CSMSS

CHH.SHAHU COLLEGE OF ENGINEERING, Chh. Sambhajinagar

Name of the Department: Mechanical Engineering

Industrial Visit Report

College Name: CSMSS Chh Shahu College of Engineering

Department: Mechanical Engineering

Industrial Visit to: Endurance technologies Ltd. E71 MIDC Waluj Chh. Sambhajinagar.

Date: 18/04/2026

Faculty In-charge: Dr. P.B.Chaudhari, Prof V.G.Kokre

No. of Students: 53

1. Introduction

Endurance Technologies Ltd – E-71 Plant (Brakes Division)

Endurance Technologies Ltd operates the E-71 plant at MIDC Waluj, specializing in the manufacturing of advanced **braking systems for motorcycles**. The plant produces critical components such as brake callipers, master cylinders, brake discs, and complete brake assemblies for leading OEMs like KTM, Royal Enfield, and Yamaha Motor Company.

The Manufacturing process involves **CNC machining, surface treatment, assembly, and rigorous testing** to ensure high precision and safety. The plant follows global quality standards, using advanced inspection systems, automation, and lean manufacturing practices.

Overall, the E-71 Brakes Division is a **modern, technology-driven facility** focused on producing reliable and high-performance braking systems, contributing significantly to vehicle safety and the automotive industry.

2. Objectives of the Visit

- To gain practical exposure to brake manufacturing at Endurance Technologies Ltd (E-71 Brakes Division)
- To understand manufacturing processes such as CNC machining, assembly, and testing
- To observe production of braking components for KTM, Royal Enfield, and Yamaha Motor Company
- To study modern automation and lean manufacturing practices used in industry
- To learn about quality control techniques and safety standards in brake system manufacturing
- To bridge the gap between theoretical knowledge and real industrial applications
- To understand industrial work culture, discipline, and teamwork

- To explore career opportunities in the automotive manufacturing sector.

3. Schedule / Activities during Visit

Time	Activity / Session	Resource Person / Guide	Remarks
11:30 AM – 12:30 PM	Welcome & Introduction	Ms Ashwini From HR department, Mr Gajanan Malode HR plant Head	Company overview, safety briefing, Group Introduction
12:30PM – 1:30 PM	Factory / Lab Tour	Supervisor	Students visited different sections: • Machining section • Assembly line • Quality inspection department
1:30PM – 2:30 PM	Q&A/Interaction	Engineers/Shift In charge	Students interacted with engineers and supervisors to clarify doubts.
2:30 PM to 3 PM	Feedback & Departure	Faculty	• Gained practical exposure to real industrial processes • Better understanding of manufacturing techniques learned in classroom • Inspired to learn advanced technologies like CNC and automation • Interaction with industry experts was highly beneficial • Visit enhanced awareness about career opportunities in the core mechanical sector

4. Key Observations / Learning

- **Advanced Brake Manufacturing:**
  Observed the complete manufacturing cycle of braking components such as callipers, master cylinders, and disc assemblies at Endurance Technologies Ltd (E-71 Brakes Division).
- **Precision Machining:**
  CNC machines were used for achieving tight tolerances and fine surface finishing, highlighting the importance of accuracy in safety-critical parts.

- **Assembly Line Operations:**
  Understood structured assembly processes for brake systems with the use of semi-automated and automated setups.
- **OEM-Specific Production:**
  Observed that braking systems are designed and manufactured as per the specific requirements of companies like KTM, Royal Enfield, and Yamaha Motor Company.
- **Quality Control Practices:**
  Exposure to inspection techniques such as dimensional checks and leakage testing, ensuring zero-defect production.
- **Automation and Lean Manufacturing:**
  Learned about the use of automation, efficient plant layout, and lean practices to improve productivity and reduce waste.
- **Safety Measures:**
  Observed strict adherence to industrial safety norms including PPE usage, safety markings, and controlled shop floor movement.
- **Industrial Work Culture:**
  Experienced professional discipline, teamwork, and systematic workflow followed in a large-scale manufacturing unit.
- **Real-World Application of Theory:**
  Connected classroom concepts like manufacturing processes, materials, and quality control with actual industrial practices.

5. Student Feedback

- Students found the visit to Endurance Technologies Ltd (E-71 Brakes Division) highly informative and relevant to their mechanical engineering curriculum.
- The exposure to real-time manufacturing of brake components enhanced their understanding of classroom concepts.
- Observing processes like CNC machining, and assembly helped in visualizing practical applications of theory.
- Interaction with industry professionals provided valuable insights into current industrial practices and expectations.
- Students appreciated learning about braking systems used in motorcycles of KTM, Royal Enfield, and Yamaha Motor Company.
- The visit increased awareness about career opportunities in the automotive and manufacturing sector.
- Safety practices followed in the plant created a strong impression regarding industrial discipline and responsibility.
- Students expressed interest in more such visits for better industry exposure.

6. Photographs

Visit at Endurance technologies Ltd E71 MIDC Waluj Chhatrapati Sambhajinagar.

TVS Apache Brake Production Line

Calliper Assembly Line

KTM brake assembly Line

Yamaha Royal Enfield Brake Disc Manufacturing Line

7. Conclusion

The industrial visit to Endurance Technologies Ltd (E-71 Plant, Brakes Division) was highly beneficial for the Second Year Mechanical Engineering students. It provided valuable exposure to real-time manufacturing of braking systems, including processes like , machining, assembly, and testing.

The visit successfully bridged the gap between theoretical knowledge and practical application, while also familiarizing students with modern industrial practices, quality standards, and safety measures followed in the automotive sector. Exposure to production for leading companies such as KTM, Royal Enfield, and Yamaha Motor Company further enhanced the learning experience.

Overall, the visit enriched students' technical knowledge, improved their understanding of industry expectations, and motivated them to pursue careers in the core mechanical and automotive engineering fields.

Faculty In-charge Name & Signature: Dr. P. B. Chaudhari, Prof V.G.Kokre

Industry Visit In charge Name & Signature: Dr. P. B. Chaudhari

HOD Signature: Dr. R.H.Shinde

Principal Signature: Dr. G. B. Dongre