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ST. JOHN COLLEGE OF ENGINEERING AND MANAGEMENT

St. John Education Complex, Vevoor, Manor Road, Palghar (E), Dist. Palghar - 401 404

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Department of Computer Engineering

FDP REPORT

5 DAYS FACULTY DEVELOPMENT PROGRAM ON "VIRTUAL & AUGMENTED REALITY " In ASSOCIATION WITH FEAST SOFTWARE PVT.LTD

Date: 11th July 2022 to 15th July 2022

Mode of conduction: Hybrid (online + offline)

Google Meet Link:
Google Meet joining info
Video call link: https://meet.google.com/jyp-qmwr-wdy

FDP Outcomes:
At the end of the training program, learner will be able to:
LO1: Understand basic terminologies related to AR/VR.
LO2: Install AR/VR development environment.
LO3: Understand the working of the AR environment.
LO4: Develop applications for basic operations of AR in Unity/Visual Basics.

DAY 1: 11/7/2022
Timing: 2:00 p.m. to 4:00 p.m.
Venue: Programming Laboratory, A wing-1st Floor,
        Computer Engineering Department, SJCEM

The event began at 2:00 p.m. and most of the participants had joined on time.
Our host & faculty Coordinator, Mrs.Manali Patekar, welcomed all the participants.
She has also welcomed respected Principal Sir Dr. G. V. Mulgund & Dr. Nilesh Deotale sir head of Computer Engineering Department.

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Later on, Dr. Nilesh Deotale sir addressed the participants by giving an overview of a five day's faculty development program.

Later on, Principal Dr. G. V. Mulgund addressed the participants & enlightened about the institute.

Afterwards, Mr. Naishadh Paleja (Founder, Feast software Pvt.Ltd) addressed the participants.

Dr. Nilesh Deoatle sir then started with the **faculty orientation program on "Virtual & Augmented Reality(CSDC7021)" Rev.2019- 'C' scheme** stating its importance.

Sir interacted with participants.

Sir explained the importance and applications of the subject.

Then, sir explained how attending these five day's FDP program will help the faculty to better understand the outlook of the subject.

Finally, sir thanked and concluded the Day-1 FOP session.

Lastly, Mrs.Abira Banik Faculty Coordinator expressed vote of thanks.

Event ended at 4:30 p.m. and it took place in a smooth way. There were __ participants in Google meet, and 20 participants in offline mode.

GLIMPSES OF THE SESSION FOR DAY-1

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Figure 1: Starting of the session –MrsManali Patekar Faculty coordinator welcoming all the participants

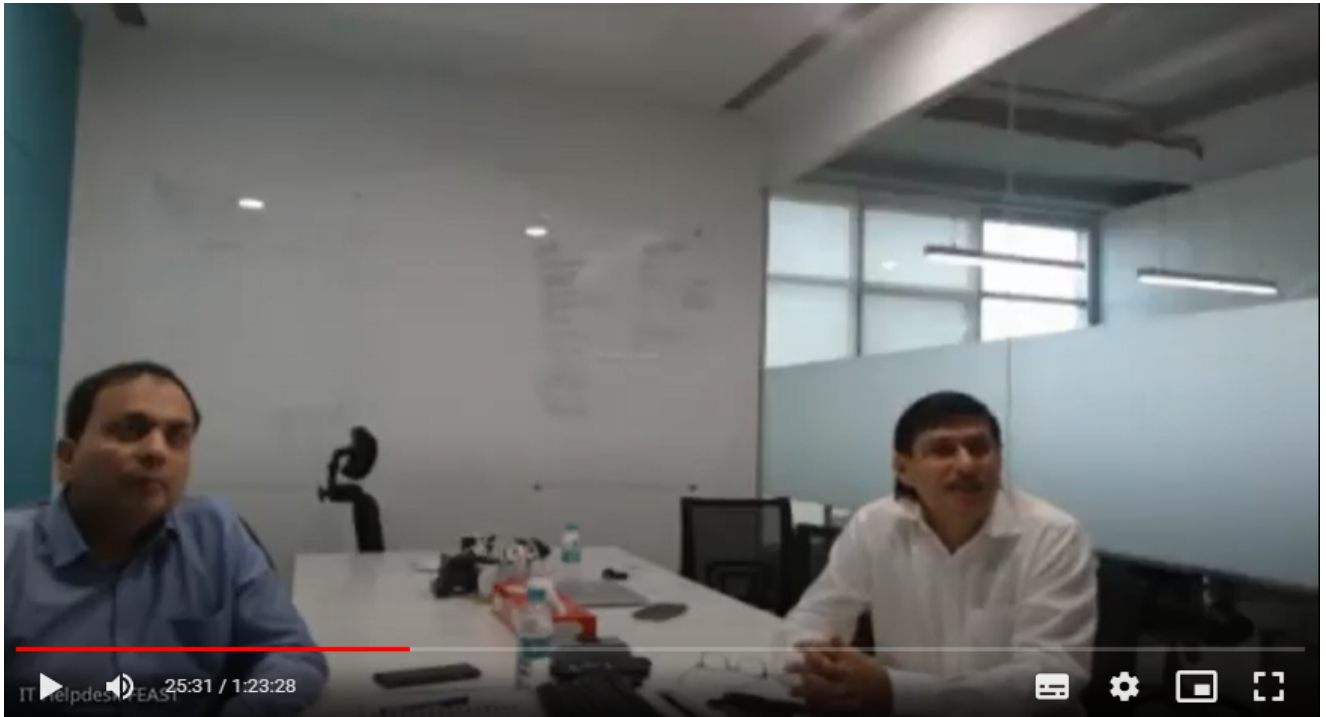*Figure 3: HOD Sir's & Principal Sir's message and wishes for the event*

