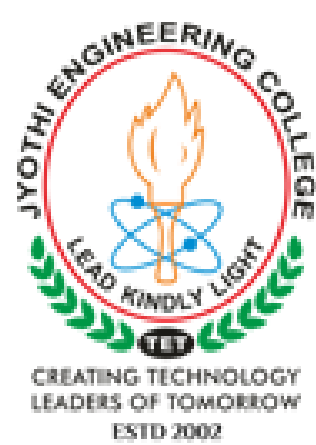# Look

The Living Book

Department of CSE

Jyothi Engineering College

Thrissur

September 30, 2020
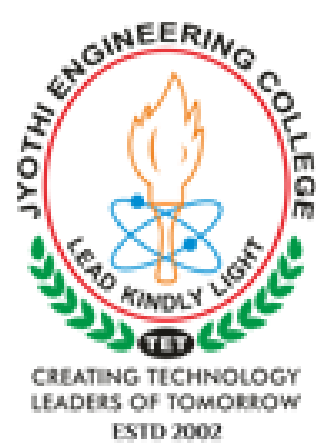
Team Members

- Meera E Thimothy   JEC17CSO66

- Muhammed Raneesh CM   JEC17CSO71

- Naveen P R   JEC17CSO73

Mentor : Mr Shaiju Paul Assistant Professor

Vision of the Department

- Creating eminent and ethical leaders in the domain of Computational Sciences through quality professional education with a focus on holistic learning and excellence.
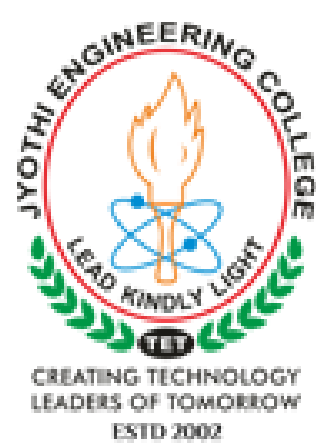
Mission of the Department

- To create technically competent and ethically conscious graduates in the field of Computer Science and Engineering by encouraging holistic learning and excellence.
- To prepare students for careers in Industry, Academia and the Government.
- To instill Entrepreneurial Orientation and research motivation among the students of the department.
- To emerge as a leader in education in the region by encouraging teaching, learning, industry and societal connect.
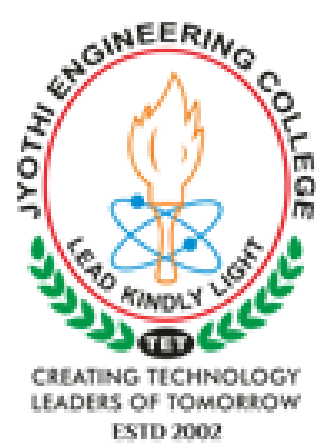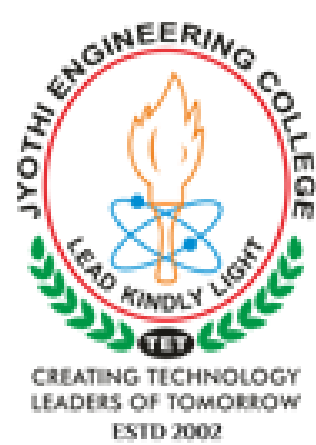
Contents

- Introduction
- Objective of the project
- Problem Statement
- Area of the project
- Skills set required for the project
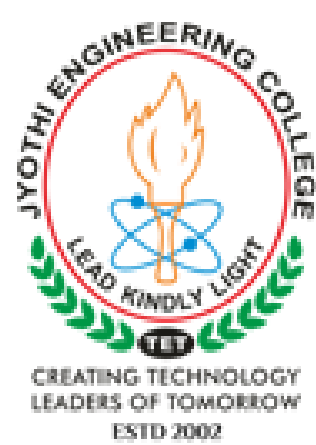- Conclusions
- Seminar Topics

Introduction

- Learning become difficult because of pandemic

- Students are facing a lot of problems in their study

- Understanding Textbooks are difficult for students without mentors

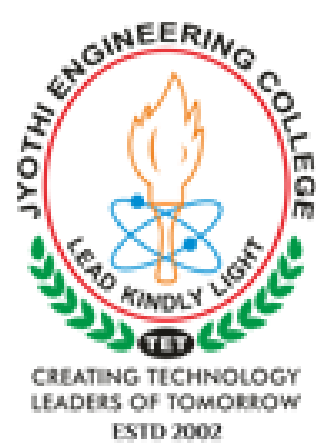- So we introduce our solution " LOOK ", The Living Book!

