

Workshop on 'Light Weight Aggregate Concrete: Development & Applications'

IIT Bhubaneswar, in association with Indian Metals and Ferro Alloys (IMFA) and the Indian Concrete Institute (ICI), has recently organized a one-of-its-kind and first-ever workshop on 'Light Weight Aggregate Concrete: Development & Applications'. Experts from industry & academia deliberated on this sustainable, durable & environment-friendly solution for construction.





Organized by the School of Infrastructure (SIF) of IIT Bhubaneswar, the one-day workshop witnessed detailed deliberations on this futuristic subject by different experts. Dr. N.C. Pal, OSD-cum-EIC-Design, PWD, Govt. of Odisha graced the workshop as Chief Guest and shared his experience on research in the field of this unique product and how Light Weight Aggregate (LWA) Concrete has the potential to become the future of construction.

The technical lectures focused on utilizing light-weight aggregates (LWA) produced from industrial byproducts as an alternative to natural aggregates. LWA concrete offers excellent benefits related to thermal comfort, acoustics, fire safety, and reduced dead load of the building, contributing towards sustainability without compromising strength and durability.

Speaking on the occasion, Prof. Dinakar Pasla, Dean- Sponsored Research & Industrial Consultancy (SRIC) highlighted the mixed design aspects related to LWA concrete and presented the quantum of work on LWA concrete being carried out at IIT Bhubaneswar.





Dr. S. Suriya Prakash, Professor, IIT Hyderabad discussed the future of affordable housing using structural LWA concrete precast slabs, highlighting their significant contribution to speedy construction, a critical need in India today.

Mr. Chitta Ranjan Ray, Whole Time Director, IMFA Ltd., along with Mr. Debasis Mahapatra, DGM-LDA, highlighted the production process of LWAC at their plant, while Dr. Amit Chatterjee, Chief R&D Officer, Vedanta Ltd- Aluminium Business discussed the design approaches for structural LWA concrete. Further, Dr. Manikandan, Head, Technical Services, Dalmia Bharat Group presented a parametric study of LWA production using palletization process.

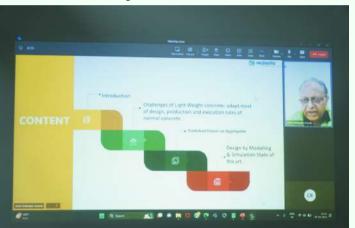








Dr. Sumanta Haldar, Head of School, SIF also spoke on the occasion and congratulated the team for organizing such an enlightening workshop on a very relevant subject.





A panel discussion following the technical lectures provided a future roadmap for LWA concrete in India and how mineral-rich states like Odisha can benefit from such aggregates. The laboratory demonstration of LWA concrete was conducted, presenting the participants with practical experience of its workability and other fresh properties.

The workshop was attended by more than 70 participants from industry, academia, and government organizations. The programme was coordinated by Prof. Dinakar Pasla, Dr. Umesh C. Sahoo, and Dr. Anush K. Chandrappa.



Seminar on 'Unleashing the Fire Within'

The Institute organized a thoughtprovoking seminar on 'Unleashing the Fire Within' on 19th April 2024. Eminent Life and Leadership Coach, Keynote Speaker and Author Mr. Deepak Chaudhury deliberated on how one can move from a 'life of Default' to a 'life of Design'.



In this interactive session, Mr. Chaudhury spoke about the importance of setting a goal for achieving success in life. He delved into Neurobiology of Goal Setting, the Desire to Discipline Ration, Finite and Infinite Goals, a Bulletproof Belief System as the key to Limitlessness, the Ravana Effect for developing a mindset to maintain the achieved success. He said, "You can achieve anything you 'Desire' as long as you are ready to support each of your desire with a proportionate amount of 'Discipline'." He defined 'success' as the combination of dimensions like Freedom (Freedom of Finance, Freedom of Task and Freedom of Time), Fulfillment and Fitness. "Intention and Belief are the key to achieving success," he maintained.







Dr. Vijaykrishna Kari, Professor-in-Charge-Seminar, IIT Bhubaneswar coordinated the Seminar. Shri Bamadev Acharya, Registrar of the Institute was also present on the occasion. The faculty members, staff, students and residents of the campus participated in this seminar in a large number.







