Civil Lens

SEPTEMBER 2025 ISSUE

DEPARTMENT OF CIVIL ENGINEERING

NEWSLETTER

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

Published by

Department of Civil Engineering
Indian Institute of Technology (ISM) Dhanbad
Jharkhand - 826004

Table of CONTENT

Srinivas Pasupuleti
Head of Department
Department of Civil Engineering

MESSAGE *from the* HOD's Desk

Dear all,

Welcome to the September 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

INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES) DHANBAD
1926
उत्तिष्ठत जाग्रत प्राप्य वरान्निबोधत
DEPARTMENT OF CIVIL ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY (ISM) DHANBAD

PATENT

Avinash Kumar Singh and Ritesh Das Submitted Indian Patent No. PSD/PAT/1673 on 26.09.2025 for their invention titled **"Development of a novel copper-slag infused hybrid geopolymer for stabilization of sandy soils".**

PUBLICATIONS

JOURNALS

Kumar, S., Anand, A., Sarkar, R., and Nainegali, L. A Three-Dimensional Investigation on the Efficacy of Different Configuration Settings of Micropiles in Enhancement of Seismic Slope Stability. Int. J. of Geosynth. and Ground Eng. 11, 54 (2025) (IF-2.3/ Q3). https://doi.org/10.1007/s40891-025-00659-2

Das, R., and Singh, A.K. (2025). "Mechanical and microstructural assessment of alkali-activated copper slag-geopolymer-stabilized sand: An eco-friendly and sustainable alternative binder. Journal of Materials in Civil Engineering, ASCE. (IF-3.0/ Q2). DOI: 10.1061/JMCEE7/MTENG-20942

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. Vikas Mahto, Dept. of Petroleum Engg. Co-PI : Prof. Chandan Sahu, Dept. of Petroleum Engg. Prof. Satadru Das Adhikary, Dept. of Civil Engg.	Development of Novel Self-Healing Cement Additive for Oil and Gas Fields of Oil India Limited	Ongoing (R&D Project)	Rs. 97.20	Oil India Limited
2.	CI: Prof. Sarat K. Das, CE	6000134253 Compliance audit for fly ash tilization & 6000138947 Dyke stability study of ash pond for 2025 Capacity of the plant: 2x30 MW, Arcelor Mittal Nippon Steel India Limited, Paradeep	Ongoing (Consultancy Project)	Rs. 4.15	M/S Arcelor Mittal Nippon Steel, India Limited, Paradeep

R&D AND CONSULTANCY PROJECT

Sl. No.	PI/Co-PI or CI/Co-CI	Project Title	Status	Project Value (Lakhs)	Funding Agency
3.	CI: Prof. Rajib Sarkar, CE Co-CI: Prof. Tanish Dey, CE	Design Validation for New Crushing Plant and Downhill Conveyor System at BIOM, NMDC Kirandul Complex	Ongoing (Consultancy Project)	Rs. 1.94	M/S Birla Institute of Technology Mesra, Ranchi
4.	CI: Prof. Pranesh Roy/CE, Co-CI: Prof. Rahul Bhartiya/CE	Advances in Application of High-Strength Reinforcement Bars in Construction of Concrete Structures	Ongoing (Outreach Activity)	Rs. 3.52	TATA Tiscon

INDIVIDUAL FACULTY ACHIEVEMENTS

Dr. Pranesh Roy has joined as an Editorial Board Member of **Scientific Reports** (Nature Portfolio journal, Impact Factor: 3.9). https://www.nature.com/srep/about/editors

Dr. Bandita Barman has joined as an Editorial Board Member of **Scientific Reports** (Nature Portfolio journal, Impact Factor: 3.9).
https://www.nature.com/srep/about/editors

OUTREACH ACTIVITIES

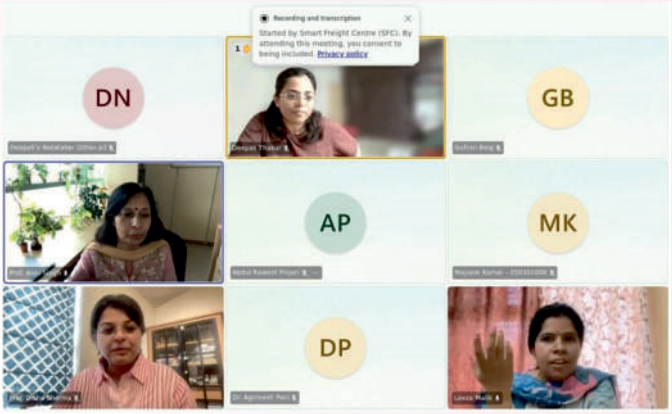
IAHR Eastern India YPN Lecture Series:

The IAHR Eastern India Young Professionals Network (YPN), proudly hosted by the Department of Civil Engineering, IIT (ISM) Dhanbad, completed the first lecture in the IAHR Eastern India YPN Lecture Series. On September 3, 2025, Dr. Michael Nones, Associate Professor from the Institute of Geophysics, Polish Academy of Sciences, delivered an engaging session on "Satellites as a Tool to Depict Source-to-Sink Dynamics". The inaugural lecture received over 100 registrations from 14 countries, reflecting the global interest and the strength of the IAHR community. The IAHR EI YPN is committed to bringing more such engaging and insightful lectures every month. The recordings of these sessions will be made available on the IAHR online library, ensuring accessibility for students, faculty, and professionals within and beyond our community.

