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A Report on
Consultancy Purpose Visit to
DEVAN INDUSTRY, Hosur for Manufacturing Collaboration
Organized by
Department of Mechanical Engineering
on 16.06.2025

Report Submitted by: Dr. Muthu Lakshmanan, Assistant Professor, Department of Mechanical Engineering.
Report Received on 23.06.2025.
Mode of Conduct: Offline

1. Introduction

This report documents the industry visit undertaken by Dr. Muthu Lakshmanan from the Department of Mechanical Engineering, MITS, to DEVAN INDUSTRY located in Hosur, Tamil Nadu. The visit, held on 16th June 2025, marked a significant step toward building an academic-industry consultancy relationship aimed at leveraging institutional mechanical resources for revenue generation, practical exposure and knowledge transfer.

The purpose of this initiative was to establish a job order collaboration that would utilize the machining capabilities available at the MITS campus for the manufacturing of precision mechanical components as per industry specifications. This consultancy venture is expected to enhance institutional outreach, provide real-time industrial experience to students, and foster a self-sustaining revenue model for the department.

2. Background and Communication Initiatives

Dr. Muthu Lakshmanan presented a detailed explanation of the available infrastructure at MITS to the industry representative. The Mechanical Engineering Department is equipped with:

- Conventional Lathe and Milling Machines
- CNC Lathe and CNC Vertical Machining Centers
- Surface Grinder
- Drilling Machines
- Precision Measuring Instruments
- CAD/CAM and Design Facilities

The faculty further assured that the machining quality, tolerance levels, and surface finishes demanded by DEVAN INDUSTRY could be met without compromise. MITS also has a trained team of technical staff and student interns capable of executing such job orders under faculty supervision and quality protocols.

The collaboration did not emerge overnight. For over **two months**, continuous communication was maintained between Dr. Muthu Lakshmanan and Mr. Sasikumar, the proprietor of DEVAN INDUSTRY. The faculty made multiple efforts to explain and present the facilities, skilled human resources, and technical capabilities available within the Mechanical Engineering Department at MITS.

Through a series of discussions, virtual meetings, facility videos, and technical documentation, the proprietor was gradually convinced of the feasibility of outsourcing component manufacturing to MITS. This sustained engagement helped build trust and laid the groundwork for the industry visit that eventually resulted in a formal consultancy agreement.

3. Industry Visit Details

The official visit took place on **16.06.2025** at the DEVAN INDUSTRY premises in Hosur. Dr. Muthu Lakshmanan was welcomed by Mr. Sasikumar, who provided a detailed walkthrough of the facility.
The industry primarily focuses on machining and manufacturing of small to medium-scale mechanical components. During the visit, the following machining operations were observed:

- **Turning**
- **Drilling**
- **Taper Turning**
- **Threading**
- **Chamfering**

These operations were performed on a range of conventional and semi-automated machines, including:

- **Lathe Machines**
- **Drilling Machines**
- **Milling Machines**
- **Surface Grinding Machines**

The components machined at the industry were found to be of high dimensional accuracy and were used in various industrial applications. Post-machining, quality control was ensured using precision measuring instruments such as:

- **Vernier Calipers**
- **Height Gauges**
- **Digital Micrometers**

Dr. Lakshmanan assessed the nature and specifications of these components and confirmed that similar quality and precision can be achieved at the MITS workshop with available resources and skilled manpower.

5. Outcome of the Visit

Impressed by the technical readiness and professional approach, **Mr. Sasikumar agreed to initiate a trial batch** of component manufacturing at MITS. An **initial order of 500 components** will be sent to MITS within the next two weeks for production.
If the prototype batch meets the quality and delivery standards, the agreement may extend into **regular and mass production**, leading to a long-term collaboration. The components are expected to be manufactured within stipulated timeframes, with necessary quality checks, documentation, and dispatch carried out by the MITS team.

6. Expected Benefits of the Collaboration

This consultancy collaboration offers multiple benefits to both the institution and the industry:

For MITS:

- Revenue generation through industrial job orders
- Improved utilization of workshop infrastructure
- Enhanced real-time industrial exposure for students
- Opportunities for applied research and innovation
- Strengthening industry-institute relationships

For DEVAN INDUSTRY:

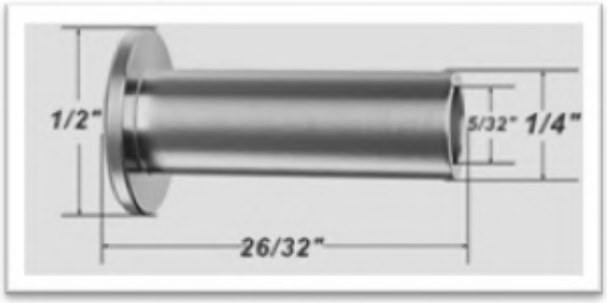
- Cost-effective and reliable component manufacturing
- Support for mass production needs
- Reduced operational load during peak demands
- Possibility to co-develop components with academic insights

7. Conclusion and Future Roadmap

The visit to DEVAN INDUSTRY was a critical step toward expanding the consultancy portfolio of the Mechanical Engineering Department at MITS. The effort invested over two months in establishing credibility and showcasing institutional capabilities has yielded a promising outcome.
The next steps involve:

- Preparing the workshop for the incoming job order
- Assigning a team for project execution and quality control
- Maintaining regular communication with the industry partner
- Documenting the process for future case studies and academic benefits

This consultancy project will serve as a pilot model, and its success will pave the way for attracting more industrial collaborations in the future. MITS remains committed to delivering high-quality outcomes and becoming a reliable partner for the manufacturing sector.



Drawing of the Proposed Sample for Job Execution