



Higher Education Minister of Indonesia visits IIT Bhubaneswar

Mr. Brian Yulianto, Hon'ble Minister, Ministry of Higher Education, Science and Technology, Republic of Indonesia, visited IIT Bhubaneswar on 6th August 2026 to explore the areas of academics, research, and innovation at the Institute.



During the interaction, Prof. Shreepad Karmalkar, Director of IIT Bhubaneswar, presented various aspects of the Institute and briefed them on the different areas of research and development. Prof. Karmalkar made a presentation introducing the Institute's unique strengths in teaching-learning, research, industry-academia collaboration, entrepreneurship development, teacher education, and mental wellness measures. Hon'ble Minister and the team accompanying him also explored the avenues of academic and research collaboration between IIT Bhubaneswar and the educational institutions of Indonesia. They also visited the Semiconductor labs of the Institute.



Among others, as part of the delegation, Prof. Fuad, Attache of Education and Culture, Embassy of the Republic of Indonesia; Mr. O.K. Earliwan Sampurno, Special Advisor to Minister for Industrial Relations and International Cooperation also visited the Institute. From IIT Bhubaneswar, Prof. Animesh Mandal, Dean (Alumni, Corporate and International Relations); Prof. Shyamal Chatterjee, Dean (Continuing Education); Prof. Umapasana Ojha, Dean (Faculty Affairs); Prof. Chandrashekhar N. Bhende, Head, Department of Electrical Engineering & Coordinating Head, School of Electrical and Computer Sciences; Prof. P.V. Satyam, Professor of School of Basic Sciences; and Mr. Bamadev Acharya, Registrar of the Institute were present on the occasion.

IIT Bhubaneswar Hosts Two-Day MDP on Building Inclusive & Purpose-Driven Organisations

IIT Bhubaneswar, in association with the Odisha CSR Forum, successfully organised a two-day Management Development Programme (MDP) on "Human Capital to Social Capital: Building Inclusive, Sustainable and Purpose-Driven Organizations" from 7–8 August 2026 at the Institute. The programme brought together eminent academicians, industry leaders, policymakers, CSR professionals and management experts to deliberate on developing future-ready human capital and strengthening collaboration among academia, industry and communities.

The inaugural session was graced by Dr. Sarat Kumar Acharya, Former Chairman-cum-Managing Director, NLC India Limited., as the Chief Guest, while Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar, presided over the programme.

Welcoming the participants, Shri B. K. Mishra, Convenor, Odisha CSR Forum, highlighted the need for stronger collaboration among academia, industry and policymakers to create organisations with lasting societal impact.

In his inaugural address, Dr. Acharya said that India's demographic dividend can be harnessed through skill development, value-based education and responsible citizenship. He emphasised that true progress lies in translating wealth into societal well-being and urged organisations to make CSR a catalyst for sustainable livelihoods and employability rather than charity.



Presiding over the inaugural session, Prof. Shreepad Karmalkar said that inclusive growth, sustainability and collaboration are central to building future-ready organisations. He highlighted IIT Bhubaneswar's initiatives in this context, such as encouragement of active collaborative learning pedagogy, feedback-driven governance, the 100-Cube startup initiative, and community outreach programmes such as Unnat Bharat Abhiyan. In this manner, the institute is nurturing human capital for greater societal impact.

The inaugural session concluded with a vote of thanks by Prof. Animesh Mandal, Dean (Alumni, Corporate and International Relations), IIT Bhubaneswar. The first day also featured a keynote lecture by Prof. R. K. Padhy, IIM Sambalpur, on "Future of Human Capital in India @2047".



Across two days, participants took part in keynote lectures, plenary sessions, panel discussions and workshops on themes including India@2047, AI and the future of work, skill development, leadership, DEI, ESG, employee well-being, industrial relations, CSR-HR-IR integration, and industry-academia-community partnerships. Discussions underscored the need for stronger collaboration among academia, industry and government to build inclusive, resilient and socially responsible organisations.



The programme concluded with a valedictory session, certificate distribution and a renewed commitment from the participants to translate the deliberations into meaningful action for building sustainable organisations and an inclusive society. Shri Prashant Hota, President, Jindal Steel Ltd. graced the valedictory session as the chief guest and inspired the participants.



