

SEPTEMBER 2024

# BYTE STREAM



**COMPUTER SCIENCE AND ENGINEERING**  
**INDIAN INSTITUTE OF TECHNOLOGY (ISM)**  
**DHANBAD**

## MONTHLY NEWSLETTER

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

“ We can only see a short  
distance ahead, but we can  
see plenty there that needs  
to be done.

— Alan Turing

## EVENTS@CSE

SEPTEMBER 2024

Udbhav, a cultural event organized by the CSE society marks the annual day of the CSE Dept. The event, organized nearly after 8 years, was memorably conducted on 1st Sept. and proved to be a great rebirth of celebrations of the CSE society. The event started with the warm welcome speech of Prof. Chiranjeev Kumar (HOD) and Prof. Dharavath Ramesh (Faculty-Incharge). Mr. Spandan Kundu (Sec. CSES) also inspired the audience with his speech about revival of the CSE Society followed by Dr. Abdhesh Kumar Singh (Executive Vice President, Reliance Jio) who drove the audience amazed with the lessons of the industry and the professional world. Event further witnessed the talks of Major Deepak Bhagwani who shared the stories of realms of his dynamic life. Mr. Nikhil Mittal (CTO of ZEPTO) was given an executive welcome by the CSES Team who addressed the audience about his journey and provided advice for the students via the interactive and inspiring questionnaire. The biannual magazine of the Dept. Buffered Reader v6.1 was released while the much awaited website of the CSES was also launched. Towards the end of the event, the felicitation was carried out, mentioning the remarkable contributions of CodeISM'25, Yaadein'24 Organising team, Udbhav'24 Organising team and winners of the cultural events.

During the whole night the amazing talent of CSE students was on display.



IIT ISM Dhanbad was honored to recently host Prof. Kashinath Basu, a Senior Faculty Member of Computer Science at the School of Engineering, Computing and Mathematics, Oxford Brookes University, UK as part of guest lecture series. Prof Basu predominantly works in Softwarization and virtualization of networks, Big Data and Cloud, AI/ML for network and cloud computing, Smart Grid Communication. During the lecture, he delved into his work with illuminating Cloud Computing, Cyber Security, IoT, and Big Data, with a special focus on Network Softwarization, Smart Grids, and Ethical AI. Also, he focused on advancements in Software-Defined Networks (SDN), Infrastructure Optimization, and Autonomous Vehicles. Oxford's integration with industries like Formula One and the importance of practical education through industrial placements were majorly highlighted by him. The session ended with the presentation of an institute memento to Prof. Basu.

### ***"Competition makes us faster; Collaboration makes us better".***

With this ultimate goal of advancement with amalgamation, the CSE Society story of revival is nothing short of a thrilling saga! After all, overcoming the inertia of rest is a formidable task! Rising from a prolonged period of dormancy, the Society's journey to overcome the inertia and reignite the passion to innovate required perseverance and optimism like no other! Much like the renaissance of painters in Medieval Italy, this revival was fueled by a shared passion for technological advancement and personal growth. Such was the catalyzing power of unity that within a few months of being back, we, at the CSE Society organised three major events including Yaadein '24, Udbhav '24 and Codessey 1.0, each with an aura of its own. Participation was overwhelmingly stellar and the prizes awarded were unprecedented. This resurgence stands as a testament to the power of teamwork and the belief that when individuals come together, not only do they break free from stagnation, but they also reach new heights of achievement and success.



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The long hiatus of the Buffered Reader was interrupted when the latest edition of the magazine was launched during the recently concluded annual day of CSE Dept (Udbhav 2024). The magazine was well received by the faculties and dignitaries present on the occasion. Being the official magazine of the CSE Dept., it shoulders the huge responsibility of truly reflecting the activities and achievements of the CSE fraternity. In addition the magazine also provides a sneak peek into technological advancements across the globe. The release would not have been possible without the foresightedness of Prof. Chiranjeev Kumar (HOD CSE). The constant guidance from Prof. Soumen Bag and Prof. Pranav Bisht was central to the making of the magazine. Finally it was the hardwork and dedication of the CSE students, amid their tightly packed schedule, that made the Buffered Reader a reality.



On the occasion of Teachers' Day, all the research scholars of the CSE department gathered to honor and express deep appreciation and gratitude to the professors. The celebration began with a lamp lighting ceremony, followed by the cake cutting and enlightening speeches by Prof. P.K. Jana and Prof. C. Kumar. After that, Mr. Pradeep Parhi's soulful special song, and Ms. Arunima's mesmerizing solo dance beautifully captured the essence of the Guru-Shishya tradition. Ms. Arju added a poetic touch with a heartfelt shayari, symbolizing the journey of the scholar and guide relationship.



Adding to the festivities, a fun-filled game of dumb charades was organized, where each professor had to act out an assigned word while others guessed. The playful spirit of the game reminded the bond shared between a student and a teacher. The event concluded with each professor being gifted a plant as a token of gratitude. Overall, it was a day filled with joy, appreciation, and celebration—a fitting tribute to our beloved professors, who continue to inspire us in countless ways.



## PhDs Awarded in the month of September 2024

Awardee	Supervisor	Thesis Title
Rati Bhan	Prof Rajendra Pamula	FRAMEWORK FOR ANALYSIS AND DETECTION OF SMARTPHONE MALWARE AND SECURED DATA SHARING SCHEME
Arushi Jain	Prof A.C.S. Rao	STUDY AND DESIGN OF MACHINE LEARNING ALGORITHM FOR PROCESSING HEALTHCARE DATA

## PhD Theses submitted in the month of September 2024

Awardee	Supervisor	Thesis Title
Thirumal G	Prof Chiranjeev Kumar	STUDY AND DEVELOPMENT OF LINEAR IIoT-BASED TIME CRITICAL SYSTEMS
Soumya Mukherjee	Prof Arup Kumar Pal	DESIGN OF EFFICIENT FORGERY DETECTION TECHNIQUES IN DIGITAL IMAGES

## Recently accepted Research Work for publication

**Title:** An efficient weapon detection system using NSGCU-DCNN classifier in surveillance

**Authors:** A. Sai Venkateshwar Rao, Shivam Kainth, Ansuman Bhattacharya, Tarachand Amgoth

**Accepted at:** Expert Systems and Applications (Impact Factor: 7.5)

## Contact Us:

Prof. Chiranjeev Kumar

Head of the Department

Email: hod\_cse@iitism.ac.in

Phone: +91-326-2235273 (O)

Fax: +91-326-2296563

## Credits:

Prof. Saurabh Srivastava (Faculty Coordinator)

Sarthak Saumya (21JE0837)

Abhishek Prasad Das (23MT0015)

Bitra Sri Pragna (22JE0259)

Mirthipati Krishna Balaji (22JE0573)