



# ELECTRA

A YEARLY NEWSLETTER PUBLISHED BY  
DEPARTMENT OF ELECTRICAL ENGINEERING  
ASSAM ENGINEERING INSTITUTE, GUWAHATI

EDITION 4  
[AUG 2024-JULY 2025]



## VISION OF THE DEPARTMENT

- To be a centre of excellence producing Electrical Engineering Diploma holders having sound technical knowledge with a curious and innovative approach towards their field of work.

## MISSION OF THE DEPARTMENT

- To prepare students for more creativity, innovativeness and 'out-of-the-box' thinking.
- To inculcate integrity and honesty through curricular and extra-curricular activities.
- To design and develop short term job oriented courses for the students enhancing placement and entrepreneurship prospects.
- To produce technicians who will be able to solve the technical problems for future tech- society in the field of Electrical Engineering.

## VISION OF THE INSTITUTE

- To be a centre of excellence in the field of technical education contributing to the changing needs of society

## MISSION OF THE INSTITUTE

- To impart technical knowledge and skills in Engineering fields.
- To promote transfer of technology and encourage entrepreneurial abilities through industry Institute Interaction.
- To instill ethical value and social awareness through community development programmes.
- To utilize and continuously develop the resources and infrastructure of the Institute

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- Meetings
- Seminars /Webinars /Lectures /Workshops
- Extra-Curricular Activities
- Events and Activities
- Participation and Achievements
- Field Visits and Excursions

### SPECIAL MESSAGE FROM THE PRINCIPAL:



I'm excited to announce the launch of "Electra," the newsletter produced by the department of Electrical Engineering. I would like to extend my congratulations to the teachers, students and support staff for their exceptional contributions to the newsletter.

I have no doubt that the newsletter will highlight the untapped abilities of staff, instructors, and students involved in departmental activities and motivate them to participate in other projects to improve the department even more. I wish everyone the best of luck in their endeavors.

-Dr. Hitesh Tahbaldar  
Principal  
Assam Engineering Institute, Guwahati

### MESSAGE FROM HOD'S DESK:



With great pleasure, I announce the release of the department's newsletter, "Electra," for the period from August 2024 to July 2025. This newsletter serves as a technical platform for student academics and for staff to highlight their contributions. It also offers an overview of the departmental activities during this period.

This newsletter establishes the fact that with the collective efforts of the department's devoted and experienced faculty, and the bright and energetic students, academic and extracurricular success can be achieved.

-Dr. . Mitali Chakravorty  
HOD (i/c), Electrical Engineering  
Assam Engineering Institute, Guwahati,

### FROM STUDENT EDITORIAL:

With each passing semester, we continue to grow—not only as students of electrical engineering but as a closely-knit community bound by curiosity, resilience, and shared purpose. In these transformative moments, the Student Editorial Board strives to capture the pulse of our department and spotlight the stories that inspire others.

In this new edition of the department newsletter, we turn our gaze forward—celebrating the spark of innovation, the strength in collaboration, and the quiet determination that powers our everyday efforts. Let this be a reminder that together, our small steps create a powerful current of progress and pride.

- Student Editorial Board



**PRATIK SONOWAL**



**DHRITIMAN DAS**



**MOJAMEL HUSSAIN**

## DEPARTMENT OF ELECTRICAL ENGINEERING, AEI

**PROGRAMME SPECIFIC OBJECTIVES  
(PSO):**

- PSO1: Apply work in the capacity of a professional in handling electrical engineering circuits and machinery.
- PSO2: Build, test, operate and maintain electrical generation, transmission and distribution system with the application of knowledge and skills developed during the course.
- PSO3: Apply the theoretical knowledge and laboratory skills in modeling and analyzing systems and processes relevant to electrical engineering systems.

**PROGRAMME EDUCATIONAL OBJECTIVES  
(PEO):**

- PEO1: To learn to develop and design tools and equipment's for application in Electrical engineering and other allied industries
- PEO2: To provide solutions relevant to development of tech-society based on the skills gathered during the course
- PEO3: To pursue higher education in the field of Electrical Engineering and thereby contribute to technical advancement
- PEO4: To develop entrepreneurial skills in order to achieve self-employability and provide service to society

**PROGRAMME OUTCOMES (PO):**

- Basic and Discipline specific knowledge: Apply knowledge of basic mathematics, science and Engineering fundamentals and engineering specialization to solve the engineering problems.
- Problem analysis: Identify and analyze well-defined engineering problems using codified standard methods.
- Design/development of solutions: Design solutions for well-defined technical problems and assist with the design of system components or processes to meet specified needs.
- Engineering Tools, Experimentation and Testing: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.
- Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.
- Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.
- Life-long learning: Ability to analyse individual needs and engage in updating in the context of technological changes.

## DEPARTMENTAL ACTIVITIES

### MEETINGS

- Formation of Student Council and Editorial Board for this period (16/3/2024)

### SEMINARS/ WEBINARS/ LECTURES/ TALKS/ WORKSHOPS

- Talk on 'EFFECTIVE USE OF AI AND SIMULATION' on Wokwi and ThinkerLab by Prescot Telengsing (30/4/2025)
- One-day workshop on 'EMERGING TRENDS IN SOLAR ENERGY AND SMART METERING SYSTEM' organised by Girjananda Chowdhury University (5/05/2025)
- Workshop on 'LATERAL ENTRY INTO B.Tech COLLEGES' - by Alumni Chinmoy Das (6/05/2025)
- Renovation of Skill Development Lab sponsored by ICICI Foundation under CSR scheme (04/09/2025)



DEPARTMENT OF ELECTRICAL ENGINEERING, AEI

## ☀️ "From Death's Door to a New Dawn: The Journey of GOGO" ☀️



In the hustle of our academic lives, we often forget that compassion is as vital as knowledge. Yet, sometimes life presents us with moments where empathy becomes the greatest lesson of all. One such story unfolded within our department, where a helpless pup's struggle for survival became a journey of resilience, care, and hope.

