiconductors,” Yunusov said.He also said Russia was looking to collaborate with Indian academic and research institutes as part of its futuristic plan to build quantum applications and hardware for public services.

In Moscow to attend the plenary session, Venu Gopal Achanta, director at the CSIR-National Physical Laboratory, Delhi, said India has had trustworthy relations with Russia but there was no official group yet with Russia. “ Hopefully, both governments will start something together,” said Achanta, who is working with the Indian government on its National Quantum Mission.

Raman Research Institute in Bengaluru, IIT Madras and government organisations, including the Centre for Development of Advanced Computing are working towards the development of quantum technology in India.

Speaking at the plenary session, Russian President Vladimir Putin said, “With Russia holding the Brics Presidency next year, we expect to discuss specific projects like this in several key areas with our partners, including cutting-edge computing technology, as well as data processing, storage and transmission technologies,” Putin said. He also proposed a “national technology project” for 2030, which includes establishing a roadmap for Russian quantum technology development.

**Published in:**
Times Of India

# Revolutionising energy: How simulation is driving efficiency and affordability

CSIR-CMERI

2nd August , 2023

For India to hit its 2070 net-zero emissions target, entirely new technologies need to be developed, low-carbon energy solutions need to mature quickly, and traditional energy production and operational efficiencies must be maximized. Fortunately, digital engineering — the application of digital technologies that encompass design, simulation, optimization, and operation over the life cycle of a product — is a way forward that is already making a huge contribution to energy innovation, efficiency, and affordability.

## Simulation Supports Innovation

As one of the youngest, largest, and fastest-growing economies, India is poised to become a research and development powerhouse. In less than 10 years, the country has moved from 81st in the Global Innovation Index to 40th place, leapfrogging six places between 2021 and 2022. By embracing transformative technologies like digital engineering, India is multiplying its contributions to sustainable product development. Digital engineering helps bring new products and processes to market faster by enabling researchers, engineers, and scientists to quickly simulate new ideas in a digital environment, predict how they will perform, then optimize them before a prototype is ever built for testing.

Case in point: When researchers at the Central Mechanical Engineering Research Institute (CSIR-CMERI) in Durgapur wanted to see if their innovative solar cells would withstand high winds, they performed fluid-structure interaction simulations to understand how gusts would affect the solar panels. Using computer models, they were able to quickly test different structural loads to correctly predict that their design could withstand wind speeds of 80, 100, and 120 km/hour – enabling them to move from conceptual design to reality in just a few months.

Because simulations are based on proven mathematical models, engineers trust them to

support the types of "what-if" scenarios they need to explore next-generation energy innovations. Digital engineering enables companies to design products with sustainability in mind by considering manufacturing requirements, operational efficiencies, and material circularity. It's a holistic approach that takes into account the interaction of components in a complex system.

**Rapid, Reliable Scalability**

Scientists and engineers are also working to scale their sustainable innovations faster with the predictive power of simulation. Simulation is essential to showing precisely how products will work, enabling innovators to move confidently from idea to reality at the pace our planet needs now. Delivering on efficient energies — from wind, solar, hydrogen, consumer waste, biofuel, and more — involves solving complex, physics-based challenges. Many of these industries are still considered immature today, but they will not be afforded the traditionally long maturity cycles seen with coal, oil, and natural gas. Those industries relied on the slow process of creating physical prototypes, testing them, and then going back to the drawing board again and again to evolve over time. With digital engineering and simulation, low-carbon energy technologies can quickly and reliably be scaled up and delivered to market.

**Improving Energy Efficiency and Affordability**

However, scaling up new product design and development is just the beginning. Today, almost 60% of the energy that is sourced, converted, and consumed is wasted. That includes not just the fossil fuels that comprise about 83% of our energy sources, but the wind, solar, nuclear, geothermal, tidal, and other sources that make up the remaining 17%. That's an unacceptably large amount of waste. Here, too, digital engineering is a critical part of the solution.

The first step in controlling waste is to understand its source. By outfitting the energy sector's infrastructure with data collection sensors, engineers can create digital twins. These virtual representations of real-world entities and processes enable companies to monitor what's happening inside the physical asset in real-time. By providing a holistic view of real-time behavior in a real-world environment mapped to a constantly updated virtual model,

digital twins make it possible to anticipate maintenance needs, optimize efficiency, and avoid costly failures.

