(DEEMED TO BE UNIVERSITY) | Academic Staff College

FDP on "Fundamentals of Content creation for Virtual Reality Environment using UNITY"

Resource Person : **Mr. Sivakumar Reddy Maakireddy,**
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Date : **31st October to 4th November 2022 (Monday to Friday)**
Timings : **9:00a.m. to 5:00p.m.**
Venue : **Room No-R609, R Block, KLEF Vaddeswaram.**

Virtual Reality (VR) has emerged as a transformative technology with applications across various fields, including education, entertainment, and training. To equip faculty members with the essential skills and knowledge to create content for VR environments, a one-week Faculty Development Program was conducted. This report provides an overview of the FDP, its objectives, content, and outcomes.

Day 1: Introduction to Virtual Reality and Unity

Morning Session:

- Overview of the FDP objectives and agenda

The program aimed at providing educators with a comprehensive understanding of VR technology, its applications, and its growing importance in various fields, including education and training. To familiarize participants with Unity, a powerful and widely used game development engine, and its role in creating VR content.

- Introduction to Virtual Reality (VR) and its applications

Virtual Reality (VR) is a technology that has revolutionized the way we interact with digital environments and experiences. It immerses users in computer-generated three-dimensional worlds, enabling them to perceive and interact with these virtual environments as if they were real. VR has a wide range of applications across various industries and fields, making it a cutting-edge technology with tremendous potential. Key applications include, Entertainment and Gaming, Education and Training, Healthcare, Architecture and Design, Tourism and Exploration, Research and Science etc.,

- Overview of Unity as a development platform for VR

Unity is a powerful and versatile development platform that is widely used for creating Virtual Reality (VR) experiences. It provides a comprehensive set of tools and features that make it an excellent choice for VR development.

Afternoon Session:

In the afternoon, hands-on session on building a simple VR scene in Unity, introduction to Unity's interface and tools and basics of 3D modeling and importing assets into Unity were discussed.

Day 2: VR Development Fundamentals

Morning Session:

Session included understanding VR hardware and devices, VR development best practices and design principles and introduction to scripting in Unity (C#).

Afternoon Session:

Afternoon session was completely practical oriented including creating interactive objects in Unity, setting up player controls and camera movement and testing and debugging VR scenes.

Day 3: Advanced Unity Features for VR

Morning Session:

Implementing animations and physics in VR, introduction to VR input methods (controllers, gestures).

Afternoon Session:

Hands-on session: Creating interactive VR experiences, adding audio and spatial sound to VR scenes and optimization techniques for VR performance.

Day 4: Building a Complete VR Project

Morning Session:

Planning and designing a complete VR project, project management and organization in Unity, teams continue working on their VR projects, instructors provide feedback and address challenges, strategies for effective troubleshooting in Unity.

Afternoon Session:

Group work: Teams started working on their VR projects, troubleshooting common issues, progress presentation by each team.

Day 5: VR Project Development and Troubleshooting

Morning Session:

In the mrning session of the final day, the participants given final touches and optimization of their VR projects, testing on various VR hardware and platforms and prepared for project showcase.

Afternoon Session:

In the afternoon session ,each team showcased their projects, discussed on future work. The program ended by proposing vote of thanks to the resource persons for their contribution in making the one-week faculty development program a meaningful and informative program.

Principal ASC