





#### **National Science Day**





IIT Bhubaneswar celebrated National Science Day on 28th February 2025, commemorating the invention of the Raman Effect by the Indian physicist and Nobel Laureate Sir C.V. Raman, with the theme of the year 'Empowering Indian Youth for Global Leadership in Science & Innovation for Viksit Bharat'. Dr. Debasis Dash, Director, Institute of Life Sciences, Bhubaneswar graced the occasion as Chief Guest and delivered a talk on "Marine Bioprospecting: Innovations for Sustainable Future".

The presentation of Dr. Dash focused on marine bioprospecting, highlighting its potential for various applications. He emphasized on the research for bioactive compounds from marine organisms for drug discovery, sustainable agriculture and industrial biotechnology. His talk also touched upon the relevance of marine resources to sustainability, including bioremediation and carbon sequestration. He describes India's "Blue Economy" initiatives, emphasizing the importance of marine biotechnology and biodiversity conservation. He also highlighted the research being conducted by Institute of Life Sciences (ILS) research in this area involving sample collection, microbial characterization, metabolomics, and bioinformatics.

In his address, Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar highlighted the importance of communication and collaboration for achieving significant success in the field of scientific research. He said that the Institute is taking up initiatives towards cultivating these qualities among the students.



At the outset, Prof. Chandrashekhar Bhende, Dean-Post Graduate & Research Programmes, IIT Bhubaneswar delivered the welcome address and introduced the chief guest.



On this occasion, the students who have participated in international conferences in previous year presented their research work through poster presentations.





































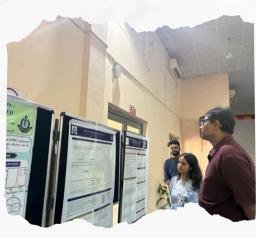














The members of faculty, staff, students and residents of the Institute attended the programme in a large number. Cultural programme by the students enthralled the audience.

#### **Matribhasha Diwas Celebration**



IIT Bhubaneswar celebrated Matribhasha Diwas on 21st February 2025 in a grand manner. The address by the Chief Guest and eminent literary figure of Odisha Dash Benhur (Mr. Jitenra Narayan Dash) was the highlight of the event. The programme was organized to promote awareness of linguistic and cultural diversity and to promote multilingualism, in line with the worldwide celebration as per the UNESCO declaration. This year marked the 25th year of International Mother Language Day with the theme "Language Matters".

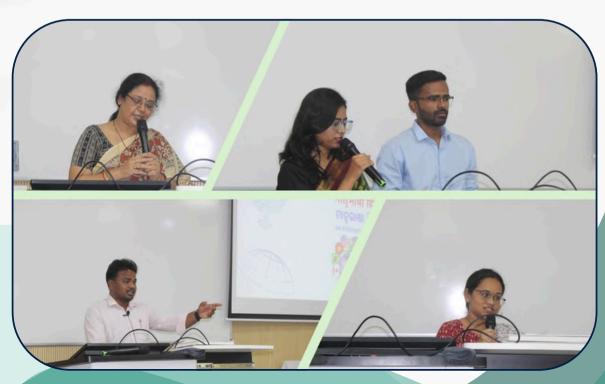
In his address, Chief Guest Dash Benhur said: "Language grows with culture. Every word of any language is a cultural element, which strengthens human culture in turn. Indian culture is a reflection of linguistic diversity, which has enriched India as a developed nation in terms of cultural growth and emotional quotient. Mother language is important for the development of one's personality." He further emphasized, "To enhance the growth of linguistic treasure of our country, we should also accept and adapt to changes with time."



Speaking on the occasion, Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar emphasized that mother language is the language of the heart. "Language is not just a means of communication; it is a repository of our culture, history, and identity. We should respect all the languages along with our own mother language," he added. He also informed that IIT Bhubaneswar has made it a practice for the PhD scholars to submit the Synopsis of their PhD thesis in any one Indian language in addition to English to promote linguistic diversity.

Shri Bamadev Acharya, Registrar of the Institute also spoke on the importance of Matrubhumi and Matribhasha, aligning it with the significance of Indian Knowledge System. He proposed a vote of thanks.

To mark the occasion, the faculty members, staff, residents and students of IIT Bhubaneswar performed songs and recited poetry in their respective mother languages, which made the celebration vibrant.



### IIT Bhubaneswar signs MoU with The RAMCO Cements Limited

With an objective to establish a Center of Excellence (CoE) in the area of Sustainable Construction and Climate Resiliency, Indian Institute of Technology (IIT) Bhubaneswar and THE RAMCO CEMENTS LIMITED signed a Memorandum of Understanding on 24th February 2025. THE RAMCO CEMENTS LIMITED is head quartered in Chennai and operates integrated cement factories, grinding units, and construction chemical plants at several locations in the Southern and Eastern parts of India including Odisha. This Center of Excellence is named, "RAMCO Sustainable Construction and Climate Resiliency Centre (RAMSCON)". The MoU was signed by Prof. Prashant Sahu, Dean (Alumni Affairs & International Relations), IIT Bhubaneswar and Mr. Balaji K. Moorthy (Executive Director, Marketing), THE RAMCO CEMENTS LIMITED, in the presence of Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar and other concerned faculty members from IIT Bhubaneswar and executives from THE RAMCO CEMENTS LIMITED.