With digital twins, companies can predict the future and anticipate how changes in design, process, or environment will affect how an asset functions in the real world. Performance data from the physical equipment is fed to the simulation as it happens, so issues can be addressed immediately, before they affect system performance, thereby curbing downtime to save on overall costs. As companies work to have a zero-carbon footprint, digital twins can even be used to test and validate carbon reduction options to see which opportunities are most appealing.

**Transforming the Human Element**

To achieve net-zero emission goals, companies need to adopt new ways of thinking. They'll need to analyze where energy is consumed and how it's used, as well as examine how resources are consumed in real time to identify areas for improvement. They'll need to audit their existing processes and identify causes of waste or sources of inefficiency, then use that analysis to develop alternative processes to remedy them.

Digital engineering is playing a vital role in helping industries, and societies make this transition to a more sustainable future, accelerating the pace of progress toward net-zero carbon. Through simulation, companies can analyze the impact of sustainability of materials in production and disposal as well as assess material information based on applications to design, manufacturing, and disposal up front. They can understand the full life cycle impact with easy-to-use sustainability analysis tools and incorporate custom program indicators into their analysis. In doing so, they can achieve their sustainability goals in ways that improve the bottom line.

**Published in:**
Times Of India

# CSIR-NIScPR organised NIScPR-SVASTIK Lecture on "Yoga for Vasudhaiva Kutumbakam”

CSIR-NIScPR

1st August , 2023

CSIR-National Institute of Science Communication and Policy Research (NIScPR) organised a lecture under its SVASTIK (Scientifically Validated Societal Traditional Knowledge) division. SVASTIK is a PMO monitored initiative coordinated by CSIR-NIScPR. This was the fourth session of the NIScPR-SVASTIK Lecture Series. This lecture was centred on the topic "Yoga for Vasudhaiva Kutumbakam".

The NIScPR-SVASTIK Lecture session was a momentous occasion that witnessed the convergence of eminent scholars, researchers, Yoga practitioners, and enthusiastic participants, who came together to explore the profound philosophy of Yoga and its relevance in fostering a global family. Shri Hasan Jawaid Khan, Chief Scientist, CSIR-NIScPR, delivered the Welcome Address and gave insightful introductory remarks on SVASTIK, setting the tone for the enlightening sessions that followed.

The highlight of the event was the captivating Keynote Address by Padma Shri Dr. H R Nagendra, Chancellor of S-VYASA University, Bengaluru. Dr. Nagendra's vast knowledge and expertise in the realm of Yoga enthralled the audience as he eloquently expounded on the transformative power of Yoga in uniting humanity and realizing the concept of 'Vasudhaiva Kutumbakam.' His address left the attendees inspired and motivated to integrate Yoga into their lives for personal and collective well-being. The program concluded with Vote of Thanks by Dr. Charu Lata, Principal Scientist at CSIR-NIScPR.

Creating awareness and sharing evidence-based traditional practices/knowledge among the public is of paramount importance to instil a sense of pride and confidence in the knowledge that we have inherited. Under the guidance of Prof. Ranjana Aggarwal, Director CSIR-NIScPR and a l Steering Committee of eminent experts, a team of scientists from CSIR-NIScPR launched the national initiative "SVASTIK"- Scientifically Validated Societal Traditional Knowledge. As a part of this initiative, simplified creative content on scientifically validated Indian traditional knowledge is being disseminated through digital platform in English and different Indian languages. Until now 37 such stories have been disseminated in 09 traditional knowledge domains in English and 17 Indian languages. One can reach SVASTIK through @NIScPR_SVASTIK on all popular social media platforms.

**Published in:**

Pib

# CSIR- IHBT Palampur helping farmers cultivate aromatic crops in vacant land

CSIR-IHBT

1st August , 2023

In the Samra valley of District Chamba, Bharmour till some time ago, the farmers depended for their income and livelihood. Potato, barley, maize, wheat, etc crops were grown with great effort and cost, but wild animals like monkeys Due to the excessive encroachment of langur, bear, and stray animals, the farmers suffered a lot of problems and losses. had to face Due to this the farmers stopped growing crops . The land had become barren due to migration. Now positive initiative of CSIR-IHBT, Palampur, and under the modern approach, about 750 farmers under CSIR-Aroma Mission Phase III Farmers are cultivating fragrant marigolds on acres of land.

