



## Program Structure

<b>Program Name</b>	Certificate in AR & VR Developer							
<b>Proposed Program Duration</b>	550 hours							
<b>A. Overview of program</b>	<p><b>Industry Sector</b> – The course provides basics of developing software over variety of applications ranging from adding and designing snapchat lenses over mobile or building software for number of real world or imagined environments providing a mixed real experience which combines elements of both AR &amp; VR for real world digital object interaction. Through hands-on projects, students can learn practical techniques to rapidly and easily prototype different applications.</p> <p><b>Skills acquired includes</b> – Generic: Technical communication, Technical: System handling, troubleshooting, Professional: Organizing skills</p>							
<b>1. Program Objectives</b>	<ol style="list-style-type: none"> <li>1. Understand the Concept of Augmented Reality</li> <li>2. Develop various augmented reality applications.</li> <li>3. Designing 3D games using Unity Platform.</li> <li>4. Understand the concept of Virtual Reality</li> <li>5. Understand its various application in Industry</li> <li>6. Use various VR Development tools</li> <li>7. Develop various 3D games using unity.</li> </ol>							
<b>2. Target group of learners</b>	<ul style="list-style-type: none"> <li>• B.E./ B. Tech</li> <li>• Diploma (Computer Science/Computer Application)</li> <li>• B.Sc. in Computer Science</li> </ul>							
<b>3. Entrance Exam test format</b>	<table border="1"> <tr> <td>Time : 1 hour</td> </tr> <tr> <td>No of Questions: 50</td> </tr> <tr> <td>Exam Type: Multiple Choice questions</td> </tr> <tr> <td>Aptitude: 10 marks</td> </tr> <tr> <td>Basics of Computers: 10</td> </tr> <tr> <td>Fundamentals of Designing: 20 marks</td> </tr> <tr> <td>Logical thinking: 10 marks</td> </tr> </table>	Time : 1 hour	No of Questions: 50	Exam Type: Multiple Choice questions	Aptitude: 10 marks	Basics of Computers: 10	Fundamentals of Designing: 20 marks	Logical thinking: 10 marks
Time : 1 hour								
No of Questions: 50								
Exam Type: Multiple Choice questions								
Aptitude: 10 marks								
Basics of Computers: 10								
Fundamentals of Designing: 20 marks								
Logical thinking: 10 marks								
<b>Job Role</b>	AR Developer / Designer, 3D game Designer, VR Designer/Developer							
<b>Learning Outcomes</b>	<p><b>After completing this program, participants will be able to:</b></p> <p>Students will be able to,</p> <ol style="list-style-type: none"> <li>1. Learn the use of tools and platforms used in the AR landscape.</li> <li>2. Understand what makes AR feel "real".</li> <li>3. Learn how to create an AR use flow.</li> <li>4. Learn use of tools like Google Poly, ARCore and Unity in order to build AR experience.</li> <li>5. Understand the concept of Virtual Reality</li> </ol>							



	6. Understand its various application in Industry 7. Use various VR Development tools 8. Develop various 3D games using unity.			
<b>B. Curriculum and Pedagogy</b>	<b>Module</b>	<b>Elements</b>	<b>TH</b>	<b>PR/ S</b>
	ARVR101	Introduction to augmented reality (AR) The basics of AR functionality, use of AR in real world Scenario.	25	45
	ARVR102	Create 3D assets for AR with tools like Google Poly: ARCore and Unity. Coding and Managing Game objects in Unity.	30	130
	ARVR103	Introduction to Virtual Reality, Applications of VR Visual Computation And Environmental Modelling in Virtual Reality	35	95
	ARVR104	VR Development Tools (Unity) and 3D Game Development	30	100
	ARVR105	Professional Skills	0	30
			Examination	
	<b>Total</b>		<b>120</b>	<b>430</b>