



The Innovation Engine of India

NEWS BULLETIN

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



India to host 9th ocean science conference in Goa



10th November, 2024

The CSIR-National Institute of Oceanography (NIO), Goa, is hosting the international Surface Ocean-Lower Atmosphere Study (SOLAS) Open Science Conference from Nov 11 to 14. This ninth SOLAS conference is being conducted for the first time in India. SOLAS OSCs are conducted every two years and are governed by SOLAS, which has a collection of multidisciplinary scientists worldwide. Leading experts in the field of surface ocean and lower atmosphere discuss the latest scientific developments.

The inaugural session of the ninth SOLAS OSC is being held on Nov 11 at 8.30am at the NIO auditorium, Dona Paula, Goa. The inaugural will be followed by three discussion

sessions intended to provide an informal opportunity for roundtable discussions of SOLASrelated topics with the aim of furthering collaborations and research.

SOLAS also plans to launch a mentorship programme in mid-2025 to connect early career scientists (ECS) with established researchers across multiple disciplines. So, an open session at the OSC is designed to gather feedback to shape the programme's design and implementation.



Times of India





CSIR-CFTRI introduces biodegradable plates and expands innovation in food technology





In a remarkable step towards sustainable practices, the CSIR-Central Food Technological Research Institute (CFTRI) in Mysuru has developed biodegradable plates under the project 'SHREE ANNA – the Millet Mission.' This initiative aligns with India's growing focus on reducing plastic waste and utilising agricultural by-products. The Biodegradable Cutlery Research and



Innovation Centre, established as part of this effort, plays a pivotal role in spearheading this innovation, leveraging the benefits of millet processing waste.

Addressing environmental concerns with millets The biodegradable plates are designed to tackle the increasing environmental challenges posed by plastic waste. By repurposing by-products of millet processing, CSIR-CFTRI offers an eco-friendly solution that aligns with sustainable practices. The research centre is equipped with advanced facilities for pre-processing, manufacturing, and product analysis, ensuring high

standards in the development of biodegradable tableware. During the 75th Foundation Day celebrations of CSIR-CFTRI, guests were served refreshments on these biodegradable plates as part of a trial run. This demonstration reflects the institute's ongoing commitment to innovation, with future plans focusing on edible cutlery and tableware. Such developments could potentially offer users the unique experience of enjoying a meal and consuming the plates in which it is served. The project is spearheaded by Ashitosh A. Inamdar, a senior principal scientist, with significant contributions from Suresh D. Sakhare and Saravanan M. from the Flour Milling, Baking, and Confectionery Technology Department at CFTRI. The initiative is part of a broader agenda that combines sustainability with food technology,





making innovative use of locally grown millets.

Additional innovations released by CFTRI

The event also marked the introduction of several other food technologies, showcasing CFTRI's continuous efforts in research and development:

Multigrain waffles

CFTRI's multigrain waffle formulation aims to offer a healthier alternative to traditional waffles. The product combines whole wheat, pearl millet, and finger millet flours with reduced sugar and fat content, resulting in a low-calorie snack rich in dietary fibre and minerals. These waffles are designed to cater to the rising demand for healthy yet convenient foods. The technology supports both home baking and commercial production, providing an opportunity for bakeries and stores to market the product as a quick snack or dessert.

Instant masala tea premix

The instant masala tea premix, developed by CFTRI, blends the authentic flavours of Indian masala tea with the convenience of modern life. Available in single-serving sachets, the premix caters to varied tastes by offering multiple sweetener options, including regular sugar, jaggery, low-calorie sweeteners, and sugar-free alternatives. This innovation aims to meet the growing demand for easy-to-prepare beverages while retaining traditional flavours.

Gluten-free bread premixes

The institute has also introduced gluten-free bread premixes made entirely from minor millets such as proso, foxtail, and barnyard millet. These premixes are designed to meet the needs of both small-scale and large-scale bread production, aligning with the increasing demand for gluten-free products. The development not only promotes millet consumption but also addresses the requirements of individuals with gluten intolerance. This initiative was supported by funding from the Ministry of Food Processing Industries (MoFPI).

