



TECHNO COLLEGE OF ENGINEERING AGARTALA

DEPARTMENTAL NEWSLETTER OF
COMPUTER SCIENCE & ENGINEERING

CODE CONNECT

VOLUME V



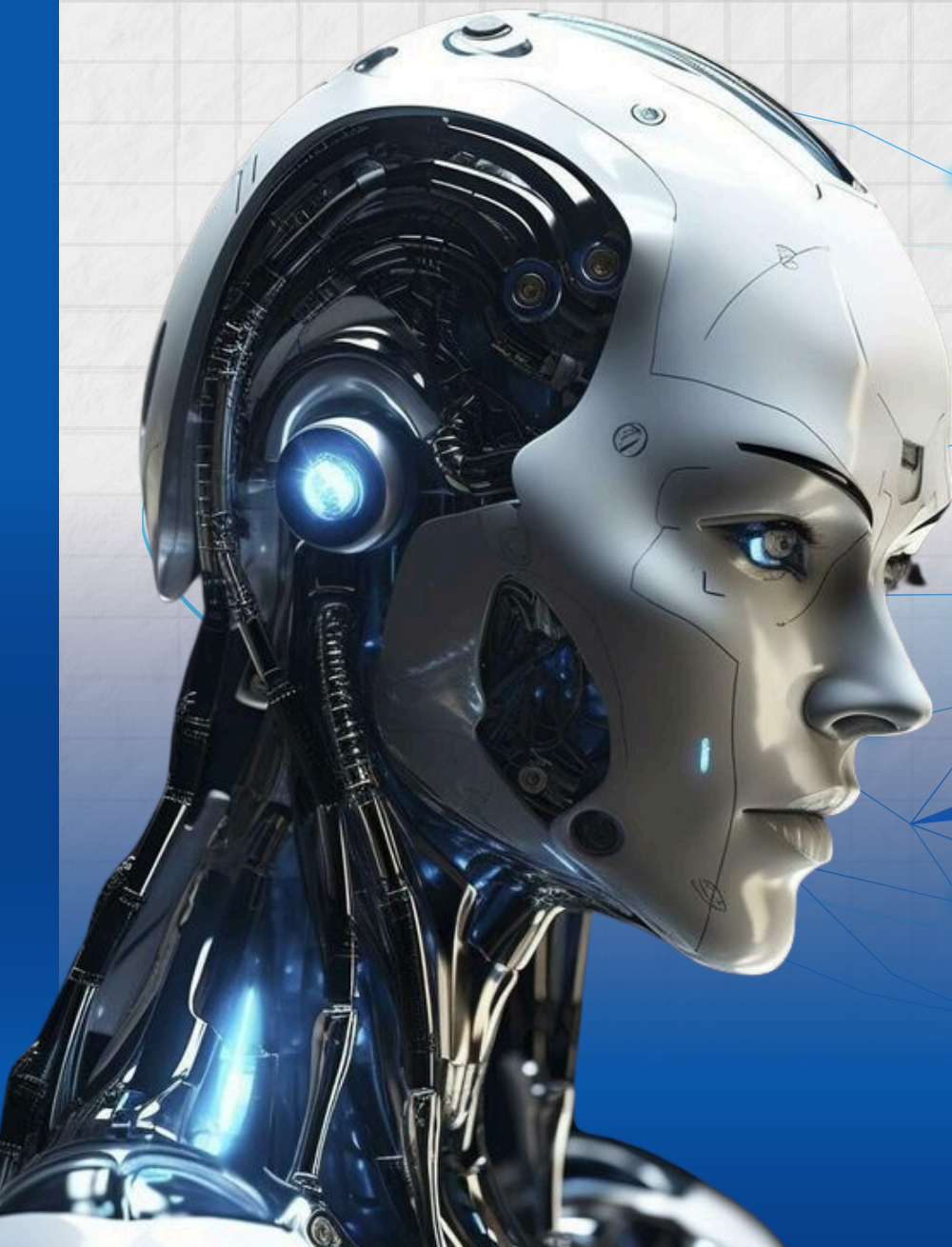
Innovate



Inspire



Illuminate



20
25



ABOUT US.