Objective of the project

- Help students to understand the concepts in Textbook

  Quickly

- Promote self-study

- Interaction of student

- Visual Learning

Problem Statement

Design and Develop an application that helps students to visualize the objects in the textbook using the Extended Reality, specifically Augmented Reality and also provide more information about the topics covered in it.
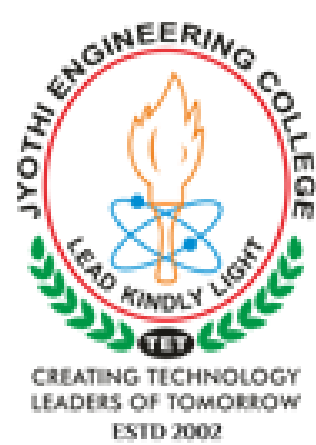
Area of the project

Extended Reality or XR

Extended Reality (XR) refers to all real–and–virtual environments generated by computer graphics and wearables. The 'X' in XR is simply a variable that can stand for any letter. XR is the umbrella category that covers all the various forms of computer–altered reality, including: Augmented Reality (AR), Mixed Reality (MR), and Virtual Reality (VR)
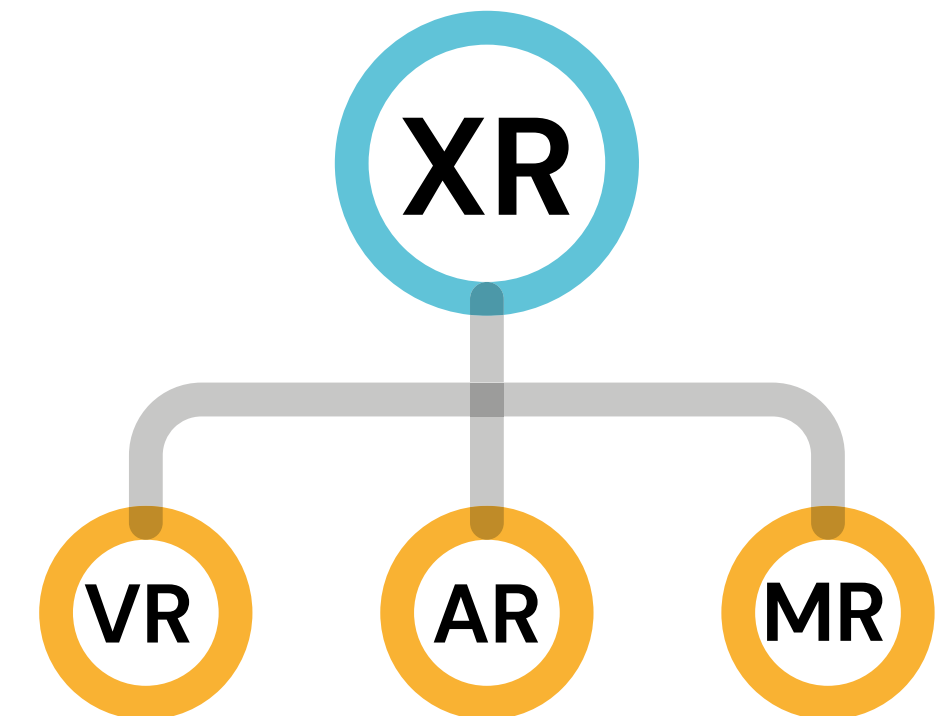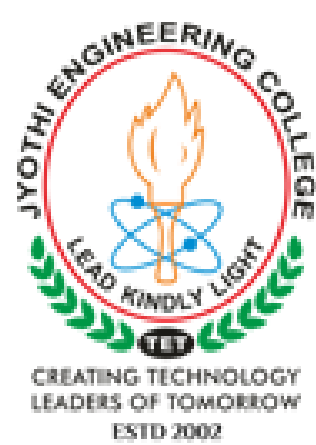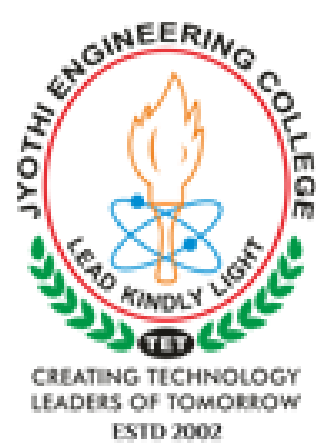
Base Paper
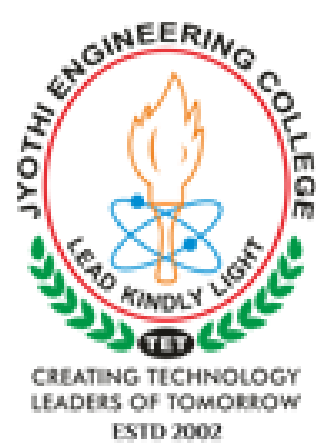
Skills set required for the project

- Marker Based AR

- Unity

- AR Foundation

- ARCore

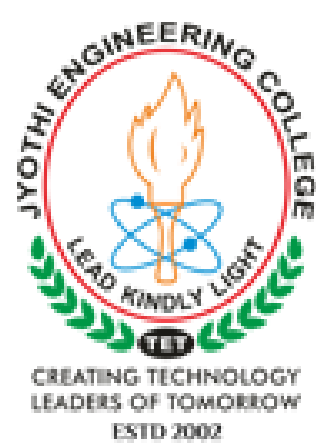- Android App Development

Conclusions

We develop an AR-based application that can help the students to learn quickly and understand the concepts in a better manner. Moreover, in this pandemic situation, it would help the students more effectively as it promotes self-study.