One such Farmer Rajesh Rana, after retirement from Himachal Police Service, got in touch with IHBT, Palampur. After this, he went to his native village Khanog, Tehsil Bharmour, The vacant land in district Chamba has been made available by the institute along with 50 other farmers of the village. He Started the cultivation of scented marigolds. He told that there is a lot of cultivable land in Samra Valley. It is lying vacant due to the menace of wild animals.

According to Dr. Rakesh Kumar, Senior Principal Scientist, in addition to the fragrant marigold in this valley, Damask Rose, aromatic crops like Muskabala, Rosemary, Clary Sage, etc. can be cultivated. Animals do not cause any harm to these crops and the essential oils obtained from them are in good demand in the international market. He told that under the third phase of Aroma Mission, the institute has distributed fragrant marigolds to the farmers.

Seeds of improved variety “Him Swarnima” have been made available free of cost to the

farmers. These seeds are developed by scientists of which 180-230 quintal biomass per hectare and 36-45 Kg per hectare oil can be obtained. The market price of fragrant marigold oil is 12000- 15000 Rs per kg. Farmer earned a net profit of Rs 1.25 to 1.5 lakh per hectare in 5-6 months. Fragrant marigolds can improve the livelihood of hill farmers, so wild marigold Agriculture is being promoted.

Dr. Sudesh Kumar Yadav, Director, CSIR-IHBT, Palampur told that Aroma Mission under the third phase, is promoting aromatic crops by the institute, and from time to time, the farmers are given advanced training. Seeds are being made available. Farmers are being taught the agricultural techniques of aromatic crops and
Processing units are also being set up for farmer groups. Aroma mission by the institute Under this, 13 processing units have been set up in district Chamba, using which farmers can get maximum can be more beneficial.

**Published in:**
Himachalheadlines

# CSIR DG proposes idea of 'technology scale up corridors' for promotion of indigenous technologies

CSIR-CCMB

1st August , 2023

CSIR Director General N Kalaiselvi on Tuesday proposed putting in place 'technology scale up corridors' towards making the country rich with indigenous technologies and achieving the goal of 'Atma Nirbhar Bharat'.

The country needs to excel in technologies, especially in terms of indigenous technologies to become a developed one, she told reporters here on the sidelines of 'One Week, One Lab' event at the CSIR-Centre for Cellular and Molecular Biology (CCMB) here.

"So, from research laboratories we are able to reach the technology readiness level (TRL) of four or at the max five easily with the kind of funding, with the kind of infrastructure that is available already," she said. However, Indian industries are looking for technologies "at the matured level" which is at the level of 'TRL 8' and above, she said.

But, is there any system which is available to ensure the sustainability of scaling up of this technologies from "TRL 5 to 8", she said. She proposed the concept of 'technology scale up corridors' in the Public-Private Partnership (PPP) model wherein the academia can offer space, infrastructure and their own students could be utilised in the venture.

She further said industries can help in reaching the market and the CSIR would become knowledge partners.

"Therefore, with the knowledge capability of CSIR and the marketing ability of the industry and the human resource from the academia, this kind of academia, research laboratories and industry collaboration should happen under the umbrella of technology scale up corridor," Kalaiselvi said.

It is an idea being proposed, she said, expressing hope that the idea will get strengthened in the coming days and years.

She also hoped that we will be able to prove our own technologies not from the proof of concept level but at the matured level of technologies so that India becomes rich with indigenous technologies and the country becomes 'Atma Nirbhar Bharat'.

Asked how the proposed 'technology scale up corridors' would operate, she said it's a PPP model being proposed and that the nuances have to be worked out to make the scheme successful.

Earlier, she inaugurated the 'One Week, One Lab' programme of the CSIR - Centre for Cellular and Molecular Biology (CCMB) here.

The "One Week, One Lab' is a nationwide campaign to showcase the technological breakthroughs and innovations in the CSIR labs.

Union Minister of Science and Technology Jitendra Singh came up with the possibility of making people visit the labs and witness the ongoing work, she said.

"It is with that kind of an idea to stay connected with the Indian society that we started this 'One Week, One Lab' programme," Kalaiselvi said.