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Figure 4: *Mr. Naishadh Paleja Founder Feast Software Pvt.Ltd addressing the participants*

Figure 5: *Mr. Aldridge D'Souza Member Aldel Education Trust Addressing participants*

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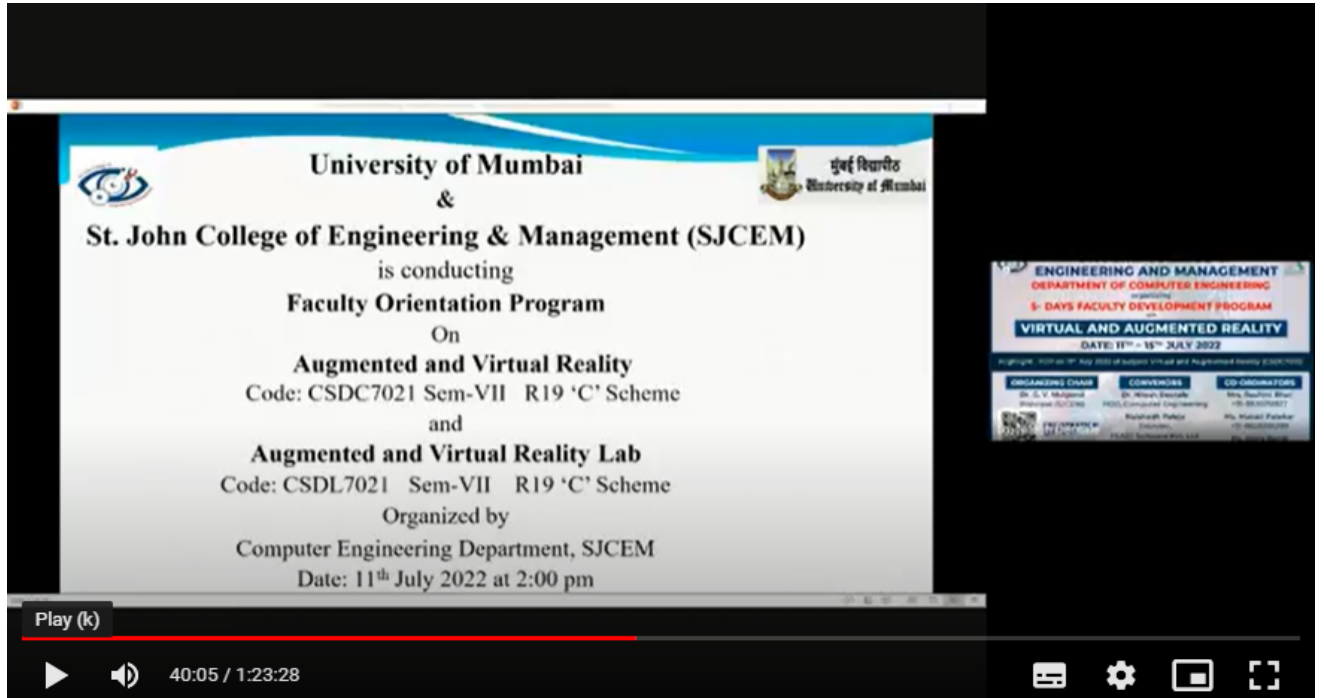**NAAC Accredited with Grade 'A' (2017-2022)**

