# Universiti Teknologi MARA

# APPLYING INFORMATION VISUALIZATION ON RENTAL HOUSES INFORMATION FOR NON-RESIDENT WEBSITE SIMULATING SPHERE VISUALIZATION TECHNIQUE

### Bareerah binti Hamzah 2005616948

Thesis submitted in fulfillment of the requirements for Bachelor of Science (Hons) Information System Engineering Faculty of Information Technology And Quantitative Science

May 2007

### **DECLARATION**

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

MAY 31, 2007

BAREERAH BINTI HAMZAH 2005616948

#### **ACKNOWLEDGEMENTS**

With the name of Allah the most Gracious, the most Merciful creator,

I seek His Blessing on His Prophet Muhammad s.a.w

All praise and glory be to Allah S.W.T whose infinite generosity has given me the strength to complete this final project in time.

My sincere gratitude, thanks and most appreciation goes to Mrs. Zan Azma bt Nasruddin as my supervisor and Mrs. Wan Nor Amalina bt Wan Hariri as my thesis coordinator for their guidance, encouragement, comments and references. They are such a great person who has paved the way for me throughout the overall research project.

I would also like to express my grateful thanks to all my colleagues for their opinion, suggestion and cooperation they gave. Also thanks for their morale support during the months I spent preparing this final project.

To my beloved parents and family, who are always there for me whenever I need them and million of thanks for all the supports, blessing, loves and financial support they give to me. Finally, to whom I failed to mention, who directly contributed to this project. Thank you very much.

#### **ABSTRACT**

This research project about applying information visualization on rental houses information for non-resident website simulating sphere visualization technique. The objectives of this research are to identify the characteristics of sphere visualization technique, to find out user requirement about NR website and to demonstrate user interface of rental houses information for NR website simulating sphere visualization technique. The researcher was study about information visualization from many resources such as from books, journals, articles and website to get a clear view and to identify the technique that wants to use. From that researcher was made a comparison of major information visualization techniques with sphere visualization technique. After that researcher was identify the criteria of sphere visualization technique. The criteria that identified are control of contents, movement of sphere and diameter of sphere. Beside that, researcher was distributed a set of questionnaire to 50 students from Universiti Teknologi MARA (UiTM), Shah Alam. The questionnaire is used to evaluate current NR website that focus on rental houses information page. From that it was found that, almost all of the respondents agreed that current approach of displaying information on NR website is transform to information visualization approach. Lastly, researcher was design a user interface of rental houses information for NR website using sphere visualization technique. Therefore, all the objectives in this research project have been achieved.

## TABLE OF CONTENTS

CONTENT				PAGE
TITLE				
DECLARATION				ii
ACKNOWLEDGEMENTS				iii
ABSTRACT				iv
LIST OF FIGURES				viii
LIST OF TABLES				ix
CHAPTER 1	: INTRO	DUCTION		
1.1	Research Background			1
1.2	Project Scope			3
1.3	Problem Statement			3
1.4	Objective of Research			4
1.5	Significance of Research			4
1.6	Conclusion			4
CHAPTER 2	: LITER	ATURE REVIEW		
2.1	User Interface Design			5
2.2	Information Visualization			8
	2.2.1	Navigation Desig	n Strategies	12
	2.2.1.1 Focus+Context Navigation Design Strategy			gy 15
		2.2.1.1.1	Comparison of Major Techniq	lues
			on Focu+Context Navigation	
			Design Strategy	17
		2.2.1.1.2	Sphere Visualization	20