

Industrial Visit Report

Industrial Visit to GreatWhite Electricals, Vapi

Date of Visit: 8 May 2026

Introduction

As a part of experiential learning and industry-academia interaction, an industrial visit for the Students of **B Tech Electrical Sem II, SCET** was organized to **GreatWhite Electricals, Vapi** on **14 May 2026**. The visit aimed to provide students with practical exposure to modern electrical manufacturing processes, quality control systems, industrial automation, and professional work culture. A total of **34 students** participated in the visit under the guidance of **Prof. Sharad Patel** and **Prof. Sandhya Rathore**.

The group hired a private bus for transportation and departed early in the morning. The team reached the manufacturing facility at approximately **10:30 AM**, where the company representatives warmly welcomed the participants and briefed them about the organization, safety practices, and the day's schedule.

About GreatWhite Electricals

GreatWhite Electricals is one of India's leading manufacturers of premium electrical wiring accessories and solutions. The company is known for its wide range of products, including modular switches, sockets, MCBs, distribution boards, wiring devices, LED lighting solutions, cables, fans, and home automation products. The Vapi manufacturing unit is equipped with modern machinery, automated production lines, advanced testing laboratories, and stringent quality assurance systems that ensure high-quality products meeting national and international standards.

Manufacturing Process Observed

During the factory tour, students gained first-hand knowledge of the complete manufacturing cycle of electrical accessories.

1. Product Design and Development

The visit began with an overview of product design, where engineers explained how new electrical products are conceptualized using Computer-Aided Design (CAD) software. Emphasis was laid on product safety, ergonomic design, durability, aesthetics, and compliance with Indian Standards.

2. Raw Material Inspection

Students observed the inspection of raw materials before production. High-grade engineering plastics, copper, brass components, springs, terminals, and electronic components undergo strict quality verification before entering the manufacturing process.

3. Injection Moulding

One of the most interesting sections was the **plastic injection moulding department**. Here, engineering-grade thermoplastic granules are heated and injected into precision moulds to manufacture switch bodies, sockets, plates, and other plastic components. Students learned about:

- Injection moulding machines
- Temperature and pressure control
- Cooling systems
- Automatic component ejection
- Importance of mould maintenance

The fully automated machines ensured consistent dimensions and high production efficiency.

4. Metal Component Manufacturing

The manufacturing of brass terminals and copper contacts was demonstrated. Students observed processes such as:

- Metal stamping
- Punching
- Precision machining
- Surface finishing
- Electroplating for corrosion resistance

These components play a vital role in ensuring safe electrical connections.

5. Assembly Line

The assembly section showcased well-organized production lines where various components were assembled into finished electrical products. The company follows lean manufacturing practices to improve productivity and reduce waste.

Students observed:

- Manual and semi-automatic assembly
- Component fitting
- Spring mechanisms
- Terminal fixing
- Final switch assembly

The assembly process emphasized precision and standard operating procedures.

6. Quality Control and Testing

The quality testing laboratory was one of the most informative parts of the visit. Every batch of products undergoes rigorous testing before dispatch. Students learned about various quality tests including:

- Insulation resistance testing
- Dielectric strength testing
- Contact resistance measurement
- Mechanical endurance tests
- Temperature rise tests
- Flame resistance testing
- High-voltage testing
- Load testing

The company follows stringent quality management systems to ensure product reliability and customer safety.

7. Packaging and Dispatch

After successful quality inspection, products are automatically packed, labelled, barcoded, and prepared for dispatch. Students observed modern packaging machines that improve efficiency while minimizing handling errors.

The logistics department explained warehouse management, inventory control, and distribution of products across India.

Safety Practices Observed

The students were introduced to various industrial safety measures followed within the plant, such as:

- Mandatory use of personal protective equipment (PPE)
- Clearly marked emergency exits
- Fire safety equipment
- Safety instructions near every machine
- Housekeeping practices following 5S principles
- Safe material handling procedures

The importance of maintaining a safe working environment in manufacturing industries was strongly emphasized.

Learning Outcomes

The industrial visit significantly enhanced the practical understanding of students. The major learning outcomes included:

- Understanding the complete manufacturing process of modular electrical accessories.
- Knowledge of modern injection moulding technology.
- Familiarity with precision engineering and assembly techniques.
- Awareness of industrial quality assurance practices.
- Understanding industrial safety standards and workplace discipline.
- Exposure to automation and lean manufacturing concepts.
- Appreciation of teamwork and systematic production planning.
- Understanding the importance of testing and certification before product delivery.
- Linking classroom concepts with real industrial applications.

The interaction with company engineers also provided valuable insights into career opportunities in manufacturing industries and highlighted the technical skills expected from engineering graduates.

Recreational Visit

After completing the industrial visit, the group proceeded to **Tithal Beach (Valsad)**, where students enjoyed the scenic coastal environment and spent quality recreational time together. Later, the group visited the **Swaminarayan Temple at Tithal**, appreciating its peaceful atmosphere, beautiful architecture, and spiritual ambience. These visits provided students with an opportunity to relax after the educational tour while promoting team bonding and cultural appreciation.

Conclusion

The industrial visit to **GreatWhite Electricals, Vapi**, proved to be an enriching and highly educational experience for all participants. The visit successfully bridged the gap between theoretical knowledge and practical industrial applications by providing direct exposure to modern manufacturing technologies, automation, quality assurance systems, and professional industrial practices.

The students gained valuable insights into the functioning of a large-scale electrical manufacturing unit and developed a better understanding of industrial operations, production management, safety standards, and quality control. The interaction with experienced industry professionals further motivated students to enhance their technical knowledge and prepare themselves for future careers in the manufacturing sector.

Overall, the visit achieved its intended objectives and proved to be both informative and memorable. The recreational visits to **Tithal Beach** and the **Swaminarayan Temple** added an enjoyable dimension to the educational tour, making it a well-rounded learning experience for everyone involved.

Few Glipses