The MoU aims to conduct high-quality research related to sustainable construction materials and techniques themed on climate resiliency. The research focuses on the development of advanced and sustainable concrete solutions for durability, efficiency, and specialized applications. This MOU is aligned with UN sustainable development goals (SDGs) to improve the sustainably index of the Indian construction industry.

Among others, Prof. Dinakar Pasla, Dr. Umesh Chandra Sahoo, Prof. Sumanta Haldar from IIT Bhubaneswar, and Mr. Anil Kumar Pillai, Mr. Chandi Prasad Mohanty and Mr. Pratik Ray from THE RAMCO CEMENTS LIMITED were present on the occasion.

### Workshop on "Adding Value to Pattachitra Painting" at Raghurajpur



The renowned heritage village of Raghurajpur, famous for its intricate Pattachitra paintings, witnessed an inspiring transformation with the workshop "Adding Value to Pattachitra Painting." The event, aimed at infusing innovation into this centuries-old art form, was sponsored by One District One Product (ODOP) Invest India, DPIIT, and jointly organized by the Research & Entrepreneurship Park, IIT Bhubaneswar, and NIFT Bhubaneswar on 1st and 2nd March 2025.



The workshop focused on modernizing diversifying Pattachitra beyond and traditional scrolls and canvases integrating it into textiles, home decor, fashion accessories, and lifestyle products. Experts and artisans came together to explore how contemporary aesthetics can be blended traditional craftsmanship to enhance its appeal in global markets.



Speaking on the occasion, Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar said that this programme has been designed to encourage the talented local artisans to internationalize their art and products by providing them with insights on diversifying their work and marketing these products in innovative ways. "This effort made jointly by IIT Bhubaneswar and NIFT Bhubaneswar will help the artists reach to the national and international platforms without the interference of middle-men and enhance their business acumen," he said. He also added that IIT Bhubaneswar and its Research and Entrepreneurship Park is taking up several initiatives towards boosting innovation and developing an entrepreneurial ecosystem in Odisha.

Dr. Naresh Chandra Sahu, convener of the workshop, emphasized the need to preserve the authenticity of Pattachitra while adapting its themes and applications to resonate with international consumers. He highlighted the potential of entrepreneurship and startups in transforming traditional art into sustainable business ventures, urging artisans to embrace innovation, explore new markets, and develop scalable business models.

A live demonstration session showcased the application of Pattachitra on various mediums, including wooden artifacts, jewelry, sunglasses, papier-mâché, cow dung artifacts, sarees, and dupattas. Prof. Susmita Behera and Manas Sahoo led insightful sessions on design modifications for international markets, discussing color adaptations, thematic variations, and contemporary product designs to align with diverse cultural and aesthetic preferences worldwide. Dr. Santosh Tarai, event coordinator proposed a vote of thanks to all the participants and resource persons.

# IIT Bhubaneswar among the winners of National Grand Challenge for GLOF Mitigation

In a significant achievement, IIT Bhubaneswar has secured Second Runners-Up Position in the recently concluded HIMASHIELD 2024 Grand Challenge, organized by C-DAC (Centre for Development of Advanced Computing), Thiruvananthapuram, under Ministry of Electronics and Information Technology research initiatives. The competition aimed to develop innovative and sustainable indigenous solutions for Glacial Lake Outburst Flood (GLOF) mitigation.





The CryoSense Team consisting of Dr. Ashim Sattar (Team Lead), Dr. Sudipta Saha, Dr. Debajyoti Biswas, Abhinav A, Kattamuri Mohan Krishna, Kartick Cherukuri of IIT Bhubaneswar received a Trophy and cash prize of Rs 2 lakh on the occasion of National Science Day. The award ceremony was presided over by Ms. Sunita Verma, Scientist G & Group Coordinator, R&D, MeitY. Dr. Kalai Selvan A, Director, C-DAC, Thiruvananthapuram, Shri. Arvind Kumar, CCA, MeitY were present on this occasion.

The IIT Bhubaneswar team (Cryosense) presented their groundbreaking solution, "GLOF EWS: Deployment and Integration of LoRa IoT Devices at Glacial Lakes and Dissemination of GLOF Warning through an Android App." The project offers a pioneering approach to early warning systems (EWS) for GLOF events, leveraging cutting-edge technology to safeguard communities vulnerable to such disasters.