The CSE Department at Techno College of Engineering Agartala prepares future ready engineers with strong technical skills, problem-solving abilities, and innovative thinking. With a balanced curriculum in software, AI, ML, data science, cybersecurity, and emerging tech, students gain both theory and hands-on training. Supported by modern labs, expert faculty, and industry exposure, the department fosters innovation, teamwork, and ethical responsibility for successful IT careers.



“A computer would deserve to be called intelligent if it could deceive a human into believing that it was human.”

– Alan Turing

CONTENT'S **DESK**

Principal's Message

HOD's Message

Vision & Mission

Message from the Editorial Team

Faculty Members

List of Events

- **Faculty Development Program on "Impact of AI in Engineering & Management Education**
- **IDEATHON: IntelleXAI - Igniting Innovation During AI Awareness Week**
- **AI Awareness Week: An Industrial Visit**
- **AI Awareness Week: Hands-on Session on AI Tools**
- **Academic Interaction Seminar on IDEAFroge - Industry Driven Education**
- **One-Day Hands-on Workshop on LaTeX**
- **World Entrepreneurs' Day**
- **Publications**



PRINCIPAL'S MESSAGE

It gives me immense pleasure to know that the newsletter of Computer Science and Engineering Department "CODE CONNECT", Volume-V 2025 is about to get published. I am very much optimistic that the Departmental newsletter will send a positive signal among all the students, faculty members, and individuals who are having keen interest in the field of technical education and technology based on technical activities.

A Departmental Newsletter is like a mirror that reflects a clear picture of all sorts of activities undertaken by a Department.

I congratulate the HOD of CSE Department, Faculty members, and my dear students of Computer Science Engineering Department for taking this particular initiative of publishing the newsletter.

With best Wishes

— **Principal, Dr. Dibakar Deb**
Techno College of Engineering Agartala



HOD'S MESSAGE

Welcome to the Department of Computer Science & Engineering (CSE) at TCEA. Our department is committed to shaping successful careers for students through strong industry partnerships, a culture of research and innovation, and cutting-edge technology. As the Head of Department, I am proud to lead such a dynamic community of students, faculty, and staff. We offer a comprehensive education in computer science,

focusing on core principles like algorithms, data structures, and programming, along with specialized courses in artificial intelligence, data science, and computer networks. Beyond academics, we encourage research, innovation, and collaboration with industry partners, fostering critical thinking and problem-solving skills.

We also emphasize holistic student development, offering extracurricular activities like coding clubs and competitions to enhance technical skills and build networks. With a strong track record of successful placements, our dedicated career counseling cell helps students secure rewarding careers in leading companies.

— **HOD, Mrs. Purbani Kar**
Dept. of Computer Science & Engineering

VISION & MISSION

The Department is the center of Excellence in Training and Research in the areas of Computer Science & Engineering to meet the present and future needs of society with human face. To become self-processing in higher education, research, development and technological training. Build a strong research and teaching environment that responds swiftly to the challenges of the 21st century. To be in the frontier of Computer Science & Engineering knowledge.

Our moral value is committed to build a vibrant nation. To be a recognized leader by imparting quality technical education and thereby facilitating the advancement of Engineering environment. To prepare students in the field of technology to contribute to human kind to face global challenges in the fast morphing modern computing industry and the betterment of the society through leadership in education, research and development. The mission of the Department of computer science and engineering is to effectively apply this education to solve real-world problems thereby amplifying the impact of the students with various areas of day to day competitive environment. Our vision is to create such an environment where new ideas and research flourish, creating innovators, leaders and entrepreneurs who can transform the world. We are striving to produce successful graduates in Computer Science and Engineering through analytical learning. To produce successful graduates in Computer Science and Engineering through analytical learning, innovation and research grounded in professional and personal responsibilities and commitment to lifelong learning.



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

MESSAGE FROM THE EDITORIAL TEAM

We are thrilled to introduce the Volume V of CODE CONNECT Newsletter! It has been published after a lot of efforts by the whole editorial team. Our team has worked diligently to bring you a publication that highlights the exceptional achievements and research of our department. It is the outcome of creativity and seriousness in the technical field showed by both the students of Computer Science department and staff. It is a platform for the students, faculty, and researchers to showcase their work and inspire others to pursue their passion in this field.