Figure 6: Dr. Nilesh Deotale sir Started with Faculty orientation program
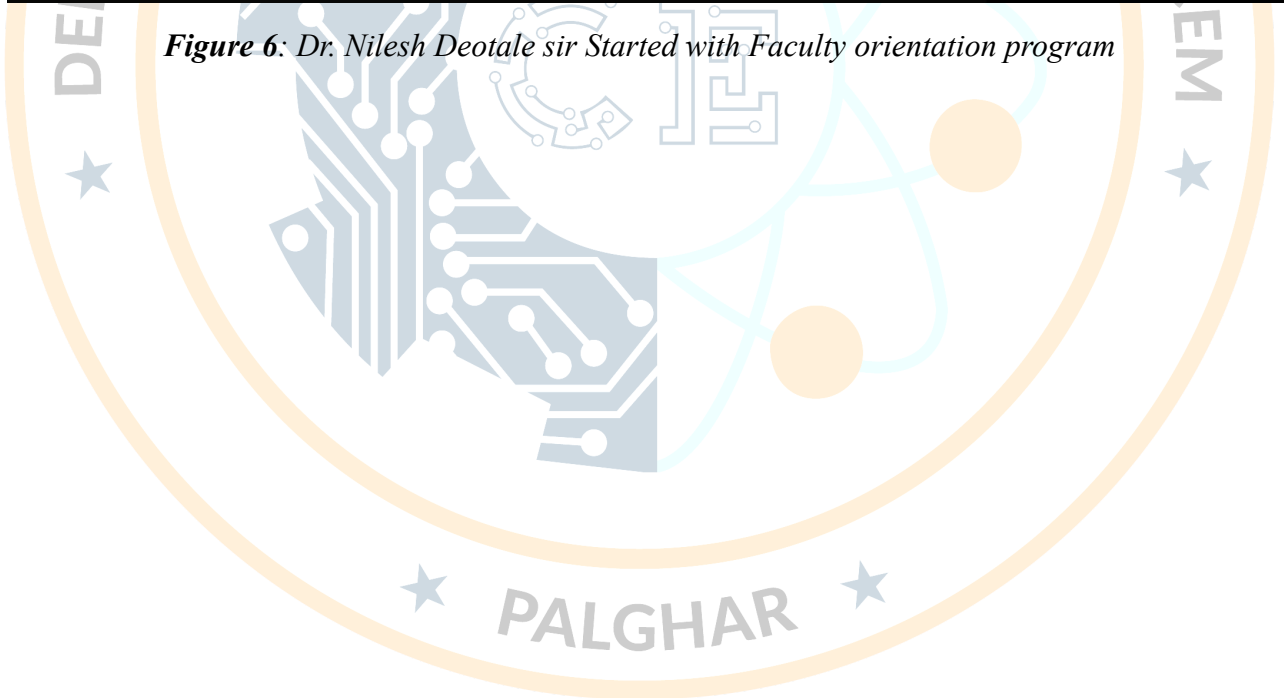
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Figure 7: Dr. Nilesh Deotale sir demonstrating how to use VR Technology

DAY 2: 12/7/2022
Timing: Session1: 10:00 a.m. to 12:00 p.m.
   Session2: 1:00 p.m. to 4:00 p.m.
Venue: Programming Laboratory, A wing-1ˢᵗ Floor,
   Computer Engineering Department, SJCEM
Google Meet link : : https://meet.google.com/jyp-qmwr-wdy

The session 1 began at 10:00 a.m. and our host & Faculty coordinator, Mrs.Manali Patekar, welcomed all the participants & introduced Resource Person Mrs. Rashmi Bhat, Assistant Professor St. John College of engineering & Management for session 1.

Mrs. Rashmi Bhat ma'am then started with the session topic **"Introduction to Virtual Reality"** for Day-2.

She interacted with participants and explained the basics of Virtual Reality.

Ma'am also explained about Virtual Reality Tools, VR Platforms, Top 3D Models Development & Rendering Tools & Unity Engine 3D Tool.

Then ma'am asked some questions to the participants & they were interacting

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At 12:00 p.m. ma'am concluded the Day-2 session 1.

After lunch break session 2 began at 1:00 p.m. and our host & Faculty coordinator, Mrs.Manali Patekar, welcomed all the participants & introduced Resource Person Mr. Piyush Mayekar technical lead at Feast software Pvt.Ltd.

Mr. Piyush has started with the session topic **"Hands on session Virtual Reality"** for Day-2 session 2.

Piyush has demonstrated Installation of Unity and Visual Studio to all the participants

He has explained the working of Unity on Windows then he explained about Creation of first Unity Scene with various 3D game objects and apply properties to them

At 12:00 p.m. ma'am concluded the Day-2 session 2.

Event ended at 4:30 p.m. and it took place in a smooth way. There 19 participants in Google meet, and 20 in offline mode