Every laboratory among the 37 CSIR labs is conducting the event in their own style, she said. The 'One Week, One Lab' at CCMB would be held from August 1-5.

**Published in:**
Devdiscourse

# ‘AI helping detect plant diseases’

CSIR-NBRI

1st August , 2023

Artificial Intelligence (AI) has made inroads into scientific institutions, said a scientist from National Botanical Research Institute (NBRI) while citing how plant science is using it not just for automated identification of herbarium specimens but even diagnosis of diseases in plants.

The revelation was made at an interaction with school students at NBRI on Monday.

Over 50 class 10 and class 12 students of Jawahar Navodaya Vidyalaya had gathered at NBRI to be a part of an event organised by the institute under the CSIR Jigyasa project.

“We informed them all about botanical research, current research and development works,” said an NBRI official. Principal scientist Sumit explained to students how artificial intelligence helped in finding out stress responses in plants. “It can also give information about healthy and unhealthy crops by deep imaging,” he said.

**Published in:**
Times Of India

# In next two decades, India will make civilian aircraft engines: Former DG of DRDO

CSIR-NAL

1st August , 2023


Dr. Tessy Thomas, former Director General (aeronautics), DRDO and project director of Agni IV Missile and Agni V Mission, Government of India on Tuesday, August 1, said that India will be in a position to manufacture engines for commercial airliners in the next two decades with scientists working on developing civilian aircraft engines. The National Aerospace Laboratories, Bengaluru is in the process of developing Saras, a 90-seater civilian aircraft in the light transport aircraft category, she stated.

Responding to questions from students after her talk at the 61st Foundation Day at the Regional Institute of Education (RIE), she said the alloys used in designing the structure of the aircraft are not available in the country. Nevertheless, the efforts are on to manufacture engines for commercial airplanes, she said, while replying to questions on why India has not been able to make large aircraft when it has made rapid strides in aerospace engineering.

On the occasion, Dr. Thomas delivered the Sardar Panikkar Memorial Lecture, where she shared her journey in the DRDO and the making of Agni missiles. After the lecture, Dr. Thomas interacted with the students and spoke about missile technology, while advising them to be determined and hard working for achieving success in their lives. She replied to questions on missiles, their range of travel and so on.

In response to a question from a student, the eminent scientist said the National Education Policy-2020 can transform the education standards of the country with the next generation

of students set to be benefitted from the new policy with practical knowledge getting the attention. Unlike the time when we were in school and college, there has been a sea change in the education system with plenty of opportunities for the students, who have to explore those opportunities to achieve success, she advised.

Describing former president and the 'missile man of India' late Dr. A.P.J. Abdul Kalam as her 'guru', she said patience and hardwork brings achievements while citing her example and how she came up in life. "If you cannot achieve in the first attempt, there is always a second attempt. One has to overcome the gaps and stay ahead."

RIE Principal Y. Sreekanth delivered the presidential address. Film and television actor Malavika Avinash was the guest of honour.

RIE (erstwhile Regional College of Education) was established in 1963 with the objective of qualitative improvement of school education through innovative pre-service and in-service teaching training programmes and to undertake research, development and extension activities in the southern region.

The Sardar Panikkar Memorial lecture series was introduced in 1964 in memory of the valuable services rendered by the late Sardar Panikkar for the development of education in India. As the vice-chancellor of the University of Mysore, he evinced a deep interest in the development of the RIE, Mysuru, a note said.

**Published in:**
The Hindu

# '337 MT of undisposed toxic waste at Bhopal disaster site'

CSIR-NEERI

1st August , 2023

Despite warnings and directions of the National Green Tribunal (NGT), 337 metric tonnes (MT) of hazardous waste stored on the Union Carbide India Limited (UCIL) premises — the site of the 1984 Bhopal gas tragedy — is yet to be disposed of, according to a report by the Central Pollution Control Board (CPCB) submitted to the green court.

## Trial incineration

The site, which earlier contained 346 MT of hazardous matter, had in August 2015 incinerated around 10 MT of waste on a trial basis at a facility in Pithampur. Subsequently, the Madhya Pradesh government floated a request for proposal inviting bids to clear the remaining waste. Since then, there has been little progress.