FACULTY ADVISORS



Mr.Sankha Subhra Debnath

Assistant Professor



Mr.Biswaraj Roy

Assistant Professor

STUDENT EDITORS



Hriday Adhikari

4th Year, Batch : 2026



Shreya Roy

3rd Year, Batch : 2027



Saptarshi Kar

3rd Year, Batch : 2027

FACULTY MEMBERS



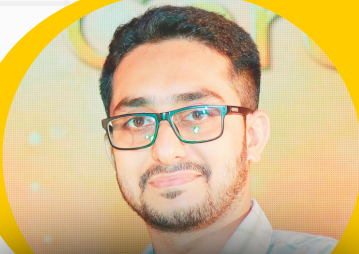
Mrs. Purbani Kar
HOD & Assistant Professor

Dear Students, Faculty, and Esteemed Readers,

It is with great pride and enthusiasm that I present this edition of our Computer Science and Engineering Department newsletter. Our department continues to thrive, fostering innovation, research, and academic excellence. Over the past year, our students have achieved remarkable milestones, from winning national-level coding competitions to contributing to impactful research projects. Our faculty's dedication to teaching and research has been unwavering, leading to numerous publications in esteemed journals and conferences.

We have also strengthened our industry collaborations, providing students with internships and exposure to real-world challenges. Our curriculum has been updated to include emerging areas such as Artificial Intelligence, Data Science, and Cybersecurity, ensuring our graduates are well-equipped for the evolving tech landscape.

I extend my heartfelt gratitude to all members of our department for their relentless efforts and commitment.



Mr. Kankan Saha
Assistant Professor

In this era of rapid technological growth, let us remember that education is not only about acquiring knowledge but also about shaping responsible citizens. Together, we can nurture curiosity, discipline, and ethical values that will guide our students to excel in academics, contribute to society, and lead with integrity.



Mrs. Arijita Bhowmik
Assistant Professor

In the vast network of human existence, we are not just programmers; we are the architects of tomorrow's digital society. Every line of code carries our values into systems that will outlive us. As we debug the world's challenges, remember: your keyboard is a tool for social change, not just software development. The future doesn't need faster algorithms; it needs compassionate coders who build technology that serves humanity. In an age where AI questions what makes us human, let your authentic intelligence answer by making every solution more humane. Code with empathy, innovate with integrity, and remember: your commits to humanity matter more than your commits to any repository.



Dr. Partha Pratim Deb
Associate Professor

"We live in an era where technology is not just a tool but a driver of change, shaping societies, industries, and the way we live. As engineers and future innovators, our students bear the responsibility of harnessing this power to create solutions that are sustainable, ethical, and impactful. Knowledge, when blended with creativity and responsibility, becomes a force for societal progress."

FACULTY MEMBERS



Mr. Sankha Subhra Debnath
Assistant Professor

It gives me immense pleasure to write a message for the fifth edition of the newsletter of Computer Science & Engineering Department i.e., "CODE CONNECT". This news letter will provide students with updates on departmental events, research opportunities and other important information. It will also motivate students as it serves as a medium to showcase their success stories. I wish a grand success for "CODE CONNECT V". Thanks



Dr. Tutan Nama
Assistant Professor

Dear students, believe in personal potential, use education as a launchpad for a purposeful life, and persevere with integrity and curiosity. True achievement stems not only from academic excellence but also from using that foundation to solve problems, build character, and help others. Students are also encouraged to cherish the journey of learning, embrace challenges, and always strive to pay forward the opportunities received for the betterment of future generations.



Dr. Arpita Banik
Assistant Professor

In today's fast-paced digital era, Computer Science and Engineering is not just a discipline of study but a way of shaping the future. Technology today is more than machines and codes—it is the force that redefines how we live, learn, and connect with one another.

As educators, we see our students not only as learners of programming and algorithms but as innovators who will carry the responsibility of building meaningful solutions for society. While technical knowledge is vital, true engineering goes further—it calls for creativity, responsibility, and empathy.

FACULTY MEMBERS



Mr . Deeptanu Choudhury
Assistant Professor

In the vast network of human existence, we are not just programmers; we are the architects of tomorrow's digital society. Every line of code carries our values into systems that will outlive us. As we debug the world's challenges, remember: your keyboard is a tool for social change, not just software development. The future doesn't need faster algorithms; it needs compassionate coders who build technology that serves humanity. In an age where AI questions what makes us human, let your authentic intelligence answer by making every solution more humane. Code with empathy, innovate with integrity, and remember: your commits to humanity matter more than your commits to any repository.