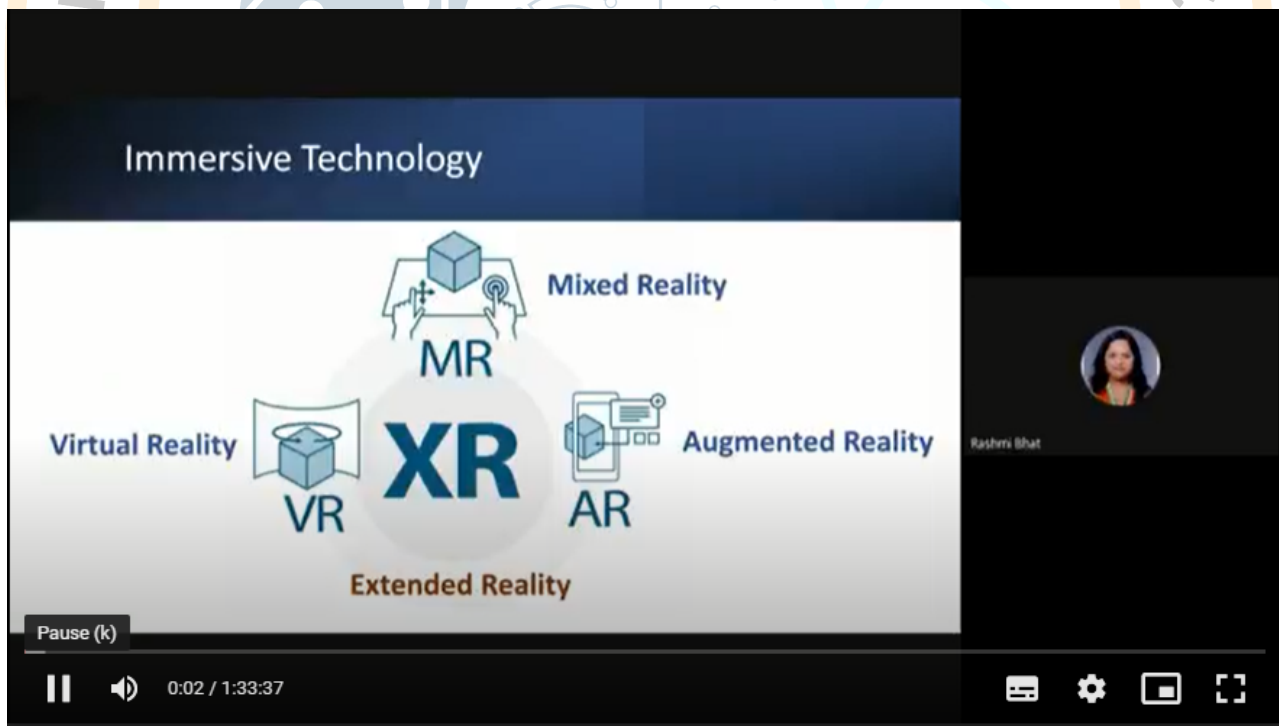## GLIMPSES OF THE SESSION FOR DAY-2

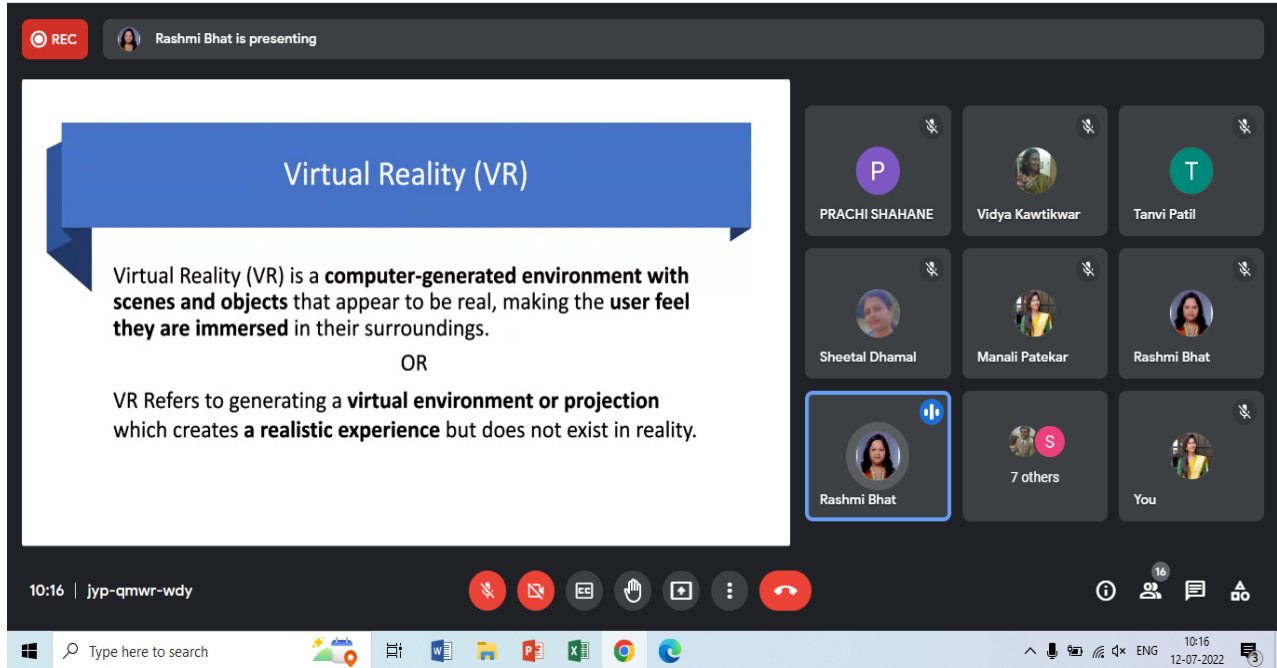*Figure 1:* *Mrs.Rashmi Bhat Ma'am taking over the session*

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Figure 2*: Mrs. Rashmi Bhat ma'am explaining basics of Virtual Reality*

DAY 3: 13/7/2022
Timing: Session1: 10:00 a.m. to 12:00 p.m.
Session2: 1:00 p.m. to 4:00 p.m.
Venue: Programming Laboratory, A wing-1ˢᵗ Floor,
Computer Engineering Department, SJCEM
Google Meet link : : https://meet.google.com/jyp-qmwr-wdy

Session 1 began at 10:00 a.m. and our host & Faculty coordinator, Mrs.Manali Patekar, welcomed all the participants & introduced Resource Person Mr. Rajnish Vishwakarma, Technical Lead, Siemens Ltd, for session 1.