IIT Bhubaneswar is ready with new Programs & several new Courses for Fall 2024

IIT Bhubaneswar has launched, in line with the emerging technology trends and industry needs, two new Programs and several new courses for the upcoming Fall 2024 session. The two new Programs include (a) an Interdisciplinary Blended-mode M.Tech. Degree in "Advanced Maintenance Technology", meant especially for engineers working in the industry and (b) a M.Tech. Degree in "Semiconductor Technology and Chip Design", meant for regular students.

Blended-modeM.Tech. Degree in 'Advanced Maintenance Technology':

Timely maintenance of equipment and systems in industry is key to sustainability of operations, productivity and quality. The new M.Tech. Program aims to educate and train engineers working in industries so as to enhance the sustainability and productivity of industries and increase industry-academia interaction. The interdisciplinary Program offers a modern mix of relevant and advanced courses from mechanical, civil, electrical, metallurgical and materials engineering, with a special focus on maintenance corrosion, welding, vibration, structures, and issues related to development of digital twins for diagnosing failures. The registration details are available at: https://webapps.iitbbs.ac.in/mtech_blended-app/. This Program also includes the study and application of "Chaos in dynamical systems". One research group has already discovered a new chaotic attractor, which has been successfully tested in some industrial systems for failure detection. This attractor is proving vital for failure prediction/detection in dynamical systems.



M.Tech. Degree Program in Semiconductor Technology and Chip Design:

India's Semiconductor Mission (ISM) is propelling the country as a global electronics manufacturing and design hub. Recent milestones include a new semiconductor fab and two Outsourced Assembly and Testing (OSAT) facilities, with a total investment of INR 1.25 Lakh Crore. The related projects will create thousands of technology jobs and start-up opportunities, producing chips with 28 nm, 40 nm, and 90 nm transistors. ISM's focus on compound semiconductors like Gallium Nitride and Silicon Carbide will cater to India's defense, space, and Electric Vehicle transportation needs. To support this growth by creating skilled professionals, the School of Electrical Sciences at IIT Bhubaneswar has launched an M.Tech. program in Semiconductor Technology and Chip Design, covering design, fabrication, assembly, testing, packaging, and development of IPs/ASICs/SoCs/Systems for targeted applications. Admission related details are available at https://webapps.iitbbs.ac.in/mtech-application/index.php.



In addition to above, with a view to modernize the curricula, IIT Bhubaneswar has introduced several new courses, like Minor in Economics, Micro-specialization in Software Engineering, courses on entrepreneurship, plus a host of new open electives in modern areas of studies for undergraduate as well as research students.

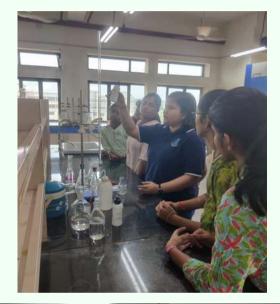
A new Ph.D. Fellowship titled 'Professor R.H. Tupkary Fellowship' has been created at IIT Bhubaneswar by the donation of Rs. 1 crore by Prof. Brahma Deo, MGM Chair Professor at the Institute, as a token of respect for his erstwhile professor at Banaras Hindu University in 1967. On this fellowship, a Ph.D. student is presently working in the area of Physiology, jointly with AIIMS, on mental health disorders, which is a compelling problem in India with the largest number of patients in the world. Again, the studies on "Chaotic Dynamical Systems" have helped to find a special chaotic attractor which can greatly help in disease analysis.

With these new development in the curriculum and pedagogy, with added outreach to industry, IIT Bhubaneswar is all set to enhance industry-academia collaboration, bring innovation in the field of technical education and research, as well as support the professional development of the students.



Exploring IIT Bhubaneswar

As part of an Educational Trip, around 80 students of VISWASS Higher Secondary School, accompanied by their teachers, visited the Institute on 22nd April 2024. They visited the Student Activity Centre, Central Library, Virtual and Augmented Reality Center of Excellence (VARCoE) and the Physics and Chemistry Lab at LBC.













Oh, when I look back now That summer seemed to last forever And if I had the choice Yeah. I'd always wanna be there Those were the best days of my life from Summer Of '69