

Universiti Teknologi MARA

**Malaysia's Flag Mobile Learning
Application Using Augmented Reality**

Nur Atikah Binti Amran

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*With the name of Allah the most Gracious, the most Merciful creator, I seek His
Blessing on His Prophet Muhammad s.a.w*

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ABSTRACT

Nowadays, geographical subject become less interested for young generation. The reason why they do not take seriously about Malaysia's flag because the conventional delivery medium are not interactive for them to accept. Currently, learning about Malaysia's flag only by using textbook as a reference in classroom. In addition, students do not like to memorize and differentiate the flag of every states. The best way to attract their interest to learn geographical information especially about Malaysia Map is by converting the text or image information into interactive learning method. The approach that are taken for this project is by converting the information with the implementation of augmented reality as the title for this project "Malaysia's Flag Mobile Learning using Augmented Reality". The objectives of this project are to identify the requirements, design and develop Augmented Reality mobile learning application about Malaysia map. This application are running on Android platform mobile devices and target user for this project are students in primary schools where age between 7-12 years old. The methodology approach that would applied in this project is ADDIE model that covered analysis, design, develop, implement, and evaluation phase. This methodology is suitable for interactive learning development process. The students can enjoy interactive information such as the capital of states, flag of state and the exact position of the states in the map of Malaysia. For 3D character model view, they can learn and know the flag that come out with an animation. This application helps student to know the all Malaysia's states flag with an interactive games provided. Although the existing applications have their own benefits, for further development, improvements are needed to gain better application which can optimize the existing application. In conclusion, this project will act as a strong enabling force for wider deployment of Augmented Reality in the future in education in order to heighten user's experience in learning geographical subject.

TABLE OF CONTENTS

CONTENT	PAGE
SUPERVISOR’S APPROVAL	i
STUDENT DECLARATION	ii
ACKNOWLEDGEMENT	iii
ABSTRACT	iv
TABLE OF CONTENTS	v
LIST OF FIGURES	vi
LIST OF TABLES	x
CHAPTER ONE: INTRODUCTION	
1.1 Project Background	1
1.2 Problem Statements	2
1.3 Expected Outcomes	2
1.4 Focus Element	3
1.5 Project Objectives	3
1.6 Project Scope	3
1.7 Significance	3
1.8 Summary	4
CHAPTER TWO: LITERATURE REVIEW	
2.0 Introduction	5
2.1 Malaysia Map	5
2.1.1 Problem in memorizing Malaysia Flag	5

CHAPTER 1

INTRODUCTION OF PROJECT

This chapter describes the background and foundation of the study. It also provides the aspect of the researches which are the project background, problem statement, project objectives, project scope, and project significance.

1.1 Project Background

The Malaysian land is divided into two parts, namely Malaysian Borneo and Peninsular Malaysia, between which the South China Sea flows. Peninsular Malaysia has eleven states included Perlis, Kedah, Kelantan, Penang, Perak, Terengganu, Pahang, Selangor, Negeri Sembilan, Melaka, and Johor. Meanwhile, Sabah and Sarawak are the two states on Malaysia Borneo which consist of one federal territory which is Labuan.

According to (Haini S & Khalijah A, 2016). There is a problem faced by the students in learning Malaysia maps due to memorizing the Malaysia Flag. To solve this problems idea is to convert the Malaysia map into interactive information using Augmented Reality. Besides that, based on the interview conducted, the students faced a problem in differentiate flag of every state. Impact of that it makes the students easily get bored during classes.

There are a lot of benefits by implement Augmented Reality technology in education perspective such as it encourages them to turn a boring class into interactive session experience easily via 3D AR modeling with the implementation of Augmented Reality, student may gain a thorough understanding rather than one way communication is used for teaching (Stull, Gainer, & Hegarty, 2017)