Mr. Rajnish Vishwakarma Sir,has started the session with the session topic "Virtual Reality Corner Cave 3D Projection Technology ".

Sir has explained in detail about the Corner Cave 3D projection Technology, Features of VR Corner cave 3D immersive Technology, processes involved in experience Based VR corner Cave technology, the different device support required for implementation of the Corner Cave 3D (hardware and trackers).

Sir has also explained and answered all the queries of the participants.

At 12.30 p.m. Sir has concluded the session.

After the lunch break session 2 began at 1.00 p.m. After lunch break session 2 began at 1:00 p.m. and our host & Faculty coordinator, Mrs.Manali Patekar,

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welcomed all the participants & introduced Resource Person Mr. Piyush Mayekar technical lead at Feast software Pvt.Ltd.

Mr. Piyush has started with the session topic **"Hands on session Virtual Reality"** for Day-3 session 2.

Piyush has demonstrated VR Headsets and VR controllers.

He has explained the process of developing a scene in Unity including different 3D objects and interacting with them using VR Controllers.

Session ended at 3 p.m. and it took place in a smooth way. There 39 participants in Google meet.
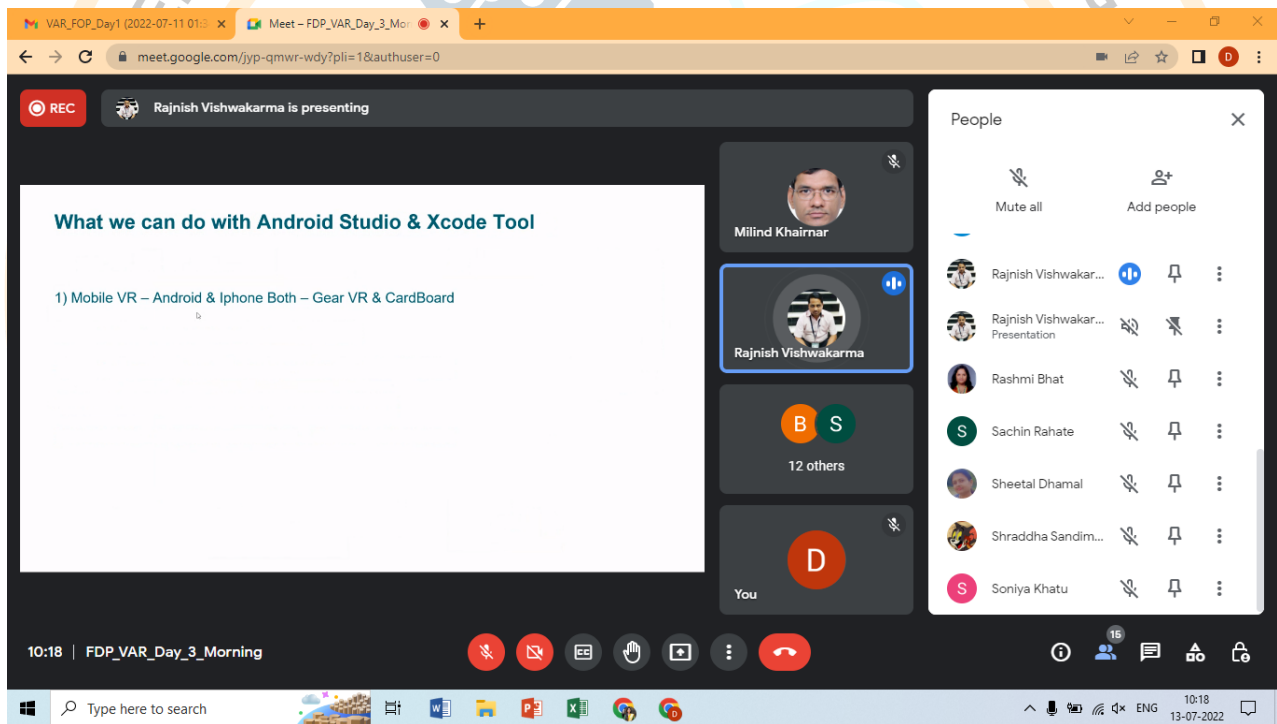
GLIMPSES OF THE SESSION FOR DAY-3

Figure 1: Mr. Rajnish Vishwakarma presenting "Virtual Reality Corner Cave 3D Projection Technology ".

