

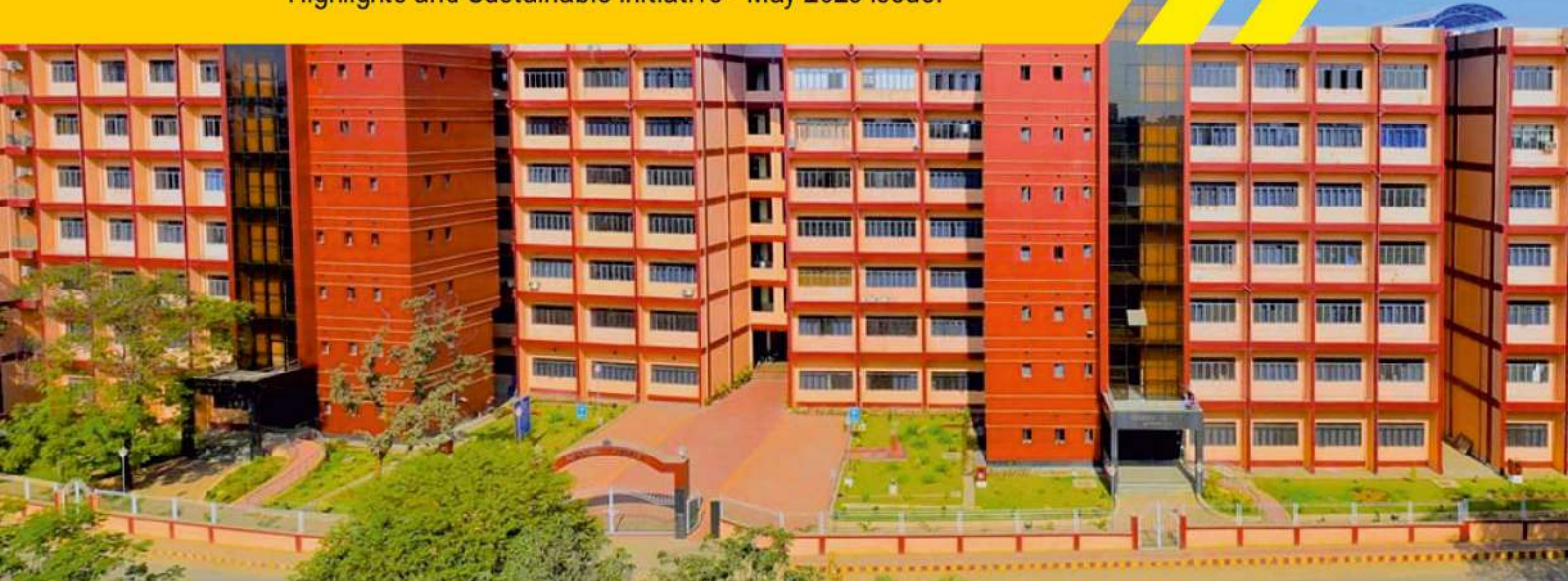
DEPARTMENT OF CIVIL ENGINEERING



MAY 2025 ISSUE

NEWSLETTER

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



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MESSAGE *from the* HOD's Desk



Dear all,

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

These events and activities highlight the academic, research, and extracurricular environment at the Department of Civil Engineering.

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

Best Wishes!

Srinivas Pasupuleti



PUBLICATIONS

JOURNALS

Mandal, N., Das, P., and Chanda, K.: Machine-learning-based reconstruction of long-term global terrestrial water storage anomalies from observed, satellite and land-surface model data, Earth Syst. Sci. Data, 17, 2575–2604,
<https://doi.org/10.5194/essd-17-2575-2025>, 2025. [Q1, IF = 11.2]

