INDUSTRIAL VISIT REPORT

DIESEL LOCO SHED, VISAKHAPATNAM

IV B.Tech EEE Students

Date of Visit: 28 August 2026



1. Introduction

An industrial visit to the Diesel Loco Shed, Visakhapatnam was undertaken by the IV B.Tech Electrical and Electronics Engineering (EEE) students on 28 August 2026. The visit was intended to provide students with practical exposure to railway locomotive systems, electrical machines, maintenance practices, safety procedures and technical training.

The visit helped students relate classroom concepts such as electrical machines, generators, motors, electromagnetic principles, power conversion, control and maintenance with their practical application in railway traction systems.

2. About Diesel Loco Shed, Visakhapatnam

Diesel Loco Shed, Visakhapatnam (DLS/VSKP) is a railway motive-power maintenance facility. Historical railway information records that the shed was established on 2 May 1965 with an initial holding of 13 WDM-1 locomotives. It was established primarily to support the movement of iron ore from the Bailadila mining region to Visakhapatnam Port.

Over the years, the shed developed into a major locomotive maintenance centre. Its activities include inspection, preventive maintenance, repair and testing of locomotive equipment and sub-assemblies. The visit also exposed students to a technical training environment associated with locomotive operations.

3. Objectives of the Industrial Visit

- To understand the working environment of a railway locomotive maintenance shed.
- To observe major electrical and mechanical components used in locomotives.
- To understand the importance of preventive maintenance, inspection and testing.
- To relate electrical-machine theory with practical railway applications.
- To understand the importance of safety procedures in high-power railway equipment.
- To provide students with industrial exposure and awareness of career opportunities in the railway sector.

4. Major Observations During the Visit

- Students observed locomotive wheel/axle assemblies and learned about their importance in safe transmission of traction forces.
- Electrical rotating-machine components such as rotors/armatures and associated assemblies were observed.
- Students observed stator/winding assemblies and discussed the role of electromagnetic conversion in traction-related machines.
- Maintenance and handling of large electrical-machine components demonstrated the importance of alignment, insulation, bearings and mechanical condition.
- A technical training classroom was visited, where students were exposed to technical diagrams, explanations and railway maintenance practices.
- The visit highlighted the need for systematic inspection, testing, preventive maintenance and documentation.
- Students were made aware of the importance of personal safety, disciplined work practices and adherence to railway safety procedures.

5. Relevance to Electrical and Electronics Engineering

- Electrical Machines: practical exposure to rotating electrical-machine parts, windings and electromagnetic energy conversion.
- Power Electronics and Drives: understanding the role of controlled electrical power and traction drives in modern railway systems.
- Measurements and Instrumentation: inspection and testing are essential for determining the health of electrical and mechanical equipment.
- Control Systems: locomotive operation involves monitoring and control of several subsystems for safe and efficient operation.
- Power Systems: railway traction requires reliable electrical power and coordinated protection and distribution systems.
- Maintenance Engineering: condition monitoring, preventive maintenance and fault diagnosis are essential for locomotive reliability.

6. Learning Outcomes

After the industrial visit, students gained a better understanding of how engineering principles are applied in a real railway maintenance environment. They were able to visualize components that are otherwise studied mainly through textbooks and laboratory models. The visit also improved their awareness of industrial safety, maintenance discipline, teamwork and professional responsibility.

7. Conclusion

The industrial visit to Diesel Loco Shed, Visakhapatnam was informative and technically valuable for the III B.Tech EEE students. It provided direct exposure to railway locomotive maintenance, electrical-machine components and technical training activities. The interaction and observations helped students connect theoretical knowledge with practical engineering applications and encouraged them to develop greater interest in industrial careers.

8. Visit Details

Place Visited	Diesel Loco Shed, Visakhapatnam
Date	28 August 2026
Students	IV B.Tech EEE Students
Nature of Visit	Industrial / Educational Visit

9. Photographic Documentation



Photo 1: IV B.Tech EEE students at the Diesel Loco Shed, Visakhapatnam.



CCR PANEL SETTING STAND



Photo 2: Observation of locomotive wheel/axle assembly.



Photo 3: Observation of rotating electrical-machine components(Rotor)

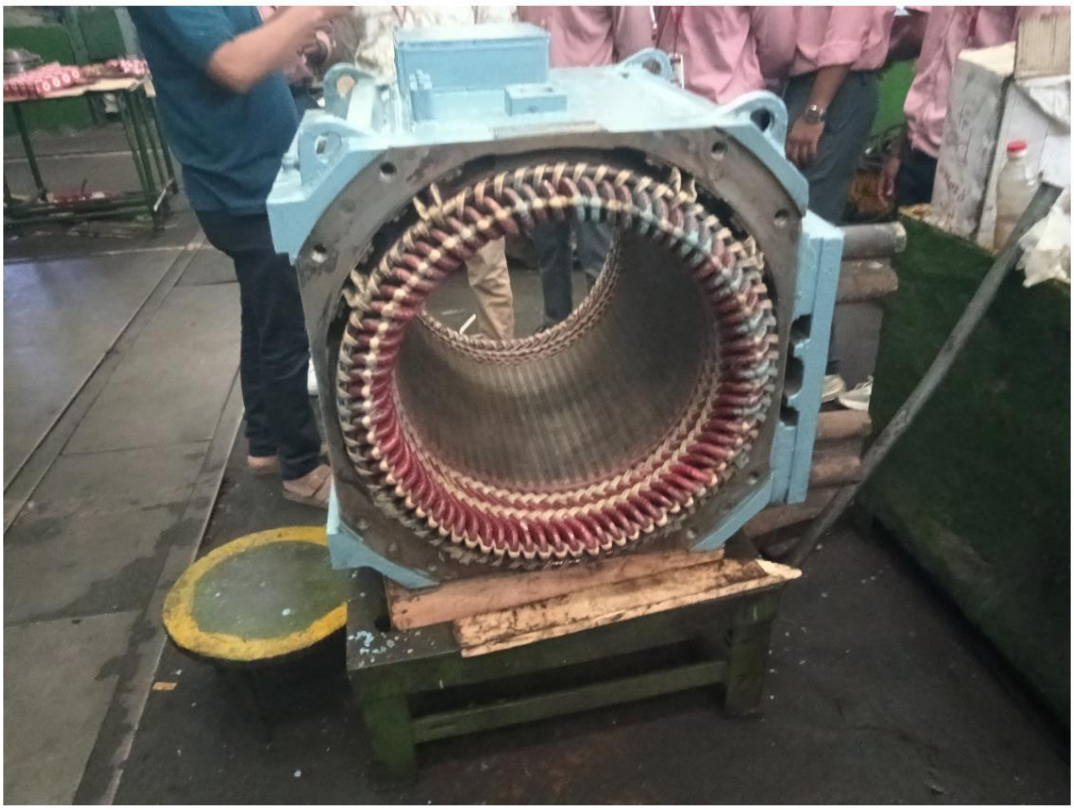


Photo 4: Observation of stator/winding assembly.



Photo 5: Observation of a locomotive electrical-machine/traction-related assembly.



Photo 6: Students attending the technical briefing/training session.



Photo 7: Students during the technical interaction session.



Photo 8: Technical classroom briefing at the training facility.



Photo 9: Group photograph near the Loco Technical Training Center.

10. References

1. East Coast Railway, Waltair Division – Diesel Loco Shed, Visakhapatnam historical information.

2. East Coast Railway directory information listing Diesel Loco Shed under Waltair Division.

3. The photographs included in this report were supplied by the user and document the industrial visit.