

IEI Chemical Engineering Student Chapter Department of Chemical Engineering

Annual Report 2024–2025

1. Introduction

The IEI (Institution of Engineers India) Chemical Engineering Student Chapter aims to foster a professional, academic, and collaborative atmosphere among chemical engineering students. The chapter provides a platform for students to enhance their technical knowledge, leadership abilities, and career readiness through various academic and co-curricular activities.

2. Membership Details

A membership campaign was conducted to the 1st year chemical engineering students. 25 new students took membership in the student chapter. As of the academic year 2024–2025, the IEI Chemical Engineering Student Chapter comprises **102 active student members**. The student slist were sent to IEI Head Quarters, Kolkata. This robust participation reflects the growing interest among students in professional development and technical enrichment.

3. Formation of Executive Committee

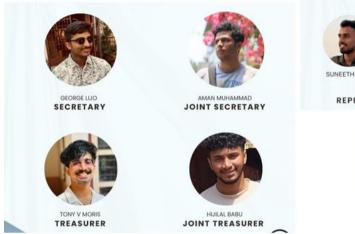
The **Executive Committee** for the academic year 2024–2025 was constituted on **28th August 2025**. The committee includes a faculty coordinator and student office bearers who collectively organize and manage the chapter's activities. The team has worked diligently to plan and execute impactful events throughout the year.



IEI Chemical Student Chapter Executive Committee

2024-2025

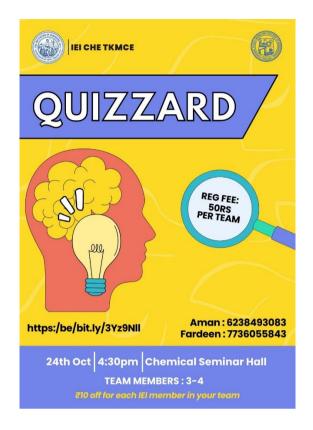






4. Programmes Conducted



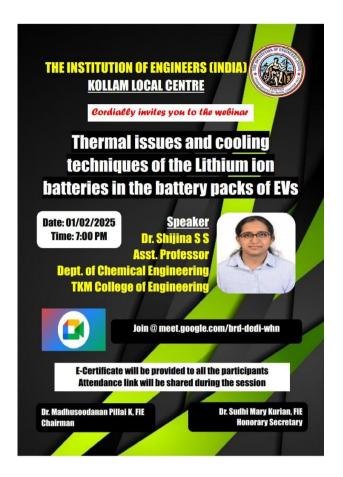


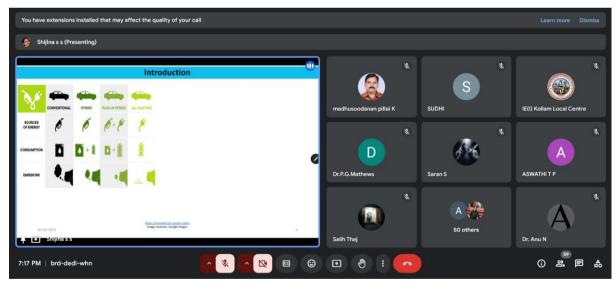


Expert Talk on Lithium-ion Battery Cooling

• **Date**: 01.02.2025

- Topic: "Thermal Issues and Cooling Techniques of the Lithium-ion Batteries in the Battery Packs of EVs"
- **Speaker**: *Dr. Shijina S S*, Assistant Professor, Department of Chemical Engineering, TKM College of Engineering, Kollam





Overview: The expert talk provided valuable insights into the critical thermal management challenges in electric vehicles. Dr. Shijina discussed advanced cooling strategies and their role in improving battery efficiency and safety. The session was highly informative and interactive, enriching students' understanding of emerging technologies in chemical engineering.

