

## DIPLOMA PROGRAM

### IN **AR VR - AUGMENTED** **AND VIRTUAL REALITY**

**Program Code:**

2275912

**Course Duration:**

1 Year

**Course Fees:**

Rs. 25,000/- & \$450

For Indian and International Candidates



### **PARUL UNIVERSITY**

Parul University is an intellectual and a creative quest for all its stakeholders viz. Indian and International Students, Parents, Alumni, Faculties, Industry & Academic partners as well as society at large. We believe in proliferating our efforts towards quality education and environment. Every year we advance our targets to make headway to our scholarly endeavors.

Our University brings to everyone the best of all worlds. Be it its ethics, global exposure, contemporary educational practices, innovation and growth, PU outshines in all of these. We aim to make successful academic pursuits through entrepreneurship, research, modernization and partnerships with educationally inclined organizations, thus enhancing our position as the finest education destination.

We have been pioneers in accepting various interdisciplinary programs and have included them to our ideal and promising higher education curriculum. Starting with this decade it's our collective effort to empower more youth towards the pursuit to continuously learn, enhance skills, generate better employment opportunities and become competent entrepreneurs. For this very purpose, we are initiating a plurality of short term courses.

### **CENTRE FOR CONTINUING EDUCATION & ONLINE LEARNING**

In this present day world, each year creates a generation gap which leads to change in the demand of job skills by the employers. Parul University has embarked on filling this gap by enlightening students and working professionals with the most updated skill based education and to transform them into adept industry professionals and talented entrepreneurs.

Parul University is introducing multiple programs under Centre for Continuing Education & Online Learning which are developed as per industry requirements and in compliance with the changing market needs.

## DUAL DEGREE PROGRAM - LETS YOU EARN TWO CREDENTIALS IN DISTINCT DOMAINS

With the ever increasing knowledge and skills in today's competitive world, Parul University's Dual Degree opportunities allow you to pursue two degrees at the same time. Pursuing dual degrees will provide you with the most competitive advantage, and will give you diverse knowledge in multiple fields and disciplines. Undergraduate and Postgraduate students can undergo two degree programs in distinct fields. All programs offered by Parul University under Dual Degree are designed in line with NEP 2020 and guidelines suggested by University Grants Commission (UGC).

### Surprising Benefits of Graduating with a Dual Degree

- Enhancing Employability and Entrepreneurship Skills
- Increase in Knowledge Base
- Diverse Career Options
- Enhancement of Multi-disciplinary Talent
- Saving of Time and Money

## PREAMBLE

Recent developments in computer graphics and sensor technology have produced a whole suite of interactive tools that allow us previously unheard-of opportunities to fully immerse people in virtual worlds or enhance real-world settings. An entirely new computing paradigm is being created by virtual reality (VR) and augmented reality (AR), and it is being used in corporate, healthcare, educational, and entertainment applications, among others. This program aims to prepare candidates to create, develop, and assess VR and AR applications. The diploma program in augmented and virtual reality was developed to meet the industry's growing need for engineers with a range of backgrounds and to further relevant research and development. The proposed diploma program will provide opportunities for integrated learning in cutting-edge technology sectors.

**Program Name:** Diploma in AR VR (Augmented and Virtual Reality)

**Program Type:** Diploma

**Program Duration:** 1 year

**For Whom:** Individuals with 10+2 education or relevant education

## PROGRAM HIGHLIGHTS

- Diploma Certificate Program in Augmented and Virtual Reality
- Project Work based on Augmented Reality & Virtual Reality
- Application Development & Game Development

## CAREER OPPORTUNITIES

A candidate by undergoing this program shall have the following career opportunities: On successful completion of the course the candidates can either get employed, or become a self-employed Entrepreneur in the following fields:

1. Software Developer/ Senior Software Engineer

2. AR/VR Maintenance and Support

3. AR/VR Web Developer

4. Design/Graphics Engineer
5. Software Engineer

6. Unity 3D Developer

7. Game Developer

## PROGRAM OBJECTIVES AND OUTCOMES

Program Objectives	Program Outcomes
Define historical and modern overviews and perspectives on VR/AR.	State VR/AR tools and VR/AR features that help digital object behavior in real world
Locate the working prototype, working projects through AR/VR technology	Recognize the real world to the digital world in AR/VR.
Apply the scientific, technical, and engineering aspects of augmented and virtual reality systems.	Demonstrate particular designs for AR and VR experiences.
Compare the technology of augmented reality over virtual Reality.	Examine state-of-the-art AR and VR design problems and solutions from the industry and academia.
Justify AR/VR technology through real world applications as well as model designs.	Evaluate the benefits and drawbacks of specific AR and VR techniques.
Investigate various applications using AR/VR technology.	Develop an application with all AR/VR activities.

**COURSE CURRICULUM:**

Semester – I					
Sr. No.	Subject Name	Teaching Scheme (Contact hrs/week)			Credit Assigned
		Theory	Practical/Tutorial	Total	
1	Fundamentals of Virtual Reality	3	4	7	5
2	Fundamentals of Augmented Reality and Scripting Language	4	4	8	6
3	Basics of Unity with C#	4	4	8	6
4	Project: I	0	6	6	3
			<b>TOTAL</b>		<b>20</b>

Semester – II					
Sr. No.	Subject Name	Teaching Scheme (Contact hrs/week)			Credit Assigned
		Theory	Practical/Tutorial	Total	
1	Game Development Using VR	3	4	7	5
2	Interaction and Experience Design Application using VR/AR	4	4	8	6
3	3D Modeling Design	3	4	7	5
4	Project: II	0	8	8	4
<b>TOTAL</b>					<b>20</b>