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. Satadru Das Adhikary, CE Co-CI: Prof. Srinivas Pasupuleti, CE	Structural Damage Assessment and Highest Flood Level Performance Evaluation of Bokaro Barrage	Ongoing (Consultancy Project)	Rs. 97.94	M/s Damodar Valley Corporation, Maithon
2.	CI: Prof. Tanish Dey, CE Co-CI: Prof. S. S. Mohapatra, CE Co-CI: Prof. S. Chakraborty, CE Co-CI: Prof. Sanket Nayak, CI: Prof. Tanish Dey, CE Co-CI: Prof. S. S. Mohapatra, CE Co-CI: Prof. S. Chakraborty, CE Co-CI: Prof. Sanket Nayak, CE Co-CI: Prof. Rajib Sarkar, CE	Vetting of Design and Drawings for Construction of Underpass Road and Flyover Bridge Between Matkuria to Ara More Within Dhanbad Nagar Nigam (Length-3.25 KM)	Ongoing (Consultancy Project)	Rs. 47.20	M/s State Highways Authority of Jharkhand, Dhanbad
3.	CI: Prof. Avinash Kumar Singh, CIV	Survey and Distress Evaluation of Various Road Sections in Chatra, Jamui and Gaya Districts	Ongoing (Consultancy Project)	Rs. 10.62	M/s Zydex Industries Pvt. Ltd., Vadodara
4.	CI: Prof. Avinash Kumar Singh, CIV	Performance Demonstration of Terraprim and Nanotech on NH-75 (Sec-III) in Palamu District of Jharkhand	Ongoing (Consultancy Project)	Rs. 3.54	M/s Zydex Industries Pvt. Ltd., Vadodara

OUTREACH ACTIVITIES

SEMINAR

The Department of Civil Engineering at IIT (ISM) Dhanbad, in collaboration with the Anusandan National Research Foundation, organized a two-day national seminar titled "Water Nexus 2025: Bridging Surface and Ground Water Resources – Utilization and Management" on May 16–17. The event was held at the Sir M. Visvesvaraya Seminar Hall within the Department of Civil Engineering and brought together distinguished researchers, academics, policymakers, and professionals from across the country. Participants engaged in in-depth discussions on various aspects of integrated water resource management, including policy, governance, river restoration, and advancements in hydrological modeling. Prof. Sukumar Mishra, Director of IIT (ISM), delivered the inaugural address, emphasizing the importance of aligning local and global perspectives in water resource governance. He also appreciated the Department of Civil Engineering for hosting a seminar on such a vital and timely theme.



OUTREACH ACTIVITIES



KEYNOTE LECTURE

A three-day State-Level Training of Trainers (ToT) program on "Road Safety and Transport-Related Hazards and Their Mitigation" was organized on 20th May- 22nd May, 2025 by the District Disaster Management Authority (DDMA), Kangra, Dharamshala, Himachal Pradesh. Prof. Akshay Gupta served as a resource person, delivering expert insights on road safety challenges in hilly terrains and construction zones, as well as the role of technological advancements in enhancing road safety in three-days lecture series. The talks consist of the following: Talk 1: Hill Road Safety: Design Considerations and Safety Measures, Talk 2: Construction Zone Road Safety, Talk 3: Smart Technologies for Safe Transportation Infrastructures.



PhD THESIS SUBMITTED/ AWARDED

Awardee	Supervisor	Thesis Title	Submitted/ Awarded
Dr. Sajal	Prof. Pranesh Roy	Nonlocal Continuum Models for Metamaterials using Peridynamics	Awarded

ACHIEVEMENT

Dr. Piyali Sengupta has joined the technical committees of IRC 11: B-1 for General Design Features (Bridges and Grade Separated Structures) and IRC 11: B-4 for Concrete (Plain, Reinforced and Pre-Stressed) Structures.

DETAILS OF NEW FACULTY JOINED



Prof. Lijith K P: obtained his Ph.D. in Geotechnical Engineering from the Indian Institute of Technology Bombay. He has two years of post-doctoral research experience at the University of Calgary. He earned his M.Tech from the Indian Institute of Technology Madras and his B.Tech from the National Institute of Technology Calicut. His research interests are Energy Geotechnics, Thermo-hydro-mechanical couplings in geomaterials, Frozen soil geomechanics, Carbon capture, and Climate change-induced catastrophes.