The innovations unveiled by CSIR-CFTRI reflect a strong focus on sustainability, nutrition,





and convenience. From developing eco-friendly tableware to enhancing the nutritional quality of common food products, the institute continues to make significant contributions to the food industry.

The biodegradable plates and edible cutlery represent an exciting step towards reducing plastic consumption and environmental waste. Similarly, the development of gluten-free and multigrain food items addresses the growing demand for health-conscious products. CFTRI's ongoing efforts exemplify the potential of combining traditional ingredients like millets with cutting-edge food technology to create innovative solutions that benefit consumers and the environment alike.

As India progresses towards a greener future, CFTRI's initiatives set a benchmark for the integration of sustainable practices and food innovation, paving the way for eco-conscious





Theorganicmagazine





Innovative use of silk in medical devices





Unlike many who go to the US to study and build a career there, Anuya Nisal returned to India after her Master's degree in Material Science from the University of Delaware, USA. "I wanted to contribute to the science ecosystem in India," she said. She joined GE Plastics as a scientist where she could explore and gain practical experience in polymer applications. The job deepened her



understanding of the potential that lies in materials science and how it could be harnessed to better human life.

Meanwhile, she decided to pursue her PhD and as part of the course she was looking into publications on silk, which is also a material. She said, "Silk was used since the 1880s as sutures and since 2000 there has been a lot of interest in this material. As part of my PhD, I spoke to a lot of doctors and surgeons to understand how silk could be used to help the medical field. While silk is commonly associated with luxury fabrics, Anuya's research opened up the varied potential this 'luxury' fabric material held. Her research with the medical fraternity showed that there was a huge need in the medical device sector." Injuries can be sustained on account of an accident or a disease condition like diabetes or cancer. Different injuries require different treatment methods. For example, a synthetic ceramic material is typically used to fill and repair a cavity in the bone or advanced wound care bandages made of polymeric materials are used to treat diabetic or non-healing wounds. But Anuya's studies discovered the magic held in silk. She said, "Silk as a biomaterial is biocompatible, biodegradable, and can be configured for tissue repair. Also, India is the world's second-largest sericulture industry. Dr Lele, my PhD advisor, envisioned connecting this abundant resource





to India's rapidly growing medical device sector to cater to the diverse unmet clinical needs of patients worldwide." Initial research on silk by Anuya and her colleagues at CSIR-NCL (Council of Scientific and Industrial Research-National Chemical Laboratory), Pune, revealed the potential of silk in medical applications. This meant the team had to now work on harnessing this potential to create medical devices that could heal wounds and fill bone voids, to begin with. As a first step, Anuya verified the potential of silk for tissue regeneration at the CSIR-NCL, together with seasoned researcher-inventor Dr Premnath Venugopalan.

In 2015, Serigen Mediproducts was established along with co-founders Dr Swati Shukla and Dr Premnath Venugopalan. Serigen was created as a spin-off company of CSIR-NCL and incubated at Pune's Venture Centre, which is India's largest science and technology business incubator. Venture Centre was instrumental in nurturing this deep-science innovative startup. At Serigen, Anuya and her co-founders, built a team of biomedical technology experts and

researchers to develop next-gen silk-based tissue regeneration products engineered to solve specific clinical problems in orthopaedics, advanced wound care and breast cancer.

Meeting the 'need' The team filed an initial patent for the innovative technique to convert silk into medical devices (tissue regeneration products) in 2014. Over the years, Serigen has filed further patents to strengthen its intellectual property portfolio. Their innovation has not only been granted international patents and published in reputed international peer-reviewed journals but has also been awarded by the Orthopaedic Research Society, USA. "Medical devices, unlike

drugs, require clinical trials in two phases – pilot and pivotal. For our bone void filler product Serioss, we are in the final stage of our pivotal clinical trial where we implant our bone filler in the body and compare the performance of our product with other global alternatives. This pivotal clinical trial is being conducted by partnering with several premier Hospitals in India" said Dr Shukla, co-founder and COO of Serigen.

Anuya explains how Serioss works.