Ms. Sharmistha Das
Assistant Professor

Let us move forward with the spirit of innovation, collaboration, and integrity, using our knowledge to serve the greater good and to create a future where technology and humanity walk hand in hand.



Mrs. Nabanita Shil
Assistant Professor

"Hello, Everyone I am Nabanita Shil , Asst. Prof. of Computer Science & Engineering Department at Techno College Of Engineering Agartala. The Computer Science and Engineering (CSE) Department is shaping future innovators by equipping students with the skills to solve real-world problems through technology. From AI in healthcare to smart apps for education, students are using tech for social good. With hands-on projects, hackathons, and research, the department fosters creativity, critical thinking, and responsibility. CSE not only prepares students for careers in software, cybersecurity, and data science but also empowers them to make a meaningful impact on society. "

FACULTY MEMBERS



MR. BISWARAJ ROY
Assistant Professor

“Education is not just about filling minds with facts, but about shaping hearts with values. As a teacher, I believe that when society nurtures curiosity and kindness together, we raise not just successful individuals, but responsible human beings.”



Mrs. Rajna Saha
Assistant Professor

As an Assistant Professor in the Department of Computer Science and Engineering, it is my privilege to guide you through this exciting journey of learning and discovery. The world today is driven by technology, and each of you holds the potential to shape its future.

I encourage you to be curious, explore beyond the classroom, and embrace challenges as opportunities to grow. Build strong fundamentals, engage in projects, and keep yourself updated with emerging trends like Artificial Intelligence, Cybersecurity, Cloud Computing, and the Internet of Things. Remember, discipline, consistency, and collaboration are key to success.



Mr. Mainak Saha
Assistant Professor

In the vast network of human existence, we are not just programmers; we are the architects of tomorrow's digital society. Every line of code carries our values into systems that will outlive us. As we debug the world's challenges, remember: your keyboard is a tool for social change, not just software development. The future doesn't need faster algorithms; it needs compassionate coders who build technology that serves humanity. In an age where AI questions what makes us human, let your authentic intelligence answer by making every solution more humane. Code with empathy, innovate with integrity, and remember: your commits to humanity matter more than your commits to any repository.

FACULTY MEMBERS



Mrs. Barnali Chowdhury
Assistant Professor

Learning shapes your character as much as your knowledge.



Mr. Jayanta Das
Assistant Professor

Education shapes individuals and strengthens society. Students should focus on learning with sincerity and creativity, while society should encourage and support their growth. Together, we can create a better and more progressive future.



Ms. Sourabarna Roy
Assistant Professor

"In today's world of endless distractions and rapid change, knowledge and kindness must walk hand in hand. Education is not just about securing marks or degrees—it is about shaping responsible citizens who think critically, act ethically, and contribute selflessly.



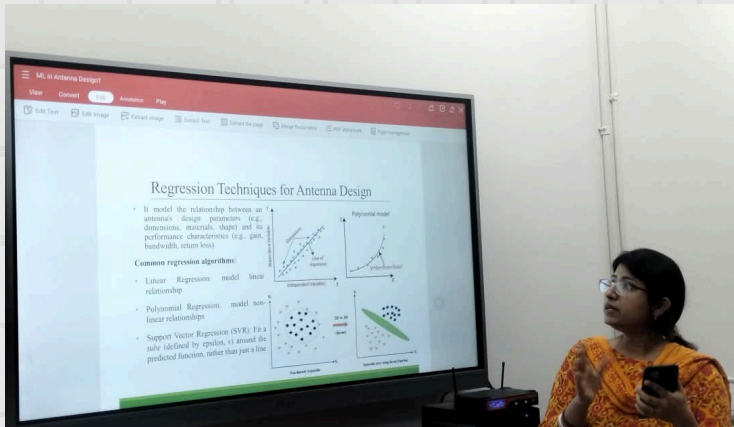
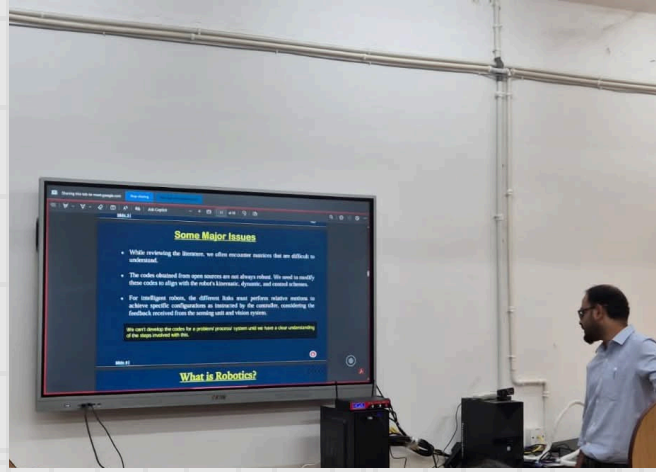
Ms. Tina Debbarma
Visiting Lecturer

