SANDIP UNIVERSITY, NASHIK
School of Engineering and Technology
Electrical Engineering Department

Industrial Visit Report

Visit to EL-Tech Controls, Ambad MIDC, Nashik

Date of Visit: 12th November 2025

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1. Introduction

The Department of Electrical Engineering, School of Engineering and Technology (SOET), Sandip University, Nashik, organized an **Industrial Visit** to ***EL-Tech Controls, located at Ambad MIDC,*** Nashik, on **12th November 2025** .

The visit aimed to bridge the gap between theoretical knowledge and practical industrial exposure by providing students with real-world insights into **Switchgear Manufacturing, Testing, and Applications in Power Systems**. A total of **82 students** from the **Second and Third Year Electrical Engineering** program participated in this visit.

Industrial visits form a vital part of engineering education, allowing students to observe and understand industrial practices, safety standards, quality control, and automation processes followed in modern industries.

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2. Objectives of the Visit

The primary objectives of organizing this industrial visit were:

- To expose students to the **practical aspects of switchgear design and manufacturing**.
- To understand **different types of switchgear components** and their role in electrical networks.
- To learn about **testing procedures, safety standards, and quality control** practices followed in the industry.
- To interact with experienced engineers and understand **current industrial trends** and **career opportunities** in the electrical sector.
- To correlate classroom concepts such as **protection systems, control circuits, relays, and circuit breakers** with their industrial applications.

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3. About EL-Tech Controls

EL-Tech Controls is a reputed organization engaged in the **manufacturing, assembly, and testing of low and medium-voltage switchgear panels**. The company provides customized electrical solutions for various industrial, commercial, and utility sectors.

The firm is well-equipped with modern machinery, testing facilities, and a skilled workforce. Their products include **Power Control Centers (PCCs)**, **Motor Control Centers (MCCs)**, **Distribution Boards**, **APFC Panels**, and **Feeder Pillars**, designed in compliance with relevant **IEC and IS standards**.

During the visit, students were introduced to the company's **production line, assembly section, quality control department, and testing area**, giving them a complete overview of the switchgear manufacturing process.

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4. Details of the Visit

The students reached the industry premises at 10:00 AM, accompanied by faculty members from the Department of Electrical Engineering. The visit commenced with a **brief orientation session** conducted by the plant manager, who introduced the company's operations, safety guidelines, and overall workflow.

Later, the students were divided into smaller groups to ensure better interaction and observation. Each group was guided through the different sections of the factory, including:

- **Design and Planning Section** – where engineers demonstrated the design software used for panel layout and circuit design.
- **Assembly Section** – where various components such as circuit breakers, bus bars, contactors, and relays were assembled into panels.
- **Wiring and Quality Inspection Section** – where internal wiring and connection checking were explained.
- **Testing Section** – where students witnessed insulation resistance tests, continuity checks, and high-voltage testing of switchgear.

The **engineers interacted with students**, answering their queries regarding manufacturing techniques, safety measures, and recent developments in switchgear technology.

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5. Learning Outcomes

The industrial visit provided valuable insights to students, including:

- Understanding of **practical applications of switchgears** and control panels in power distribution systems.
- Awareness of **different protection mechanisms** used to safeguard electrical equipment.

- Knowledge of **manufacturing processes**, right from design to final testing.
- Exposure to **industrial safety practices**, equipment labeling, and maintenance standards.
- Enhancement of **technical communication** and **professional interaction skills** through discussions with industry personnel.

The visit reinforced the students' classroom learning and gave them confidence in applying theoretical knowledge to real-life systems.

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6. Feedback from Students

The students expressed that the visit was **highly informative, interactive, and inspiring**. They appreciated the engineers' willingness to share their expertise and provide practical demonstrations. Many students stated that such visits help them better understand industrial requirements, design principles, and the importance of quality and safety in engineering practice.

The visit also motivated several students to explore **career opportunities** in the field of power systems, switchgear design, and electrical manufacturing industries.

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7. Acknowledgment

The Department of Electrical and Electronics Engineering extends heartfelt gratitude to the **Management and Associate Dean, SOET**, for their **continuous support and encouragement** in organizing such industrial visits.

Special thanks are due to the **officials and engineers of EL-Tech Controls**, Ambad MIDC, Nashik, for providing valuable guidance, hospitality, and sharing their industrial expertise with our students.

We also appreciate the efforts of all **faculty coordinators** who organized and accompanied the students, ensuring the smooth conduct of the visit.

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8. Conclusion

The industrial visit to **EL-Tech Controls** was a successful and enriching experience for the students of Electrical Engineering. It provided them with a **comprehensive understanding of switchgear manufacturing processes** and **real-world applications of power system equipment**.

Such practical exposures are essential components of engineering education, as they help students relate theoretical concepts to industrial practices and prepare them for professional challenges in their careers.

The department looks forward to organizing more such visits in the future to enhance experiential learning among students.


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