



NOVEMBER 2025 ISSUE



DEPARTMENT OF CIVIL ENGINEERING



NEWSLETTER

An Insight into the Department of Civil Engineering. Exploring Key Events,
Research Highlights and Sustainable Initiative - November 2025 Issue.

Editorial Board

Prof. Srinivas Pasupuleti, HOD/CE
Prof. Sowmiya Chawla, Associate Professor
Prof. Satadru Das Adhikary, Associate Professor
Prof. Bandita Barman, Assistant Professor

Student Coordinator

Satyam Tiwari & Ravi Kumar Mishra

Contact

E-mail : ce@iitism.ac.in | Phone : +91-326-2235289

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Table of **CONTENT**

01 HoD's Message

02 Patent

03 Publications

04 R&D and Consultancy Project

05 Faculty Achievements

06 Outreach Activities

07 Alumni Bites



Srinivas Pasupuleti

Head of Department
Department of Civil Engineering

MESSAGE *from the* HOD's Desk

Dear all,

Welcome to the November edition of our departmental newsletter! This newsletter serves as a platform to showcase our successes and keep informed about the major events, publications, projects of our R&D activities.

These events and activities highlight the academic, research, and extracurricular environment at Department of Civil Engineering of IIT (ISM) Dhanbad.

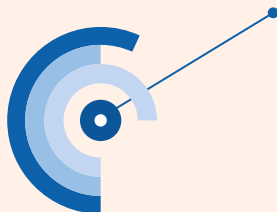
It gives me great satisfaction and pleasure to witness the achievements of the Department of Civil Engineering with continuous efforts from dynamic faculty colleagues, talented research scholars duly supported by dedicated technical staff members.

Best Wishes !

Srinivas Pasupuleti



PATENT



Dr. Kuldeep Sharma, Dr. Sarat Kumar Das, Mr. Akshay Dixit, Mr. Satyam Tiwari filed an Indian Patent with application number 202531116060 on 24.11.2025 for their invention titled "Automated Wet and Dry Cycles Apparatus for Cementitious and Composite Materials".

PUBLICATIONS

JOURNALS



Gurugubelli Yatirajulu, P V Timbadiya, & Bandita Barman (2025). Evolution of flow turbulence and higher-order correlations in an asymmetric alluvial sinuous channel, Acta Geophysica, (Q2, I.F. - 2.1).

<https://doi.org/10.1007/s11600-025-01729-9>



Ansari, F. A., Pani, A., & Mohapatra, S. S. (2025). Prioritizing worker-centered risk mitigation strategies and technological solutions: a best-worst method study from highway work zones of India. International Journal of Occupational Safety and Ergonomics, 1–14 (Q3, I.F. -2.0).

<https://doi.org/10.1080/10803548.2025.2584879>



Junias J., & Nayak S., (2025). "Augmenting masonry impact resistance: Experimental investigation and statistical reliability assessment", Engineering Structures, 348:121821 (Q1, I.F. -6.4).

<https://doi.org/10.1016/j.engstruct.2025.121821>



Hassan, A., Bhartiya, R., & Ranjan, A. (2025). Experimental evaluation and design recommendations for stiffener placement in square double-skin tubular columns. Mechanics of Advanced Materials and Structures. 1–23, (Q1, I.F. -3.6)