"If a doctor has to remove a cancerous bone that void must be filled. Our product Serioss is





used to fill the cavities in the bone. Serioss serves as a porous scaffold and allows cells from the neighbouring healthy bone to migrate into the scaffold. These cells start depositing the new bone. Serioss dissolves over time and the cavity is filled by the patient's new bone tissue". For wounds, Serigen has innovated a non-adherent and absorbent wound dressing called Seriderm.

"Seriderm has helped over 300 patients by accelerating wound healing. For wounds to heal, it is vital that the right amount of moisture is maintained in the wound bed. The wound area should not be too dry as this will prevent tissue cells from regenerating, and it should not be too moist as that can cause infections. In addition to this, the dressing should not stick to the wound as that can also impact healing. More importantly, Seriderm reduces inflammation, which is vital to healing.

In addition to these two products, Serigen is also working on developing Serimat which will

help doctors in breast reconstruction surgery for breast cancer patients.

Swati said, "Post-mastectomy, the breast is reconstructed using a silicone implant. However, this needs mechanical support at the bottom pole of the breast to support the weight of the implant. Serimat can be used to form a pocket in which a silicone implant can be kept during breast reconstruction."

Funding

Deep science innovation is necessarily resource-intensive, especially in the medical industry.

"We raised funds through angel investments, promoter investments and grant funding. We are the proud recipient of competitive and prestigious government grants (BIRAC BIG, SBIRI, BIPP and HGP 2.0) to the tune of ₹2.6 crore plus that have been very important for the initial stages of product development. We are grateful to our angel investors and venture capital funds for believing in our vision" said Anuya.

In 2022, Serigen set up a manufacturing and R&D plant at an industrial centre in Pune.





"This setup caters to the manufacturing of Seriderm, our wound care product. It is an ISO 13485 certified facility that meets global quality standards" said Swati.

Market Dynamics

Given the resistance to accept newer products by the medical fraternity, Anuya feels that it is the opinion makers who will be vital to achieve faster market penetration. Serigen plans to establish research collaborations with KOLs (key opinion leaders) to report the patient/ clinical performance data in scholarly and professional meetings and conferences, improving the acceptability of the innovative products. Further, Serigen has a national sales team of 10 members, focusing on multi-speciality and super-speciality hospitals in Tier 1 cities. "We have only just started full-time sales a few months back, but our initial results are encouraging."

the treatment of chronic wounds. They can help with non-adherence and moist wound healing. However, silk additionally helps in controlling the inflammation in the wound bed. This is specifically because of silk and how we process it in our patented formulation. To the best of our knowledge, we are the first company to show clinical evidence of silk-reducing inflammation in wound beds. My interactions with the medical fraternity showed that there was a huge need in the medical device sector. The research on silk has further evolved to show that the silk thread can be dissolved, and the protein can be extracted to form a solution. At Serigen, we have developed a process that can convert this liquid silk into shapes and structures that can be used for hard or soft tissue in the body, using different shapes and forms.

This is a unique versatile biomaterial. No other synthetic or natural material has the versatility like silk that can cater to both hard and soft tissue regeneration."

Indeed, the fascination has been translated into innovative solutions that provide faster wound healing, efficient bone repair and superior soft tissue regeneration. Serigen's products provide the appropriate environments for cells to multiply and function, resulting in the regeneration of damaged tissues. We hope this fascination continues. **Published in:**

<u>Hindustantimes</u>





Ngp can be Winter Capital of India due to central location & good connectivity to metros: IIM-N director





The Orange City can be the winter capital of India, argued IIM-Nagpur director Bhimaraya Metri while stressing on its central location and robust connectivity with metros across the country. Metri was delivering the keynote address during the Indian Water Works Association (IWWA) conference's at VNIT auditorium on Friday. "Nagpur is already the winter capital of Maharashtra. It is well



connected by air, rail and road with all major cities. Hence, it is important to hold all important conferences such as this one in Nagpur to cut our carbon emissions," Metri said.

