

**Universiti Teknologi MARA**

**Remote eVote for Majlis Perwakilan  
Pelajar Election**

**ABANG AMEERUL ADHRY BIN ABANG  
ABDUL HADI**

**Thesis submitted in fulfillment of the requirements  
for Bachelor of Computer Science (Hons.)  
Faculty of Computer and Mathematical Sciences**

**July 2017**

## **SUPERVISOR'S APPROVAL**

### **Remote eVote for Majlis Perwakilan Pelajar Election**

By

**ABANG AMEERUL ADHRY BIN ABANG ABDUL HADI  
2015837342**

This thesis was prepared under the supervision of the project supervisor, Fadilah Ezlina Shahbudin. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfillment of the requirement for the degree of Bachelor of Computer Science (Hons.).

Approved by

.....  
Fadilah Ezlina Shahbudin  
Project Supervisor

JULY 24, 2017

## **STUDENT'S DECLARATION**

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledge in accordance with the standard referring practices of the discipline.

.....  
ABANG AMEERUL ADHRY BIN ABANG ABDUL HADI  
2015837342

JULY 24, 2017

## **ABSTRACT**

Election is often associated with the process of selecting a leader fairly by collecting opinions from the public to ensure fairness among the people. This mechanism has been used since the 17th century. Student's election, on the other hand, works very similar to the general election as it requires the students votes and these votes are then justified to determine who will have the right or power to lead. This project is developed to allow students to view the information regarding the election, view candidates who are running for the election and also cast their votes remotely. Besides that, a web management system is also developed to coordinate and manage the election. This application suggests ways to improve the current process of election by shifting the manual system with an automatic system. The system is developed based on a modified waterfall model which consists of requirement analysis, system design, system implementation and system testing. The mobile application and the web management system was designed and developed based on the data that have been gathered. The designed include use-case diagram, activity diagram, map navigation design and system framework. The mobile application was developed using ionic hybrid mobile application framework and the web management was developed in a PHP web scripting language. Testing was done to make sure the application produces the expected output and able to cast and calculate the result accurately and performs its function correctly as it was intended.

# TABLE OF CONTENT

<b>CONTENT</b>	<b>PAGE</b>
<b>SUPERVISOR’S APPROVAL</b>	<b>I</b>
<b>STUDENT’S DECLARATION</b>	<b>II</b>
<b>ACKNOWLEDGEMENT</b>	<b>III</b>
<b>ABSTRACT</b>	<b>IV</b>
<b>TABLE OF CONTENT</b>	<b>V</b>
<b>LIST OF FIGURES</b>	<b>VIII</b>
<b>LIST OF TABLES</b>	<b>X</b>
<b>LIST OF ABBREVIATIONS</b>	<b>XI</b>
<b>CHAPTER ONE: INTRODUCTION</b>	
1.1 Background of Study	1
1.2 Problem Statement	4
1.3 Objectives	5
1.4 Scopes	6
1.5 Significance	6
<b>CHAPTER TWO: LITERATURE REVIEW</b>	
2.1 Majlis Perwakilan Pelajar (MPP)	7
2.2 Voting Methods	8
2.2.1 Paper-Ballot Based Voting System	9
2.2.2 SMS Based Voting	9
2.2.3 Direct Recording Electronic (DRE)	11
2.3 Web Application	12
2.4 Mobile Application	13
2.4.1 Native	14
2.4.2 Web	15
2.4.3 Hybrid	16
2.5 Mobile Application Technical Features	17