



PECTEA 2025 Conference Drives Breakthroughs in Power Electronics for Sustainable Energy and Transportation Systems

The International Conference on Power Electronics Converters for Transportation and Energy Applications (PECTEA 2025), hosted by the School of Electrical and Computer Sciences, IIT Bhubaneswar, successfully concluded on 21st June 2025. Spanning four days, the conference served as a vibrant forum for academicians, researchers, and industry leaders to deliberate on the future of power electronics in transportation and energy systems.

The conference was inaugurated on 19th June 2025 by Prof. Sukumar Mishra, Director, IIT (ISM) Dhanbad, who emphasized the need for integrated, outcome-driven research. He highlighted the convergence of power electronics, electrical engineering, and computing, and stressed the role of Technology Readiness Levels (TRLs) in real-world innovation. He also praised the organizers for encouraging interdisciplinary dialogue and nationally relevant research.



In his address, Prof. Shreepad Karmalkar, Director of IIT Bhubaneswar, highlighted the growing importance of power electronics in tackling global energy and transport challenges. He emphasized the need to engage students early and showcase the societal impact of engineering, noting that conferences like PECTEA foster critical dialogue and inspire meaningful, impact-driven research.

Prof. C.N. Bhende, Dean (Continuing Education) In-Charge highlighted the role of the Continuing Education section of the Institute in imparting lifelong learning. Dr. Dipankar De, Organizing Chair of the Conference, delivered the welcome address and Dr. Chandrasekhar Perumalla, Organizing Co-Chair proposed a vote of thanks in the inaugural session.

The conference commenced with a day of high-level tutorials by distinguished faculty and industry professionals, followed by keynote addresses from global thought leaders, including Prof. Sanjib Kumar Panda (National University of Singapore), Prof. Rajeev Kumar Singh (IIT BHU), Prof. Pat Wheeler (University of Nottingham, UK) and Prof. John Hayes (UCC Ireland).

The Women in Engineering (WIE) event held on IEEE PELS Day, held on 20th June highlighted IEEE PELS initiatives promoting diversity and inclusion. Experts discussed trends and challenges in women's participation in engineering education and the workforce, focusing on actionable strategies to boost representation. Over three days of technical sessions, authors from leading institutions and industries presented their research through interactive sessions, fostering academic exchange and collaboration. Selected students received financial travel support from the conference organizing committee.



During PECTEA-2025, IIT Bhubaneswar hosted a live demonstration of the KAMMA Gear Flywheel Technology. This green, pollution-free solution acts as a mechanical battery and synchronous condenser, enhancing grid stability through high-inertia energy storage. The system combines input from a prime mover with optimized flywheel mass via gravity, aligning with energy conservation principles. Scalable for large applications, the technology was fully demonstrated on campus through appropriate measurements.

It may be noted that a national level steering committee will be formed to make this conference a biennial event with its 2nd version in 2027 at IIT Bhubaneswar.

Celebration of International Day of Yoga

IIT Bhubaneswar celebrated the 11th Edition of International Yoga Day with great enthusiasm and fervor on 21st June 2025 and organised 'Yoga Sangam'. The event was organized under the ambit of institute's extra academic activity (EAA) and healthcare units in association with the health club of the campus. This year, the theme for International Yoga Day was 'Yoga for One Earth, One Health'.

Prof. Ranjan Kumar Bal, Vice-Chancellor of ASBM University, graced the occasion as Chief Guest and emphasized the importance of mental wellness. He highlighted the role of good food, sleep, and self-discipline in achieving holistic well-being and fostering win-win situations in the society.



A guided session of yoga asanas, pranayama, and meditation was conducted at the beginning of the programme, with enthusiastic participation from all age groups. Instructors highlighted the holistic benefits of each practice, promoting awareness beyond the physical aspects of yoga. The event was graced by Prof. Shreepad Karmalkar, Director; Prof. Rajesh Roshan Dash, Dean-Student Affairs; Shri Bamadev Acharya, Registrar; and other senior members, with coordination by Dr. Santhoshkumar G.

The programme drew a strong response from students, faculty, staff, and campus residents, reinforcing the institute's commitment to well-being and traditional Indian practices. Earlier, on 20th June, Niramay—the institute's Health Club—also hosted a yoga demonstration.

Training Program on Open-Source Library Management Software

With an objective to spread awareness and provide hands on training on various open-source tools and software to library professionals across the country, the Central Library of Indian Institute of Technology (IIT) Bhubaneswar has organized a five-day training program on Open-Source Library Management Software, with special focus on tools like Koha and VuFind. This training program was held from 9th to 13th June 2025, wherein around 27 participants from reputed institutions across the country were provided with practical training and detailed deliberations.