Metri emphasised the significance of incorporating traditional wisdom into contemporary practices, particularly in addressing climate change. "As academicians and corporate leaders, it is imperative to look towards our traditions. Though we may not have previously known the term 'sustainability', we have practised it for generations. Unfortunately, humanity has already consumed 1.75 times the planet's natural resources, creating an imbalance," he said suggesting

we must learn from the Adivasis who, despite a lack of formal education, inherently practise sustainability.

The IIM-Nagpur director pointed out that educated people, paradoxically, contribute more to environmental degradation, generating excessive waste that disrupts lifestyles. "To restore Earth's balance, we must adopt a holistic human culture for sustainable development," he said. With rural-to-urban migration affecting resource distribution, Metri stated, "Every year, 2.5 crore people move from rural areas to cities. A city will only truly be 'smart' when it integrates agriculture and spirituality as pillars of growth."





He also emphasised digital transformation and water resource management as essential strategies, adding, "We must learn to conserve water resources to benefit all living beings and restore the Earth's glory."

The two-day conference has been organised by IWWA in association with VNIT and CSIR-

Neeri. Atul Vaidya, director, CSIR-NEERI, spoke on water's vital role in sustainable development, noting, "In case of water scarcity, survival is limited. Sustainable development is fundamentally about being environmentally, economically viable, and socially acceptable. Without water, there is no development."

He also underscored that sewage cleaning and water management require focused attention, stating, "Treating sewage alone won't ensure environmental sustainability; balance is necessary."

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IIIM organized Curtain Raiser and Outreach Event for IISF





The CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu, successfully organized the Curtain Raiser and Outreach Event of the 10th India International Science Festival (IISF) Outreach Program 2024. The event showcased a series of inspiring and engaging activities, setting the stage for the 10th IISF-2024, scheduled to take place at IIT-Guwahati. Prof. Rajni Kant, Patron of



VIBHA (J&K) and Former Vice Chancellor of Rabindranath Tagore University, Bhopal was the Chief Guest besides Prof. Pawanesh Abrol, Vice President of VIBHA (J&K) was the Guest of Honour, on the occasion.

Dr Zabeer Ahmed, Director, CSIR-IIIM, presided over the function. In his address, Chief Guest, Prof. Rajni Kant emphasizing the role of science and technology in solving societal challenges. He highlighted the need for innovative thinking to address various societal issues through the application of science and technology.

Prof. Kant shared his rich experiences and thought-provoking insights, presenting various interesting ideas to inspire students and enhance their belief systems. Guest of Honour Prof. Pawanesh Abrol, while interacting with the students, introduced the audience to the themes and objectives of different events that are going to take place in IISF-2024 at IIT-Guwahati in an insightful session.

Prof. Abrol encouraged students to visit the IISF website and register for this prestigious annual festival.





In his directorial address, Dr Zabeer Ahmed, Director of CSIR-IIIM, welcomed the dignitaries & participants and expressed hope that their visit to the state-of-the-art laboratories at CSIR-IIIM would ignite curiosity and inspire them to pursue careers in science and technology (S&T). He also appreciated the contributions of VIBHA (Vigyan Bharati) in advancing S&T in the region and fostering a culture of innovation.

Earlier, Dr. Dhiraj Vyas, Nodal Scientist, IISF, introduced the outreach program while emphasized the importance of engaging students and the public in science and technology.

Students from 11 schools across the Jammu and Kashmir, including APS Miran Sahib, RRL School, BVM Hiranagar, BVM Amphalla, APS Jammu Cantt, JNV Jammu, Govt. Higher Secondary School Megloor Kathua, and KV No.1 Gandhinagar, participated in the event.

A total of 239 students and 13 faculties attended, engaging in guided tours of CSIR-IIIM's laboratories, where they explored basic research and innovations. These tours aimed to foster a passion for scientific inquiry and encourage students to contribute to India's growing advancements in science and technology.

A quiz competition among participating schools was also organized during the event.

An Outreach Video and Presentation further immersed the audience in the vision and mission of IISF-2024. Prizes were also distributed among the students for their achievements,

encouraging their active participation in science-related activities.

Er. Abdul Rahim, Chief Scientist & Head, RMBD&IST conducted the proceedings and presented a vote of thanks.