IIT Bhubaneswar Marks Six Years of NEP 2020 with Special Panel Discussion

IIT Bhubaneswar organised a special panel discussion under the Akhil Bharatiya Shiksha Samagam (ABSS) 2026 on 10th August 2026 to mark six years of the National Education Policy (NEP) 2020. Held at the Lalitgiri Hall of Learning, the event brought together academicians, education and skilling experts, faculty members and students to deliberate on the evolving landscape of Indian education.



The discussion explored five key dimensions of NEP 2020: Research and Innovation, Skills and Employability, Teacher and Faculty Development, Entrepreneurship, and Artificial Intelligence in Higher Education.

In his opening remarks, Prof. Pravas Ranjan Sahu, Chairperson, NEP Implementation Committee, IIT Bhubaneswar, highlighted NEP 2020's focus on future-ready, student-centric and holistic education, driven by emerging technologies, Indian languages and the integration of Indian Knowledge Systems with contemporary education. Prof. Shyamal Chatterjee, Dean (Continuing Education) also spoke on the occasion.



Speaking on “Research, Innovation and Global Competitiveness,” Prof. Palok Aich, Dean (R&D), NISER Bhubaneswar highlighted the expansion of India's research ecosystem, multidisciplinary education, increased research opportunities and initiatives such as ANRF and the RDI Fund, emphasising their potential to strengthen India's global research competitiveness.

Addressing “Skills, Employability and Industry Integration,” Mr. Ranjan Bhowmick, CEO of Skill Development Institute (SDI) emphasised bridging the gap between academic education and industry requirements through vocational education, experiential learning, reskilling and stronger industry-academia collaboration.





Speaking on “Teacher and Faculty Development and Future Pedagogies,” Dr. Anasuya Roychowdhury stressed on the need for continuous faculty development, innovative and outcome-based pedagogies, multidisciplinary learning and responsible use of technology, stressing that AI should complement rather than replace teachers.

Addressing on “From Classroom to Startup: Fostering Entrepreneurship through NEP 2020,” Dr. Soobhankar Pati, CEO, IIT Bhubaneswar Research & Entrepreneurship Park, focused on fostering entrepreneurship and transforming students from job seekers into job creators through skills, experiential learning, multidisciplinary education and access to incubation and funding support.



Speaking on “AI in Higher Education: Risks, Rewards, and Necessity,” Dr. Sasidhar Kondaraju examined the opportunities and risks of AI in higher education, advocating supervised and responsible AI use, stronger critical thinking, validation of AI-generated outputs and continuous evolution of pedagogy.

The discussions collectively reinforced the vision of NEP 2020 for a multidisciplinary, skill-oriented, innovation-driven, entrepreneurial and technology-enabled education system, while underscoring the importance of institutional collaboration, faculty development, industry engagement and responsible technology adoption in advancing India’s educational transformation towards Viksit Bharat@2047.



IIT Bhubaneswar and Banashree Semiconductors Partner to Advance Semiconductor Research and Innovation

In a move to strengthen academia-industry collaboration in the semiconductor sector, IIT Bhubaneswar has recently signed a Memorandum of Understanding (MoU) with Banashree Semiconductors for joint research, industry-oriented education, training and innovation in advanced semiconductor technologies.



The MoU was signed on behalf of IIT Bhubaneswar by Prof. Vijay Shankar Pasupureddi, Dean, Sponsored Research and Industrial Consultancy (SRIC), and on behalf of Banashree Semiconductors by Dr. Chandramohan Umapathy, Director, in the presence of Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar. Dr. Navjeet Bagga, Assistant Professor and Dr. Sandeep Kumar Samal, Assistant Professor of the School of Electrical and Computer Sciences were present on the occasion.

Banashree Semiconductors specialises in advanced silicon-node, low-power chip design and PPA optimisation for SoC applications. Under the five-year MoU, IIT Bhubaneswar and the company will undertake joint R&D, design optimisation, faculty-student exchanges, internships, training and collaborative research, while exploring funded projects and sharing research infrastructure. The partnership will also provide students with hands-on industry exposure and promote joint workshops, seminars, courses and publications, strengthening academia-industry collaboration and industry-relevant semiconductor talent development.

