UNIVERSITI TEKNOLOGI MARA

DESIGNING AN ANDROID APPLICATION OF CAMPUS NAVIGATION FOR UITM SHAH ALAM BY APPLYING GRACEFUL INTERACTION ELEMENTS

FARIDATHUL AKMA BINTI HAMDAN

IT Project submitted in partial fulfillment of the requirements for the degree of

Master of Science in Information Technology

Faculty of Computer and Mathematical Sciences

January 2015

ABSTRACT

This paper describes a project carried out towards the designing of an android application of Campus Navigation for UiTM Shah Alam by applying Graceful Interaction Elements. The functionality of this system is to assist students, staffs and visitors navigate their direction in looking and touring around the UiTM Shah Alam especially in Faculty of Computer and Mathematical Sciences (FSKM) as a sample In order to develop an Android Application, better location for this project. knowledge and understanding of methodologies is important to be used and support the development. Knowledge of all the methodologies such as Graceful Interaction Elements, Global Positioning System (GPS) Technology, Map Overlays, and follow the every phase in the research methodology will help to support the process development of an Android Application of Campus Navigation for UiTM Shah Alam. A demonstration was conducted to collect user feedback based on each of Graceful Interaction Elements applied in each interfaces of the application. The Graceful Interaction Elements were applied in each interfaces of Campus Navigation Application and from user feedback, the elements are successfully applied and the students give good satisfaction on the design. In the future works, this Campus Navigation Application are needed to be develop and testing to prove how efficient the Graceful Interaction Elements will affect the design of Campus Navigation Application. The improvement process need extends the sample location and buildings in UiTM Shah Alam which have others faculty besides the Faculty of Computer and Mathematical Sciences (FSKM) and the UiTM's static maps need to be fits with Google Maps sizes to use as overlay map.

ACKNOWLEDGEMENT

In the name of Allah, the most merciful.

Alhamdulillah, all praise to Allah S.W.T for the completion of my thesis on Designing an Android Application of Campus Navigation for FSKM by Applying Graceful Interaction Elements. During this research process, many people involved to help me including lecturers, facilities' staff family and friends.

A part of my acknowledgement, I sincerely like to express my gratitude to everyone who had helped me throughout the accomplishment of this thesis. Firstly, I would like to thank to my supervisor, Dr.Wan Adilah binti Wan Adnan for giving me this opportunity to be under her supervise, guide me, support me, teach me and gives important information especially information about Graceful Interaction which are the main elements in my thesis. With her supervision and guidance, I able to finish this project successfully and learn new information on Human Computer Interaction (HCI) field.

Secondly, I would like to thanks to my family and friends who are very supportive and keep give me motivate in accomplish this thesis. To family who are very understanding, concern and patience in giving me opportunity to accomplish this thesis. All the efforts are very thank full.

Lastly I would like thanks to everyone who are directly and indirectly involved in the completion of this thesis.

THANK YOU AND MAY ALLAH BLESS YOU.

TABLE OF CONTENTS

		Page
AUT	HOR'S DECLARATION	i
ABS	TRACT	ii
ACK	NOWLEDGEMENT	iii
TAB	LE OF CONTENTS	iv
LIST OF TABLES		vi
LIST OF FIGURES		vii
CHA	PTER ONE: INTRODUCTION	: 1
1.1	Project Background	1
1.2	Problem Statement	2
1.3	Aim	4
1.4	Objectives	4
1.5	Scope	5
1.6	Significances	5
1.7	Summary	5
	r Ĵ	
CHAPTER TWO: LITERATURE REVIEW		6
2.1	Campus Navigation Concept	7
2.2	Graceful Interaction	9
2.3	Graceful Interaction Elements	9
2.4	Global Positioning System (GPS) Technology	13
2.5	Method of Mapping Basic Map – Google Maps	13
2.6	Method of Mapping Basic Map – Overlays	14
2.7	Android Application	15
2.8	Summary	15

CHA	APTER THREE: METHODOLOGY	16
3.1	Phase 1: Problem Identification and Planning	17
3.2	Phase 2: Requirement Gathering	17
3.3	Phase 3: Design	18
3.4	Phase 4: Result and Finding	23
3.5	Phase 5: Documentation	24
3.6	Summary	24
CHA	APTER FOUR: RESULTS AND FINDINGS	25
4.1	User Background	25
4.2	Interface Design Review	25
	4.2.1 Main Interface	25
	4.2.2 Search Destination Interface	27
	4.2.3 Confirmation Destination Interface	29
	4.2.4 Route Map Interface	31
	4.2.5 Route View Interface	34
4.3	Summary	35
CHA	APTER FIVE: CONCLUSION AND RECOMMENDATIONS	36
5.1	Conclusion	36
5.2	Strength	36
5.3	Limitation	37
5.4	Recommendation	37
5.5	Summary	
REFERENCES		38
APPENDIX A		41
APPENDIX B		43