Published in:

Jammulinksnews





Curtain Raiser event for IISF 2024 at CSIR-IIP Dehradun, India





CSIR Indian Institute of Petroleum (CSIR-IIP), Dehradun hosted the curtain raiser event for the India International Science Festival (IISF) 2024 on October 30, 2024. The event was graced by Prof. Hemwati Nandan Pandey, professor, Garhwal University, Srinagar and Bharati Vijnana Secretary (VIBHA), Uttarakhand, Dr Ravindra Singh Bisht, Doon Medical College and senior



colleagues from AIIMS Rishikesh DIT University, Wadia Institute of Himalayan Geology. Uttarakhand Science Education and Research Centre(USERC), Vijnana Bharati – Shakti.

This curtain raiser provided an insightful preview of the upcoming IISF 2024, which will focusing on "Transforming India into a science and technology driven global manufacturing hub". The curtain raiser highlighted the 25 thematic events planned during IISF 2024.

It was also highlighted that this year Council of Scientific & Industrial Research (CSIR) is

given the responsibility of coordination of this mega event. Dr. Harender Singh Bisht in his welcome address said that India International Science Festival (IISF 2024) is a significant step towards showcasing our scientific capabilities and fostering the culture of innovation. Director CSIR-IIP also shared his insights on the pivotal role of science and technology in driving India's growth and global competitiveness. He also gave a brief presentation on the preview of IISF 2024. Director CSIR-IIP requested all organizations present to maximize participation in IISF-2024. During the event, Prof. Hemwati Nandan Pandey, elaborated the pivotal role of Vijnana Bharati (VIBHA) in organizing IISF 2024. He highlighted VIBHA's efforts in fostering scientific temperament, promoting innovation, and ensuring wide-ranging





collaboration across various scientific communities and institutions. He informed that registration to IISF 2024 is open now and all should participate in this mega event. As a sequel to curtain raiser event, IIP on Nov 8, 2024 organised road show under Jigyasa 2.0 program in which students (Class XI-XII) from St. Kabeer Academy along with their faculty participated. The students visited Waste Plastic pilot plant. Dr Ajay Kumar explained different processes involved and co-ordinated their walk-through. The students participated in a road show highlighting various thematic areas of IISF 2024.

In the main session held at Dr. Lovraj Kumar Auditorium, Dr S K Ganguly, Chief Scientist welcomed the guests Prof K. D. Purohit, President of VIBHA Uttarakhand and Dr O P Nautiyal, Scientist USERC to CSIR-IIP and gave in his opening remarks welcomed participants to the event and gave an overview of IISF2024 and its societal relevance. In subsequent sessions, Prof K D Purohit, gave an overview of history, various activities of VIBHA (UK) and encouraged students to actively associate with its activities. Dr O P Nautiyal, urged need for "curiosity driven learning". Several IIP scientists made presentations on Challenges in various contemporary scientific topics and work being pursued at IIP. The event was coordinated by SCDD.



TRANSFORMING INDIA INTO A SCIENCE AND TECHNOLOGY DRIVEN GLOBAL MANUFACTURING HUB

"Today's India considers it its responsibility to serv humanity through scientific research	
 0	Shri Narendra Modi Hon'ble Prime Minister of India



Published in:

Pib





India to host 9th ocean science conference in Goa

CSIR-IICT, CLRI



At the Dr Y. Nayudamma Memorial Lecture, group vice chancellor of BITS, Pilani, Prof V. Ramgopal Rao said India's research must focus on real-world impact, guided by the needs of society and industry rather than being confined to academic repositories. The lecture was organised by the Telangana Academy of Sciences at the CSIR-IICT's Vivekananda Dr. Y. Nayudamma Memorial Lecture Auditorium to honour Dr Y Nayudamma, a chemist who transformed India's leather industry. Born in Guntur, Nayudamma rose to become the director of the Central Leather Research Institute (CLRI) in Chennai, where his groundbreaking work not only advanced the industry but also improved the lives of countless tanners. The lecture also brought together scientists, industry experts, and academics, with A.V. Rama Rao, chairman of AVRA Laboratories, as the chief guest along with Prof. Rao.



