



**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**REPORT ON INTRODUCTION TO UNITY AND REAL TIME 3D  
APPLICATION DEVELOPMENT (PHASE-1)**

**Title:** Introduction to Unity and Real Time 3D Application Development

**Date:** 17/03/2025 to 22/03/2025

**Trainers Name:** Mr. Logesh S and Mr. Krishnasamy S

**Topics Covered:**

<b>Introduction to Unity and Real Time 3D Application Development</b>		
<b>Day</b>	<b>Title</b>	<b>Topics</b>
<b>1</b> 17/03/2025	<b>Introduction and Basic Concepts</b>	Introduction to Unity, Overview of the Unity interface, Setting up a new project, Understanding the Unity workflow, Basic Concepts, Game Objects and Components, Scenes and Hierarchy, Inspector and Project Window, Creating Your First Scene, Importing assets, Placing objects in the scene, Basic transformations (move, rotate, scale), Basic Scripting with C#, Introduction to C# scripting in Unity, Creating and attaching scripts to Game Objects, Understanding MonoBehaviour
<b>2</b> 18/03/2025	<b>Intermediate Scripting and Physics</b>	Advanced Scripting Concepts, Variables, methods, and classes in C#, Unity's Start, Update and other methods, Handling input (keyboard, mouse), Physics in Unity, Rigid bodies and Colliders, Collision detection and triggers, building a Simple Game Prototype, Setting up the game environment, Basic player movement and controls, Simple AI or enemy behaviour
<b>3</b> 19/03/2025	<b>UI and Audio</b>	User Interface (UI) Basics, Creating and customizing UI elements (buttons, text, images), Canvas and UI hierarchy, Handling UI events (clicks, input fields), UI Scripting, Updating UI elements through scripts, implementing a basic HUD (score, health, etc.), Audio in Unity, Importing and using audio assets, 2D sound settings, Audio sources, listeners, and effects
<b>4</b> 20/03/2025	<b>Animation and Lighting</b>	Introduction to Animation, Unity's animation system, Creating and editing animations in the Animator, Using Animation and Animator components, Controlling animations through scripts, Scripting Animations, Blend trees and animation transitions, Lighting and Rendering, Types of lights in Unity (directional, point, spot), Lighting settings and lightmapping
<b>5</b> 21/03/2025	<b>Final Project and Publishing</b>	Final Project Development, Combining learned concepts to develop a complete mini-game, Debugging and optimizing the game, Adding final touches (UI, audio, animations), Building and Publishing, Building the game for PC platforms, Introduction to Unity's build settings, Wrap-Up and Q&A, Review of key concepts, Q&A session to address any remaining questions, Resources for further learning and development

6 22/03/2025	<b>Basics of Blender</b>	Introduction to 3D Modelling, Texturing, Using tools in blender, Grab, Move, Rotate, Scale, Origin, Modifying vertices, edges, faces, Chamfer, Bevel, Understanding 3D topology, Exporting FBX to Unity, Applying materials to 3D Models, Optimisation of models
-----------------	--------------------------	--

### **Feedback/Comments about the training:**

The feedback from participants was overwhelming positive, with students praising the structured, phase-wise approach and the balance between theory and hands-on learning. Many appreciated the engaging demonstrations, real-time support, and the clarity with which complex concepts were explained. Participants expressed excitement about applying their newly acquired Unity skills in developing games and interactive projects, as well as pursuing global Unity certification to enhance their career prospects in the gaming and tech industries.

We hereby confirm that the training was done for the students and faculty members from 17/03/2025 to 22/03/2025 in Computer Lab 1, AR-VR Centre of Excellence, Department of Computer Science & Engineering, Akshaya Institute of Technology, Koratagere road, Tumakuru, Karnataka, India.



**Dr. K V Sreenivas Rao**  
**Principal**