According to the CPCB report, an oversight committee meeting on June 19 chaired by Union Environment Minister Bhupender Yadav recommended the Department of Expenditure to release ₹126 crore to the M.P. government for remediation and disposal of the 337 MT of toxic waste. At the meeting, Atul Narayan Vaidya, Director, National Environmental Engineering Research Institute (NEERI), said "it was important to dispose of" the waste, according to the report dated July 30.

It also noted that as per a 2009 joint study by NEERI and the National Geophysical Research Institute (NGRI), the UCIL site contains about 1 million tonnes of contaminated soil, around 1 tonnes of mercury spillage, and nearly 150 tonnes of underground dumps. Subsequently, another committee recommended a comprehensive assessment.

In 2022, an NGT-appointed committee had found the "possibility of contamination of soil" and suggested "speedy disposal" of the waste.

In March that year, citing "serious unsatisfactory" state of affairs as well as "apathy" and "failure" of the authorities concerned, the green court ordered the State government and other agencies to take action within six months.

Rachna Dhingra, an activist with Bhopal Group for Information and Action, an NGO representing the victims of the Bhopal disaster, told The Hindu, "This 337 MT is only 0.05% of the total toxic waste. Even this is not being properly disposed off. The main waste is still buried in 23 unlined pits within the UCIL premises and thousands of tonnes of toxic waste in is the solar evaporation pond 400 metres north of the plant."

"Unless all this waste is properly disposed of, it will continue to pollute groundwater and soil and it will keep on spreading," she added."

The now-defunct UCIL was involved in production of carbamate pesticides and associated intermediate chemicals. It was closed down in December 1984 after the leakage of methyl isocyanate in the form of vapours, killing hundreds.

**Published in:**
The Hindu

# Dr. N. Kalaiselvi, inspires students at Amity through her oration on Energy Management; Read full details here

CSIR

31st July , 2023


Dr. N. Kalaiselvi, Director General, Council for Scientific and Industrial Research (CSIR) visited Amity University Uttar Pradesh, Noida Campus, for delivering an oration on the topic, "Energy Management - Indian Perspective". As an esteemed expert with years of experience in the development of electrode materials, including lithium and beyond lithium batteries, super capacitors, and electrolytes for energy storage and electrocatalytic applications, Dr. Kalaiselvi has consistently demonstrated her commitment towards promoting renewable energy sources, advocating for energy efficiency, and developing environmentally responsible practices. Her dedication to fostering a sustainable future for the country has earned her recognition and accolades from both national and international energy communities.

Presenting her Oration on the theme, "Energy Management - Indian Perspective", Dr. N. Kalaiselvi, said, “I’m extremely thrilled and excited to be present amongst such luminaries at Amity, created by Dr. Ashok K. Chauhan, an exemplary institution which embodies passion, learning and knowledge. In the next 6-7 years, India will become a developed country and the day is not far when the whole world will be astounded by India’s scientific and economic development by achieving efficiency in food security, water security, energy security, healthcare security and strategic security.”

The presentation encompassed a comprehensive information of CSIR technology spectrum which ignited the spirit of innovating for the country in the young participants. With her profound knowledge and insightful research, she shed light on various key fellowship schemes

and initiatives by CSIR for school students, titled "JIGYASA" and other initiatives for the University, doctoral as well as post-doctoral scientists. Her passion for driving positive change in the energy sector was evident throughout her oration, captivating the audience and igniting a sense of urgency to address the energy challenges and the importance of clean, green and sustainable energy to all. It also provided an opportunity for the attendees to engage in discussions related to the future of energy management through Lithium ion and Sodium ion batteries.

Dr. Ashok K. Chauhan, Founder President, Amity Education and Research Establishments, appreciated the inspiring talk by Dr. N. Kalaiselvi and declared her oration as the "lecture of the decade." He also stated that Amity along with CSIR will lead the "Crusade in the area of Science Technology Engineering and Mathematics (STEM)".

Dr. Atul Chauhan, President RBEF and Chancellor Amity University Uttar Pradesh, applauded the lecture and stated, "Dr. Kalaiselvi is the "Master of Energy" to all which will keep Amity scientists and students motivated to work towards becoming the largest contributor of Science and Technology." He emphasized that the 21st century belongs to India and its scientists and announced that Amity University will establish the "Centre of Research for Sodium Batteries" very soon to combat the challenge of energy scarcity in future.

