Electronics and Communication Department

Industrial Visit Report:

Multispan Control Instruments Pvt. Ltd.

Date of Visit: April 9, 2025

Time: 11:00 AM onwards

Company Visited: Multispan Control Instruments Pvt. Ltd., Ahmedabad, Gujarat

Website: https://multispanindia.com/

Participants: 83 Students (Semester 2 and 4, Electronics and Communication Department), 6 Faculty Members

Faculty Members: Smt. L. J. Vora, Smt. A. P. Patel, Dr. H. D. Panchal, Smt. M. D. Doshi, Smt. M. P. Shah, Shri D. M. Modi

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Introduction

On April 9, 2025, a group of 83 students from Semesters 2 and 4 of the Electronics and Communication Department, accompanied by six faculty members—Smt. L. J. Vora, Smt. A. P. Patel, Dr. H. D. Panchal, Smt. M. D. Doshi, Smt. M. P. Shah, and Shri D. M. Modi—from [Your Institution Name], visited Multispan Control Instruments Pvt. Ltd. in Ahmedabad, Gujarat. The visit, commencing at 11:00 AM, aimed to provide students with hands-on exposure to industrial automation, product development, and the application of electronics and communication principles in a professional setting. This report outlines the activities, observations, and key takeaways from the visit.

About Multispan Control Instruments Pvt. Ltd.

Founded in 1986, Multispan Control Instruments Pvt. Ltd. began as a small workshop crafting temperature controllers for plastic processing machinery. Over the years, it has evolved into a leading manufacturer of process control and automation instruments, offering products like PID temperature controllers, multifunction meters, Industrial IoT solutions, and solid-state relays. With a strong emphasis on research and development (R&D), Multispan exports to over 30 countries and integrates advanced technologies to cater to diverse industries. The company’s journey from solid-state to microcontroller-based systems was a focal point of the visit.

Visit Overview

The visit started at 11:00 AM with a warm welcome from Multispan's team. A senior representative delivered an introductory session, highlighting the company's history, vision, and contributions to industrial automation. To ensure a comprehensive experience, the 83 students were divided into smaller groups, each guided by a faculty member—Smt. L. J. Vora, Smt. A. P. Patel, Dr. H. D. Panchal, Smt. M. D. Doshi, Smt. M. P. Shah, or Shri D. M. Modi—for tours across various departments. The faculty facilitated interactive discussions, encouraging students to connect theoretical concepts with practical applications.

Departments Visited

1. Research and Development (R&D) Department

The R&D department showcased Multispan's innovation-driven approach. Engineers explained how customer feedback informs the design of products like PID controllers and DC Volt/Ampere Meters. Students learned about the integration of advanced algorithms and the transition to microcontroller-based systems in the late 1990s, which enhanced product accuracy. Dr. H. D. Panchal emphasized the relevance of these topics to the students' control systems coursework.

2. Manufacturing and Assembly Unit

The manufacturing unit demonstrated the end-to-end production process, from component sourcing to final assembly. Students observed Surface-Mount Technology (SMT) lines used for circuit board fabrication, a recent upgrade in Multispan's facilities. Smt. A. P. Patel guided discussions on the assembly of large LED process indicators, linking it to Semester 4 topics in electronic circuits. The focus on precision and scalability impressed the group.

3. Quality Control and Testing Laboratory

In the testing lab, students witnessed rigorous quality assurance processes. Products like power supplies and multifunction meters were tested for parameters such as voltage stability and temperature resilience. The use of Modbus RS-485 for IoT-enabled devices was a highlight, particularly for Semester 2 students studying communication protocols. Smt. M. D. Doshi encouraged questions about compliance with global standards, deepening the technical dialogue.

4. Product Showcase and Demonstration Area

A dedicated showcase area featured live demonstrations of Multispan's key products:

- PID Temperature Controllers: For precise regulation in industries like HVAC and plastics.

- Multifunction Meters: Monitoring AC/DC parameters such as voltage, current, and power factor.

- Industrial IoT Solutions: Enabling real-time data logging and energy management via cloud platforms.

- Solid-State Relays and Power Supplies: Supporting applications in EV charging and solar panels.

Shri D. M. Modi facilitated discussions on IoT applications, sparking interest among students exploring smart technologies.

5. Corporate Office and Design Studio

The design studio highlighted Multispan's focus on user-friendly interfaces, with products like 4" and 8" LED process indicators designed for intuitive monitoring of variables like temperature and pressure. Smt. L. J. Vora and Smt. M. P. Shah connected these designs to principles of human-machine interaction, relevant to electronics students. The corporate office provided insights into Multispan's global operations, with exports to over 30 countries.

Key Learnings

- Bridging Theory and Practice: Students applied concepts like PID control, IoT, and communication protocols to real-world scenarios, reinforcing their academic foundation.

- Technological Evolution: Multispan's shift from solid-state to digital systems inspired students to embrace innovation, as noted by Smt. A. P. Patel.

- Team Synergy: The collaboration between R&D, manufacturing, and quality control underscored the value of interdisciplinary teamwork.

- Industry Realities: Engineers shared challenges like ensuring product reliability across diverse environments, offering a practical perspective.

- Career Inspiration: Exposure to roles in automation, IoT, and product design motivated students to explore these fields.

Faculty Observations

The faculty members—Smt. L. J. Vora, Smt. A. P. Patel, Dr. H. D. Panchal, Smt. M. D. Doshi, Smt. M. P. Shah, and Shri D. M. Modi—praised Multispan's structured and engaging approach. They noted the visit's alignment with the Electronics and Communication curriculum, particularly in areas like control systems, circuit design, and IoT. Dr. H. D. Panchal highlighted the IoT demonstrations as a window into future trends, while Smt. M. P. Shah appreciated the company's sustainable product designs, which align with modern engineering priorities.

Student Feedback

Students found the visit highly engaging and relevant. Semester 2 students valued the introduction to IoT and communication protocols, while Semester 4 students appreciated the focus on PID controllers and circuit assembly. Key takeaways included:

- Clarity on how classroom concepts apply to industry.

- Inspiration from Multispan's customer-centric innovation.

- Enthusiasm for pursuing internships or projects in automation and IoT.

The faculty's active involvement, particularly Shri D. M. Modi's IoT discussions, made complex topics accessible and inspiring.

Conclusion

The industrial visit to Multispan Control Instruments Pvt. Ltd. on April 9, 2025, was a highly successful educational experience for the 83 students and six faculty members from the Electronics and Communication Department. The comprehensive tours, hands-on demonstrations, and expert interactions provided valuable insights into industrial automation, product development, and IoT applications. Multispan's innovative culture and global presence left a lasting impact, encouraging students to strive for excellence in their academic and professional pursuits.

Recommendations

- Organize follow-up workshops with Multispan experts to delve deeper into IoT and control systems.

- Explore internship or project collaborations with Multispan's R&D team to foster innovation.

- Plan additional visits to automation-focused companies to expand industry exposure.

Acknowledgment

We express our sincere gratitude to Multispan Control Instruments Pvt. Ltd. for hosting the visit and sharing their expertise. Special thanks to the company's staff for their hospitality and detailed explanations. We also commend the efforts of our faculty members—Smt. L. J. Vora, Smt. A. P. Patel, Dr. H. D. Panchal, Smt. M. D. Doshi, Smt. M. P. Shah, and Shri D. M. Modi—for their guidance and coordination, ensuring a rewarding experience for all.

SAMPLE PHOTOS


MULTISPAN
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VER THREE DECADES OF
RTISE & INNOVATION
Creating a lasting
impact in industry
& Energy Meter
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