

Future Frames – The CSE Lens

Seeing the Future Through the Lens of Technology



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In Focus: Technology & Research

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Early Emotion Insights: AI Facial-Expression Detection for Autism

Facial Expression Recognition (FER) powered by deep learning is becoming a potent technique for early autism spectrum disorder (ASD) screening. From a young age, social interactions may be impacted by the subtle variances that children with ASD frequently display in how they express or perceive their emotions. CNNs and vision transformers are examples of contemporary FER models that can recognize subtle facial cues and transient micro-expressions that people would miss.

FER facilitates prompt and objective screening by recording these early emotional patterns, assisting doctors in early detection of developmental issues. Additionally, this technology promotes inclusion and improves the quality of life for children on the autism spectrum by supporting individualized interventions, real-time emotional feedback, and social communication skills. Moreover, integrating FER systems with mobile and classroom-based platforms makes continuous monitoring more accessible and non-intrusive. As these AI tools evolve, they hold immense promise for supporting educators, therapists, and parents in nurturing emotionally responsive learning environments for children with ASD. By bridging technology and developmental psychology, FER-driven autism screening paves the way for earlier support, improved social outcomes, and more empathetic human-AI interaction.



Prof. Manjushree Chakraborty
Assistant Professor
Dept. of CSE

Publication Achievement

We are pleased to announce that Prof. Soumita Seth, along with B.Tech 2025 pass-out students Debangshu Bhattacharjee, Anusree Dam, Provat Mondal, has published a research article titled “A Streamlit-Powered Cloud Platform for Machine Learning-Driven Early Detection of Cardiovascular Diseases” in the Brain & Heart Journal (ACC Science Publishing).



Brain & Heart

ORIGINAL RESEARCH ARTICLE

A streamlit-powered cloud platform for machine learning-driven early detection of cardiovascular diseases

Soumita Seth^{1,2*}, Debangshu Bhattacharjee^{1,3}, Anusree Dam^{1,4},
Provat Mondal^{1,5}, Tapas Bhadra^{1,6}, and Sarav Malik^{1,4,6}

¹Department of Computer Science and Engineering, Future Institute of Engineering and Management, Rajpur Sonarpur, West Bengal, India

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This publication, based on their final-year project, introduces an innovative cloud-based ML platform for early cardiac risk assessment and highlights the department's strong focus on impactful research and effective faculty-student collaboration.

Faculty Development Participation **Med-Tech ATAL FDP 2025**

CSE Department faculty members successfully participated in the AICTE-ATAL 6-Day Online FDP on “Med-Tech Challenges and Opportunities under the ‘Make in India’ Framework”, organized by Future Institute of Engineering and Management from 10–15 November 2025. The program offered valuable insights into AI-driven healthcare, Med-Tech innovation, and emerging opportunities in India’s medical technology ecosystem.



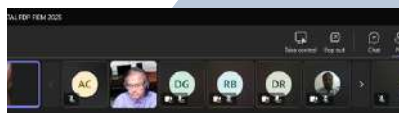
Participants from CSE Department:

Prof.(Dr.) Jaydip Nath, Prof. Manjushree Chakraborty, Prof. Munshi Navid Anjum, Prof. Rupali Banerjee, Prof. Satyam Raha, Prof. Soumita Seth, Prof. Chanchal Ghosh, Prof. Subhas Halder, Prof. Abhijit Sarkar



Faculty Coordinator: Prof. Prasanta Mazumder

Their active participation reflects the department's commitment to continuous learning and technological advancement.



Brain-Computer Interface for Neuro-Motor Rehabilitation

Amit Konar

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ATAL FDP Program on Med-Tech Challenges and Opportunities
under the “Make in India” Framework
organized by FIEM

November 10-15, 2025

ATAL FDP Participation Enhancing Data Intelligence Skills

Prof. Soma Hazra successfully completed the AICTE-ATAL FDP on “Demystifying Data for Intelligent Applications in Real World Scenario”, organized by UEM Kolkata from 24–29 November 2025.



The program offered key insights into data analytics, machine learning, and real-world intelligent systems, reflecting the department's commitment to continuous professional growth.

Student Spotlight

A Month of Leadership, Innovation & Achievement

Arnab Das, 3rd-year CSE student, showcased outstanding leadership and active involvement across multiple events in November 2025.

 HackSpire'25 (Organizer): Played a key role in managing FIEM ACM's 25-hour global hackathon with 4100+ registrations and 254 on-site participants.

 Educ-A-Thon 2.0 (Finalist): Reached the top 20 among 1500+ national teams with Team CitiFix.



 Hack-to-Hire Ideathon (Organizer): Supported event coordination and industry interaction for GDG On Campus FIEM.

 Flames'25 (Working Committee): Contributed to smooth event execution and student engagement during FIEM's cultural fest.

Arnab's contributions reflect exceptional dedication, teamwork, and initiative, making him a valuable representative of the department.

★ Student Achievement – Verse-E-Doodle 2025

We are proud to announce that Sumana Mondal, our 1st Year student has secured an Honourable Mention in the Story category of Verse-E-Doodle 2025, the annual creative writing event organized by the Xplorica Club of FIEM.



Her narrative creativity and expressive writing stood out among many talented participants, reflecting the vibrant literary spirit of our department.

🎉 Congratulations to Sumana for this commendable achievement and for bringing laurels to the CSE Department!

🎉 Flames'25 – The Heartbeat of FIEM! 🔥



FIEM hosted its vibrant cultural fest FLAMES 2025 from 21st to 23rd November 2025, celebrating three days of music, dance, art, and energetic student performances. The event featured impressive acts from various departments along with electrifying shows by The Folk Diariz, Dhvani Live, and TRAP, creating a lively and memorable atmosphere on campus.

CSE Department students actively participated, volunteered, and contributed to the fest's success, adding enthusiasm and creativity to the celebration. FLAMES 2025 emerged as a joyful showcase of talent and cultural unity for the entire FIEM community. The event not only celebrated creativity but also strengthened the sense of togetherness and pride within the FIEM family.