<https://doi.org/10.1080/15376494.2025.2570523>



R&D AND CONSULTANCY PROJECT

Sl. No.	PI/Co-PI or CI/Co-CI	Project Title	Status	Project Value (Lakhs)	Funding Agency
1.	PI: Prof. Abhishek Kr. Pandey, Dept. of CE Co-PI: 1. Prof. Sarat Kr. Das, Dept. of CE 2. Prof. Sudhakar Kumawat, Dept. of M&C 3. Prof. Nitesh Kumar Sahu, Dept. of FMME	Bilingual (English & Hindi) LLM Framework for Real-Time Interpretation of Tailing Dam Break Simulations for Improved Emergency Planning and Decision Support	Ongoing (R&D Project)	Rs. 21.61	Technology Innovation in Exploration & Mining Foundation (TEXMin)
2.	CI: Prof. Sanket Nayak, CE Co-CI: Prof. Rajib Sarkar, CE Co-CI: Prof. Smruti Sourava Mohapatra, CE	Structural Vetting of Building Structure Design for Township At Jatadhar Bhawan Campus", "JSW Utkal Steel Ltd, Paradeep Odisha	Ongoing (Consultancy Project)	Rs. 5.56	M/S JSW UTKAL STEEL LTD
3.	CI: Prof. B. K. Mishra, ESE Co-CI: Prof. Rajib Sarkar, CE	Independent Third-Party Performance Audit of Red Mud Disposal Areas (RMDAS)	Ongoing (Consultancy Project)	Rs. 54.28	M/S Hindalco, Mumbai
4.	CI: Prof. Sanket Nayak, CE Co-CI: Prof. Tanish Dey, CE Co-CI: Prof. Sukanta Chakraborty, CE Co-CI: Prof. S. S. Mohapatra, CE Co-CI: Prof. Rahul Bhartiya, CE	Structural Stability Assessment /Audit of Existing Hostel Building no. 1, 2, 3, 4&5 of NIT Durgapur, West Bengal	Ongoing (Consultancy Project)	Rs. 17.12	CPWD, NIT Durgapur Division, Durgapur
5.	CI: Prof. Tanish Dey, CE	To Provide Checking of Calculations for Kingzip Roofing Design for Sarai Kale Khan Station Project	Ongoing (Consultancy Project)	Rs. 0.70	M/S Kingspan Jindal Pvt. Ltd., Haryana
6.	CI: Prof. Tanish Dey, CE Co-CI: Prof. Rahul Bhartiya, CE Co-CI: Prof. S. Chaudhary, CE Co-CI: Prof. Sukanta Halder, EE	Proof Checking for Design and Drawings of 23 MLD Sewerage Treatment Plant in Ramgarh Town, Jharkhand	Ongoing (Consultancy Project)	Rs. 5.01	M/s Enviro Infra Engineers Ltd., Ramgarh

FACULTY ACHIEVEMENTS

Dr. Satadru Das Adhikary has joined as an Editorial Board Member of Scientific Reports (Nature Portfolio, Impact Factor: 3.9), <https://www.nature.com/srep/about/editors>

OUTREACH ACTIVITIES

WORKSHOP

The Department of Civil Engineering, IIT (ISM) Dhanbad, organized a two-day workshop entitled "Advances in Application of High-Strength Reinforcement Bars in Construction of Concrete Structures" sponsored by TATA TISCON as a part of the institute's Centenary Celebration from 13.11.2025 (Thursday) to 14.11.2025 (Friday). Prof. Pranesh Roy was the coordinator and Prof. Rahul Bhartiya was the co-coordinator of the workshop. A total of 36 participants attended the workshop. The workshop was for practicing engineers and architects who joined from various parts of the country. The lectures were delivered by distinguished professors and industry experts. Prof. Sarat Kumar Das, Professor (HAG), IIT (ISM) Dhanbad, delivered a lecture on "Concept of sustainability with M-sand from coal mine overburden as a construction materials: An overview". Prof. Rajib Sarkar, Associate Professor, IIT (ISM) Dhanbad, explained "Earthquake Resistant Foundation Design". Prof. Sanket Nayak, Associate Professor, IIT (ISM) Dhanbad, discussed "Role of Steel towards Seismic Safety of RC Structures". Prof. Vishwas N. Khatri, Associate Professor, IIT (ISM) Dhanbad, elucidated on "Subsurface Exploration For Shallow and Deep Foundations: Tests and Interpretations". Prof. Rahul Bhartiya, Assistant Professor, IIT (ISM) Dhanbad, delivered a lecture on "Failure of Structures – Case Studies". Prof. Pranesh Roy, Assistant Professor, IIT (ISM) Dhanbad, provided an overview of "Smart Civil Engineering Materials and Structures". Mr. Keerti Dev Singh, Sales Manager, Tiscon Retail, Tata Steel demonstrated an experiment on ring formation in thermo-mechanically treated steel rebar. The workshop also included a visit to the concrete laboratory of the Civil Engineering Department, IIT (ISM) Dhanbad where non-destructive testing using a rebound hammer, Ultrasonic Pulse Velocity, and rebar locator was demonstrated.



