MOBILE-BASED HOLOGRAM: MINI MALAYSIA (MALAYSIAN HOUSE HOLOGRAM)

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UNIVERSITI TEKNIKAL MALAYSIA MELAKA

BORANG PENGESAHAN STATUS TESIS*

JUDUL: MOBILE-BASED HOLOGRAM: MINI MALAYSIA (MALAYSIAN HOUSE HOLOGRAM)

SESI PENGAJIAN: 2015/2016

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MOBILE-BASED HOLOGRAM: MINI MALAYSIA
(MALAYSIAN HOUSE HOLOGRAM)

OON CHIA MIN

This report is submitted in partial fulfillment of the requirements for the Bachelor of Computer Science (Interactive Media)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2016

DECLARATION

I hereby declare that this project report entitled

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I hereby declare that I have read this project report and found this project report is sufficient in term of the scope and quality for the award of Bachelor of Computer Science (Interactive Media) With Honours.

SUPERVISOR : _____ Date: 24/8/16
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DEDICATION

This final project is dedicated to my beloved parents and family members, thanks for always support and encouraged me along whole project. I would also like to dedicate this special thanks to my supervisor who guide and support me along the completion of this final year project, En Wan Sazli Nasaruddin Bin Saifudin (UTeM). Without their patience and support, this project would not meet the finishing point. And last but not least, to all of my beloved friends that sharing their knowledge and help me from beginning to the end of this project.

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I shall also forward my appreciation to each other lecturers who never turn me down when being consulted for extra advice in carrying out the project. Thank you to all of you very much.

ABSTRACT

Malaysian House Hologram is a mobile application for Mini Malaysia with hologram technology. The research elements that have been included are hologram, virtual reality and three dimensional (3D). The main purpose for this mobile application is to show the 3D view of 13 traditional houses in Malaysia. In the digital technology era, people prefer to use smartphone to install mobile application to view information. Due to this issue, a mobile application that uses hologram projector is developed. This mobile application able to provide more engaging information and digital presentation for Mini Malaysia. By using hologram projector, this mobile application able to promote Mini Malaysia in an interesting way. This project mainly used Autodesk Maya 2013, Adobe Premiere Pro and Intel XDK IoT Edition to complete it. The target user for this mobile application for Mini Malaysia is tourists. The reason tourist group was chosen as the target user was because there are many tourists know less about the difference of traditional houses from 13 states in Malaysia.

ABSTRAK

Rumah Malaysia Hologram adalah aplikasi mudah alih untuk Mini Malaysia dengan teknologi hologram. Elemen penyelidikan termasuk hologram, realiti maya dan tiga dimensi (3D). Aplikasi mudah alih ini bertujuan mempersembahkan model 3D untuk 13 rumah tradisional di Malaysia. Dalam era teknologi digital, pengguna lebih suka menggunakan telefon pintar untuk memuat turun aplikasi mudah alih untuk mendapat maklumat. Oleh itu, aplikasi mudah alih yang menggunakan hologram projektor telah dibangunkan. Aplikasi mudah alih ini dapat memberikan maklumat lebih menarik dan persembahan secara digital untuk Mini Malaysia. Dengan menggunakan projector hologram, aplikasi mudah alih ini dapat mempromosikan Mini Malaysia dengan cara yang menarik. Projek ini kebanyakannya menggunakan Autodesk Maya 2013, Adobe Premiere Pro dan Intel XDK IOT Edition untuk pembangunan projek. Kumpulan sasaran aplikasi mudah alih ini untuk Mini Malaysia adalah pelancong. Kumpulan pelancong terpilih sebagai pengguna sasaran kerana terdapat banyak pelancong kurang pengetahuan tentang perbezaan antara rumah tradisional 13 negeri di Malaysia.

