



OCTOBER 2025 ISSUE

NEWSLETTER

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

DEPARTMENT OF CIVIL ENGINEERING



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Srinivas Pasupuleti

Head of Department
Department of Civil Engineering

MESSAGE *from the* HOD's Desk

Dear all,

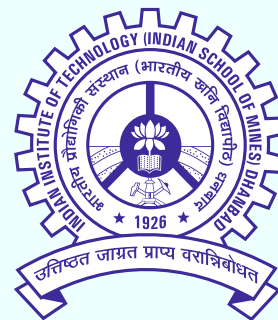
Welcome to the October edition of our departmental newsletter! This newsletter serves as a platform to showcase our successes and keep informed about the major events, publications, projects of our R&D activities.

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



DEPARTMENT OF CIVIL ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY (ISM) DHANBAD

PATENT



Subodh Shrivastava, Srinivas Pasupuleti, Vishwas Nandkishor Khatri, and Ashes Banerjee submitted Indian Patent No. PSD/PAT/1567 on 30.10.2025 for their invention titled **“Earthen dam structure with compacted clay mix with fly ash and lime to enhance strength and seepage properties.”**

PUBLICATIONS

JOURNALS



Laxman V Rathod, P. V. Timbadiya, and Bandita Barman (2025). Flow and submerged flexible vegetation interaction in a compound channel. Journal of Hydrology, 664.

DOI: <https://doi.org/10.1016/j.jhydrol.2025.134426> (Q1, IF-6.3)



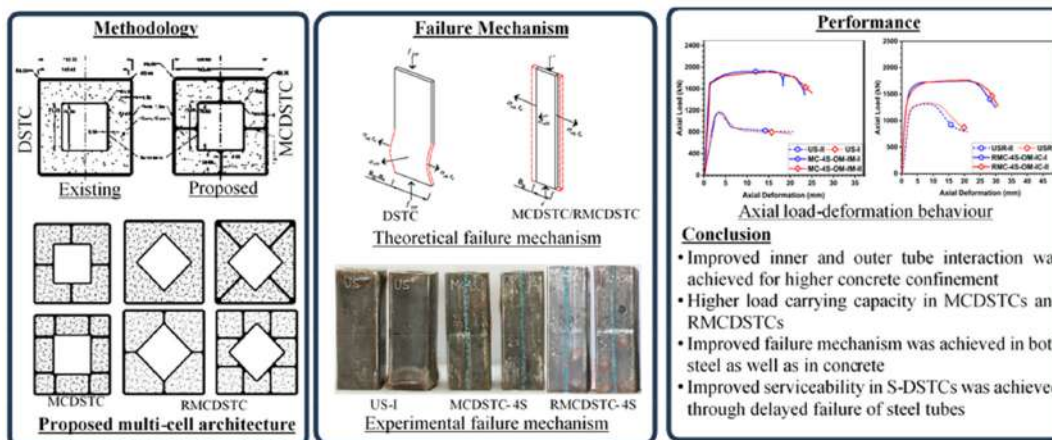
Kumar V., Gupta V.K., Sarkar R., and Pal S.K. (2025). “Multi-Hazard Microzonation of Joshimath, India, Considering Seismic and Landslide Hazards.” Journal of Earth System Science, Indian Academy of Sciences, 134(4): 211.

DOI: <https://doi.org/10.1007/s12040-025-02671-6> (IF-1.7)



Hassan, A., and Bhartiya, R. (2025). Multi-cell double-skin tubular columns with rotated inner tube: Axial design and testing. Journal of Constructional Steel Research, 236.