In his lecture, Prof. Rao presented the reality of India's research and development (R&D). "We're third in the world in research output but 40th in innovation," he said, referencing data from the slides in his presentation. "That's where we're lacking. We're publishing papers, but we're not translating that knowledge into something useful."

He said that India spends less on R&D than other BRICS countries, allocating only 0.7 per cent of its GDP, most of which goes to the Defence Research and Development Organisation (DRDO). The slides displayed India's spending on R&D in comparison to other nations, showing India lagging behind countries like Brazil, which allocates 1.3 per cent of its GDP to R&D. On the other hand, countries like South Korea and Israel spend over 4.5 per cent.





Rao said research projects in Indian higher education institutions should address problems relevant to society, industry, or strategic needs, rather than simply existing for academic records. "Our research projects should come from society, industry or strategic agencies—not libraries," he stated.

He pointed out that India ranks 66th in industry-academia collaboration, describing this as a lost opportunity to connect academic research with practical applications. "Why are we so poor in working with industry? We need our research to connect with the real world," he questioned.

Although India has one of the fastest-growing startup ecosystems, ranked third globally in the number of start-ups, Rao noted that most of these companies are business model innovations rather than genuine technological advancements.

"All these unicorns are business model innovations, not technology innovations," he said, stressing the need for technology-driven solutions that address local challenges. Rao also drew attention to Amul as a successful example of a business model designed for grassroots impact, explaining that the Amul model worked because it was tailored to the needs of farmers and communities.

"Availability of innovation is not the main problem, but adaptability is, especially in agriculture and grassroots issues," he remarked, suggesting that technology must be made

more accessible by business model innovation which is lacking in India. "Our management schools, for example, are trained based on the Harvard Business School model, so they're not equipped to handle issues specific to India," he observed.

According to the slides, he suggested that a 'Morrill moment' could be beneficial for Indian academia, similar to how the US Land-Grant universities were established to serve the needs of the country's agricultural and mechanical industries. **Published in:**

Deccanchronicle



State varsity joins hands with Hyd institute for sickle cell research





Pt Deendayal Upadhyay Memorial Health Sciences and Ayush University has signed an MoU with Hyderabad-based Centre for Cellular and Molecular Biology (CSIR-CCMB) to conduct genetic research and testing for sickle cell anemia in the state. Sickle cell disease is an inherited blood disorder that affects hemoglobin, the protein that carries oxygen through the body. The collaboration focuses on comprehensive diagnosis, identification, and prevention strategies for sickle cell anemia. The agreement encompasses genetic testing and carrier analysis, enabling identification of affected individuals and providing vital information for atrisk populations to enhance health outcomes.

University vice chancellor Pradeep Kumar Patra highlighted that this partnership would enhance early detection capabilities, enabling healthcare professionals to better understand and treat this hereditary condition. The agreement facilitates knowledge exchange between faculty, researchers, and students from both institutions, promoting academic and research excellence. Additionally, collaborative educational initiatives, including seminars, workshops, and training programmes, will raise public awareness and encourage participation in genetics and healthcare sectors.

Dr Giriraj Ratan Chandak, former chief scientist and Sir JC Bose fellow at CSIR-CCMB, said, "Our collaboration with Pt Deendayal Upadhyay Memorial Health Sciences and Ayush University of Chhattisgarh opens new avenues for implementing genetic research aimed at improving public health outcomes. Sickle cell anemia impacts many lives, and this partnership will make diagnostic tools available and deliver essential health education where it's most needed."

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Times of India





National Conference on Technological Breakthrough and Libraries at Chd from today





CSIR-IMTECH, in collaboration with the Association of Senior Library and Information Professionals (ASLIP), is organizing a two-day National Conference on 'Technological Breakthrough and Libraries: Present and Beyond' on November 7-8, 2024. The conference will explore the role of technology in shaping the future of libraries and information management. The inaugural ceremony, scheduled for 10 am on Thursday, will be graced by Amity University, Mohali, Vice-Chancellor Prof RK Kohli.