Seminar Topic – 1

Virtual Reality or VR By Naveen PR

In a virtual reality experience, users are fully immersed in a simulated digital environment. Individuals must put on a VR headset or head–mounted display to get a 360 – degree view of an artificial world that fools their brain into believing they are, e.g., walking on the moon, swimming under the ocean or stepped into whatever new world the VR developers created. The gaming and entertainment industry were early adopters of this technology; however, companies in several industries such as healthcare, construction, engineering, the military, and more are finding VR to be very useful.

Seminar Topic – 1
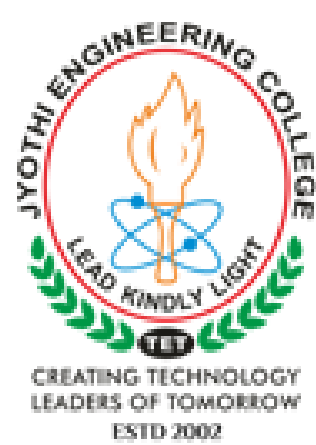
Base Paper

Ronak Dipakkumar Gandhi, DipamS.Patel, " Virtual Reality–Opportunities and Challenges", International Research Journal of Engineering and Technology (IRJET), Volume: 05, Issue: 01, Jan – 2018 , 9 pages, 2018, https://www.irjet.net/archives/V5/i1/IRJET-V5I1103.pdf

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Seminar Topic – 2

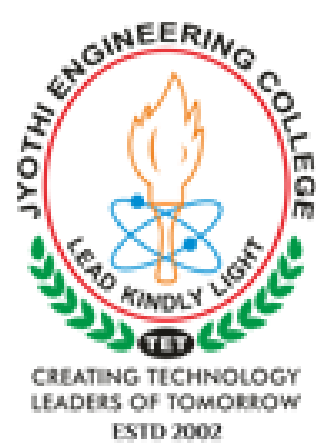## Augmented Reality or AR By Muhammed Raneesh C M

In augmented reality, virtual information and objects are overlaid on the real world. This experience enhances the real world with digital details such as images, text, and animation. You can access the experience through AR glasses or via screens, tablets, and smartphones. This means users are not isolated from the real world and can still interact and see what's going on in front of them. The most well-known examples of AR are the Pokémon GO game that overlays digital creatures onto the real world or Snapchat filters that put digital objects such as hats or glasses onto your head.

Seminar Topic – 2

Base Paper

A. Sushma, Bivek Kumar Jaiswal, Aranya Samanta, Ankit Kumar Singh, Abhay Pratap "Augmented Reality and its Working", International Journal of Research in Engineering, Science and Management (IJRESM), Volume : 03, Issue : 02, February-2020, 4 pages, 2020, https://www.ijresm.com/articles/augmented-reality-and-its-working/
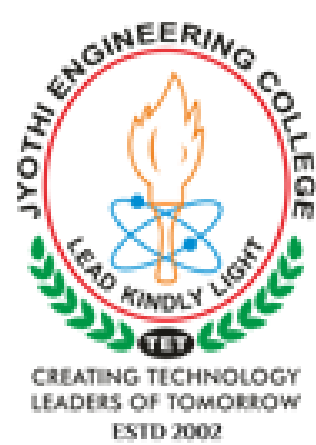
Seminar Topic – 3

Mixed Reality or MR By Meera E Thimothy

In mixed reality, digital and real-world objects co-exist and can interact with one another in real-time. This is the latest immersive technology and is sometimes referred to as hybrid reality. It requires an MR headset and a lot more processing power than VR or AR. Microsoft's HoloLens is a great example that, e.g., allows you to place digital objects into the room you are standing in and give you the ability to spin it around or interact with the digital object in any way possible. Companies are exploring ways they can put mixed reality to work to solve problems, support initiatives, and make their businesses better.

Seminar Topic – 3

Base Paper

Rokhsaritalemi S, Sadeghi–Niaraki A, Choi S–M, "A Review on Mixed Reality: Current Trends, Challenges and Prospects", Applied Sciences, 16 January 2020; 10(2):636. https://doi.org/10.3390/app10020636

Thank you!