DOI: <https://doi.org/10.1016/j.jcsr.2025.110060> (Q1, IF-4.3)



PUBLICATIONS

CONFERENCE PROCEEDINGS

Kumar, S., **Adhikary, S.D.**, and Rai A. K (2025) "Theoretical Model for Equation of State Parameters for Cement-Free Composites "14th International Symposium on Plasticity and Impact Mechanics (IMPLAST 2025); Volume 4: Structural Response to Dynamic Loads, IIT Roorkee, India, October 12-16

Hashmee, I., and **Adhikary, S.D.** (2025) "Strut-and-tie model to evaluate the ultimate shear strength of RC deep beam under varying loading rates" 14th International Symposium on Plasticity and Impact Mechanics (IMPLAST 2025); Volume 6: Mechanics of Impact, IIT Roorkee, India, October 12-16

Kumar, A., and **Adhikary, S.D.** (2025) "Numerical Simulation on Damage Zone Assessment of Reinforced Concrete Beam under Contact Explosion "14th International Symposium on Plasticity and Impact Mechanics (IMPLAST 2025); Volume 6: Mechanics of Impact, IIT Roorkee, India, October 12-16

R&D AND CONSULTANCY PROJECT

Sl. No.	PI/Co-PI or CI/Co-CI	Project Title	Status	Project Value (Lakhs)	Funding Agency
1.	CI: Prof. Sekhar Chandra Dutta, CE	Proof checking of Minor Bridges in connection with Construction of Rly. Siding of CCL Amrapali project at Manatu	Ongoing (Consultancy Project)	Rs. 1.77	M/S RITES LIMITED, Kolkata
2.	CI: Prof. Tanish Dey, CE Co-CI: Prof. Rajib Sarkar, CE Co-CI: Prof. Sukanta Chakraborty, CE	Proof Checking and Validation of Detailed Design and Drawings of Structure of All Approach RAMP (04 NOS) for Shalimar ROB	Ongoing (Consultancy Project)	Rs. 21.24	M/s Ircon International Limited, New Delhi
3.	CI: Prof. L.A. Kumaraswamidhas, MECH Co-CI: Prof. Tanish Dey, CE Co-CI: Prof. Rahul Bhartiya, CE	Design Validation of Structural Pulley Frames, Drive Base Frames & Associated Civil Foundations of Downhill Conv. No. 28 & 29 Phase II	Ongoing (Consultancy Project)	Rs. 23.60	M/s Merit Technologies India Ltd., Chennai

OUTREACH ACTIVITIES



IAHR Eastern India YPN Lecture Series:

The IAHR Eastern India Young Professionals Network (YPN), in association with the Department of Civil Engineering at IIT (ISM) Dhanbad, successfully hosted the second lecture in the IAHR EI YPN Lecture Series on October 29, 2025. The event was graced by Prof. S. K. Das, Dean (Faculty), who delivered opening remarks that set an inspiring tone for the session. Delivered online by Dr. Valentin Heller, Associate Professor in Hydraulics at the University of Nottingham, UK, the session focused on "Modelling and Prediction of Subaerial Landslide-Tsunamis." Dr. Heller shared cutting-edge insights into the complex dynamics of landslide-

generated waves, their modeling, and implications.

The lecture attracted a diverse audience of students, researchers, and professionals, fostering engaging discussions on real-world applications and advanced simulation techniques. The virtual format of the lecture series ensured wide accessibility and active participation. The event underscored the department's commitment to promoting knowledge exchange in hydraulic engineering and water resources research, further strengthening ties with global experts through the IAHR platform.

Expert lecture: Dr. Punyabeet Sarangi delivered six lectures and led two hands-on training session at the Executive Development Programme (EDP) on "Open Source GIS for Land Management in Coal Mining", organized by the Department of Management Studies & Industrial Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, from 25-27 October 2025, for employees of Coal India subsidiaries. The training covered practical workflows in QGIS, data types and formats (raster vs vector), layer management and thematic mapping, open-source spatial data integration, land-use mapping, DEM processing, spatial/non-spatial data linking, etc.



OUTREACH ACTIVITIES

Prof. Sowmiya Chawla, Associate Professor, Department of Civil Engineering, participated in the 1st Geotech Asia 2025 Conference, a premier international event in geotechnical engineering jointly organized by ISSMGE, the Indian Geotechnical Society, and IIT Bombay, held from October 7-10, 2025. She chaired a technical session titled "Soil Stabilization and Ground Improvement." The conference witnessed participation from over 600 delegates representing more than 40 countries, contributing to highly productive technical exchanges and collaborative opportunities.