IIT Bhubaneswar, Rajendra University Join Hands to Strengthen Academic and Research Ecosystem



IIT Bhubaneswar and Rajendra University, Balangir have signed a Memorandum of Understanding (MoU) on 6th August 2026. The partnership aims to provide academic and institutional support to Rajendra University, particularly in teaching, research, governance and infrastructure. The MoU was signed in the presence of Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar. Prof. Mihir Kumar Das, Dean (Sponsored Research & Industrial Consultancy)-In-Charge; Prof. Chandrashekhkar N. Bhende, Head, Department of Electrical Engineering & Coordinating Head, School of Electrical and Computer Sciences from IIT Bhubaneswar and Prof. Bibhuti Bhushan Malik, Vice Chancellor and Shri Haraprasad Bhoi, OAS (S), Registrar from Rajendra University were present on the occasion.

Key areas of collaboration include establishing an Incubation and Entrepreneurship Centre at Rajendra University, enabling its students to undertake internships and short-term research projects at IIT Bhubaneswar, and providing academic mentorship for the proposed B.Sc. in Data Science programme.

The institutions will also explore a joint M.Tech. programme in Artificial Intelligence and Machine Learning and a Joint Diploma Certificate Programme in Climate Finance and Sustainable Entrepreneurship. Faculty from both institutions may jointly guide undergraduate, postgraduate and doctoral research projects. The three-year MoU marks a significant step towards expanding academic opportunities, strengthening research linkages and fostering innovation across Odisha.

IIT Bhubaneswar Researchers Discover Rare Magnetic State in 2D Material, paving the way for Faster, Energy-Efficient Electronics

Researchers from the Department of Physics, Indian Institute of Technology (IIT) Bhubaneswar, in collaboration with Virginia Commonwealth University, USA, have theoretically predicted a new two-dimensional material exhibiting i-wave altermagnetism, one of the rarest forms of the recently discovered magnetic phase known as altermagnetism.

The finding could open new possibilities for developing faster, more compact and energy-efficient electronic devices, with potential applications in high-density memory, spin-based transistors, terahertz communication and future quantum technologies.

The study, led by Dr. Manish Kumar Mohanta, ANRF Ramanujan Faculty, Department of Physics, IIT Bhubaneswar, has been published in Nano Letters, a leading international journal in nanoscience and nanotechnology.

Altermagnetism has emerged as an important area of research in condensed matter physics as it combines useful characteristics of conventional magnets and antiferromagnets. Unlike ordinary magnets, altermagnetic materials produce virtually no stray magnetic fields. This means electronic components could potentially be placed closer together without causing magnetic interference.

At the same time, these materials can generate and manipulate spin-polarized electrical currents, an important requirement for next-generation spintronics. Unlike conventional electronics, which primarily uses the electric charge of electrons to process information, spintronics also uses the electrons' intrinsic spin, creating opportunities for faster and more energy-efficient devices.

The IIT Bhubaneswar-led research predicts that a three-atom-thick FeCl_3 monolayer exhibits rare i-wave symmetry altermagnetism. This highly complex magnetic state could enable precise control over electron spins and provide a promising platform for developing ultrafast, low-power electronic technologies.

The predicted material also exhibits significant spin Hall and anomalous Hall effects, properties that are important for efficient spin transport and information processing in advanced electronic circuits.

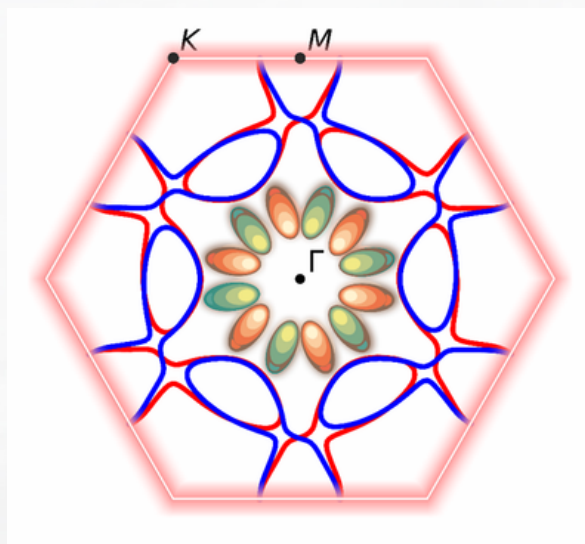
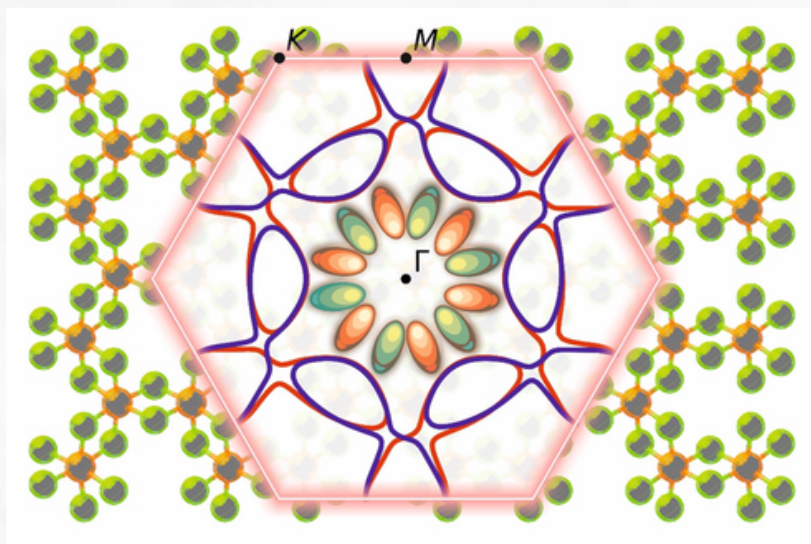


