OCTOBER 2026

BYTE STREAM



MONTHLY NEWSLETTER

An Insight into the Department of Computer Science and Engineering, IIT (ISM)

COMPUTER SCIENCE AND ENGINEERING

INDIAN INSTITUTE OF TECHNOLOGY (ISM) DHANBAD

> Any sufficiently advanced technology is indistinguishable from magic.
>
> — Arthur C. Clarke

OCTOBER 2026

A Global Stage for Our Research: Best Student Paper Award at SSS 2026.

From 8 to 12 October 2026, the beautiful Swedish city of Gothenburg became the setting for a proud moment in our college's research journey. The department's respected faculty member, Prof. Subhrangsu Mondal, travelled there to present the paper "Top k-fastest Journeys in Temporal Graphs" at the 28th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), one of the leading conferences in the area of self-stabilization in distributed computing.



The conference was hosted at Chalmers University of Technology. The paper was the outcome of joint work with Anil Budamakuntla (B.Tech, 4th year) and Sai Anvith Bommisetty (B.Tech, 4th year), carried out as part of their final-year B.Tech project under his able guidance. Their effort was recognised with the "Best Student Paper Award", a remarkable achievement for undergraduate researchers competing on an international platform.



Beyond the award, the symposium offered a valuable forum for exchange. The team received very good feedback on their work, along with ideas for further extension.

Prof. Subhrangsu also had the opportunity to meet and discuss ideas with researchers from top institutions, including the University of Texas at Austin, Sorbonne University, and Technion - Israel Institute of Technology.

The visit was truly inspiring and a rich learning experience. It shows that with dedication, curiosity, and the right mentorship, students can take their ideas from the classroom to the world stage.

The visit was truly inspiring and a rich learning experience. It shows that with dedication, curiosity, and the right mentorship, students can take their ideas from the classroom to the world stage. The department congratulates Anil and Sai Anvith, and extends its heartfelt gratitude and warm wishes to Prof. Subhrangsu for his dedicated mentorship and for bringing such honour to the institution. May he continue to inspire generations of students with his guidance.

Patrealisation: Realisation of the society's constructs



I am grateful to share that my first book, Patrealisation: Ten Stories About the Arrangements Nobody Argues With, has been published by Astitva Prakashan this October.

It is a collection of ten short stories about the everyday arrangements in Indian homes that nobody questions. I wrote it in the evenings, alongside my work on AI systems. The title is a word I had to coin, because I could not find one for what took me years to see.

I owe a great deal to the Department of Computer Science and Engineering. Prof. Chiranjeev Kumar Sir and the faculty taught us to look closely at how systems work, and to question the ones we take for granted. In many ways, this book is that habit turned towards the homes we grow up in.

I am equally grateful to the CSE Society. Serving as its Secretary taught me how much of any community runs on quiet work that nobody sees, the same unseen work these stories are about. I remain thankful for the encouragement I have always received here.

The book is available in paperback and Kindle on Amazon, Flipkart and the Astitva Prakashan store, and on "Amazon.com" for readers abroad.

Spandan Kundu
BTech CSE, 2025

CSE Department's students triumph in Concetto 2026

Concetto 2026 was a resounding success, blending the fun of all good things about college with the creativity, innovation, fierce competition, and adrenaline rush that tech fests are known for. The students of the Department of Computer Science and Engineering shined through the entire fest, with there rarely being a day of the Concetto events when a Computer Science and Engineering student did not win a prize.

To start off, sophomore Karndesvsinh Vala (B.Tech, 2nd year) claimed the title in AI OF GOD, a momentum swiftly sustained by his peers Keshav Gupta winning Aptiquest and Hanish Meena securing the runner-up position in Logic Odyssey. Muneeb and Chinmayi engineered their way into winning VibeHack while the sophomore trio of Ved Kumar, Shivam Thakur and Rohan Rathore ran an intellectual marathon to secure the third position in Mathalon.

The department's technical dominance was particularly evident in Algosort. The sophomore quartet of Ved Kumar, Sofyan Alam, Rohan Rathore and Shivam Thakur raced to the first position; closely followed by their immediate seniors (B.Tech 3rd years) in Aravind Dwibhashyam's team winning the second position; and another sophomore team- Prav Prateek, Sujal Raj, Yashu Bansal and Shubham clinched third.

The competitive spirit continued across various other events. Sophomores Amit Prasad, Arsh and Prav Prateek bagged the second place in BlockHunt, while Prav Prateek returned with his batchmates Vishesh Sunhare and Shashidhar, to win the third place in ReconCTF (offline track). But surely enough, this was not the end, as they were narrowly outpaced by their batchmates Yashu Bansal, Sujal Raj, Shubham and Keshav Gupta, who surpassed the former team to win the second position.

Dhruv Kumar (B.Tech, 2nd year) bagged the first place in Quantum Mania with Bhavishya Dhanker (B.Tech, 2nd year) following in with a close second. Yashu Bansal (B.Tech, 2nd year) made yet another podium appearance, winning the first position of ConvCup.