CONFERENCE

The Geotech Asia 2025 conference, a premier geotechnical engineering event jointly organized by ISSMGE, the Indian Geotechnical Society, and IIT Bombay, was held from October 7-10, 2025, bringing together global experts to discuss advancements in deep foundations, earth-retaining structures, earthquake engineering, and modern construction technologies, with an emphasis on sustainability and innovation.

Representing IIT (ISM) Dhanbad, Ravishankar Sahu presented his research titled "Stability Analysis of Offshore Wind Turbine Monopiles and Hybrid Foundations Under Lateral and Vertical Loading", conducted under the supervision of Prof. Sowmiya Chawla. The study addressed key challenges in offshore renewable infrastructure and highlighted the need for robust and efficient geotechnical solutions. Through advanced numerical modelling and analysis, the research examined the behaviour of monopile and hybrid foundations under complex lateral loading, contributing meaningful insights to the field of offshore wind engineering.



MoU SIGNED

Prof. Sanket Nayak signed a MoU with Jharia Rehabilitation and Development Authority (JRDA), Dhanbad on 22.10.2025. The MoU is valid up to 21.10.2030.

ALUMNI BITES



Rajvardhan Kumar
Engineering Officer,
IOCL
Batch: 2019-2023

Looking back at my years at IIT (ISM) Dhanbad, I feel truly grateful for the experiences, opportunities, and friendships that shaped me into who I am today. The institute was not only a place of academic learning but also a space where I grew as a person and developed values that I carry forward in my professional life.

One of the most memorable highlights of my journey was being the Head of the Hospitality team for Concetto 2022, the annual techno-management fest. Leading such a crucial vertical of the fest gave me valuable lessons in leadership, teamwork, and problem-solving under pressure. It was an experience that pushed me out of my comfort zone and taught me the importance of responsibility and coordination.

Beyond academics and fests, I was actively involved in Fast Forward India, the student-run NGO of IIT (ISM) Dhanbad. Working for the education and upliftment of underprivileged children made me realize the joy and impact of social service. In my final year, I also had the privilege of serving as a Bloodline coordinator, encouraging and organizing blood donation drives on campus, which gave me a sense of fulfillment in contributing to the greater good.

Along this journey, I built lifelong friendships, achieved good academic records, and gathered experiences that will always remain close to my heart. Today, as I serve as an Officer at IOCL, I strongly believe that the lessons I learned at IIT (ISM) Dhanbad are invaluable. Discipline, compassion, and resilience continue to guide me every day.

ALUMNI BITES



Ashutosh Kumar

Assistant Project Engineer - Tailings
 WSP Consultants India Pvt. Ltd.
 Batch: 2018-2024

My time at IIT (ISM) Dhanbad was an enriching and memorable chapter in my academic journey. The institute, with its rich legacy and status, provided an ideal environment for pursuing research at the highest level. Throughout my PhD, I found that the faculty members were not only highly knowledgeable and accomplished in their fields but also genuinely supportive and approachable, always ready to guide and offer constructive feedback at every step of the process.

One of the most valuable aspects of my experience was the strong academic culture and collaborative spirit within the department. The faculty were always accessible, taking an active interest in the progress and development of research

scholars. Whether it was an academic challenge or a need for resources, their readiness to help ensured a smooth journey towards research milestones. The department's emphasis on interdisciplinary research and its encouragement of innovative thinking helped broaden my perspectives and allowed me to work on solutions to real-world problems.

The research infrastructure at the institute was also top-notch, with well-equipped laboratories, access to reputed journals, and opportunities to participate in national and international conferences. The vibrant academic atmosphere, bolstered by interactions with fellow PhD scholars from diverse backgrounds, added to the overall learning experience. Regular seminars, workshops, and guest lectures provided platforms for knowledge exchange and professional networking.

Reflecting on my tenure, I am grateful for the constant support, encouragement, and quality mentorship that the faculty and the department offered. The holistic experience at IIT (ISM) Dhanbad has prepared me well for future academic and professional endeavors, for which I will always remain indebted to the institute and its remarkable faculty.