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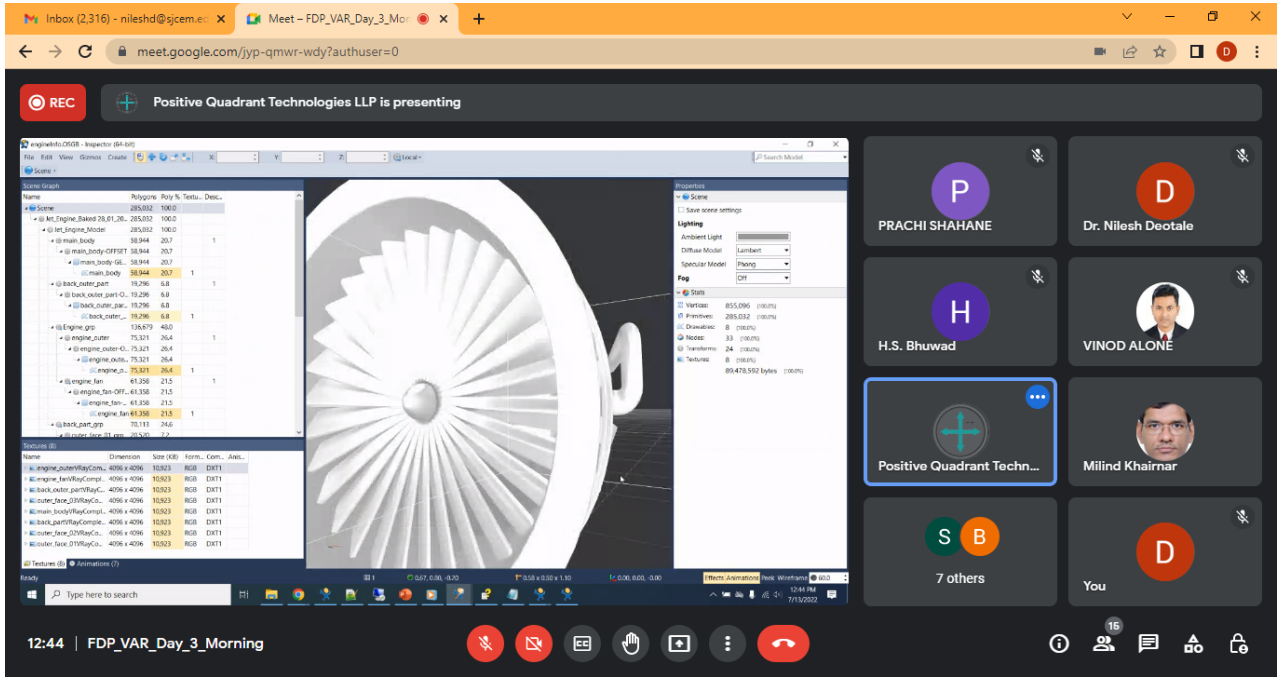**NAAC Accredited with Grade 'A' (2017-2022)**

Figure 2: Mr. Rajnish Vishwakarma demonstrating "Virtual Reality Corner Cave 3D Projection Technology ".
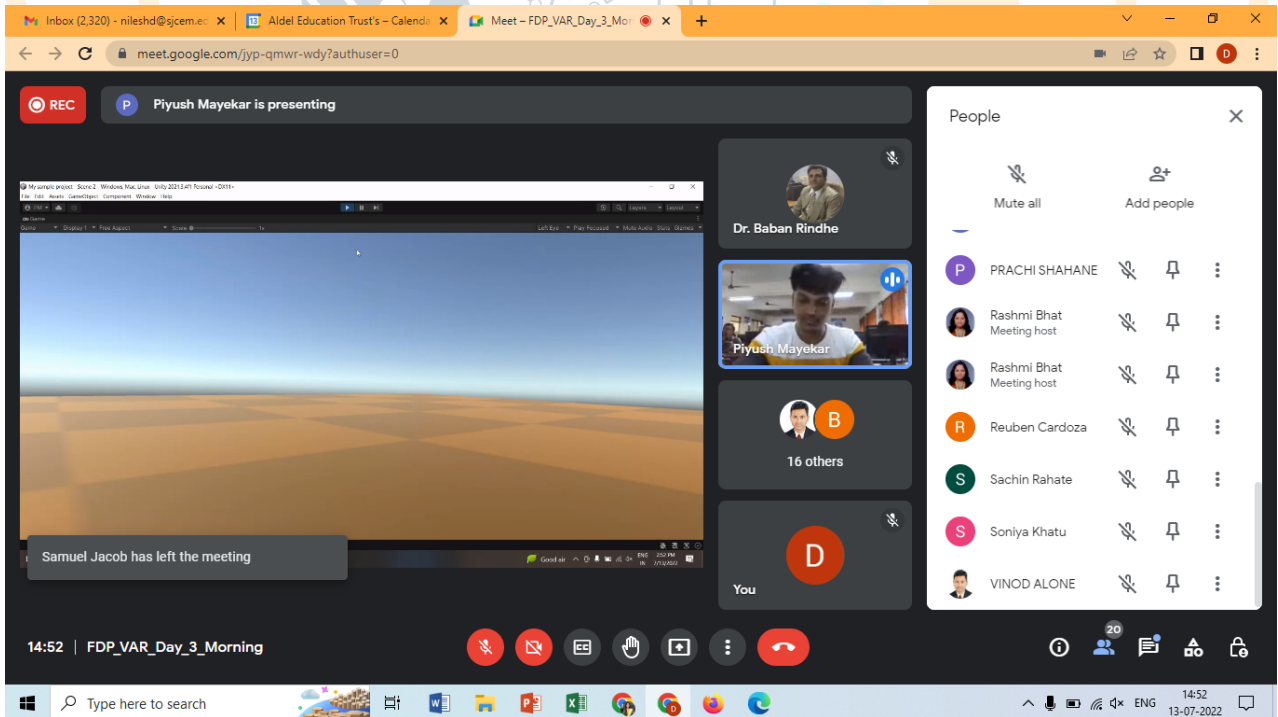
Figure 3: Mr. Piyush Mayekar demonstrating "A scene in Unity".

