

INTERACTIVE AR-VR APP DEVELOPMENT CERTIFICATION COURSE

Offered by iHUB @IIT Roorkee
In Association with TechXR Innovations

COURSE OVERVIEW

Augmented and Virtual Reality (AR-VR) has been identified as one of the top cutting edge technologies by All India Council of Technical Education (AICTE). All big companies across the world are innovating in this field and are on the spree of hiring good developers in this space.

The Interactive AR-VR App Development Certification Course is meant for anyone who wishes to learn AR-VR development, and has no readymade awareness of the subject. The six week course is designed in the form of boot camp wherein every stu-

dent will be required to learn while self solving the exercises.

We provide 24x7 online support and weekly doubt solving sessions in small batches to help student learn by actually doing the assignments. The course will demystify the AR-VR development world, and prepare you to become a potential author, instead of a mere consumer, in the VR metaverses to come. The course is prepared by industry experts and vetted by academic experts (read IIT Roorkee Professor) and open for joining by under-graduates and above.



THIS AR-VR DEVELOPMENT CERTIFICATION COURSE HAS BEEN CREATED BY A TEAM OF IITIANS, XR PROFESSIONALS, AR-VR FACULTY AT NIFT AND IIT ROORKEE COMPUTER SCIENCE FACULTY.

The 6 weeks Boot Camp program provides students, engineers and developers an overview of AR-VR app development cycle. The program provides Basic training to get familiar with Unity 3D development environment, basic C# scripting, 3D environment creation, image target based and markerless AR development, 360 degree trackable AR development, 6 Degrees of Freedom (DoF) interactable VR application / game development.

With this course, students can develop high quality interactive XR experience and learn app development on smartphones without having costly hardware. In the end students / developers can create interactive MVP/ Project for exciting career opportunities in AR-VR metaverse domain.

KEY TAKEAWAYS

1

Learning with XR development kit
- Developer's Cube
- VR Headset
- Software Development Kit

2

Unity 3D development and
C# scripting

3

Marker based and Markerless AR
app development for Smartphones

4

Create a portfolio -
Join developers community -
Showcase XR developers skills -

5

Interactable AR-VR UI elements

6

6 DoF interactive VR app
development

7

Certificate from iHUB IIT Roorkee, signed
by IIT Roorkee Computer Science Faculty



▶ WHO CAN JOIN ?

Any engineering student/software developer with a basic knowledge of any programming language can join this course.



Duration
6 weeks



Program Fees
INR ₹15,000

▶ PROGRAM SYLLABUS

Introduction to AR-VR & Unity3D



Build your first AR application

Making Final 6 DoF Interaction VR application



WEEK WISE JOURNEY

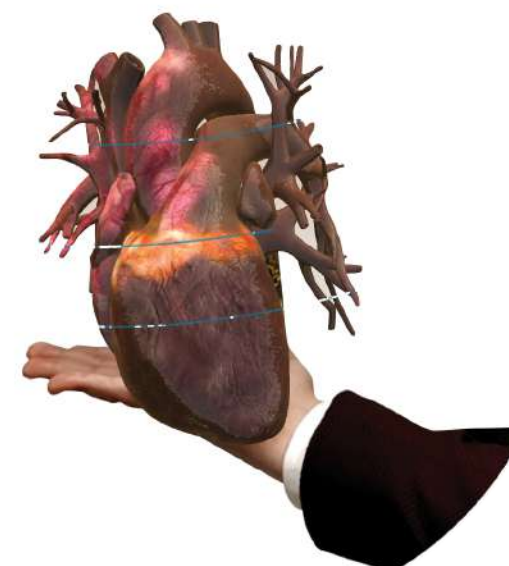
Enhancing 3D development skills



Making first VR Application



Making a 360° Interactive AR application



MINIMUM REQUIREMENTS

FOR WINDOWS

PROCESSOR :	Intel i3-4150/AMD Ryxen3 1200 (recommended: Intel i5-4590/AMD Ryzen 5 1500X)
RAM :	4 GB or greater (8GB recommended)
DISK SPACE :	30+ GB (SSD recommended)
OPERATING SYSTEM :	Windows 10 (64-bit)
GRAPHIC API :	DirectX 10,11 or 12 capable GPUs

