Date- 18/02/2026

Industrial Visit Report

1.Schedule of Visit-

- **Date of Visit**- 17/02/2026
- **Name of Industry**- LR Enterprises
- **Location**- M.I.D.C. Kudal
- **Type of Industry**- Transformer manufacturing & Testing
- **Number of students**- 57 (SE Electrical Engineering)
- **Faculty Coordinators**- Mr. S. P. Sawant, Mr. O.S. Ghadigaonkar
- **Academic Year**- 2025-26

2. Introduction

An industrial visit was organized on **17th February 2026** for the Second Year Electrical Engineering students to L.R. Enterprises, located at Kudal M.I.D.C., Maharashtra.

The company is engaged in the **manufacturing and testing of Single Phase and Three Phase Transformers**. The visit was conducted under the guidance of faculty coordinators Prof. S.P. Sawant and Prof. O.S. Ghadigaonkar.

The industry is owned and managed by **Somdutt Rawool**, who is an experienced engineer with expertise in transformer manufacturing and electrical systems.

3. Brief Introduction Session

At the beginning of the visit, a brief introduction session was conducted by Mr. **Somdutt Rawool**.

During the session, he explained:

- The establishment and growth of L.R. Enterprises
- Scope of transformer manufacturing in the electrical industry
- Demand for 1-phase and 3-phase distribution transformers
- Importance of quality control and testing procedures
- Career opportunities in transformer manufacturing and testing sector

4. Objectives of the Visit

- To understand the construction and working of single-phase and three-phase transformers.
- To study transformer manufacturing techniques.
- To observe testing procedures before dispatch.
- To learn about industrial safety practices.
- To connect theoretical knowledge with practical applications.

5. Manufacturing Process Observed

Students observed the complete transformer manufacturing process:

a) Core Assembly

- Laminated silicon steel sheets were assembled to form the magnetic core.
- Proper insulation between laminations reduces eddy current losses.

b) Winding Process

- Copper/Aluminium conductors were used for primary and secondary windings.
- Insulation materials were provided between winding layers.
- Winding machines ensured accurate and uniform winding.

c) Core-Coil Assembly

- Windings were mounted on the core limbs.
- Tightening and insulation checks were performed carefully.

d) Tanking and Oil Filling

- Core-coil assembly was placed inside a transformer tank.
- Transformer oil was filled for cooling and insulation.
- Bushings were fixed for external electrical connections.

6. Transformer Testing Procedures

Before dispatch, various tests were conducted:

- Insulation Resistance (IR) Test
- Open Circuit (No-Load) Test
- Short Circuit Test
- Turns Ratio Test
- Polarity Test
- Transformer Oil Testing

These tests ensure safety, efficiency, and proper functioning of both 1-phase and 3-phase transformers.

7. Technical Knowledge Gained

The technical team and **Somdutt Rawool** explained:

- Working principle of transformer (Electromagnetic Induction)
- Core losses and copper losses
- Transformer efficiency and voltage regulation
- Cooling methods used in transformers
- Importance of proper earthing and insulation

Students also learned about standard ratings used in distribution transformers.

8. Safety Measures Observed

- Use of Personal Protective Equipment (PPE)
- Proper earthing system
- Fire extinguishers in testing area
- Safe handling of transformer oil
- Clear marking of high-voltage zones

9. Learning Outcomes

The visit helped students to:

- Gain practical knowledge of transformer construction
- Understand industrial manufacturing techniques
- Learn testing and quality control procedures
- Develop awareness about safety standards
- Understand real industrial working conditions

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Glimpse Of The Event
Department of Electrical Engineering

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10. Conclusion

The industrial visit to L.R. Enterprises, Kudal M.I.D.C., on **17/02/2026** was highly informative and beneficial for SE Electrical Engineering students.

Under the guidance of **Prof. S.P. Sawant, Prof. O.S. Ghadigaonkar**, and the valuable interaction with **Somdutt Rawool**, students gained practical exposure to transformer manufacturing and testing processes.

The visit successfully achieved its objective of bridging the gap between theoretical learning and industrial practice.

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YBIT (DEGREE)

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