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DAY 4: 14/7/2022
Timing: Session1: 10:00 a.m. to 12:00 p.m.
        Session2: 1:00 p.m. to 4:00 p.m.
Venue: Programming Laboratory, A wing-1ˢᵗ Floor,
        Computer Engineering Department, SJCEM
Google Meet link : : https://meet.google.com/jyp-qmwr-wdy

Session 1 began at 10:00 a.m. and our host & Faculty coordinator, Mrs.Manali Patekar, welcomed all the participants & introduced Resource Person Dr.Suvarna Shirke, Assistant Professor and Head of the Department at Atharva College of Engineering.

Dr. Suvarna Shirke mam, has started the session with the session topic "Introduction to augmented Reality ".

Mam held a detailed explanation about the Augmented Reality, AR applications, barcode markers and barcode standards.

Mam has taken all the queries of the participants and explained in detail..

At 11.30 p.m. Mam concluded the session.

After the session our host & Faculty coordinator, Mrs.Manali Patekar, welcomed one more Resource Person Dr.Rajesh Buktar, Professor, SPCE, Andheri.

Sir has explained one of the important topics in Augmented Reality, "Marker detection".

Sir has included all the aspects of the topic.

Sir has also explained and answered all the queries of the participants.

At 1.00 p.m. Sir has concluded the session.

After the lunch break session 2 began at 2.00 p.m. After lunch break session 2 began at 1:00 p.m. and our host & Faculty coordinator, Mrs.Manali Patekar, welcomed all the participants & introduced Resource Person Mr. Piyush Mayekar technical lead at Feast software Pvt.Ltd.

Mr. Piyush has started with the session topic **"Hands on session Augmented Reality"** for Day-4 session 2.

Piyush has started a particle session where he created a simple app.

He created a 3D AR Core pawn on the detected AR plane surface, and also used Augmented Faces Feature in the app.

Session ended at 4 p.m. and it took place in a smooth way. There 39 participants in Google meet.