Welcoming Dr. Kalaiselvi to Amity University, Dr. W Selvamurthy, President Amity Science Technology and Innovation Foundation (ASTIF) said, "Dr. Kalaiselvi is an inspiration for all the researchers of the country. Her esteemed presence at Amity will invigorate the young brilliant minds of Amity and inspire them to make their mark in the world through research, science and technology. Amity and CSIR will continue research and innovation in areas of joint interest."

During her visit, Dr. Kalaiselvi also interacted with the students of Amity International Schools, wherein a student asked her a question about her inspiration, to which she responded

that she draws inspiration from nature and the support of her teachers in school helped her achieve her goals. When asked about her role model, she said that former President of India, Dr. APJ Abdul Kalam has been a source of great inspiration for her since he was the man who won laurels for the country and brought world recognition to India in the field of Science and Technology.

The event was also graced by the presence of Dr. Balvinder Shukla, Vice Chancellor, Amity University Uttar Pradesh and Dr. Gurinder Singh, Group Vice Chancellor, Amity Universities. The event concluded with a well-deserved recognition of Dr. Kalaiselvi's exceptional contribution to the field and a round of the Amity Campus. The event was organised by Amity Science, Technology, and Innovation Foundation (ASTIF) and witnessed a gathering of the HOIs of Amity, distinguished experts, scientists, and scholars from the energy sector, academics, and government organizations.

**Published in:**
Telegraph India

CSIR-CEERI

31st July 2023

# सीएसआईआर ने जीता 'सर्वश्रेष्ठ स्टॉल' का पुरस्कार

भास्कर न्यूज | पिलानी

राजस्थान के उदयपुर में आयोजित 'उज्ज्वल राजस्थान प्रदर्शनी' में सीएसआईआर ने 'सर्वश्रेष्ठ सूचनाप्रद स्टॉल' का पुरस्कार जीता। 25 से 27 जुलाई तक हुई तीन-दिवसीय प्रदर्शनी में सीएसआईआर के स्टॉल को जानकारी देने वाले सर्वश्रेष्ठ स्टॉल के रूप में सराहना मिली।

प्रदर्शनी में आने वाले विद्यार्थियों, अतिथियों एवं अन्य लोगों ने सीएसआईआर प्रयोगशालाओं द्वारा जनहित में किए जा रहे शोध कार्यों की प्रशंसा की। समापन सत्र में उदयपुर के लोकसभा सांसद अर्जुन लाल मीणा ने सीएसआईआर को विजेता ट्रॉफी से सम्मानित किया। सीरी के वैज्ञानिक डॉ. विजय चटर्जी ने सीएसआईआर की ओर से यह ट्रॉफी प्राप्त की। गौरतलब है कि प्रदर्शनी में 50 से अधिक संस्थाओं एवं संगठनों ने प्रदर्शनी में अपने उत्पादों का प्रदर्शन किया। प्रदर्शनी में सीएसआईआर-सीरी और भावनगर स्थित सीएसआईआर ने सीएसआईआर का प्रतिनिधित्व किया। सीरी की ओर से दूध और शहद में मिलावट का पता लगाने के लिए विकसित प्रौद्योगिकियों का प्रदर्शन किया गया। इसके अतिरिक्त वैज्ञानिक पोस्टरों के माध्यम से सीरी की अन्य प्रौद्योगिकियों का भी प्रदर्शन किया गया। प्रदर्शनी में संस्थान में सेमीकंडक्टर क्षेत्र में चलाए जा रहे महत्वाकांक्षी प्रशिक्षण कार्यक्रम 'शिल्प' के अलावा विज्ञान गांव की ओर कार्यक्रम के बारे में भी जानकारी दी गई। इसके अतिरिक्त सीएसआईआर-एमसीआरआई ने भी किसानों और ग्रामीण क्षेत्रों के जनमानस को लाभान्वित करने के लिए विकसित नमक समुद्री एवं पर्यावरण हितैषी हरित रसायनों से संबंधित प्रौद्योगिकियों की जानकारी दी।

पिलानी. समारोह में अतिथि से सम्मान पत्र लेते सीरी के वैज्ञानिक।

**Published in:**
Dainik Bhaskar

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