OUTREACH ACTIVITIES

Expert Talk:

Professor Leeza Malik participated as an invited expert in a stakeholder brainstorming session on **freight emissions accounting,** organized by the **Indian Institute of Management (IIM) Mumbai** in collaboration with the **Smart Freight Centre (SFC), Netherlands.** The session, held on August 30, 2025, in online mode, brought together academics engaged in freight research to deliberate on strategies for advancing sustainable freight practices.



Expert Talk by Professor Neelima Satyam (IIT Indore):

The Indian Geotechnical Society (IGS) Dhanbad Chapter and the Department of Civil Engineering, IIT (ISM) Dhanbad, cordially hosted an expert talk on **"Coastal Erosion Mitigation Using Nature-Based Solution"** on Friday, 12th September 2025. The engaging session was delivered by **Prof. Neelima Satyam, Professor from IIT Indore.** Prof. Satyam shed light on innovative and sustainable nature-based approaches to combat the critical issue of coastal erosion. The talk provided valuable insights for students and faculty, fostering a deeper understanding of environmentally conscious solutions in civil engineering and geotechnical practices. Attendees appreciated the relevance and depth of the discussion.

ALUMNI BITES

Deepansh Deepak Srivastav
Associate at a
Property Valuation Firm
Batch: 2017-2021

My four years at IIT (ISM) DHNABAD Civil engineering department has been one the most memorable and enriching periods of my life which has not only shaped me intellectually with respect to academics but also helped me become ethically responsible citizen as whole.

Departmental Infra and environment: Overall classroom was tech enabled, and Practical labs had adequate machinery in proper working conditions with continuous guidance from research scholars and faculty being intensively dedicated to bridge gaps between theoretical concepts and real-world understanding. Whether Geotechnical lab and Structural lab all had immense impact on understanding concepts and challenges better which today remains with me as most informative phases of college.

Sincere gratitude to Prof. Piyali Sengupta mam and Prof. Sheeja Jagadevan mam (Environment Engg. Dept) whose constant support, direction and guidance whether academics or non-academics helped me navigate my college years smoothly. My time as Internship representative provided me the privilege to work closely with Prof. Satadru Das Adhikary sir that experience instilled in me a sense of responsibility and teamwork.

My classroom journey with Prof. Srinivas Pasupuleti on Fluid mechanics, Prof. Sukanta Chakraborty on Structural analysis, Prof. Smruti Mohapatra sir on Transportation engineering was immensely beneficial also worth mentioning my lectures with Prof. Vishwas Khatri sir, Prof. Rajib Sarkar sir, Prof. Tanish Dey sir, Prof. Kironmala Chanda ma'am and Prof. Sowmiya Chawla ma'am helped me understand concepts better. Regarding practical lab experience I wish to highlight the valuable insights of Prof. Sekhar Dutta sir, Prof. Sarat Kumar Das sir, Prof. Sanket Nayak sir and Prof. Brijesh Mishra sir (Environment Engg. Dept.) helped me with in-depth understanding of my subjects. My B.Tech project, under guidance of Prof. Renu V ma'am provided insights on real world applicability of theoretical concepts.

Lastly, I remain deeply thankful to all Professors, Seniors, Batchmates, Research scholars and Civil engineering Department as a whole for shaping my journey and leaving me with knowledge, values, memories that I shall always carry with pride.

ALUMNI BITES

Dr. Sumeet Chakraborty
***Postdoctoral Researcher*,**
Westlake University, China
Degree Year: 2022

Hello, I am Sumeet Chakraborty, holding a PhD from the Department of Civil Engineering, IIT (ISM) Dhanbad, under the supervision of Professor (Dr.) Tanish Dey. I graduated in June 2022. My area of research focuses on investigating the structural stability of advanced composite plates and panels using a semi-analytical approach. Without my supervision, support, and guidance, it may not be possible to achieve the milestones. Along with my supervisor, our HOD Professor Sarat Das has immensely supported and guided us with his experience. I will be thankful to the faculty members Professor Sukanta Chakraborty, Professor S S Mohapatra, Professor Sanket Nayak, Professor Sarat Kumar Panda, Professor S C Dutta, and the remaining other faculty members who always supported us in the low and high tides of academics with their experience. I would like to thank my colleagues, who are also my dearest friends; without them, this journey would have been impossible. With the experience gained in Teaching Assistantship, I have improved my teaching skills and learnt the theoretical aspects by validating them with experiments available in the laboratory. Finally, I would like to thank our supporting staff and laboratory staff who always support us with the internal documentation and maintenance of laboratory equipment.