# Universiti Teknologi MARA

# DEVELOPMENT OF VIRTUAL i-LEARN COMMUNITY 2: U-LEARN

## Nurhamizah Binti Mohd Hasnan

Thesis submitted in fulfilment of the requirements for Bachelor of Science (Hons.)

Data Communication & Networking

Faculty of Computer and Mathematical Sciences

**July 2013** 

#### **ACKNOWLEDGEMENT**

## "By the name of Allah, the Most Gracious and Most Merciful"

Alhamdulillah, praise and thanks to ALLAH because of His Almighty and His utmost blessings, I was able this research within the time duration given.

I wish to express our deepest gratitude to our supervisor, Encik Mohd Ali Bin Mohd Isa for guidance, support, encouragement and constructive criticism that I had been receiving for preparation of this thesis. I will never forget our experience during doing this project. I also wish to express our sincere appreciation to our project coordinator, Dr Nor Shahniza Kamal Bashah for her guidance throughout the project proposal and development.

For my beloved parents, I would like to express the appreciation in supporting me from the beginning until the end of the project. All the moral and financial support would be forgotten because without their encouragement, I would not finish this project.

Last but not least, I would like to thank our friends that have been supporting and guiding us during our project development either directly or indirectly.

### **ABSTRACT**

Virtual i-Learn Community (VIC) is enhancement from i-Learn. i-Learn is a Learning Management System (LMS) that has adopted to enhance online student learning and collaboration. Virtual i-Learn Community is focus on development of server, isometric avatar based system client, chatting and announcement module. But VIC was not deploying due to the limited technological features available in that system. VIC also has no useful and knowledgeable function for students and lecturers. Based on that fact, it is attention the university to design and develop u-Learn system to create a platform that focus on interaction and communication between user to support teaching and learning. The u-Learn system that contain the features that allows Massive Multiplayer Online Chat Community (MMOCC) modules which are available all around the globe in a classroom environment through the use of avatar that can be control by multiple user at one time. As the result, this u-Learn will optimize the use of physical lab and improve online teaching and learning for FSKM students and lecturers.

# **Table of Contents**

SUPERVI	SOR'S APPROVALi	ii
DECLAR	ATIONii	ii
ACKNOW	/LEDGEMENTiv	v
ABSTRAG	CT	v
LIST OF I	FIGURESi	X
LIST OF 7	ΓABLESx	ςi
LIST OF A	ABBREVIATIONSxi	ii
CHAPTER	1: INTRODUCTION	
1.0 Int	roduction	1
1.1	Project Background	1
1.2	Problem Statement	2
1.3	Research Questions	3
1.4	Aim of Research	4
1.5	Objective of Research	4
1.6	Project Scope	4
1.7	Research Significance	4
1.8	Outline of the Thesis	4
CHAPTER	2: LITERATURE REVIEW	
2.0 Int	roduction	6
2.1	Technology	6
2.1.1	Web Based	6
2.1.2	Flash	7
2.1.3	SmartFoxServer	8
2.1.4	OpenSpace 9	9
2.2	Related Works	9
23 (	Comparison of Related Works	7

### **CHAPTER 1**

#### INTRODUCTION

#### 1.0 Introduction

Today's world is very concern about education in everyday life. Does not matter what education at the primary, secondary or university level, it is very important. The pace of technology is seen can help in education. But the use of ICT in education is still too little among students. So to maximize the use of ICT among the students, the university has been suggested and make a system called u-Learn.

### 1.1 Project Background

That is a significant important for ICT to utilize the advantages in term of helping others in the learning process the virtual environment. Based on that fact, it is attention the university to find the better ways to enhance teaching and learning to use the ICT. Therefore, this project is intended to develop a system that will handle active online interaction between students to lecturers, lectures to lecturers and students to students. This system will be call u-Learn.

This is an enhancement extension to the previously develop system which is Virtual i-Learn Community (VIC) system. That system was not deploy due to the imperfect technological specification in that system. So, the intension to develop the u-Learn system is to future improve and provide enough capability for that system in order to address issues that will not take into consideration before as well as attend to the very needs of the system.