Learning with values today creates a better world tomorrow.

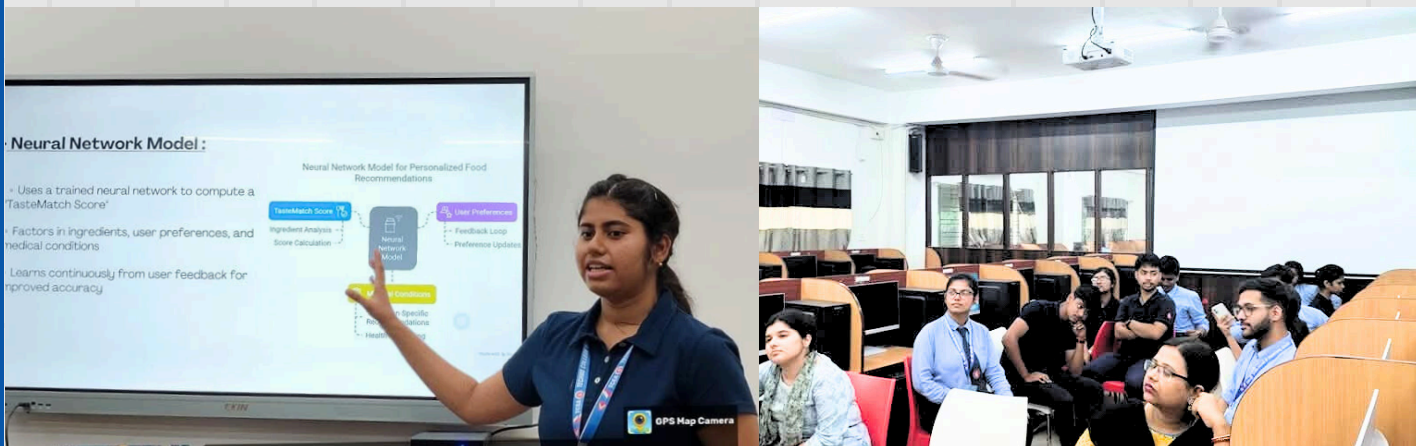
LIST OF EVENTS

Faculty Development Program on "Impact of AI in Engineering & Management Education"

The Faculty Development Program on "Impact of AI in Engineering & Management Education" brought together academicians, researchers, and industry experts to explore the transformative role of Artificial Intelligence in shaping future education. The program highlighted how AI-driven tools and methodologies are redefining teaching, research, and administration in engineering and management disciplines. With sessions covering emerging AI applications, smart learning platforms, data-driven decision-making, and innovative pedagogies, the initiative aimed to equip faculty with the knowledge and skills required to integrate AI into curricula effectively. By fostering discussions on opportunities, challenges, and best practices, the FDP served as a platform to bridge the gap between traditional education models and the rapidly evolving digital era, empowering educators to prepare students for a technology-driven future.



IDEATHON: IntelleXAI - Igniting Innovation During AI Awareness Week



As part of AI Awareness Week, IntelleXAI - Igniting Innovation served as a dynamic platform for young minds to showcase creativity, problem-solving, and futuristic thinking. The Ideathon invited students from diverse disciplines to brainstorm and pitch innovative AI-driven solutions to real-world challenges across sectors such as healthcare, education, business, and sustainability.

With mentorship from faculty and industry experts, participants transformed raw ideas into impactful prototypes, highlighting the transformative potential of Artificial Intelligence.

More than a competition, IntelleXAI was a celebration of innovation, collaboration, and the boundless opportunities AI offers in shaping a smarter and more inclusive future.



