

**Universiti Teknologi MARA**

**USER INTERFACE DESIGN FOR I-LEARN  
PORTAL USING EYE-TRACKER**

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

25 MAY 2011

## **ACKNOWLEDGEMENT**

First of all, I would like to praise and show my sincere gratitude to God for His blessings and His guidance to help me to complete my thesis on time. Without His blessings and His mercy, this thesis would not have been completed.

I would like to express my utmost appreciation to my supervisor Dr.Fariza Hanis Abdul Razak and Mdm.Prasanna A/P Ramakrisnan for their motivation, guidance and genuinely assist me throughout the process of completing this thesis. I am so grateful for their determination in providing me with constant guidance, remarkable ideas and supports, encouragements and value advices throughout completing this thesis.

I would like to give my biggest appreciation to my coordinator Dr. Nor Hapiza Mohd. Ariffin for sharing her intellectual inspiration, constructive criticism and guidance in conducting this thesis.

Besides that, I would like to show my unconditionally love to my parents, for giving me their devotion, love, patients, supports and in believing that I can do my best. Without their love and support, I would not have the courage to complete my thesis.

Last but not least, I would like to express my special thanks to all my lecturers and my fellow friends for sharing their ideas and to everyone who involved directly and indirectly in the completion of this thesis.

Thank You

## ABSTRACT

E-learning is an innovation technology with the aim to provide a strategy to improve the quality of teaching and learning. The establishment of i-Learn Portal, is to improve the teaching and learning environments at UiTM and to have better learning delivering through electronic device. The interface design of i-Learn Portal plays an important role to deliver the learning process to both learners and educators. Thus, this study aimed to identify the interface design issues of i-Learn Portal in order to improve the existing interface design. A usability testing is conducted to evaluate i-Learn Portal interface design by utilizing the “Eye-Tracking” method to track the user’s eye movement. Getting the user experience on i-learn was used to obtain the level of user satisfaction when interact with i-learn interface design. The data analyze from usability testing and eye tracking method is use to propose recommendation for the identified interface design issues. The recommendation of interface design for i-learn Portal will help to promotes usable learning portal for UiTM students in order to have an attractive interface design and increase the number of students interest to frequently access to i-learn portal. UiTM lecturers which use i-learn portal also more easily interact with their student with better quality of teaching and interactive learning process. To i-learn Portal developer, this research help to develop LMS which adapt with diversity of individual aspect. From the design issues discovered will be able to improve i-learn portal to be more attractive and increase user satisfaction in using it.

**Keywords:** Learning Portal, Eye-Tracking, User experience, Usability Testing.

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# CHAPTER 1

## INTRODUCTION

This chapter provides the overview of background and rationale for the research project. It also discusses about the research background, problem statement, research objective, research scope and research significant of proposed user interface design for i-learn portal to make it more attractive and interactive to all students and lectures.

### 1.0 Research Background

E-learning is a combination form of online and offline learning. The term online learning is define precisely as learning using computer with link to internet access (Duff *et al.*, 2004),while offline learning refer to learning which is not link to internet access for example CD-ROM, video and audio tape. Online learning is encompassing with a diversity learning access and teaching paradigms. Most familiar current online learning is learning management system (LMS) which is used widely at local university to increase interaction between student and lecturer. Learning management system (LMS) is an information system that controlled by administrator and manage e-learning course and also keep track of students progress (Brown & Johnson, 2007). LMS is a web based technology which facilitate in planning, distribution and estimation of a particular learning process (Fauzi *et al.*, 2010). Many universities and large enterprises have used LMS internally to monitor the effectiveness of the student learning. LMS offers possibilities for changing and developing new method in education as well as facilitating flexibility for institutions. Most of the local universities have developed their own LMS portal for their own student. One of the universities that have its own LMS portal is UiTM which is known as i-Learn portal. UiTM have made use LMS as e-learning method to provide UiTM students with advanced educational environments. UiTM has used learning management system (LMS) to control student progress in learning activity and to