The CSIR-Structural Engineering Research Centre, CSIR Campus, Chennai, hosted the IISF 2024 curtain raiser ceremony

CSIR-SERC, CEERI

7th November, 2024

From November 30 to December 3, 2024, the Indian Institute of Technology Guwahati will host the 10th edition of the India International Science Festival (IISF). The subject of IISF 2024, which is organised by CSIR, is "Transforming India into a science and technology driven global manufacturing hub." On November 7, 2024, the CSIR-Structural Engineering Research Centre, CSIR Campus, Chennai, hosted the curtain-raiser ceremony for the IISF 2024.

The occasion was presided over by Dr. N. Anandavalli, Director of CSIR-SERC and Coordinating Director of CSIR Madras Complex. The main visitor was Prof. R. Velraj, a

former vice chancellor of Anna University. Dr. S. Bhaskar, Chief Scientist, CSIR-SERC, gave the welcoming speech and provided an overview of the history and motto of IISF. In order to enhance awareness of IISF among stakeholders, he added, a number of these curtain-raiser events are being planned nationwide.

In her presidential address on the theme of "Science: An Inseparable Part of Our Lives," Dr. Anandavalli noted that science is being honoured as a festival in India through HSF and called for increased participation from all facets of society. She asserted that we should celebrate science with excitement and zeal since it is a fascinating subject. She also discussed STEM (science, technology, engineering, and mathematics) in length, the importance of STEM education in the modern world, and HSF's goal of making STEM more widely known among kids. She talked about our country's renowned scientists, the significance of the several science-related holidays observed in India each year, a career in science, the role of civil engineering in daily life, and the activities of CSIR-SERC.

The State Organising Secretary of VIBHA, Tamil Nadu, Shri Gopal Parthasarathy, gave a briefing on VIBHA's responsibilities and IISF 2024. He gave a briefing on VIBHA, the history





of IISF, and how previous IISF editions were organised successfully. He explained in detail the 26 distinct programs that are being organised as part of IISF 2024, including The New Nalanda, Nari Sakthi, and The Gurukula, in which teachers and schoolchildren can take part. Young brains can concentrate on a number of potential fields, including agriculture for food security, health care, environmentally friendly energy, and clean water. He underlined that product development knowledge is currently in high demand.

The IISF Scientific Lecture was given by Prof. R. Velraj, a former vice chancellor of Anna University, who was the event's main guest. The primary visitor was introduced to the audience by Dr. L. Madan Kumar, Principal Scientist, CSIR-CEERI. Prof. Velraj emphasised in his speech the significance of youth power in achieving Viksit Bharat's goal by 2047. He underlined the significance of high-quality education and creative brains while pointing out the enormous advancements in education over the previous 20 years. According to him,

innovation is essential to Viksit Bharat 2047 and should be inclusive and sustainable.

The CSIR-SERC Principal Scientist, Dr. M. Saravanan, suggested a vote of gratitude. The participating students toured several CSIR-SERC laboratories as part of the curtain-raising event, where they observed the numerous research projects underway at the CSIR Campus.



Published in:







C-DOT and CSIR-CEERI signs agreement for "Development of Multiport Switch with Tuneable Impedance Matching Network for a Single Broadband Antenna to Cover 2G, 3G, 4G and 5G Bands" CSIR-CEERI 7th November, 2024

In alignment with the "Bharat 6G Vision", "Made in India" and self-reliant India, Centre for Development of Telematics (C-DOT), the premier Telecom R&D centre of the Department of Telecommunications (DoT), Government of India has signed an agreement with CSIR-Central Electronics Engineering Research Institute (CEERI), Pilani for the development of "Multiport Switch with Tuneable Impedance Matching Network for a Single Broadband Antenna to Cover 2G, 3G, 4G and 5G Bands." The project is funded under the Telecom Technology Development Fund (TTDF) scheme of the Department of Telecommunications, Government of India This scheme, designed to fund Indian startups, academia, and R&D institutions, is a crucial enabler for designing, developing, and commercializing

telecommunication products and solutions. and will focus on developing a Microelectromechanical technology-based switching network to cover multiple communication bands with enhanced antenna performance.