AI Awareness Week: An Industrial Visit



On Day 2 of the AI Awareness Week, the Department of Computer Science and Engineering organized an enriching industrial visit to provide students with real-world exposure to Artificial Intelligence applications. The visit allowed students to interact with industry experts, observe practical implementations of AI technologies, and gain valuable insights into the latest tools and innovations shaping the future of the field.

This visit not only enhanced the technical knowledge of the students but also helped them understand the importance of industry-academia collaboration. It motivated them to think innovatively, bridge the gap between theory and practice, and prepare themselves for future opportunities in AI-driven industries.



Paschim Barjalai, Tripura, India

Rcrf+4g7 National Institute Of Technology Agartala,

Paschim Barjalai, Tripura 799046, India

Lat 23.840502° Long 91.423825°

AI Awareness Week: Hands-on Session on AI Tools

The Department of Computer Science Engineering celebrated AI Awareness Week with a special focus on practical learning through a Hands-on Session on AI Tools. The event aimed to introduce students to the latest artificial intelligence technologies and their real-world applications. Faculty members and experts guided the participants on how AI is shaping industries and transforming everyday life.



During the hands-on session, students explored various AI tools such as chatbots, image recognition software, and data analysis platforms. They were given practical demonstrations and opportunities to try out the tools themselves, which helped them gain clarity on how AI can be applied in solving real-world problems. The interactive nature of the session encouraged curiosity and active participation.

The celebration not only created awareness about AI but also motivated students to innovate and experiment with these tools in their projects and research. It strengthened their technical skills while boosting confidence to adapt to emerging technologies. Overall, the AI Awareness Week served as an inspiring platform for students to learn, explore, and connect with the future of technology.

The AI Awareness Week successfully provided students with valuable exposure to modern AI tools and their applications. It not only enhanced their technical knowledge but also motivated them to think creatively and apply AI in solving real-world problems. The event created a strong foundation for future learning, research, and innovation, preparing students to embrace the opportunities of the digital era.



Academic Interaction Seminar on IDEA Forge - Industry Driven Education



The Department of Computer Science Engineering celebrated the Academic Interaction Seminar on IDEA Forge - Industry Driven Education with great enthusiasm. The seminar highlighted the importance of industry-academia collaboration and the need for skill-based learning. Experts from IDEA Forge interacted with students and faculty, sharing their experiences and knowledge about current industry trends and innovations. The program motivated students to think creatively, embrace new technologies, and prepare themselves for future challenges in the engineering field. It was a valuable platform for knowledge exchange and career inspiration.

