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INDUSTRIAL VISIT

The Department of Industrial IoT organized an Industrial Visit to **FANUC India Pvt. Ltd.**, Electronic City, on **12 September 2026 at 10:00 AM**.

The industrial visit was organized for **3rd, 5th, and 7th Semester Industrial IoT students** of MVJ College of Engineering. 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 highlighting current trends in industrial automation. The visit also enabled students to gain practical insights into the role of advanced technologies in enhancing productivity, precision, and efficiency in manufacturing industries.

Objectives of the Event

The primary objectives of the industrial visit to FANUC India for the **3rd, 5th, and 7th Semester Industrial IoT students** of MVJ College of Engineering were as follows:

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 Industrial IoT, electronics, and communication principles are applied in industrial environments.

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 opportunities in automation, robotics, embedded systems, and industrial electronics.

5. **Interaction with Industry Experts**

   To facilitate interaction with professionals and engineers at FANUC, enabling 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.

Figure 1: Expert insights into the FANUC High End CNC for IoT Applications during the industrial visit

Figure 2: Expert session on the practical applications of IIoT in FANUC's smart manufacturing and industrial automation systems.

Outcomes and Impact:

Outcomes

The industrial visit enabled students to gain firsthand exposure to advanced industrial automation technologies, including FANUC's Smart Digital Twin, robotics, CNC systems, and IoT-enabled manufacturing solutions. Students developed a deeper understanding of the integration of electronics, control systems, sensors, and communication networks in modern industrial environments, thereby bridging the gap between theoretical learning and practical implementation.

The visit provided valuable insights into real-world manufacturing processes and demonstrated how Industrial IoT technologies are used to enhance productivity, precision, and operational efficiency. Through live demonstrations and interactions with industry experts, students gained knowledge of current trends in automation, robotics, and smart manufacturing. The experience also enhanced their technical competencies, problem-solving abilities, and awareness of career opportunities in the fields of industrial automation, robotics, and Industry 4.0 technologies.

Figure 3: Bridging Classrooms with Industry – 3rd, 5th and 7th semester Industrial IoT (IIoT) department students with Faculty at Fanuc India Pvt. Ltd., marking the successful conclusion of an insightful industrial visiting with real-world applications.

Impact:

The industrial visit significantly enriched students' learning experience by exposing them to state-of-the-art automation technologies and industrial best practices. It strengthened their understanding of Industrial IoT concepts and their applications in manufacturing environments.

The visit inspired students to explore emerging technologies and pursue careers in automation, robotics, smart manufacturing, and industrial electronics. It also motivated them to develop industry-relevant skills and gain a broader perspective on technological advancements and innovation in the industrial sector. Overall, the visit served as an effective platform for experiential learning and industry-academia interaction, contributing to the students' professional and technical development.

Conclusions:

The industrial visit to **FANUC India Pvt. Ltd.** provided Industrial IoT Engineering students with valuable insights into cutting-edge automation, robotics, and digital twin technologies. By interacting directly with industry experts and witnessing real-time industrial applications, students were able to connect classroom concepts with

actual industry 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.

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