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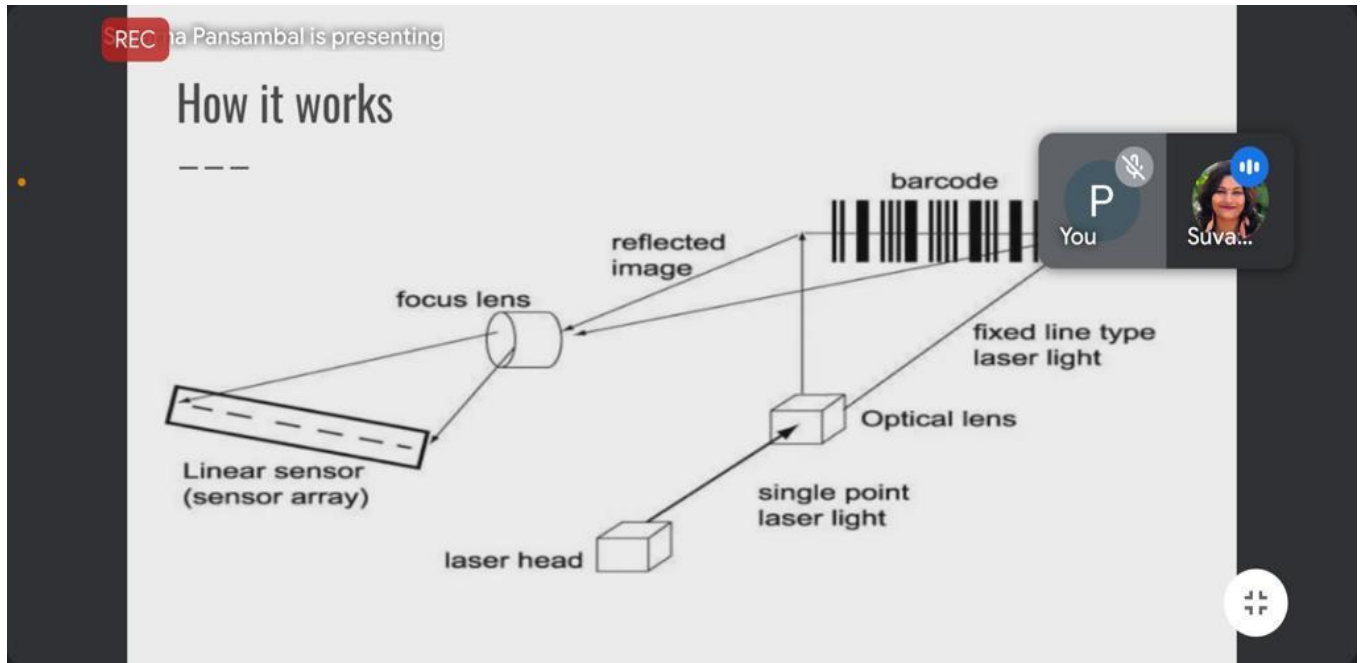*Figure 1: Mrs. Suvarna Pansambal explaining how Barcode works.*
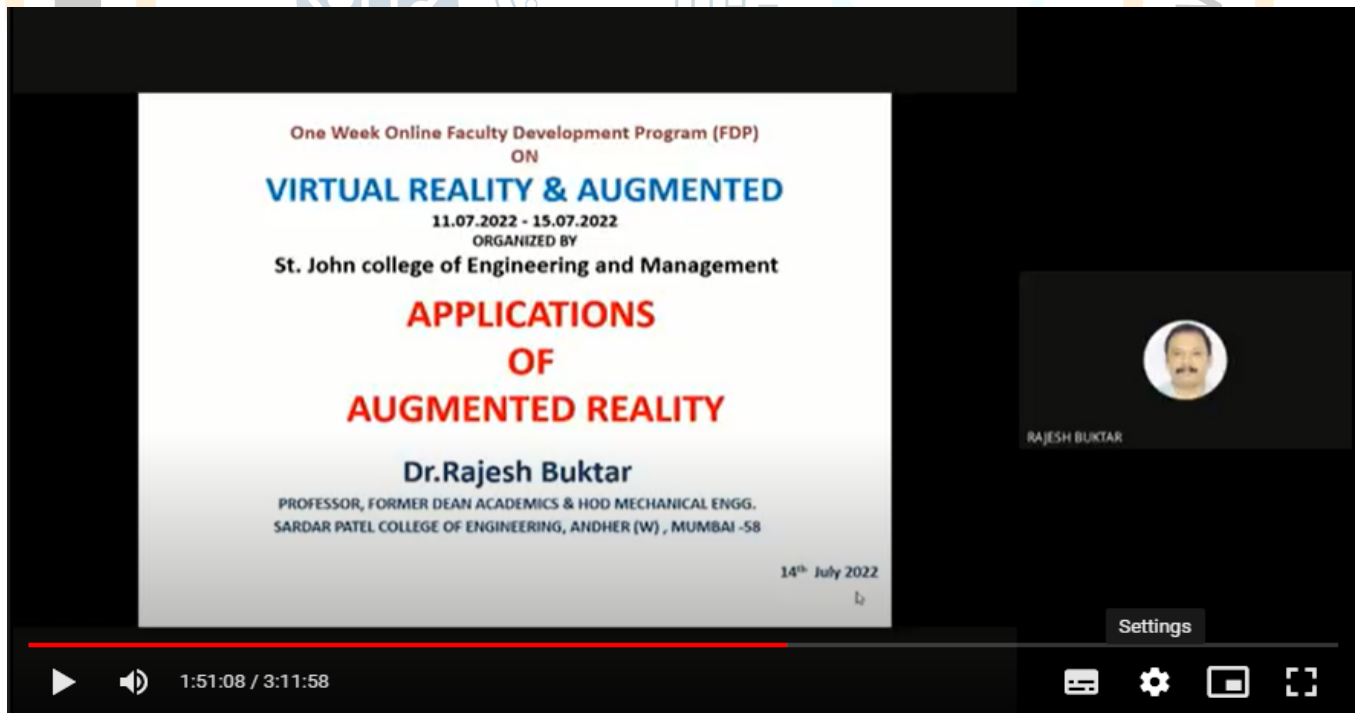
Figure 2:Dr. Rajesh Buktar sir taking over the session.

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Day 5: 15/06/2022
Industrial Visit
Time: 10:30 am to 3:30pm
Venue: FEAST Software Pvt. Ltd., 503, Neelkanth Corporate Park, Kirol Road, Vidyavihar West, Mumbai

Session began at 10:30am 11 participants came for the Industrial Visit.

Naishad Sir and his team welcomed the participants and had a small meeting informing about the company and their products.

Dr. Nilesh Deotale gave a brief introduction of VR basics and the aim of organizing FDP and industrial visits.

After breakfast, Mr. Sharan Udaykumar and team gave the information about VR projects they are working on Unity 3D.

Company develops VR projects under the brand name "EnggOnline".

Participants asked a few questions about how modeling of objects is done, which software is used. etc.

Modeling of assets are done in Maya 3D.

Naishad sir and team well explained the products and the VR and AR working with demonstrations.

All the participants experienced one VR game using Oculus headset and controllers.

Participants enjoyed the way VR works.

Every participant was awarded with a participating certificate from the company.

Participants' feedback was positive about the whole experience.

The Industrial Visit ended in the afternoon at 3:30pm.

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Glimpses of Industrial Visit:

Figure 1: Mr. Naishad Paleja discussed FEAST Software Pvt. Ltd.

Figure 2: Mr. Naishad Paleja discussed about their brand EnggOnline

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Figure 3: Mr. Sharan Udaykumar explained about VR basics in Unity 3D

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Figure 4: Mr. Sharan explained about VR project

Figure 5: Modeling assets in MAYA software

Figure 6: Participants experiencing VR

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Figure 7: Participants with FEAST Softwares Pvt. Ltd. Team

Report Prepared By:

Ms. Abira Banik   Ms. Manali Patekar   Mrs. Rashmi Bhat

Report Approved By:

Dr. Nilesh Deotale