Expert Session Report on “Virtual and Augmented Reality “

The Information Technology Department of L.D. College of Engineering, in collaboration with Capermint Technologies, Ahmedabad, successfully organized a two-day workshop on "Virtual and Augmented Reality" on 7th & 8th August 2025 as part of our Knowledge Enrichment Initiative.

With the enthusiastic participation of nearly 70 students, the sessions were led by industry experts Mr. Pratyush Srivastava (Game Developer), Mr. Zakirhusen Sunasara (IoT Engineer), and Mr. Sachin Kalawadia (Jr. IoT Engineer) from Capermint Technologies. Students gained valuable insights into the architecture, features, and real-world applications of Virtual and Augmented Reality, exploring innovative use cases and industry best practices.

The event was coordinated by Prof.Bakul Panchal and Dr.Swati Patel.

Day 1: 7th August 2025

Date: 07-08-2025

Time: 11:00 AM – 4:00 PM

Session 1 (11:00 AM – 1:00 PM):

Introduction to AR/VR

The session began with a foundational overview of Augmented Reality (AR) and Virtual Reality (VR), highlighting their evolution, applications, and real-world use cases.

Terminologies of AR/VR/MR

Key terminologies such as AR (Augmented Reality), VR (Virtual Reality), and MR (Mixed Reality) were explained to clarify their distinctions and roles in immersive technologies.

3D Sense for Creating AR/VR in Games

The importance of spatial awareness and 3D sensing technology in building immersive AR/VR game environments was explored, with practical examples.

Q&A Session

Participants engaged in an interactive Q&A round to clear doubts and deepen their understanding of AR/VR concepts discussed.

Session 2 (2:00 PM – 4:00 PM):

Introduction to SDKs of Game Development (UNITY & UNREAL)

An overview of popular game development engines, Unity and Unreal Engine, was provided, focusing on their AR/VR capabilities.

Deep Dive into UNITY and Intro to Platform

A detailed walkthrough of the Unity development environment, features, and interface was given to demonstrate how AR/VR content is built.

Development of Game in UNITY

A live demonstration showcased the complete cycle of developing a basic game in Unity, including scripting and asset integration.

Demo of AR/VR using Headsets

Five participants experienced hands-on demonstrations using AR/VR headsets, offering a real-time glimpse into immersive gameplay and interaction.

Day 2: 8th August 2025

Date: 8th August 2025

Time: 11:00 AM – 4:00 PM

Session Overview

The second Expert Session on AR/VR Technologies provided both practical training in Unity Engine and immersive VR demonstrations.

First Half: Unity Engine Basics

• Introduction to Unity Engine and its interface.

• Explanation of how to create and manage game objects.

• Assigning properties to objects using the Inspector panel.

• Adding properties to objects through scripting.

• Practical: Created a ground and a player cube.

• Added movement controls to the player cube (forward, backward, jump).

Second Half: Virtual Reality Demonstration

• VR headset demo for all students.

• Experiences included:

• - Roller Coaster Ride

• - Space Exploration

• - Museum Exploration

• - Gun Practice simulation

Conclusion

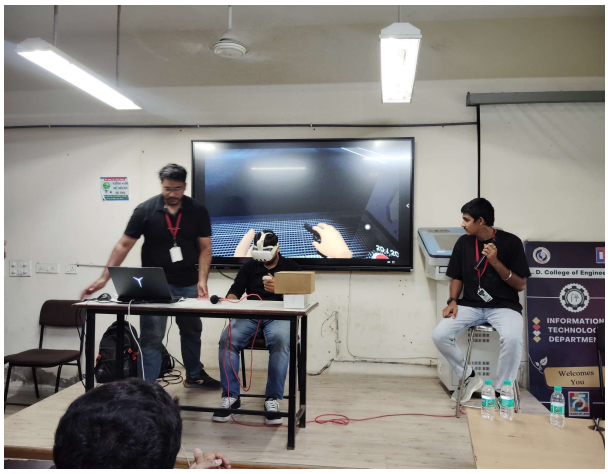
• Hands-on exposure to Unity game development.

• Practical understanding of creating interactive game elements.

• Experience with immersive VR applications.

• Increased awareness of AR/VR possibilities in entertainment, education, and training.

Glimpses of the session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