Centre for Machine Learning and Intelligence

Augmented Reality

Professional Certificate Course-Applicable for Post Graduate students

From the Academic year 2024-2025 onwards

Duration :40 Hours

Course Objectives:

1. To comprehend the basic principles of augmented reality & its components
2. To identify key differences from other immersive technologies like Virtual reality (VR).
3. To gain proficiency in leading AR design and development tools such as Unity and Lens Studio.
4. To learn to design intuitive and engaging AR interfaces suitable for various use cases.

Unit 1: Introduction to Unity (10 hours)

Introduction to Games and XR, Introduction to Unity, Technical requirements, Unity Versions and Unity Hub, Unity project and Project structure, Materials & Shaders, Physics Components, Camera & Lights, Animations, Import & Exporting the assets and packages, Prefabs and parenting, Textures and Models.

Unit 2: Unity Scripting (10 hours)

Introduction to C#. Variables, functions & writing functions - Unity datatypes, classes, arrays & coroutines - Conventions & Syntax - Scope & Access modifiers - If statements & Loops - Methods & parameter - Basic C# programs, Events & Instructions. Spawning objects, Timing actions, Input system, Score system, Reward system, collision system, Ray casting, Navigation system, Physics system, Win or Lose systems, Creating gameplay & other experiences.

Unit 3: AR Design in Unity (10 hours)

Introduction to XR & AR, Applications and Impact, Creating an AR project, Install AR libraries, Project settings, AR Models- No SLAM/SLAM, placing objects in the world, Implementing AR in URP, Testing AR application.

Unit 4: SnapChat Lens Creation- 2D/3D filters (10 hours)

Snap AR lens studio, Graphics, Frames, Sounds and File formats, Snap Lens exploration and Testing, Image markers, Controllers, 2D Face Object trackers & replacements, 3D Models integration.

Course Outcomes:

1. Create interactive elements that can respond dynamically to user inputs and real-world environments.
2. Learn methods to test user engagement, gather feedback, and iterate on AR designs

Training Provided by : Scopik Edutech Ltd., Chennai
Certifying Body   : Scopik Edutech Ltd., Chennai
Exam mode   : Online
Course Hours   : 40
Course Fee   : Rs.4000