CELESTRA'25

- **Date**: $8^{th} 9^{th}$ February 2025
- **Description**: *Celestra'25* was the flagship technical festival of the IEI Chemical Engineering Student Chapter. The two-day event featured a variety of technical competitions, paper presentations, quizzes, and workshops. Students from various departments participated with enthusias m, showcasing innovation and problem-solving skills.
- Dr. Sheeba R., HOD Department of Electrical and Electronics Engineering, delivered welcome address. The Chief Guest of the day was Dr. Madhusoodanan Pillai K., Chairman, IEI Kollam Local Centre who has inaugurated the programme. Dr. Anu N., delivered felicitation. Student Convener of IEI CSE Department delivered vote of thanks.

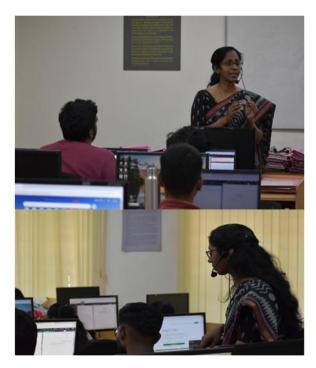


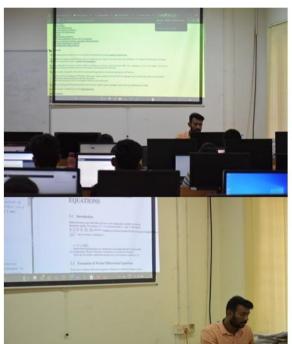


A) LateXplore Workshop

• As part of CELESTRA'25, IEI TKMCE hosted the event 'LateXplore' on February 8, 2025, introducing students to LaTeX, its advantages, and its applications in document and thesis preparation. The workshop was conducted by **Dr. Teena Liza John** and **Dr. Muhammed Sabeel K.** from the Department of Mathematics, TKMCE. The event commenced at 10:00 AM with an Introduction to LaTeX, explaining its significance and how it differs from traditional word processors. At 11:00 AM, participants explored

- the differences between LaTeX and other document creation software, highlighting its efficiency in handling complex formatting and references.
- Following this, a session on the advantages of LaTeX covered its key benefits, such as automation, precision, and professional document output, along with real-world applications. After a break, participants learned how to create structured documents like reports and research papers using LaTeX commands and templates. At 3:30 PM, a dedicated session on Thesis Preparation focused on using LaTeX for writing theses, covering citations, bibliographies, and document structuring, accompanied by handson exercises. The event concluded successfully at 4:30 PM, with participants gaining practical experience in LaTeX and its applications in academic writing. As a token of appreciation, Teena Ma'am and Sabeel Sir were presented with a memento from IEI TKMCE.





B) PERFECT MURDER II

The Perfect Murder II Competition was an intellectually stimulating event that tested participants' logical reasoning, storytelling, and deductive skills. Part of CELESTRA'25, organized by IEI TKMCE, the competition required teams to analyze a case file, construct a murder scenario, and defend their narrative against scrutiny from opposing teams. This programme was on 09th February 2025, 2nd day of Celestra'25.

Competition Structure

Phase 1: Story Creation (10:15 AM – 11:45 AM)

Each team received a case file detailing the victim, suspects, and circumstances. They had one hour to craft a compelling murder story, identifying a suspect as the murderer and establishing means, motive, and opportunity.

Phase 2: Presentation and Questioning (01:00 PM – 6:15 PM)

Teams presented their murder scenario, while opposing teams questioned them to deduce the murderer. Scoring Criteria

- Validity of the questions asked.
- Ability to accurately identify the murderer.
- Precise questions led to precise answers, whereas vague ones resulted in vague responses.

Results and Awards

The highest-scoring team was declared the winner based on questioning and deduction. A Best Murder. Plot Award was given for the most creative and well-structured narrative. The competition was a thrilling experience, challenging participants to think critically, craft engaging narratives, and sharpen analytical reasoning. It fostered teamwork, creativity, and logical deduction among all participants.

5. Conclusion

The academic year 2024–2025 was marked by active participation, intellectual engagement, and technical growth for the members of the IEI Chemical Engineering Student Chapter. With a focus on professional excellence and collaborative learning, the chapter looks forward to continuing its legacy of impactful initiatives in the years to come.

Dr. Anu N.

Faculty Coordinator