In his address during the inauguration session of the training program, Prof. Rajesh Roshan Dash, Dean-Continuing Education (In-Charge) congratulated the Central Library Team of the Institute for organizing this training program, which would be beneficial for the library professionals.

Mr. Hemanta Kumar Biswal, Assistant Librarian, IIT Kharagpur joined the program as a resource person and mentioned that this is one-of-its-kind training programs in the country.

In his welcome address, Dr. Sasidhar Kondaraju, Chairperson- Central Library said: “This training program is designed to extend practical and hands on experience to the library professionals understand various modern and latest open-source library management software and tools like Koha and VuFind.”

In his opening remark, Dr. Bibhuti Bhusan Sahoo, Deputy. Librarian highlighted the significance of the training program and also mentioned the outline and the objectives of the 5-day program. Dr. Sambhunath Sahoo, Assistant Librarian proposed a vote of thanks on the occasion.

Dr. Debi Prosad Dogra, Head, Department of Computer Science & Engineering; Prof. Manoranjan Satapathy, Professor, CSE; Dr. Naresh Chandra Sahu, Associate Professor; Mr. Hemanta Kumar Biswal,; Dr. Bibhuti Bhusan Sahoo and Dr. Sambhunath Sahoo provided training to the participants as resource persons.



The valedictory session of the training program was graced by Dr. Naresh Chandra Sahu and Dr. Sasidhar Kondaraju. They appreciated the initiative of the Central Library to come forward to promote the Open-Source Movement.

Sharing the experience of the training program, the participants expressed their satisfaction with the quality of knowledge and technical skills shared by the resource persons pertaining to various aspects of the open-source library management software, which they can implement in their respective institutions in a self-reliant manner.



FDP on AI and Adaptive Learning in Inclusive Classrooms

The School of Humanities, Social Sciences & Management organized a five-day Faculty development program (FDP) on AI and Adaptive Learning in Inclusive Classrooms From 23rd to 27th June 2025 organized by Electronics & ICT Academy (Hub), NIT Warangal In association with E&ICT Academy (Spoke), IIIT-DM Kurnool, Andhra Pradesh & Indian Institute of Technology Bhubaneswar sponsored by Ministry of Electronics and Information Technology (MeitY), GoI.



In today's rapidly evolving educational landscape, the integration of Artificial Intelligence (AI) and adaptive learning technologies has opened new pathways to meet the diverse needs of our learners. Educators are now at a pivotal moment where they can harness the power of technology to bridge learning gaps, personalize instruction, and create inclusive environments that support every student, regardless of ability, background, or learning style.



The theme of this FDP was timely and transformative, emphasizing the growing necessity of inclusive classrooms. The program aimed to raise awareness about AI's potential, when responsibly used, to support differentiated and adaptive learning. Participants explored how AI innovations align with Universal Design for Learning (UDL) principles through expert talks, interactive workshops, and hands-on sessions led by professionals from academia, industry, and NGOs. The FDP equipped participants with tools to create more adaptive, accessible, and learner-centered classrooms.

MoA signed between IIT Bhubaneswar and GRID India



A Memorandum of Agreement (MoA) has been signed between GRID India and IIT Bhubaneswar for executing the project titled “Design and Development of Cyber Range tailored for power grids” on 16th June 2025 . The Cyber Range research project aims to develop and implement a simulated environment to train professionals and test various cybersecurity solutions against real-world cyber threats in a controlled, risk-free setting.

This methodology outlines the step-by-step approach to achieving the objectives, from designing the range to testing and validating the results. This project is the first project among the industries signed MoU with IIT Bhubaneswar for collaboration during inauguration of 100 Cube Startup Initiative. The MOA was signed by Mr. Sajan George, CGM, GRID Controller of India Ltd (ERLDC) and Prof. C. N. Bhende (I/C) Dean SRIC in presence of Prof. S.R. Samantaray, PI of the project and Er Topobrata Paul, Manager, GRID Controller of India Ltd (ERLDC). This collaboration will enhance industry-academia interface for long term collaboration.

MoU signed with Water Corporation of Odisha (WATCO)

IIT Bhubaneswar has signed MoU with Water Corporation of Odisha (WATCO) on 25th June 2025 in the presence of Prof. Dinakar Pasla, Dean SRIC, IIT Bhubaneswar, Prof. Rajesh Roshan Dash, Professor, School of Infrastructure, Dr. Manaswini Behera, Associate Professor, School of Infrastructure, Mr. Guru Charan Das, Managing Director, WATCO and Mr. Debabrata Mohanty, Director (Projects), WATCO.