Image Caption: Figure shows i-wave altermagnetism in a FeCl_3 monolayer. Despite having zero net magnetic moment, the material exhibits a complex, momentum-dependent spin splitting of its electronic bands, a distinctive signature of altermagnetism. Such unusual magnetic state opens new possibilities for controlling electron spins without relying on conventional ferromagnets.

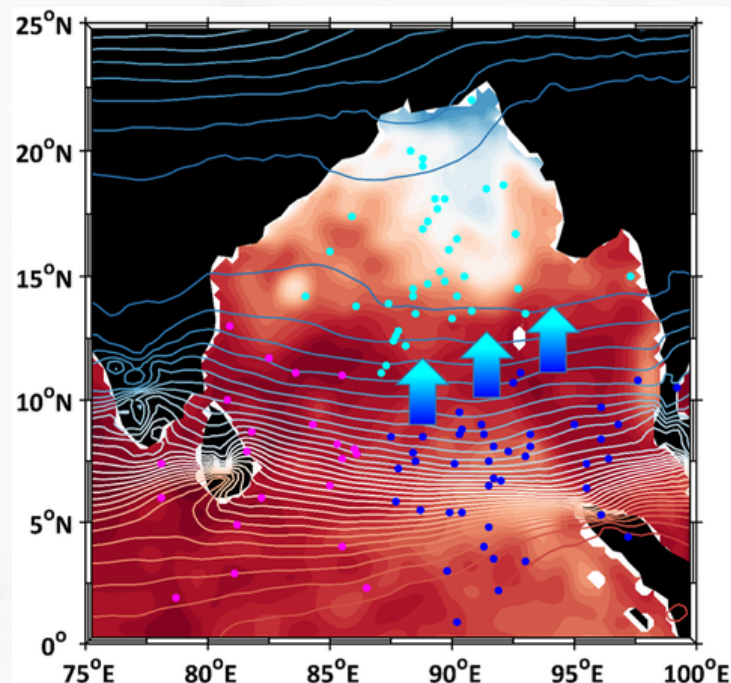
With the growing demand for faster computing systems that consume less energy, the discovery provides a new direction for designing future electronic devices with improved speed, efficiency and reliability. Such advances could eventually contribute to technologies ranging from data storage and artificial intelligence hardware to wearable electronics, terahertz devices and quantum information systems.

Commenting on the significance of the work, Dr. Manish Kumar Mohanta said that the discovery expands the growing family of altermagnetic materials and provides a promising platform for exploring practical spintronic devices that could be faster, more compact and significantly more energy-efficient than existing technologies.

Link of the paper:

<https://doi.org/10.1021/acs.nanolett.6c03027>

IIT Bhubaneswar Study Finds Northward Shift in Cyclone Formation in Bay of Bengal, Raising Risk for Northern East Coast



A new study by researchers at the Indian Institute of Technology (IIT) Bhubaneswar has found a significant northward shift in the dominant zone of tropical cyclone formation in the Bay of Bengal, along with an increase in high-intensity cyclone landfalls along the northern parts of India's eastern coast.

Published in the *Journal of Marine Systems* by Elsevier, the study, titled "Shifting Patterns of Tropical Cyclogenesis in the Bay of Bengal and Landfalls over the Eastern Indian Coast", was authored by Sidha Sankalpa Moharana and Dr. Debadatta Swain of the School of Earth, Ocean and Climate Sciences at IIT Bhubaneswar.

