

**A. V. Parekh Technical Institute, Rajkot**  
**Instrumentation & Control Department**  
**Event Report**

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**Brief Report on “Industrial Visit to DIC , Rajkot”**

**Organized by:** Instrumentation & Control Department, AVPTI-Rajkot

**Date of Visit:** 21-Sept-2024

**SEM:** 5<sup>th</sup> SEM (33 Students)

**Faculty Accompanied:** 1. D.B.Dhokiya 2. J.N. Kothari 3. M.S.Khokhar

The industrial visit to the **Design & Innovation Center, Rajkot**, was organized to expose students to the latest developments in design thinking, prototyping, and innovation in various fields such as manufacturing, engineering, and product development. The center is known for nurturing creativity, offering a platform for startups, and being a hub for technological advancements in Rajkot.

The Design & Innovation Center is an initiative to foster innovation across different industries, focusing on creative solutions, industrial design, and promoting local entrepreneurship. It provides a conducive environment for engineers, designers, and innovators to collaborate, conceptualize, and execute ideas.

**Objectives of the Visit**

- To understand the design thinking process and its application in product innovation.
- To observe the latest technological tools used for prototyping and design.
- To explore the role of innovation centers in supporting startups and entrepreneurs.
- To comprehend how the center promotes innovation and addresses real-world challenges in product development.
- To link theoretical knowledge with practical design and prototyping applications.

Upon arrival, we were welcomed by the center’s management team, who provided an introductory presentation on the center’s mission and objectives. The focus was on how the center supports innovators, businesses, and startups through their journey of design and prototyping. Students visited the prototyping lab, which featured a range of advanced tools and equipment:

- **3D Printing :**

The center's cutting-edge 3D printers were shown in action, producing rapid prototypes from CAD models. The engineers explained how different materials, such as plastics and metals, are used for creating prototypes depending on the product’s requirements.

- **CNC Machining:**

The visit also showcased how CNC (Computer Numerical Control) machines are used to create precise components for prototypes. Students had the opportunity to see various metal and plastic parts being machined with high precision.

- **Testing and Validation:**

We were also introduced to the testing and validation process, where prototypes undergo rigorous testing to ensure that they meet performance and durability standards. The engineers explained how virtual simulations are coupled with real-world testing to refine the product.

- **IOT Development Lab**

Students also visited IoT development lab, where they observed the design and assembly of various IoT devices. The engineers explained how IoT devices are built, starting from the selection of components to the creation of functional prototypes. Students were introduced to the cloud platforms used to manage and analyze data collected from IoT devices

The visit highlighted some of the innovative IOT projects and applications being developed at the center.

The industrial visit to the Design & Innovation Center, Rajkot, was a highly informative and inspiring experience. It offered an excellent opportunity to witness the various stages of product design and prototyping, along with how innovation centers help foster entrepreneurship and problem-solving, development and application of IoT devices. The visit bridged the gap between academic concepts and practical applications, leaving us with valuable insights into the world of design and innovation.