This MoU was signed for technical support and advice for its Quality Assurance Cell for the provision of good-quality drinking water supply in Odisha. For this project, WATCO will pay Rs. 354 lakh to IIT Bhubaneswar. Prof. Rajesh Roshan Dash, Principal Investigator, and Dr. Manaswini Behera, Co-Principal Investigator from IIT Bhubaneswar, will carry out the study and give technical support and advice to WATCO.



Madhava Nurture Camp -2025

The Madhava Nurture Camp -2025 was held at IIT Bhubaneswar during 9th to 14th June 2025. As many as 41 undergraduate students from different parts of our country such as West Bengal, Sikkim, Tripura, Jharkhand, Odisha and Karnataka took part in it. The participation was by invitation only and the participants were from the national merit list of Madhava Mathematics Competition-2025. With the objective of exposing the brilliant minds to some advance topics of mathematics with focus on critical thinking and problem solving, the camp was organized in association with Bhaskaracharya Pratishthana, Pune with financial support from National Board for Higher Mathematics.



The resource persons included Dr. Akash Ashirbad Panda, Dr. Sunil Kumar Prajapati, and Dr. Tarakanta Nayak from IIT Bhubaneswar, and Dr. Geetanjali Phatak from S.P. College, Pune. Prof. Vinayak M. Sholapurkar, National Coordinator of the Madhava Mathematics Competition, inaugurated the camp on 9th June 2025 and led the first two days of sessions. A total of 22 sessions, including interactive tutorials supported by IIT Bhubaneswar research scholars and volunteers, were conducted. An interactive session was held on Day 1, and the camp concluded with an evaluation and feedback. The inauguration was attended by Dr. Prajapati (on behalf of the HoD, Mathematics), and the valediction by Prof. Umaprasanna Ojha. The camp was jointly coordinated by Dr. Tarakanta Nayak and Dr. Akash Ashirbad Panda.

Nasha Mukh Bharat Abhiyan

IIT Bhubaneswar joined the Nation in the Nasha Mukh Bharat Abhiyan from 12th to 26th June 2025. As part of the campaign, under this year's theme 'Mission Drug Free Campus', the Institute made efforts to spread awareness among the students and the members of the campus.



As part of the observance, Prof. Shreepad Karmalkar, Director, led the administration of the Drug Free Bharat pledge on 25th 2025, reaffirming the Institute's commitment to building a healthier, addiction-free society. Shri Bamadev Acharya, Registrar also spoke on the occasion and urged the campus inmates to be vigilant in keeping the campus drug free.

This initiative reflects the unwavering commitment of IIT Bhubaneswar to fostering a safe, healthy, and conscious campus environment.

Samvidhan Hatya Diwas



IIT Bhubaneswar joined the Nation in the observance of the 50th anniversary of the imposition of the Emergency on 25th June 2025. As part of the observance, a short film prepared by the Ministry of Culture, Govt. of India was screened for the members of the Institute and an exhibition of the posters on the theme were displayed.

Tinker on Wheels (TOW) Workshop

Unnat Bharat Abhiyan (UBA), IIT Bhubaneswar conducted the Tinker on Wheels (TOW) Workshop near the Migrant Workers' Colony, IIT Bhubaneswar, in collaboration with the Young Tinker Educational Foundation. The sessions took place on the following dates: June 10, 12, 13, 21, and 22, 2025.



The workshop was attended by 10 children residing in the Migrant Workers' Colony. The sessions introduced them to STEM (Science, Technology, Engineering, and Mathematics) concepts through engaging, hands-on activities designed to encourage curiosity and interactive learning.

The primary objective was to provide foundational STEM exposure to children from underserved backgrounds in a fun and accessible way. The participants were enthusiastic and actively involved throughout the sessions.

The event was successfully conducted as part of UBA IIT Bhubaneswar's ongoing commitment to educational outreach and community development.



Domino's Pizza Outlet opens in Campus



A Domino's Pizza outlet has been inaugurated by Prof. Shreepad Karmalkar, Director on 24th June 2025. Among others, Prof. Umaprasana Ojha, Chairman-IMMC; Prof. S.K. Panda, Chairman-Infrastructure; Shri Bamadev Acharya, Registrar; Dr. Kodanda Ram Mangipudi, President Students Gymkhana were present on the occasion.

Rath Yatra

Like previous years, the Rath Yatra of Lord Jagannath, Balabhadra and Subhadra was celebrated by the Bhaktivedanta Institute on 27th June 2025 with pomp and ceremony.



“The day is cold, and dark, and dreary
It rains, and the wind is never weary;
The vine still clings to the mouldering wall,
But at every gust the dead leaves fall,
And the day is dark and dreary..”

The Rainy Day
by
Henry Wadsworth Longfellow