A few weeks ago, I came across a young pup in a critical condition. He had been brutally attacked by older dogs and was left immobile, barely clinging to life. I took him in, determined to give him a chance. In the beginning, his frail body lay still, and I had to hand-feed him to keep him alive. Those days were filled with uncertainty, but also with an unshaken belief that he deserved to live.

The turning point came when our Head of Department, Dr. Mitali Chakraborty, stepped in. A true animal lover, she could not bear to see the pup's suffering. With her encouragement, financial support for veterinary expenses, and guidance through trusted clinics, hope entered the little pup's world. Her generosity and timely help became the cornerstone of his recovery.

With regular medication, care, and affection, the pup whom I named "GOGO" gradually regained strength. Within a week, the lifeless creature had sprung back to life, filling the room with energy and playfulness.

During his stay with me, a minor incident occurred where GOGO, out of fear in a tussle with my personal dogs, accidentally bit me. Though it led to a series of rabies shots for my own safety, I never blamed him. His journey from pain to healing mattered far more than any inconvenience.

The happiest chapter of GOGO's story came when I finally found him a foster home, where he was welcomed with open arms. From the lonely streets and the brink of death, GOGO is now embraced by a loving family who ensures that he grows in warmth, care, and security.

This journey was not just about saving a life; it was about teamwork, empathy, and the realization that small acts of kindness can create extraordinary change. Both Dr. Mitali Chakraborty's compassion and my dedication intertwined to give GOGO a second chance.

GOGO's story is a reminder that love and responsibility go hand in hand. It is proof that in a world often clouded with indifference, there are always rays of kindness strong enough to bring a soul back from the edge.

- PRATIK SONOWAL, 5th Semester  
2023-2026 Batch

## DEPARTMENTAL ACTIVITIES

### EXTRA-CURRICULAR / SOCIAL ACTIVITIES

- School visit to Satgoan high school, Birkuchi, Guwahati [08/11/2024]
- School Visit to Guwahati Refinery Higher Secondary School, Noonmati [08/04/2025]
- Attended Advantage Assam 2025



### EVENTS AND ACTIVITIES

- Teachers' Day Celebration (5/08/2025)
- Farewell ceremony of outgoing batch (2022-2025) (15/05/225)



## DEPARTMENTAL ACTIVITIES

### PARTICIPATION AND ACHIEVEMENTS

Here is a list of achievements by the Electrical Engineering Department and its students in the Institute Week 2024:

- Won 3rd prize in the Cultural rally
- Won 1st prize in Cricket (Two times in a row)
- Won 1st prize in Technical Exhibition
- Won 3<sup>rd</sup> prize in Arm wrestling



### INDIVIDUAL ACHIEVEMENTS:

- Riki Raj Pao, best batsman and Man of the Match
- Best bowler Jampu Moran
- Jyotirimoy Sannyashi, Dhritiman Das, Bikash Pathak, Santosh Kumar Prasad ,2<sup>nd</sup> runners up in the Technical model-making competition at Academia Industry Conclave 2025
- The majority of the AEI Students' Union posts were secured by students of Electrical Department



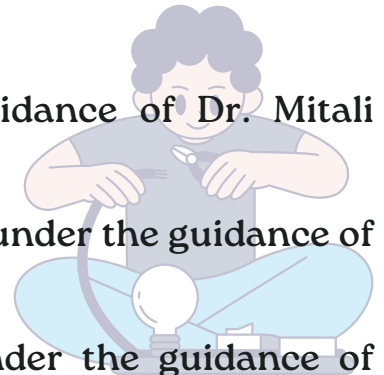
### FIELD VISITS AND EXCURSIONS

- Field visit to Indian Oil Petrol Pump, Bamunimaidam (30-09-2024)
- Field visit to Export Promotion Industrial Park (EPIP) (03/04/2025)



## FINAL SEMESTER PROJECTS

- **'Transformer Health and Maintenance'** under the guidance of Dr. Mitali Chakravorty
- **'Electrical Power Supply and Smart Switch Connection'** under the guidance of Yasmin Zaman
- **'Irrigation System using Non-Conventional Energy'** under the guidance of Dipika Haloi
- **'Transmission Line Fault Detection'** under the guidance of Mridupaban Talukdar
- **'Circuit Breaker Maintenance'** under the guidance of Dr. Mitali Chakravorty
- **'Study of Underground Cable Distribution System in Guwahati'** under the guidance of Dipika Haloi



### *Editorial Board*

Dr. Mitali Chakravorty, HOD (i/c), Electrical Engineering

PRATIK SONOWAL (Student, 5<sup>th</sup> Sem)

DHRITIMAN DAS (Student, 5<sup>th</sup> Sem)

MOJAMEL HUSSAIN (Student, 5<sup>th</sup> Sem)