



**FINAL YEAR PROJECT REPORT**

**HOME FURNISHING E-COMMERCE MARKET  
WITH AR AND 3D  
MODELING**

**In fulfillment of the requirement  
For degree of  
BS (COMPUTER SCIENCES)**

**By**

**OSAMA ASAD KHAN  
HASSAN ZAID FUDDA**

**65277(BSCS)  
65221(BSCS)**

**SUPERVISED**

**BY**

**MR.ADNAN AHMED**

**BAHRIA UNIVERSITY (KARACHI CAMPUS)**

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## DECLARATION

We hereby declare that this project report is based on our original work except for citations and quotations which have been duly acknowledged. We also declare that it has not been previously and concurrently submitted for any other degree or award at Bahria University or other institutions.

Name : Osama Asad Khan

Reg No. : 65277

Signature : \_\_\_\_\_

Name : Hassan Zaid Fudda

Reg No. : 65221

Signature : \_\_\_\_\_

Date : \_\_\_\_\_

### APPROVAL FOR SUBMISSION

We certify that this project report entitled **“HOME FURNISHING E-COMMERCE MARKET WITH AR AND 3D MODELING”** was prepared by **OSAMA ASAD KHAN 02-134192-102** and **HASSAN ZAID FUDDA 02-134192-037** has met the required standard for submission in partial fulfilment of the requirements for the award of Bachelor of Science in **COMPUTER SCIENCES** at Bahria University, Karachi.

Approved by,

Signature : \_\_\_\_\_

Supervisor : Mr. Adnan Ahmed

Date : \_\_\_\_\_



## ACKNOWLEDGEMENTS

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I would like to express my gratitude to my project supervisor, Mr. Adnan Ali, for his availability, support, guidance and his continuous presence throughout the project.

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In addition, we would also like to express our gratitude to our loving parents and friends who have helped and given encouragement.

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## **HOME FURNISHING E-COMMERCE MARKET WITH AR AND 3D MODELING**

### **ABSTRACT**

The Home Furnishing E-Commerce Market with Augmented Reality (AR) and 3D Modeling has emerged as a disruptive force, revolutionizing the way consumers shop for furniture online. This report examines the integration of AR technology and 3D modeling techniques into the e-commerce landscape, offering users the ability to visualize and experience furniture products in their own living spaces virtually.

The report delves into the key components of this innovative system, starting with the comprehensive product catalog that enables users to browse and select from a wide range of furniture options. Additionally, users have the flexibility to explore different color schemes and customize furniture designs according to their preferences. The inclusion of various designers further enhances the diversity of product offerings, catering to a broad range of aesthetic sensibilities.

Furthermore, the incorporation of a user-friendly shopping cart feature allows users to easily add selected items for purchase, providing a seamless shopping experience. Secure payment methods ensure transactional safety and convenience for customers, allowing them to complete their purchases with confidence.

The primary focus of this project lies in leveraging AR technology to enhance the customer's ability to visualize furniture in their own environment. By utilizing a downloadable AR app, users gain the capability to superimpose 3D models of furniture onto real-life spaces, enabling them to make informed purchasing decisions based on how the furniture will look and fit within their homes. The ability to change color schemes and visualize different design options adds an additional layer of personalization, empowering customers to curate their ideal living spaces.

Throughout the report, we explore the technical aspects of AR and 3D modeling integration, emphasizing the challenges faced and the solutions implemented to optimize the user experience. Additionally, the report highlights the significant advantages of this technology, such as reducing returns and improving customer satisfaction.

By analyzing industry trends, market dynamics, and consumer behavior, this report sheds light on the potential of AR and 3D modeling in the home furnishing e-commerce sector. The findings provide valuable insights for industry stakeholders, including e-commerce retailers, furniture manufacturers, and technology providers, to capitalize on this transformative technology and stay ahead in a highly competitive market.

In conclusion, the Home Furnishing E-Commerce Market with AR and 3D Modeling presents an exciting opportunity to reshape the way customers shop for furniture online. With the ability to view and assess furniture virtually in their own homes, along with options for customization and personalization, this technology holds the potential to enhance customer engagement, boost sales, and redefine the future of the home furnishing industry.

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