

CHRIST (Deemed to be University)  
Department of Computer Science  
MSc – Artificial Intelligence and Machine Learning

**Course:** MAI342B – Augmented Reality and Virtual Reality

**Project Title:** Augmented Reality Interior Design and Space Planning

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## **INTRODUCTION**

The AR Interior Planner project is an innovative venture aimed at revolutionizing the traditional approach to interior design and space planning. With the rapid advancements in augmented reality (AR) technology, there emerges a unique opportunity to merge digital and physical realms seamlessly, offering users an immersive and interactive experience like never before. This project seeks to capitalize on this potential by developing a user-friendly AR application that empowers individuals, designers, and businesses alike to visualize, plan, and optimize interior spaces in real-time. This can be particularly useful for clients who have difficulty visualizing final results, or for architects and designers who want to test different materials, colors, and layouts before making decisions. AR VR can also be useful for remote collaboration, allowing stakeholders to virtually meet in a shared 3D space to discuss and make changes to the design in real-time.

Unlike conventional design methods that often rely on two-dimensional representations or static renderings, AR Interior Planner introduces a dynamic and interactive platform where users can virtually explore and manipulate spatial elements within their physical environment. By leveraging AR technology, users can experiment with different furniture layouts, decor options, and spatial configurations, gaining invaluable insights into how these choices will impact the functionality, aesthetics, and overall atmosphere of their spaces.

## **EXPECTED OUTCOME**

Leveraging Augmented Reality technology can significantly improve the visualization of interior design concepts, allowing clients to better understand and appreciate the proposed designs before implementation. And the project aims to increase client satisfaction by ensuring that their expectations are met and their feedback is incorporated effectively.

The project will result in a more efficient decision-making process, enabling designers and clients to test different materials, colors, and layouts in real-time, leading to quicker and more informed design choices. And also it will enable seamless remote collaboration, allowing stakeholders to meet in a shared virtual 3D space to discuss and make real-time modifications regardless of their physical location.

Cost and Time saving can be achieved by identifying design issues early and enabling quick changes in the virtual environment, the project aims to reduce the need for costly and time-consuming revisions during the actual implementation phase. Overall, expected outcome is to create a more immersive, interactive, and efficient interior design experience that leads to greater client satisfaction, improved design decisions, and streamlined project workflows.

This Documentation of the project emphasizes the introduction about the project that conveys the essence of the project and followed by the expected outcome considering the benefits of building this interior design augmented reality application.