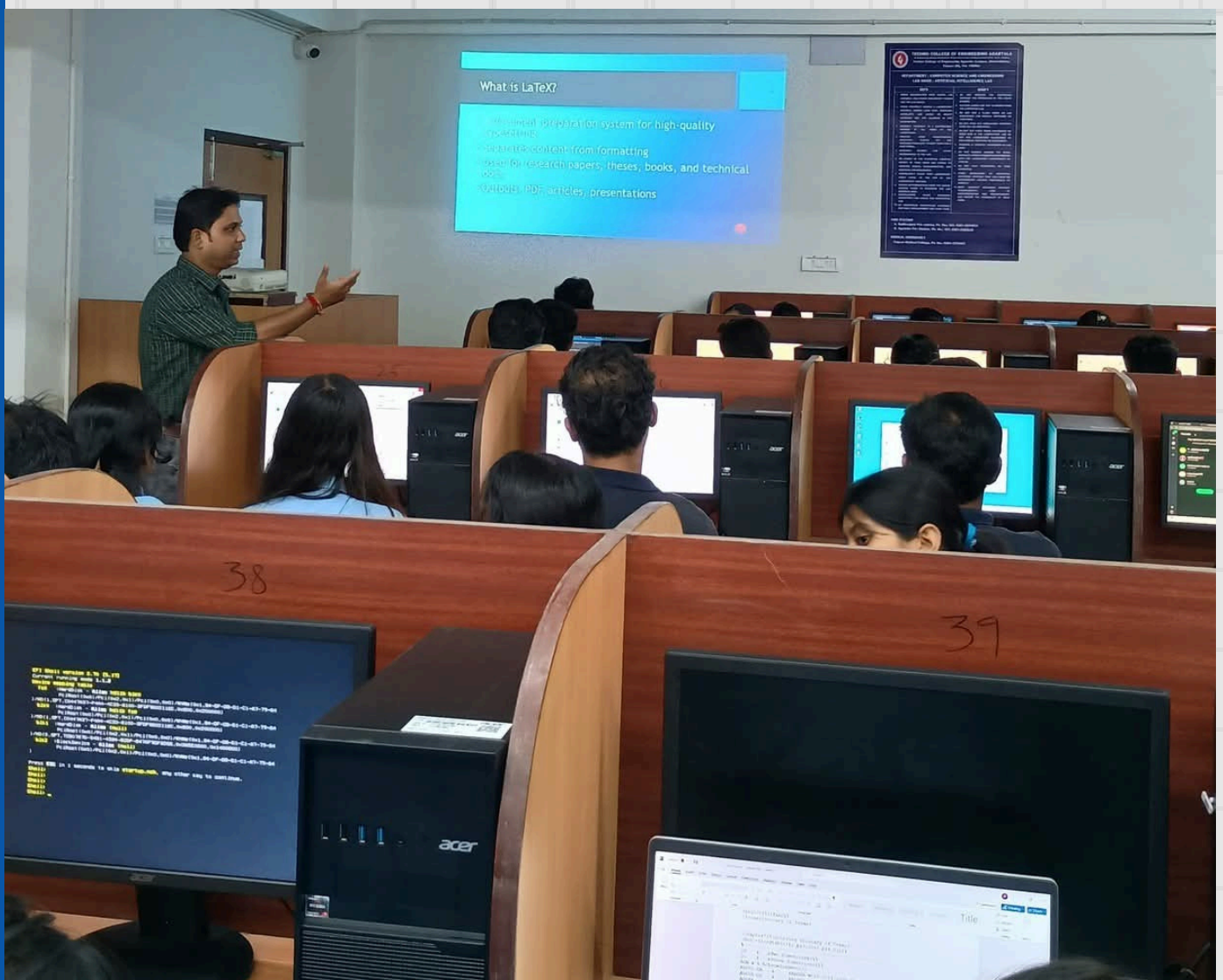


One-Day Hands-on Workshop on LaTeX



The Department successfully organized a One-Day Hands-on Workshop on LaTeX, designed to equip students and research scholars with essential skills in professional documentation and technical writing. The workshop provided a comprehensive introduction to LaTeX, covering document structure, typesetting of mathematical equations, creation of tables and figures, bibliography management, and preparation of research articles.

Through guided practical sessions, participants had the opportunity to work on live projects, ensuring they could confidently apply the concepts in real-time. The resource persons highlighted the significance of LaTeX in producing high-quality academic content, conference papers, theses, and scientific publications.



World Entrepreneurs' Day



Techno College of Engineering Agartala

An Engineering College Affiliated To Tripura University (A central University) Approved by AICTE, MHRD, Govt. Of India.

World Entrepreneurs Day

: Organised by :

Department of Computer Science and Engineering
in collaboration with
Institution's Innovation Council

Guest :

Mr. Palash Debnath

Co-Founder and CTO @Yupcha

: Guest

Mrs. Shila Das Podder

Owner of Bangla Bhoj



21st of August 2025
THURSDAY



11:00 A.M.



TCEA CAMPUS
New Seminar Hall

Follow us on :

institutionsinnovationcouncil@gmail.com

Department of Computer Science Engineering celebrated World Entrepreneur's Day with great enthusiasm. The event focused on the importance of innovation, startups, and leadership in today's world. Students shared their creative ideas, inspiring entrepreneurial stories were discussed, and interactive sessions encouraged young minds to think differently. The celebration motivated everyone to develop entrepreneurial skills and dream big for the future.



- 1) Published Research Article (Scopus Indexed Journal) : A Hybrid CNN-LSTM-ANFIS Model Optimized With PSO For Efficient Ddos Detection , DOI : <https://doi.org/10.53555/AJBR.v27i6S.7839>
- 2) Design Patent (Indian) : LEARNING DISABILITY DETECTING AI DEVICE (Published with Application Number : 438185 - 001)
- 3) Design Patent (Indian) : NETWORK THREAT DETECTION AND PREDICTION DEVICE (Published with Application Number : 430801 - 001)

