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A MeitY - nasscom Digital Skilling Initiative

रा.इ.सू.प्रौ.सं
NIELIT

National Institute of Electronics and Information Technology Chandigarh

An Autonomous Scientific Society under the administrative control of
Ministry of Electronics & Information Technology (MeitY), Government of India

Permanent Campus at Birla Farms, Bada Phull, (adj. to IIT Ropar)
Rupnagar (Ropar)- 140001

BOOTCAMP

On

Augmented and Virtual Reality

under FutureSkills PRIME Scheme

![FutureSkills Prime logo — A MeitY - NASSCOM Digital Skilling Initiative]

FutureSkills Prime, India's Technology Skilling Hub, is a joint initiative by NASSCOM & MeitY, Govt of India to enable digital skilling at scale. It aims to make India the Digital Talent Nation by democratising learning. With NASSCOM Certifications endorsing their technology skills, learners can open doorways to digital career opportunities.

Build the Skills to Rise with the Opportunity

Acquire interdisciplinary skills that combine technical expertise, IT skills and knowledge of digital technologies to pioneer transformation. Develop expertise for in-demand roles like data scientist, business intelligence analyst, full stack developer, information security analyst, machine learning engineer, etc.

FutureSkills PRIME – ten technologies

- ✓ Artificial Intelligence
- ✓ Virtual Reality
- ✓ Big Data Analytics
- ✓ Blockchain
- ✓ Cloud Computing
- ✓ Cybersecurity
- ✓ Internet of Things
- ✓ Web & Mobile Developme
- ✓ Robotic Process Automati
- ✓ 3D Printing

Bootcamp conducted since 2024

- ❖ SGTB Khalsa College, Sri Anandpur Sahib, Punjab
- ❖ Lamrin Tech Skills University, SBS Nagar, Punjab
- ❖ Chandigarh Group of Colleges (CGC), Landran Mohali, Punjab
- ❖ BAM Khalsa College, Garhshankar, Hoshiarpur, Punjab
- ❖ CASSM - Institute for Development and Communication (IDC), Chandigarh

For more details, visit our website

28 million new tech jobs will be created in India by 2025.

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A MeitY - NASSCOM Digital Skilling Initiative

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Speakers:

Dr. Sarwan Singh
(Joint Director, NIELIT)
Nikshep Paliwal
(Project Engineer)
Amrinder Singh
(Project Assistant)

NIELIT Chandigarh in association with CDAC is organizing five days free of cost Bootcamp on **Augmented and Virtual Reality (AVR)** for college students under FutureSkills PRIME Scheme.

About Training Programme

The Bootcamp program in **Augmented and Virtual Reality (AVR)** is designed to provide key insights and hands-on experience with real-world applications of AR/VR and game development. As part of the boot camp, industry and academic experts will share best practices and techniques to help participants develop games after completing the course.

Objective of Training Programme

The main objectives of the course were as follows:

- Help participants understand advanced concepts of game development using Augmented and Virtual Reality.
- Make participants experts on the Unity Platform and with AR and VR applications.
- Enable participants to develop professional games and build real-time applications and solutions using Augmented and Virtual Reality.

Target Audience

Any engineering/Science graduate with mathematics up to senior secondary.

Brief Contents

- Introduction to VR, AR, MR, Industry Leaders, Market
- VR Headset, HTML, Basics of programming, AR Devices, MR Devices, AR SDK, VR SDK, Examples.
- Using A-Frame, Building the first A-Frame Program and hosting on online platform Glitch.com
- A-Frame, Hand tracking, Responsive UI
- 360 degree view with A-Frame
- Introduction to Unity Game Engine- features, uses.
- Introduction to AR, WebVR
- Introduction to Spark AR Studio, AR application with AR kit
- Marker Based AR - displaying cube, String, etc.

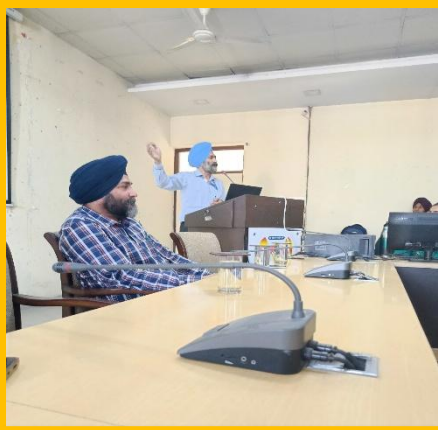**Lead Centre :** Centre for Development of Advanced Computing (CDAC), Pune

Co-Lead Centre : NIELIT Chandigarh
Ropar Campus: Bada Phull, Birla Farms, (near IIT Ropar) Ropar
Chandigarh: Facility at IETE Building, Sector 30B, Chandigarh

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1. SGTB Khalsa College, Sri Anandpur Sahib, Punjab

2. Lamrin Tech Skills University, SBS Nagar, Punjab

3. <u>Chandigarh Group of Colleges (CGC), Landran Mohali, Punjab</u>

4. <u>BAM Khalsa College, Garhshankar, Hoshiarpur, Punjab</u>

5. CASSM - Institute for Development and Communication (IDC), Chandigarh

Bootcamp
Sample Certificate and ScoreCard

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CERTIFICATE OF COMPLETION

This is to certify that

Mukesh

has successfully completed

Bootcamp

On

Augmented & Virtual Reality Acceleration

conducted by

NIELIT Chandigarh in association with Sri Guru Teg Bahadur Khalsa College, Sri Anandpur Sahib, Punjab

held during November 4, 2024 to November 8, 2024

as part of FutureSkills PRIME Project.

Anita Budhiraja
Chief Investigator
Scientist E
NIELIT Chandigarh

Deepak Wasan
Center Head
Executive Director
NIELIT Chandigarh

Date of Issue: 20th Dec, 2024

FSP/BCMP/NIELITCHD/ARVR/CDACPUNE/01/2411/1

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SCORE CARD
(Bootcamp)

Center Name : NIELIT Chandigarh
Course Name : Augmented & Virtual Reality Acceleration

Candidate Name : Mukesh
Certificate Number : FSP/BCMP/NIELITCHD/ARVR/CDACPUNE/01/2411/1
Course Code : FSP/NIELITCHD/ARVR/CDACPUNE/01/BOOTCAMP/01

SR. No.	Module Name	Max. Marks	Marks Obtained		Overall (A+B)
			Practical (A)	Theoretical (B)	
1.	Augmented & Virtual Reality	100	22	24	46
	Maximum Marks	**100**	**Total Marks Obtained**		**46**

Overall Performance*: Pass
Date of Issue: 20th Dec, 2024

*As per the letter grade tabulated on the back side

Chief Investigator
Anita Budhiraja
Scientist E
NIELIT Chandigarh

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