Using advanced clustering and machine learning techniques, the researchers identified three distinct cyclone formation zones analyzing cyclone activity and associated environmental conditions over 41 years (1983–2023). It was observed that increasing ocean temperatures and changing wind circulation are now favouring formation of intense cyclones in the region. Specifically, the dominant region for cyclone formation has shifted towards the northern Bay of Bengal from the historically intense south-eastern waters since the year 2005. This fundamental shift is characterized by a statistically significant northward displacement of approximately 1° latitude per decade. This has resulted in a marked increase in high-intensity cyclone landfalls along India's eastern coastline, particularly north of Visakhapatnam. The powerful storms are also accompanied by extreme winds, heavy rainfall and strong storm surges.

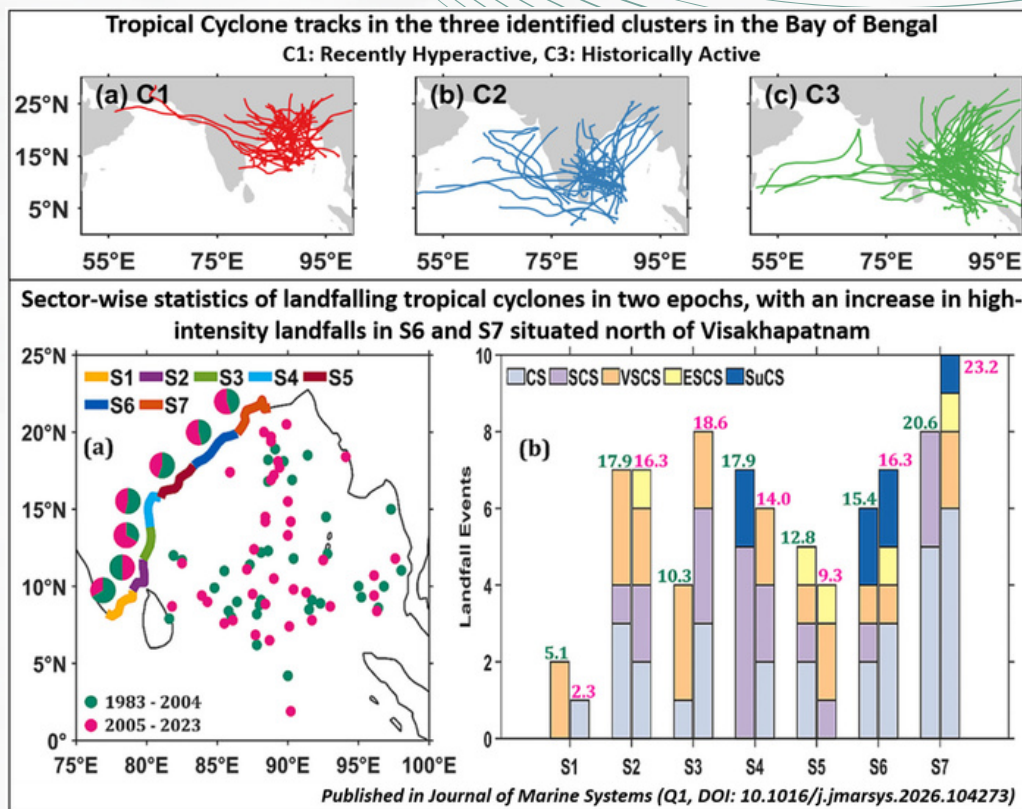


Image Caption: Northward shifting tropical cyclone formations in the Bay of Bengal and associated increase in landfalls on the eastern Indian coast.

These major changes in extreme weather patterns mean real, growing risk in the form of storm surge, flash floods, landslides, saline water inundations, vegetation loss, and most essentially, damage to high-value coastal assets and strategic infrastructure. The observed increase in intense cyclone formation and the associated shift in landfall patterns in the northern parts of the Bay have superseded the old safety plans and vulnerability assessments. Coastal disaster mitigation policy must now pivot to dynamic, region-specific, scenario-based planning for addressing the evolving coastal risk profiles. Consequently, disaster management agencies must urgently and proactively re-evaluate the existing the regional risk profiles and mitigation frameworks, with particular emphasis on the growing complexity and convergence of multifaceted coastal threats. This means creating better evacuation routes, building stronger sea walls and shelters, preserving coastal vegetation and mangroves, and updating safety rules specifically for the high-risk coastal regions.