#### IIT Bhubaneswar and ICAR sign MoU



In a significant step towards fostering interdisciplinary research and education, IIT Bhubaneswar and ICAR-Central Rice Research Institute (ICAR-CRRI), Cuttack, have entered into a Memorandum of Understanding (MoU) signed on 21st February 2025. This MoU aims to establish a robust framework for academic and research collaboration between the two prestigious institutions. The MoU was signed by Prof. Dinakar Pasla, Dean (Sponsored Research & Industrial Consultancy), IIT Bhubaneswar and Dr. Amresh Ku Nayak (Director), ICAR-Central Rice Research Institute (ICAR-CRRI), Cuttack, in the presence of Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar and other concerned faculty members from IIT Bhubaneswar and executives from ICAR-Central Rice Research Institute (ICAR-CRRI), Cuttack.

The MoU signifies a shared commitment to leveraging the strengths of both institutions to address pressing challenges in agriculture, technology, and related fields. ICAR-CRRI, a pioneering institute in rice research under the Indian Council of Agricultural Research (ICAR), brings decades of expertise in crop science, agricultural technology, and education. IIT Bhubaneswar, a leading institution of national importance, contributes cutting-edge research capabilities across various engineering and science disciplines.

## Training programme for OPTCL Management Trainees

A 5-day training programme on 'Modelling & Simulation of Power Systems' was conducted for Odisha Power Transmission Corporation Ltd. (OPTCL) management trainees from 24th-28th February at School of Electrical & Computer Sciences, IIT Bhubaneswar. The programme was designed by Prof S.R. Samantaray, OPTCL Chair Professor at IIT Bhubaneswar, focussing on the modelling and simulation of largescale power systems connecting industry needs. The training programme included wide range of topics including modelling and simulation of test systems, of IEEE standard test systems, load flow studies, protection aspects of transmission systems using distance relay, impact of active distribution networks on transmissions, wide area stability and control for power transmission network including bulk penetration of renewables, electromechanical phasor domain simulation for transient stability assessment, EMT vs phasor domain simulation, HVDC transmission systems, Phasor measurement units (PMUs) and Wide area management systems (WAMS), Hardware in Loop (HIL) and its variants, phasor. The training programme provided hands-on demonstration of various simulation platform like MATLAB/ SIMULINK, PSCAD, and RTDS/ RSCAD to cover these topics following industry requirements. The programme was attended by 48 fresh management trainees of OPTCL who are undergoing training before assigned to further responsibilities. This programme is part of the industry connect with OPTCL and has been conducted since last 3 years.





#### Lecture Series on World Philosophy Day

The School of Humanities, Social Sciences and Management of IIT Bhubaneswar organised a lecture series to mark the World Philosophy Day on 28th February 2025. This programme was sponsored by the Indian Council of philosophical research (ICPR). The grant was awarded to Dr. Richa Shukla, Assistant Professor, SHSSM. The lecture series was conducted in hybrid mode. It was titled as: 'Samvad in Indian Epics: A Therapeutic Attempt to Understand Self and Other'.

Prof Bindu Puri, Professor, Center for Philosophy, JNU. Prof Sampadanand Mishra, Director, Centre for Human Values, Rishihood University. Dr. R. Venkata Raghavan, Assistant Professor, IIT Bhubaneswar delivered insightful lectures on this occasion.

The panellists gave their perspective on aspects of Indian Epics and how incorporating them in our everyday lives can be therapeutic in nature.













# UBA Team partners with Young Tinker Educational Foundation for 'Tinker on wheels' Programme

Unnat Bharat Abhiyan (UBA) Team of IIT Bhubaneswar has partnered with Young Tinker Educational Foundation to promote STEM (Science, Technology, Engineering and Mathematics) education and promote creative thinking amongst young minds.

In the first phase, 39 students studying in Class VI-VIII at Padanpur Upper Primary School attended the ToW (Tinker on Wheels) Program - 5-day transformational STEM learning experience starting on 13th February 2025. The students learnt about ideation, hands-on activity to make models, basic coding and learning to be a problem-solver. The young minds presented their ideas during the Completion ceremony held on 18th February 2025 before the ToW mentors, their school teachers and classmates. The function was also attended by the UBA Coordinator at IIT Bhubaneswar, Dr. Seema Bahinipati. All the participants received a workbook in Odia and a certificate stating their participation in the program by the ToW team.









#### **Annual Sports Day of Feminine Fusion**





The Annual Sports Day of Feminine Fusion (Ladies' Club) was held on 22nd February 2025, which was designed to bring together members for a day filled with energy, enthusiasm, and camaraderie. This event provided a platform for the members of the Club to showcase their athletic skills, foster team spirit, and enjoy healthy competition in a vibrant and supportive environment. The event included Outdoor and Indoor games like 100 m race, tug of war, badminton, carrom ,Lemon spoon, Throw Ball, etc.. Beyond the sports, this day was a celebration of fitness, friendship, and fun, encouraging a healthy lifestyle and strengthening the bonds within our community. Prof. Shreepad Karmalkar, Director of the Institute and Smt. Shruti Karmalkar graced the occasion and encouraged the participants.



