MVJ COLLEGE OF ENGINEERING
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Engineering A Better Tomorrow

An Autonomous Institute
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INDUSTRIAL VISIT

The department of **Electronics and Communication Engineering conducted an Industrial Visit to FANUC India Pvt Ltd on 08-08-2025 at 2 pm, in Electronic City**.

The industrial visit to FANUC India, organised by the Department of Electronics and Communication Engineering (ECE) from MVJ College of Engineering for 5th semester students on 8th August 2025.

The visit provided students with an enriching opportunity to explore cutting-edge advancements in factory automation, robotics, and CNC systems. FANUC India, a global leader in industrial automation, showcased its innovative robotic solutions and precision technologies, offering students firsthand exposure to real-world automation applications. The experience helped deepen their understanding of CNC systems, industrial robotics, and modern manufacturing processes, while also highlighting current automation trends in the industry.

Objectives of the Event

The primary objectives of the industrial visit to FANUC India for the 5th semester ECE students from MVJ College of Engineering:

1. **Exposure to Industrial Automation**

   To provide students with firsthand experience of advanced automation technologies, including CNC machines, robotics, and factory automation systems.

2. **Understanding Real-World Applications**

   To bridge the gap between theoretical knowledge and practical implementation by observing how electronics and communication principles are applied in industrial settings.

3. **Learning About Robotics Integration**

   To explore the role of robotics in manufacturing, including programming, control systems, and integration with industrial processes.

4. **Career Awareness and Inspiration**

   To inspire students by showcasing potential career paths in automation, robotics, embedded systems, and industrial electronics.

5. **Interaction with Industry Experts**

   To facilitate interaction with professionals and engineers at FANUC, allowing students to gain insights into current industry trends, challenges, and innovations.

6. **Skill Development**

   To enhance students' understanding of automation protocols, sensor integration, and communication interfaces used in industrial environments.

Event Overview

On 8th August 2025, a group of 41 students from the 5th semester Electronics and Communication Engineering (ECE) department of MVJ College of Engineering, accompanied by 2 faculty members, visited FANUC India Pvt. Ltd. as part of an industrial exposure initiative. The visit aimed to provide students with practical insights into advanced automation technologies, including CNC systems and industrial robotics.

Figure 1: Expert insights into the FANUC Smart Digital Twin during our industrial visit

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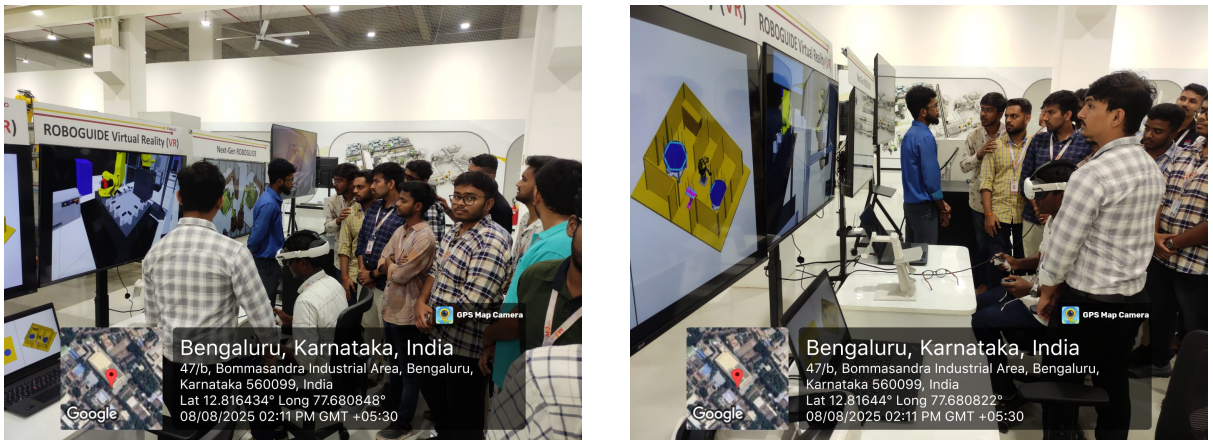

Figure 2: Expert demonstrating RoboGuide Virtual Reality, bringing robot simulation and programming to life for students.

Through live demonstrations and interactions with industry professionals, students gained a valuable understanding of real-world applications of electronics and communication principles in manufacturing and automation, enhancing their academic learning and inspiring future career interests in the field.

Outcomes and Impact

Outcomes:

Students gained firsthand exposure to industrial automation technologies, including FANUC's Smart Digital Twin, robotics, CNC systems, and IoT-enabled manufacturing solutions. They understood the integration of electronics, control systems, and communication networks in advanced industrial setups, bridging theoretical learning with real-world applications.

Impact:

The visit enhanced students' awareness of Industry 4.0 practices, fostering industry readiness and inspiring them to explore careers in automation, robotics, and embedded systems. It strengthened their practical understanding of ECE concepts in industrial environments, promoting innovation-oriented thinking and aligning their skills with current and future industry demands.

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Figure 3: Bridging Classrooms with Industry – 5th Semester ECE Students with Faculty at Fanuc India Pvt. Ltd., marking the successful conclusion of an insightful industrial visit.

Conclusions

The industrial visit to FANUC India provided Electronics and Communication Engineering students with valuable insights into cutting-edge automation, robotics, and digital twin technologies. By directly interacting with industry experts and witnessing real-time applications, students were able to connect classroom concepts with industrial practices. The experience not only deepened their technical knowledge but also motivated them to pursue innovation-driven careers, thereby bridging the gap between academic learning and industry requirements.

Report by: Dr. Shima Ramesh Maniyath

Affiliation: HOD, Department of Electronics and Communication Engineering,

MVJ College of Engineering