Sri Sharada Peetham, Sringeri
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Jyothy Institute of Technology
ಜ್ಯೋತಿ ತಾಂತ್ರಿಕ ಮಹಾ ವಿದ್ಯಾಲಯ
Department of Mechanical Engg.
Approved by The All India Council for Technical Education (AICTE) - New Delhi;
Affiliated to Visvesvaraya Technological University (VTU), Belagavi.

INDUSTRIAL VISIT REPORT

TVS Motor Company, Kadakola Industrial Area, Mysore

Department: Mechanical Engineering

Institution: Jyothy Institute of Technology, Bengaluru

Visit Date: 06 March 2026

Faculty Coordinators:

Mr. Gurumurthy M
Assistant Professor

Dr. Jayatirtha M Patil
Associate Professor & Head

1. INTRODUCTION

An industrial visit to TVS Motor Company, Mysore Plant was organized on 6th March 2026 for Mechanical Engineering students of Jyothy Institute of Technology. The primary objective of this visit was to provide practical exposure to modern automotive manufacturing systems and bridge the gap between theoretical academic learning and industrial practices.

TVS Motor Company is one of India's leading two-wheeler manufacturers, known for adopting advanced production technologies, Total Quality Management (TQM), and Just-In-Time (JIT) manufacturing systems. The Mysore plant represents a highly automated production facility integrating CNC machining, robotic welding, automated painting, and streamlined assembly operations.

2. OBJECTIVES OF THE INDUSTRIAL VISIT

- To understand real-time automobile manufacturing processes
- To observe CNC machining and robotic welding operations
- To study assembly line automation techniques
- To understand quality control and testing procedures
- To gain knowledge about lean manufacturing and JIT systems
- To analyze safety practices followed in industrial environments

3. COMPANY PROFILE: TVS MOTOR COMPANY

TVS Motor Company Limited is the third-largest two-wheeler manufacturer in India and ranks among the top global manufacturers in its category. It is part of the prestigious TVS Group and is widely recognized for innovation, reliability, and quality excellence.

Key Highlights:

- Recipient of the Deming Prize for Total Quality Management
- Implementation of Lean Manufacturing and JIT systems
- Use of advanced CNC machining centers
- Fully automated robotic welding stations
- Environmentally compliant production facilities
- Export operations across multiple international markets

The Mysore manufacturing plant plays a crucial role in producing scooters and motorcycles for domestic and international markets.

4. ARRIVAL AND INITIAL BRIEFING

The delegation arrived at the TVS Mysore facility at approximately 11:30 AM. The visit began with a technical presentation by the plant coordination team explaining:

- Company history and evolution
- Manufacturing capabilities
- Global presence
- Quality management systems
- Safety regulations inside the plant

Students were briefed on plant safety guidelines before entering the production sections.

5. FACTORY OPERATIONS AND PLANT TOUR

5.1 Engine Assembly and Machining

Students observed precision machining of engine components such as crankcases, cylinder heads, and camshafts. Advanced CNC machines ensured high dimensional accuracy and productivity. Automated conveyors synchronized machining and assembly operations efficiently.

5.2 Welding and Fabrication Section

The fabrication unit demonstrated robotic welding techniques used in chassis manufacturing. Automated robotic arms performed MIG welding and TIG welding ensuring structural strength, consistency, and reduced cycle time.

5.3 Paint Shop Operations

The paint shop utilized automated coating systems that included anti-corrosion surface treatment, primer coating, robotic spray painting, and final finishing operations. These processes improve durability, corrosion resistance, and aesthetic quality of vehicles.

5.4 Vehicle Assembly Line

The final assembly section illustrated the integration of multiple vehicle subsystems including engine mounting, suspension installation, electrical wiring harness fitting, and body panel assembly. The assembly line followed Just-In-Time (JIT) methodology, ensuring efficient workflow and minimal inventory storage.

6. QUALITY ASSURANCE AND TESTING

Quality control procedures were implemented at every stage of production. Inline inspection systems ensured defect-free assembly.

Final inspection procedures included:

- Dynamometer testing
- Brake performance testing
- Emission level verification
- Engine performance evaluation

These ensured compliance with national and international automotive standards.

7. SAFETY PRACTICES OBSERVED

TVS Motor Company maintains strict adherence to industrial safety standards.

Safety measures included:

- Mandatory safety gear usage
- Clearly marked walkways
- Emergency response systems
- Ergonomically designed workstations
- Controlled access to hazardous zones

8. KEY LEARNINGS FROM THE VISIT

- Practical exposure to CNC machining, robotic welding, and automated assembly systems
- Understanding implementation of Total Quality Management (TQM)
- Knowledge of Just-In-Time (JIT) manufacturing techniques
- Awareness of industrial safety practices
- Integration of mechanical engineering concepts with real-world production systems

9. CONCLUSION

The industrial visit to TVS Motor Company, Mysore, provided valuable exposure to modern automobile manufacturing techniques and industrial quality systems. It enhanced students' understanding of production planning, automation technologies, and real-time engineering practices. Such visits play an essential role in developing professional competence and preparing students for future careers in the automotive industry.

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