Patent: APPARATUS FOR TASK MATCHING SCHEMA in the name of 1.Arijita Bhowmik 2. Arpita Banik 3.Dipjyoti Deb 4.Dr. Parijata Majumder 5.Susmita Majumder. 25th December 2024 Journal: Image encryption based on module learning with error using dynamic S-boxes. Arpita Banik, Dalton Meitei Thounaojam, Dolendro Singh Laiphrakpam Nonlinear Dynamics 113 (9), 10489-10513, 2025

1. Tutan Nama and Debasis Samanta, "QC Speller: User Interface Design of a Hands-Free Touch-Free Speller with Brain Electroencephalogram Sensory Rhythm," *ACM Transaction of Accessible Computing (TACCESS)*, 2024, <https://dlnext.acm.org/doi/10.1145/3705733>.
2. Tutan Nama, Anushka Singh, Gaythri Gadde, Archana Meher, and Debasis Samanta, "Analysis of Chromatic Response of EEG Signals Induced for Primary Color Visualization," 9th International Conference on Computer Vision and Image Processing (CVIP2024), 2024.
3. Tutan Nama and Debasis Samanta, "Designing a Sequential Hybrid BCI Speller on Fusion of Motor Imagery and Steady-State Visually Evoked Potentials EEG Data," 14th Indian Conference on Computer Vision, Graphics, and Image Processing (ICVGIP'23), <https://doi.org/10.1145/3627631.3627667>, 2023.

1. Investigating the Efficacy of Diverse Machine Learning Classifiers for Parkinson's Disease Detection, June 2024 DOI:10.1109/ICCCNT61001.2024.10725945 Conference: 2024 15th International Conference on Computing Communication and Networking Technologies (ICCCNT)
2. A Comparative Analysis of Advanced Machine Learning Algorithms to diagnose Parkinson's Disease, <https://doi.org/10.1016/j.procs.2024.04.015>
3. Detecting Parkinson Disease Using Various AI Enabled Methods: Recent Advances, Requirements, and Open Challenges Conference paper: 28 January 2025, pp 91-105, Part of the book series: Smart Innovation, Systems and Technologies ((SIST, volume 398))

1. Tina Debbarma, Tannishtha Pal, Prakash Duraisamy. Assessing deep learning techniques for human driving behavior prediction and analysis. *Proceedings of SPIE 13458, Real-Time Image Processing and Deep Learning 2025, 134580G (28 May 2025)*. [DOI: 10.1117/12.3054393]
2. Tina Debbarma, Tannishtha Pal, Ashim Saha, Nikhil Debbarma "HCNNet: a hybrid convolutional neural network for abnormal human driver behaviour detection". *Sādhanā* 50, 9 (2025).
3. Sourabarna Roy, Tina Debbarma, Tannishtha Pal, Prakash Duraisamy "Investigating the Efficacy of Diverse Machine Learning Classifiers for Parkinson's Disease Detection". *Conference-ICCCNT 2024 IEEE*.

1. Fresh Fruit Detection Using Yolo and OpenCV Sankha Subhra Debnath, Anindita Kar, Padmini Debbarma, and Loganathan Mani Abstract Fruits, S.-L. Peng et al. (eds.), *Proceedings of International Conference on Advanced Communications and Machine Intelligence, Smart Innovation, Systems and Technologies 405*, https://doi.org/10.1007/978-981-97-6222-4_19
2. Real-Time Object Detection Using YOLOv5 Sankha Subhra Debnath, Rajesh Kumar Verma, and Prasad Mahudapathi S.-L. Peng et al. (eds.), *Proceedings of International Conference on Advanced Communications and Machine Intelligence, Smart Innovation, Systems and Technologies 405*, https://doi.org/10.1007/978-981-97-6222-4_38
3. Active Directory and Its Security Testing Chandan Kumar, Sankha Subhra Debnath, Anindita Kar, Padmini Debbarma, and Senthilkumar Piramanayagam S.-L. Peng et al. (eds.), *Proceedings of International Conference on Advanced Communications and Machine Intelligence, Smart Innovation, Systems and Technologies 405*, https://doi.org/10.1007/978-981-97-6222-4_43



TECHNO COLLEGE OF ENGINEERING AGARTALA

DEPARTMENTAL NEWSLETTER OF
COMPUTER SCIENCE & ENGINEERING

CODE CONNECT

VOLUME V



Innovate



Inspire



Illuminate

20
25