आइआईटी आइएसएम में कार्यशाला का समापन

धनबाद. आइआईटी आइएसएम के सिविल इंजीनियरिंग विभाग द्वारा 'कंक्रीट संरचनाओं के निर्माण में हाई-स्ट्रेंथ रिइनफोर्समेंट बार्स के उपयोग' विषय पर आयोजित दो दिवसीय राष्ट्रीय कार्यशाला शुक्रवार को कैलेडिक्टरी कार्यक्रम के साथ संपन्न हुई. समारोह की अध्यक्षता निदेशक प्रो. सुकुमार मिश्रा ने की. उन्होंने हाई-स्ट्रेंथ रिबार्स को आधुनिक निर्माण के लिए अत्यंत महत्वपूर्ण बताया. मुख्य अतिथि नंदलाल अग्रवाल, डायरेक्टर, श्रीराम सेल्स और कर्ति देव सिंह, सेल्स मैनेजर टिस्कॉन रिटेल, टाटा स्टील मौजूद थे. अतिथियों ने उद्योग-अकादमिक साझेदारी बढ़ाने की इस पहल की सराहना की. कार्यशाला में झारखंड के विभिन्न क्षेत्रों से 36 प्रतिभागियों ने हिस्सा लिया. कैलेडिक्टरी कार्यक्रम की शुरुआत प्रो. प्रणेश रॉय के स्वागत भाषण से हुई, जबकि विभागाध्यक्ष प्रो. श्रीनिवास पासपुलेती ने विभाग की गतिविधियों और शोध कार्यों की जानकारी दी. प्रो. राहुल भारतीया ने धन्यवाद ज्ञापन किया.

आइआईटी आइएसएम में हाई-स्ट्रेंथ रिइनफोर्समेंट बार्स पर राष्ट्रीय कार्यशाला

धनबाद. आइआईटी आइएसएम धनबाद के सिविल इंजीनियरिंग विभाग में शुक्रवार से कंक्रीट संरचनाओं में हाई-स्ट्रेंथ रिइनफोर्समेंट बार्स के उपयोग में प्रगति विषय पर दो दिवसीय राष्ट्रीय कार्यशाला शुरू हो गई. कार्यशाला का उद्देश्य आधुनिक रिइनफोर्समेंट बार्स की समझ बढ़ाना और उद्योग-अकादमिक सहयोग को मजबूत करना है. सर मोहनगुडम विश्वेश्वरैया सेमिनार हॉल में आयोजित कार्यशाला में संयोजक प्रो. प्रणेश रॉय ने कहा कि हाई-स्ट्रेंथ सामग्री आज की इंजीनियरिंग की मूल आवश्यकता है. भागीदारी प्रो. श्रीनिवास पासपुलेती ने विभाग की शोध गतिविधियों को तैयार किया. 100 से अधिक छात्रों को तैयार किया. समर्पणों के बढ़ते उपयोग और उनकी इम्प्लेंटेशन, एक्स-ने डिफ्रैक्चर

OUTREACH ACTIVITIES

Visit of Dr. A. P. Singh, Honorary Secretary, Indian Geotechnical Society (IGS), to IIT (ISM) Dhanbad

Dr. A. P. Singh, Honorary Secretary of the Indian Geotechnical Society (IGS), visited the Department of Civil Engineering, IIT (ISM) Dhanbad, on November 3, 2025. During his visit, he interacted with the faculty members, students, and members of the IGS Dhanbad Chapter. Dr. Singh shared valuable insights on recent advancements, research opportunities, and professional engagements in geotechnical engineering. His interaction encouraged active participation in IGS activities and motivated young researchers to pursue innovative studies in the field. The visit served as a platform for academic exchange and strengthened collaboration between IIT (ISM) Dhanbad and IGS.