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2D	-	Two Dimensional
3D	-	Three Dimensional
SCD	-	Sazli Content Development
QR	-	Quick Response Code
VR	-	Virtual Reality
AR	-	Augmented Reality

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CHAPTER I

INTRODUCTION

1.1 Introduction

In the digital technology era, people always use internet and mobile phone to view information. Life is so busy and pressure that consume all the time of people. Due to the busy lifestyle, people prefer to using smartphone to install mobile application to view information.

The proposed system goals for this project are to develop a mobile application for Mini Malaysia by using the Intel XDK and hologram technology. The showing of 3D view of Mini Malaysia can provide more information for people who have limited of knowledge about the 13 different traditional house of 13 states in Malaysia. The special design that attracts people to install the mobile application is the hologram video used for the presentation of Mini Malaysia in 3D view. The hologram video is created by using Autodesk Maya and Adobe Premiere Pro.

The expected outcomes from the project is the mobile applications for Mini Malaysia can shows some processes that are difficult to be applied directly in a real environment, either to their complexity, severity and inability to predict the possible outcomes of this process accurately. Other than that, the mobile application can add great value and improvements in multimedia to bring a new visual effect for everyone like 3D view.

1.2 Problem Statements

Problem statements identified in this project are:

- Tourists cannot directly go to see the different house of 13 states in Malaysia.
  - Malaysia consists of 13 states and it is impossible for tourists to directly go and see the different house of 13 states in a short period. Besides that, the number of traditional house of 13 states is becoming extinct because all states implement of regional development will build modern house. Therefore, tourists go to one of the state also so hard to find the traditional house.

- Tourists know less about the different house of 13 states in Malaysia.
  - Most tourists know traditional houses but unaware that each of the houses represents the architectural style of the 13 states in Malaysia. Other than that, the different house of 13 states have different background and history.

- Unable to promote Mini Malaysia in an interesting way.
  - The Mini Malaysia cultural park is located a few kilometers outside of Malacca, near the town of Ayer Keroh where impressive replicas of traditional Malaysian and ASEAN houses can be seen. Although the Mini Malaysia cultural park have promote by using advertisement banner, poster and flyers but it's not attract tourists. In the digital technology era, tourists always use

internet and mobile phone to manage their daily routine so using mobile application to promote Mini Malaysia is an interesting way.

1.3 Objective

There are three main objectives of this study which are:

- To study design and develop hologram model for 13 traditional houses.
- To develop a hologram mobile application for Mini Malaysia.
- To provide more engaging information and presentation for Mini Malaysia.

1.4 Scope

Project scopes consist of user scope and media scope. The details of scope are listed as follows:

1.4.1 User Scope

The target audience of this mobile application for Mini Malaysia are tourists. The reason tourist group was chosen as the target users was because there are many tourist know less about the different house of 13 states in Malaysia.

1.4.2 Function Scope

The function of this mobile application for Mini Malaysia have multiple language that is English, Japanese and Arabic. The mobile application can interaction with users by using button, like home button, play button, stop button and etc.

1.4.3 Platform Scope

The purpose of this project is to develop a hologram mobile application to provide an alternative and more engaging information and presentation for Mini Malaysia. The hologram video is created by using Autodesk Maya and Adobe Premiere. The final output will be a mobile application for Mini Malaysia. This platform is very suitable for users as they can just download the application for free and easily.

1.5 Project Significant

This mobile application is beneficial to tourist cannot directly go to see the different house of 13 states in Malaysia. They can install the mobile application of Mini Malaysia to know more about the different house of 13 states in Malaysia. Besides that, the mobile application will shows 2D picture on the smartphone screen. When user touch one of the picture will play the video then using hologram projector can see 3D view.

To introduce the beauty of Malaysia by having each significant traditional house design through display the traditional house through hologram with the 3D visual effect. This application also is design to promote Mini Malaysia with these mobile application. The development process of this project uses SCD (Sazli Content Development) that consist of five (5) main phases. Using this SCD for a mobile application development can minimize the problems and time taken during development.