The agreement was signed during a ceremony attended by the Director of C-DOT - Dr. Pankaj Kumar Dalela, Dr. Deepak Bansal, the principal investigator from CSIR-CEERI, Pilani. At the event, Dr. Bansal appreciated DOT and C-DOT for the collaborative opportunities and their effort in building modern infrastructure and advanced research capabilities in the telecom sector across the country. Dr. Rajkumar Upadhyay, CEO, C-DOT, reaffirmed C-DOT's commitment to developing modern communication technological solutions in alignment with the Prime Minister's Bharat 6G Vision. C-DoT representatives expressed their enthusiasm for this collaborative endeavour on developing a Next-gen Micro Electromechanical Systems (MEMS)-based solution to multiport switching for future communication systems. The developed technology can be used to cover all the bands like 2G, 3G, 4G, 5G and beyond in a single antenna without noise.

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Pib



CSIR-IIIM, CIMAP, IHBT



CSIR-Indian Institute of Integrative Medicine (IIIM), celebrated the 9th Ayurveda Day, hosting an Ayurveda medical camp at its Jammu campus. The camp was organized by Regional Ayurveda Research Institute (RARI), Bantalab, Jammu, led by Dr Aditya Shah and his team.

The event was inaugurated by Dr Prabodh



Kumar Trivedi, Director, CSIR-CIMAP Lucknow & Dr Sudesh Kumar Yadav, Director, CSIR-IHBT along with, Dr Zabeer Ahmed, Director, CSIR-IIIM Jammu who highlighted the significance of Ayurveda in promoting holistic health. The medical camp provided valuable health consultations and treatments, showcasing the rich heritage and scientific origin of Ayurvedic practices.

In a remarkable initiative to foster collaboration between scientists and students, 40 Ayurveda

students from the Government Ayurvedic Medical College (GAMC) visited the CSIR-IIIM. They participated in a "Students: Scientist Connect" program, which allowed them to engage with various research areas of the institute and gain insights in to ongoing research in the field of Ayurveda.

The highlight of the day was a thought-provoking lecture delivered by Dr Ankush Bhardwaj, Associate Professor from GAMC Jammu, who spoke on "Ayurveda Principles for Physical and Mental Health". His presentation emphasized the importance of integrating Ayurvedic principles into modern healthcare practices to enhance overall well-being.





The camp was organized under the guidance and supervision of Dr Zabeer Ahmed, Director, CSIR-IIIM, Jammu and coordinated by Dr Love Sharma, Scientist, RMBD&IST Division. The event concluded with a vote of thanks by Abdul Rahim, Chief Scientist & Head acknowledging the contributions of all participants and the collaborative spirit that made the

event a success.











CSIR-Central Leather Research Institute inaugurates LERIG CONCLAVE 2024





CSIR-Central Leather Research Institute (CLRI) inaugurated the 57th edition of the LERIG Conclave at Triple Helix Auditorium, **Stakeholders of the Leather Sector** on 06 November 2024. Dr. R. Aravindan, Sr. Principal Scientist welcomed the gathering. Shri RK Jalan, Chairman, Council for Leather Exports (CLE) graced the occasion as Chief Guest and addressed the gathering, Dr. Ramanuj Narayan, Director, CSIR-IMMT, वी. नौशाद V NOUSHAD and Shri V. Noushad, President, CIFI were also graced the function as the Guests of Honour and shared CSIR-CLRI programs and need of its future research in the leather and non-leather footwear sector, respectively. While delivering the presidential address, Dr. KJ Sreeram Director of CSIR-CLRI said that the 57th LERIG CONCLAVE would discuss the new Research and Development activities for meeting the Goals of the upcoming National Policy on Leather and Footwear sector to improve the global trade by the Indian leather industries, Advancements in Machineries for Indigenization and future of leather and footwear sector. During the program, Dr. T. Ramasami, Former Secretary, DST, Shri Manoj Bhaiya, M/s C & E Limited and IFCOMA, Dr. Saurabh Joglekar, Assistant, Professor, LITU, many other Industrialist from the Leather sector, Scientist of various labs, Scholars and Students of CLRI were present. Dr. Shakila Shobana, Sr. Scientist, proposed the vote of thanks.



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