ALUMNI BITES



Philip Pilli
 IIT (ISM)
 Dhanbad '22

My quest for knowledge started with me getting enrolled for my Btech in Civil Engineering from IIT ISM Dhanbad. The research that I did under Prof. Sukanta Chakraborty relating to Smooth Particle Hydrodynamics gave me exposure into not only the theoretical aspect of a particular field in civil engineering, but also an insight into how commercial software is written. Through ISM Dhanbad, I honed most of the skills I needed to get an admission into Carnegie Mellon University, to pursue my Master's in Civil and Environmental Engineering. The combination of the knowledge I acquired from my undergraduate and post-graduate endeavors resulted in me getting an offer from Nucor Steel, to serve as a Design Engineer for the largest Steel Manufacturer in North America.

I learnt many lessons on this journey, and if I were to share one, it would be this: use all the resources that are provided to you. We are privileged in the sense that we were given the opportunity to study in one of the most prestigious colleges in the country, and a by product of that is the immense amount of knowledge around you. This ranges from

the professors to the various clubs on campus that provide a student with knowledge into areas beyond the scope of their course syllabus. Gaining knowledge about how different areas of life operate is important, in conjunction with gaining subject knowledge in your own field. To be successful in the real world, one must carve their niche and have the ability to stand out from their peers. Most successful individuals have similar life experiences to the rest of us, but what sets them apart is what they learn from those experiences and how they respond to them. That being said, everyone is imperfect, so don't be afraid to challenge the status quo.

ALUMNI BITES



Prabal Das

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Looking back, my time at the Department of Civil Engineering, IIT(ISM) Dhanbad, stands out as one of the most formative and fulfilling periods of my academic life. From the very beginning, during the coursework phase, I found myself immersed in a rigorous yet intellectually stimulating environment. The department fostered not just academic discipline but also a spirit of collaboration and mentorship, which proved to be the bedrock of my doctoral journey. I was fortunate to pursue my Ph.D. under the supervision of Dr. Kironmala Chanda. Working with her was an experience I deeply cherish. She created a work environment where research never felt like a burden. She believed that the workplace should be a place you feel drawn to return to each day, not one that feels like a burden or obligation, and that perspective profoundly influenced how I experienced my research life. Under her mentorship, I never felt the isolating pressure that often accompanies doctoral research. I could discuss not only academic issues but also seek guidance on personal matters. Dr. Chanda's involvement in my postdoctoral journey was unparalleled. She not only provided inputs but would often go out of her way, drafting research statements, identifying suitable opportunities, and offering continued mentorship even after the Ph.D. Even now, I continue to depend on her

for guidance, not just regarding career decisions but also for broader perspectives in life. Her mentorship struck a rare balance, nurturing yet empowering, and played a key role in shaping me into an independent researcher with clarity and confidence in my work. That kind of commitment is rare and deeply meaningful. She embodied the true spirit of a Ph.D. supervisor, both a scholar and a guide in every sense. In fact, when I received the invitation to write this very piece, my first instinct, almost out of habit, was to message her and say, "What should I write?", not because I cannot draft my own thoughts, but because checking in with her has become a reassuring ritual. That, in itself, reflects the kind of mentorship and bond we share, and I believe this would resonate with everyone who had the privilege of learning under her guidance. A special mention must go to the then Head of Department, Prof. Sarat Kumar Das. His composed demeanour, wisdom, and accessibility provided the kind of academic reassurance every doctoral student needs. He always found time to guide students, especially during crucial moments when a word of encouragement or advice could make all the difference. I recall several instances when his insights helped me navigate academic decisions with clarity and confidence.

Beyond my own research group, what truly made the department special was the collective culture among the faculty members. The openness to ideas, the readiness to engage in discussions, be it academic or otherwise, and the willingness to support students created a nurturing and intellectually vibrant atmosphere. That inclusive and approachable academic environment made my time at IIT(ISM) both productive and deeply enriching.

Alongside academic and professional growth, I also made some truly meaningful friendships, within my research group and among my batchmates. These bonds, built through shared experiences and mutual support, are ones I will always cherish and that I believe will last a lifetime.

The years I spent at IIT(ISM) were not just about academic milestones but about building lasting relationships, evolving as a researcher, and finding fulfilment in the process of inquiry and discovery. Even today, whenever I think of the campus, it feels like returning to a place of warmth and belonging, much like home, filled with purpose and memories I will always hold close.