Keynote Lecture/ Expert talk:

Prof. Piyali Sengupta had given a keynote lecture on Multi-hazard Fragility Assessment of Highway Bridges in the International Symposium on Urban Infrastructure & Natural Hazards: A Risk and Fragility Perspective held at IIT Bombay on 28 November 2025.



OUTREACH ACTIVITIES

Dr. Bandita Barman delivered an expert lecture at NIT Silchar during the workshop on Recent Advances in Water Resources Modelling and Management funded by ANRF. Her talk focused on Three-Dimensional Hydro-Morphodynamic Modelling of an Alluvial Channel Using Open-Source Solvers, highlighting recent computational developments in river system analysis.



ALUMNI BITES



Amar Choudhary
 Deputy Manager (Technical),
 NHAI
 Batch: 2019-2023

Joining the Civil Engineering department at IIT (ISM) Dhanbad in 2019 marked the beginning of a truly transformative journey. From day one, I was inspired by the vibrant campus culture, the supportive bond between seniors and juniors, and the sense of belonging that IIT (ISM) Dhanbad uniquely fosters. The Civil Engineering program not only strengthened my technical foundation but also nurtured my confidence and problem-solving approach skills that continue to guide me every day.

Today, I am proud to serve as a Deputy Manager (Technical) at the National Highways Authority of India (NHAI), where I contribute to shaping the nation's infrastructure. The friendships, mentorship, and experiences I gained at IIT (ISM) Dhanbad remain some of my most cherished memories. Though time has passed, the spirit of ISM

continues to inspire me in every endeavor. I look forward to visiting the campus again and reliving those remarkable moments that shaped both my career and my character.

ALUMNI BITES



Dr. Anupkumar G. Ekbote

Assistant Professor,
 Deptt. of Civil Engineering,
 BMS Institute of Technology,
 Bengaluru
 Batch: 2014-2019

I commenced my doctoral studies at the Department of Civil Engineering, IIT (ISM) Dhanbad, in 2014, marking a significant milestone in my academic and professional development. Under the guidance of Dr. Lohitkumar Nainegali, my research was titled 'Investigations on the Behaviour of Two Nearby Embedded Shallow Foundations: Numerical and Experimental Studies'. The Department of Civil Engineering at IIT (ISM) Dhanbad fostered a truly research-oriented environment that greatly supported my doctoral pursuits. I was encouraged to design and develop experimental setups essential for my thesis work and was allowed to work extensively with advanced facilities such as the triaxial testing system, plate load testing apparatus, and several state-of-the-art simulation tools. The department's strong academic culture promoted independent thinking, critical analysis, and innovation. Rigorous coursework and engaging discussions with faculty members and peers

further refined my analytical and problem-solving abilities.

The department also continuously motivated research scholars to participate and present their work at national and international conferences, which helped build global exposure and academic confidence. IIT (ISM) Dhanbad offered far more than academic excellence, it instilled perseverance, discipline, and a spirit of collaboration. The diverse opportunities to interact with experts, participate in multidisciplinary projects, and contribute to meaningful research broadened my professional and intellectual horizons.

Currently, I serve as an Assistant Professor at the BMS Institute of Technology and Management (BMSITM), Bengaluru. I continue to uphold the values, ethics, and research-driven approach that I cultivated during my doctoral studies. The mentorship offered in the Civil Engineering Department at IIT (ISM) Dhanbad has profoundly shaped my technical competence and identity as a researcher, educator, and lifelong learner. I remain deeply grateful to my mentors, colleagues, and the institute for laying the foundation of my academic and professional journey.