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### NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

## FACULTY OF APPLIED SCIENCE

#### DEPARTMENT OF COMPUTER SCIENCE



# Development of a tool for augmented reality for shopping.

## **Dissertation Presented by Alvin Vafana**

# (N01416128M)

# Supervisor: Mr. R.K CHILUMANI

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## Abstract

An increased rate of adoption of smartphones, has made into possible for the implementation and adoption of augmented reality systems to become a reality. This is because smartphones come enabled with a camera as well as processing power, enabling a scene to be captured through the camera, and a 3 Dimensional object, overlaid on top and viewed through the smartphone screen. Augmented reality is the overlaying of digital information over real world scenes. Therein lies a lot of potential, for retailers in the furniture industry to harness the power of this technology, to provide an innovative and engaging way to sell to their customers. Through use of augmented reality, furniture retailers can equip their clients with a tool, which enables them to be able to view and try out, a product before making a purchase, in its actual intended environment. Costs such as deposit and handling of the product during delivery are eliminated for the customer, who is still yet to fully commit to the purchasing of the product, who if unsatisfied would have resulted in the product being returned to the retailer. Hence through such a tool, sells returns and costs associated with them to the retailer are reduced. The theoretical framework used in the research was the Technological Acceptance Model (TAM), as it provided a guide lines on what to take into consideration when building an information system, for users to accept it. The research goes further to show, how augmented reality has now matured in time, from the day it was first introduced. The research methodology used was a qualitative one, making use of purposive sampling, document review and in-depth interviews. From the findings of the research, all the requirements required to develop an augmented reality tool, were identified, and the tool successfully developed.