Source: “Shifting Patterns of Tropical Cyclogenesis in the Bay of Bengal and Landfalls over the Eastern Indian Coast”, Journal of Marine Systems (Elsevier), July 2026, <https://doi.org/10.1016/j.jmarsys.2026.104273>

A Recognition of Scientific Excellence and Emerging Research Leadership



IIT Bhubaneswar is proud to announce that Dr. Soumya Prakash Dash, School of Electrical and Computer Sciences, has been selected for the prestigious NASI Young Scientist (NYS) Award 2026 by the National Academy of Sciences, India (NASI).

The recognition honours Dr. Dash's outstanding scientific achievements and potential for leadership in research, marking a significant milestone in his academic and research journey. The selection reflects the growing impact of research emerging from IIT Bhubaneswar and the Institute's continued commitment to fostering excellence, innovation and high-impact scientific inquiry.

As part of the recognition, the NASI Young Scientist Award carries a one-time research incentive of ₹2 lakh, which will be released through the parent/host institution in accordance with NASI guidelines.

The NASI Young Scientist Certificate will be formally presented to Dr. Dash during the Felicitation Ceremony at the 96th Annual Session and Symposium of the Academy, scheduled to be held from 4th to 5th December 2026 at Banaras Hindu University, Varanasi. He will also deliver a short talk during the scientific sessions.

The distinction is a testament to Dr. Dash's dedication to scientific research and his potential to contribute significantly to the advancement of knowledge. IIT Bhubaneswar congratulates Dr. Soumya Prakash Dash on this well-deserved honour and wishes him continued success in his research endeavours.

IIT Bhubaneswar extends its heartfelt congratulations and looks forward to his continued contributions to the scientific community.

IIT Bhubaneswar Scholar Selected for TCS Research Scholar Program



Mr. Deepak Kumar, Ph.D. Scholar at the Air-Sea Interaction Laboratory, School of Earth, Ocean and Climate Sciences (SEOCS), IIT Bhubaneswar, has been selected under the prestigious TCS Research Scholar Program (RSP), Cycle 20, for his research proposal titled “Comprehensive Assessment of Renewable Energy Potential over India in Climate Change Scenarios.” He is pursuing his doctoral research under the guidance of Dr. Sandeep Pattnaik, Associate Professor, SEOCS.

The fellowship, effective from 1st July 2026, will support Deepak’s doctoral research for up to four years or until completion of the Ph.D., whichever is earlier. The programme also provides opportunities for research-related travel and visits to TCS laboratories.

The selection marks a significant milestone for IIT Bhubaneswar, as this is the first TCS Research Scholar fellowship secured by the Institute. This recognition underscores the growing strength and relevance of research at IIT Bhubaneswar in the areas of renewable energy, climate science and sustainable development.

IIT Bhubaneswar congratulates Mr. Deepak Kumar and Dr. Sandeep Pattnaik on this notable achievement and wishes them continued success in their research journey.

Celebration of National Librarians' Day

The Central Library, IIT Bhubaneswar, observed National Librarians' Day 2026 on 12th August 2026 to commemorate the 134th Birth Anniversary of Dr. Shiyali Ramamrita Ranganathan, widely regarded as the Father of Library Science in India. The day honours his pioneering contributions to library and information science and his enduring philosophy of user-oriented library service.

As part of the observance, the Central Library displayed a special collection of books on the life, works, philosophy, and contributions of Dr. Ranganathan. The display aimed to create awareness among students, research scholars, faculty, and library users about his significant contribution to Indian librarianship. It also highlighted his Five Laws of Library Science: Books are for use; Every reader his or her book; Every book its reader; Save the time of the reader; and the library is a growing organism.

The programme was attended by Dr. Manaswini Behera, Chairperson, Central Library; Dr. Naresh Chandra Sahu, Associate Professor, SHSSM, IIT Bhubaneswar; Dr. Sambhunath Sahoo, Assistant Librarian, Central Library; and staffs of the Central Library. The occasion was also graced by Prof. Dr. Sasmita Samanta, Former Vice-Chancellor, KIIT University, Bhubaneswar, whose presence added significance to the celebration.

The Central Library IIT Bhubaneswar, extends its heartfelt greetings to the entire library fraternity and its user community on the occasion of National Librarians' Day 2026.





Picture Credit: Dr. Sivaiah Bathula

“People talk about perfect timing, but everything is perfect in its moment; you just want to capture that.”

Eddie Huang