FOR MAC

OPERATING SYSTEM :	High Sierra 10.13 or higher using metal graphics
CPU :	X64 Architecture
RAM :	8 GB or greater
DISK SPACE :	30+ GB

SMART PHONE

OPERATING SYSTEM :	Android OS 4.1 or later
RAM :	1 GB (4GB Recommended)
OTHER FEATURES :	Cyroscope, Working Rear Camera

OTHER COMPATIBLE TOOLS Any text editor (Preferred Visual Studio or VS code)



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<http://www.techxr.co>



WHAT IS XR DEVELOPER KIT ?

It is a interactive AR-VR development kit to enable students to experience and create immersive and 6 Degrees of Freedom (6DoF) interactable AR-VR app for smartphones.

It includes :

- 1 One Developer Cube
- 2 Unity based plugin (Software Development Kit or SDK)
- 3 One VR Headset for smartphones

TEACHING METHODOLOGY



DOUBT CLEARING SUPPORT

Weekly doubt clearing class and access to public forum



24*7 AVAILABLE VIDEOS

Learn from pre-recorded videos at your own pace



LIVE ONLINE CLASSES

Weekly interactive live sessions

SAMPLE CERTIFICATE



iHUB DivyaSampark

A joint initiative of Government of India, Department of Science & Technology and IIT Roorkee



CERTIFICATE OF COMPLETION

This is to certify that

Participant Name

has successfully completed instructor led online certificate course in
INTERACTIVE AUGMENTED AND VIRTUAL REALITY APP DEVELOPMENT
conducted by the iHUB DivyaSampark at Indian Institute of Technology Roorkee
from DATE

the innovation hub

TechXR Innovations Private Limited



Date of Issue-

Course Co-ordinator
(Faculty IIT Roorkee)

Chief Executive Officer
iHUB DivyaSampark

Certificate ID:



▶ ABOUT US

The Company was founded in Jan 2021 with the objective of Taking AR VR to the masses. We are on a mission to create worlds largest AR-VR developer base in India. For this, we have developed an affordable Developer Kit which enable the students to learn making interactive AR-VR experiences without costly hardware such as Oculus Quest etc. The Company was founded by a team of IITians and has a 20+ company strength.

We have developed the technology for 6 Degrees of Freedom (6 DoF) interaction on Smartphone based AR-VR development and experience and have been granted the patent for the innovation. The affordable 6 DoF controller is a key to the Metaverse revolution for a common man in a country like India.

The Company also has earned some rewards in the short journey :

Our Course Partners :



**National Institute of Fashion Technology -
Elective on AR-VR Development
(batch of 45 students)**



**Rajiv Gandhi Pradyogiki Vishwavidyalaya -
AR-VR Internship cum Certification
program for 200+ affiliated Institutes**



**iHUB @IIT Roorkee -
Interactive AR-VR Development Certification
Course on All India Basis**



All India 2nd in Edupreneur Village startup competition



Top 10% startup applications in world by Y Combinator



Top 30 in 5G Hackathon by Department of Telecommunications, Govt. of India



Selected for IIMK funding

▶ INSTRUCTORS



PRASHANT MISHRA

B.Tech ECE IIT Kanpur,
6DoF Controller Patent
Holder, Top 30 Innovators
by DoT. India

Experience in Industry
AR/VR Faculty at NIFT

AR-VR Course
Designed for
RGPV

ABHISHEK PRABHAT

B.Tech CSE IIT Kanpur,
15 Years of Technology
Development,
System Architect

Experience in Industry
AR/VR Faculty at NIFT

