# IPHONE APP : LECTURER'S ROOM FINDER, UUM-CAS

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# iPhone App : Lecturer's Room Finder, UUM-CAS

A project submitted to Dean of Research and Postgraduate Studies Office in partial Fulfillment of the requirement for the degree Master of Science (Information Technology) Universiti Utara Malaysia

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#### ABSTRACT

The Information Technology building at the College of Arts and Sciences, Universiti Utara Malaysia has a complex design. The numbering of the lecturers' rooms is very confusing and finding the required room is very difficult and taking a long time not just for students but also for lecturers. The purpose of this study is to develop a mobile indoor navigation prototype for lecturers' room search based on iPhone. This report discusses about indoor navigation and the development of the prototype based on iPhone. This study utilized the research methodology in Information System (IS) which was adapted from Vaishnavi and Kuechler (2007). The use of mobile indoor navigation prototype could help students to find the required room faster while saving energy and increasing productivity. The mobile indoor navigation prototype was developed using web tools such as PHP, HTML5, CSS, JavaScript and SQLite as database. The prototype can be used as an alternative way in finding lecturers' room at IT building. The results from the evaluation indicated that mobile indoor navigation application for searching lecturers' room at IT building, College of Arts and Sciences, Universiti Utara Malaysia based on iPhone devices has achieved all the objectives. The users agreed in terms of Perceived Usefulness and Perceived Ease of Use towards the use of the prototype.

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# LIST OF ABBREVIATIONS

GPS	Global Position System
GIS	Geographic Information System
RFID	Radio-Frequency Identification
UI	User Interface
SDK	Software Development Kit
IT	Information Technology
UUM	Universiti Utara Malaysia

#### **CHAPTER ONE**

#### **INTRODUCTION**

#### 1.0 Introduction

This chapter provides an overview of the entire study. The first sub-topic describes the background of the study that lead to the implementation of the whole research. This is followed by problem statement, research questions, objectives, scope of the study, significance of the study and research organization. The last sub-topic provides the way this research is summarized.

#### 1.1 Background of the Study

Currently most navigation systems are designed to support outdoor navigation. However, when reaching a destination by using outdoor navigation, a walker need to enter a building, and indoor navigation is required for a large and complex building. According to Huang et. al. (2009), people tend to lose orientation a lot easier within buildings than outdoors. While outdoor navigation has good data supported in the network, that is not true for indoor navigation (Werner & Kessel, 2010).

# The contents of the thesis is for internal user only

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