This definitely does not mark the end of it all. Codewars was overwhelmingly commanded by the department's B.Tech, 3rd year students. The team comprising of Shivam Chaudhary, Aashish Kumar and Anurag Dwivedi proved unmatched, securing the first position. They were followed by Suryansh Kulshreshtha's team at second position, and the trio of Abhinav Kumar, Animesh Roy and Kirti Vardhan Bhushan in third. Exhibiting comprehensive excellence, B.Tech 3rd year student Abbas Mehedi and his batchmates PR Sanjit Ram and Rachit Kumar Pandey conquered the quizzing arena, securing a second position in Synapse Arena.

The Department of Computer Science and Engineering, alongside the CSE Society, extends its heartfelt congratulations to all winners and wishes continued success to every individual in all their upcoming endeavors.

Edge-Aware Graph Attention for Dynamic Electric Vehicle Routing: Research Presented at IEEE WF-IoT 2026



Prof. Pranay Kumar Saha, Department of Computer Science and Engineering, IIT (ISM) Dhanbad, recently attended Khalifa University, Abu Dhabi, United Arab Emirates, to present a research paper in IEEE World Forum on Internet of Things (WF-IoT) 2026.

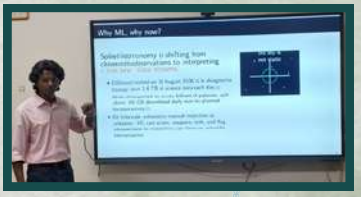
The research paper titled "Dynamic Electric Vehicle Routing with an Edge-Aware Graph Attention Actor-Critic Framework" was jointly authored by Prof. Saha and Rahul Roy, a student of the first batch of Executive M.Tech. programme of IIT (ISM) Dhanbad, under the guidance of Prof. Saha.



This research addresses the dynamic electric vehicle route planning in ever-changing operating environments using an artificial intelligence approach. Its framework uses graph attention as a method of representing the road network, along with relations between edges and nodes. Further, it combines graph attention with an actor-critic framework, a reinforcement learning technique wherein one side chooses the routing action and the other decides whether to accept the decision or not.

The presentation sparked fruitful discussions regarding the technology. It was a particularly rewarding experience for Prof. Saha to showcase research carried out by a student from the very first batch of the CSE Department's Executive M.Tech. programme.

Research Seminar by SIG AI/ML (ANVESH)



On October 08, 2026, the SIG AI/ML (ANVESH), Department of Computer Science and Engineering, IIT (ISM) Dhanbad, successfully organized a research seminar at CR1, Department of Computer Science and Engineering. The seminar featured presentations on different research areas in Artificial Intelligence and Machine Learning, providing students with an opportunity to explore ongoing developments in these fields.

The session featured three presentations by Aayush Kumar Sharma (M.Tech, 1st year), Rajarshi Biswas (M.Tech, 1st year), and Abhirup Pal (PhD, 1st year). Aayush Kumar Sharma presented "How LLMs Resolve Language Ambiguity," followed by Rajarshi Biswas, who presented "Accelerating Discovery: Leveraging ML for Next Generation Astronomical Data.

" The third presentation, delivered by Abhirup Pal, focused on "Generative Adversarial Network (GAN) for Image to Image Translation." The presentations covered a range of topics, highlighting the growing scope of Artificial Intelligence and Machine Learning across different research domains.

Publications

Title: New Helly-type results for discrete boxes: Quantitative colorful and (p,q)-variants

Authors: Rahul Gangopadhyay, Alexander Polyanskii, Wei Rao

Published at: Discrete Mathematics, Article: 115457, Volume 350, Issue 3

Title: Distributed Download from an External Data Source in Byzantine Majority Settings

Authors: John Augustine, Soumyottam Chatterjee, Valerie King, Manish Kumar, Shachar Meir, David Peleg

Published at: Distributed Computing (DC) Journal

Title: A newly generated dataset and pattern-driven approach for detecting AMQP Denial-of-Service attacks

Authors: Munmun Swain, Sushant Kuril, Nikhil Tripathi, Kamalakanta Sethi

Published at: Computers & Security, 2026, 105225

Title: PAPI-T: Phase-Aware Physics-Informed Self-Supervised Transformer for Explainable Cardiac MRI Analysis

Authors: Kunal Roy and Annavarapu Chandra Sekhara Rao

Published at: Information Sciences (Elsevier)

PhDs awarded in the month of October 2026

Applicant	Supervisor	Thesis title
Mahesh Chaurasia	Prof. Arup Kumar Pal	Image and Video Data Protection through Cryptography and Blockchain Technology

Contact Us:

Prof Chiranjeev Kumar
Head of the Department
Email: cse@iitism.ac.in
Phone: +91-326-2235273 (O)
Fax: +91-326-2296563

Credits:

Prof Nikhil Tripathi (Faculty Coordinator)
Kumkum(25JE0922)
Divya Meena (26JE0599)
Aashish Ranjan (26JE0556)