Alumni Corner : Reconnecting Memories and Inspiring Journeys

The Department of Electrical Engineering successfully organized **an Online Alumni Meet with the 2025 pass-out batch**, bringing together recent graduates and faculty members on a vibrant digital platform. The event served as a bridge between the past and present generations of learners, fostering a strong sense of belonging and continued connection with the institution.

The session began with a warm welcome address by the faculty members, appreciating the alumni for taking time from their busy professional schedules to interact with their teachers and juniors. The alumni expressed their heartfelt gratitude towards the department for shaping their academic foundation and guiding them during their formative years.

During the interactive session, the alumni shared their real-world experiences and career journeys—from college classrooms to their present roles in reputed industries and organizations. They discussed the various challenges faced during the transition from academics to the professional world, emphasizing the importance of technical knowledge, adaptability, communication skills, and continuous learning in today's competitive environment.

The discussion also focused on the present academic and infrastructural developments within the college. Alumni were delighted to learn about the department's growing engagement in AI-based learning, research activities, and industry collaborations. They appreciated the institution's efforts to stay aligned with modern technological trends and expressed their willingness to support future initiatives through mentorship, internships, and collaborative projects.

The session was highly interactive, as students actively participated by asking questions about career guidance, higher education opportunities, and workplace expectations. The alumni, in turn, shared practical advice, motivating current students to set clear goals and remain passionate about lifelong learning.

This event not only rekindled old memories but also strengthened the bond between the alumni and the institution, creating a sense of pride and continuity. It reflected the department's commitment to nurturing a vibrant and engaged alumni network, which plays a crucial role in enhancing academic and professional growth for both present and past students.

The Department of Electrical Engineering sincerely thanks all alumni for their enthusiastic participation and valuable contributions. The department looks forward to organizing more such interactive sessions and alumni engagements in the future to sustain the legacy of learning, collaboration, and inspiration.

Editorial Sparks

Faculty Advisor: Prof. Tamal Dutta
Student Editor: Sohom Banerjee (4th Year)
Creative Designer: Sudipta Jana (3rd Year)

FIEM Future Institute of Engineering and Management

DEPARTMENT OF ELECTRICAL ENGINEERING

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SPARKED

The Pulse of Electrical Engineering

October | 2025

Voice of the Department

Prof. Arnab Roy
Assistant Professor
Electrical Engineering, FIEM

October brought with it the vibrant spirit of Durga Puja and other festivals, filling everyone with joy and togetherness. This festive season reminds us of the power of unity, hope, and renewal, values that also guide our academic journey.

Even amidst celebrations, the Department of Electrical Engineering continued its academic and research activities with enthusiasm, reflecting the dedication of both faculty and students. Festivals like Durga Puja inspire us to overcome challenges and move forward with strength and optimism.

Wishing all members of our FIEM family happiness, peace, and success this festive season.

Highlights for the month

- 26th October : Alumni Meet on Virtual Platform
- Research Highlights by Sohom Banerjee: Final Year EE Student
- Research Publication by Prof. Sanjoy Sarkar

Upcoming Surge

- Faculty Development Program: AICTE ATAL FDP by FIEM: 10th -15th November, 2025
- FLAMES'25: Cultural Fest from 21st -23rd November, 2025

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Faculty Engagement

We are pleased to share that our respected Head of the Department, Prof. Avijit Saha, took on the role of Quiz Master during the Durga Puja celebrations at a local club at Sonarpur in October 2025.

Prof. Saha's engaging quiz session added an intellectual touch to the festive spirit, encouraging participation and enthusiasm among attendees. His involvement exemplifies the perfect blend of academic excellence and community engagement that our department takes pride in.

Power Highlights

Prof. Amitabha Bhattacharjee, Department of Electrical Engineering, attended a seminar on **"Controlling the Charging and Discharging of Energy Storing Device of Electric Vehicle" held on 31st October 2025 at NIT Mizoram.** The seminar was focused on developing an effective research proposal in the area of Electric Vehicle Energy Storage Devices (EV-ESD).

The primary objective of the proposed research is to design and facilitate a converter circuit for efficient charging and discharging of EV-ESD. The work emphasizes the reduction of ripples and Total Harmonic Distortion (THD) and aims to achieve power factor improvement in the overall system.

Additionally, the study explores the use of linear regression techniques to predict crucial battery parameters such as State of Health (SoH) and State of Charge (SoC). Optimization of the total run-time of Electric Vehicles is also targeted to enhance energy utilization and operational efficiency.

Prof. Bhattacharjee's participation in this seminar reflects the department's continuous involvement in cutting-edge research and innovation in the field of Electric Mobility and Power Electronics.

Faculty Spark

We are delighted to share that Prof. Sanjoy Sarkar attended GREENAI NEXUS 2025: An International Conference on AI for Environment, Energy, and Earth Sciences, held on October, 2025.

Prof. Sarkar presented a research paper entitled "A Review on Estimation of State of Charge (SOC) and State of Health (SOH) using AI for EV Batteries."

His insightful presentation highlighted the role of Artificial Intelligence in improving the performance, reliability, and sustainability of electric vehicle (EV) batteries—an area of growing importance in the transition toward cleaner energy solutions.

We congratulate Prof. Sarkar on this achievement and for contributing to advancing research at the intersection of AI and sustainable energy systems.

Student Surge

The Department of Electrical Engineering proudly congratulates Mr. Sohom Banerjee, a final-year B.Tech student, whose research paper titled "Quantum Grey Wolf Optimized Hybrid Deep Net Structure for Day-Ahead Wind Speed Forecasting" has been accepted for presentation at the 2025 IEEE 4th International Conference on Smart Technologies for Power, Energy and Control (STPEC 2025), to be held from December 10–13, 2025, at NIT Goa, India.

This remarkable work focuses on integrating quantum-inspired optimization techniques with deep neural networks to enhance the accuracy of wind speed forecasting, contributing significantly to the field of renewable energy prediction and smart power systems.

The department extends its heartiest congratulations to Sohom Banerjee for this notable achievement and conveys best wishes for his successful presentation at the upcoming conference.

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