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JUDUL:

E-FTMK PC CONTROL SYSTEM

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E-Fakulti FTMK PC control system / Liew King Yan.

## **E-FAKULTI FTMK PC CONTROL SYSTEM**

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This report is submitted in partial fulfillment of the requirements for the Bachelor of Information and Communications Technology (Networking)


FACULTY OF INFORMATION AND COMMUNICATIONS TECHNOLOGY  
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2005

## DECLARATION

I hereby declare that this project report entitled  
**E-FAKULTI FTMK PC CONTROL SYSTEM**

is written by me and is my own effort and that no part has been plagiarized  
without citations.

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## **DEDICATION**

Specially dedicated to  
My beloved family members who have  
encouraged, guided and inspired me throughout my journey of education

## ACKNOWLEDGEMENTS

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Last but not least I wish to thank all my friends from KUTKM and also others that may not have been mentioned here. Without any of these supports, I would not have completed my PSM successfully.

## ABSTRACT

This Project Sarjana Muda 2 report is compiled, to make known what I have planning and accomplish in the PSM 1, when taking this subject. Project Sarjana Muda 1 is a compulsory subject in order to obtain my degree in Bachelor Information Technology and Communication. In the first part of this report will be a brief introduction project will be developing. The rest of the paper will explain literature review and methodology, analysis about project and design for the project.

System monitoring is the system to monitor every user used the PC. Normally this system used in the cyber café and control by administrator.

In FTMK, still not have any computerized system to manage PC in laboratory for currently. All activity control are recorded and documented manually. This project will develop a computerized system for helping monitoring and control processing activity in the laboratory. It is that this system can replace all those current manual system.

E-Faculty FTMK PC Control is developing by ASP.Net create by Microsoft Visual Studio. Net where it is a Web Application. So that, E-Faculty FTMK PC Control is a LAN system and staff can easy to access the system because the system will store to the Web server. For the client side, the system is already an installer, so that staff can easy make an installation in the user PC.

## ABSTRAK

Laporan Projek Sarjana Muda 1 adalah disusun untuk menunjuk cadangan dan penyelesaian yang saya telah buat semasa mengambil subjek ini. Projek Sarjana Muda 1 adalah subjek yang mesti diambil bagi memenuhi syarat Ijazah Sarjana Muda dalam bidang Komunikasi dan Teknologi Maklumat. Dalam bab 1 adalah menerangkan tentang pengenalan terhadap projek yang hendak dibangunkan. Bab yang selain itu adalah menerangkan tinjauan kesusasteraan dan methodologi, analisa terhadap projek dan reka bentuk bagi projek.

Sistem Pengawalan ini digunakan untuk mengawal setiap pengguna komputer. Biasanya sistem ini digunakan dalam Cyber café dan dikawal oleh pentadbir.

Pada masa kini, FTMK tidak menggunakan sebarang sistem perkomputeraan dalam pengawalan komputer dalam lab. Semua aktiviti pengawalan adalah direkodkan dan didokumentasikan secara manual. Projek ini akan membangunkan sebuah sistem perkomputeran untuk membantu mengawal dan memerhati aktiviti yang dijalankan dalam makmal komputer. Dengan itu, sistem ini dapat menggantikan semua manual sistem yang digunakan sekarang.

Sistem E-Faculty FTMK PC Control dibina oleh ASP.Net manakala ia dicipta oleh Microsoft Visual Studio. Net dimana ia adalah Web Application. Oleh itu, E-Faculty FTMK PC Control adalah sistem untuk LAN and kakitangan FTMK boleh senang menggunakan sistem ini kerana sistem ini disimpan dalam Web server. Untuk sistem pengguna, sistem ini adalah "*installer*", maka kakitangan FTMK dapat memasang sistem ini ke komputer.

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## LIST OF ABBREVIATION

<b>ABBREVIATION</b>	<b>DEFINITION</b>
KUTKM	Kolej Universiti Teknikal Kebangsaan Malaysia
FTMK	Falkuti Teknologi Maklumat Komunikasi
IP	Internet Protocol
SNMP	Simple Network Management Protocol
NMS	Network Management System
LAN	Local Area Network
WAN	Wide Area Network
SSD	System Specification Document
IIS	Internet Information Services
V&V	Verification & Validation
UT	Unit Testing
VLAN	Virtual Local Area Networks
UID	User Interface Design

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## CHAPTER I

### INTRODUCTION

#### 1.1 Project Background

KUTKM is the first technical university in Malaysia. There are 4 facilities at KUTKM; the main focus of the university is more to approach in the technical field, there are Faculty of Information and Communication Technology, Faculty of Mechanical, Faculty of manufacturing and Faculty of electrical and electronic.

E-Fakulti FTMK PC Control system is an administrator system that will be used by FTMK. It is a new system that prepares to use at FTMK laboratory. Concept of this system is similar to other cyber café system, where administrator is capable to manage and monitor every PC's at the laboratory. The system is divided into two, one is the administrator control, and another one is client-side. The administrator control gives administrator view, check and analysis for every PC's; client-side enables student make a registrations.

E-Fakulti FTMK PC Control is the system to enhance on old system to monitor the usage of the computer. The system will help to identify the usage of the PC, who is using the PC, and give the results to the administrator in term of computer usage problem and to ease the Lecturer or staff to make a statistics for the student using the PC.

## 1.2 Problem Statements

Following is the summarize problem statement from the current way in laboratory FTMK:-

- i. The problem always faced by student is when the administrator not in FTMK, they cannot use the PC although is urgent.
- ii. Administrator cannot control every student in the laboratory if there are many student use the PC in the same time. So that, some of the student will using this chance use the PC without permission from the administrator.
- iii. Some students not recording their information in the log book. If something happened like mouse stolen or PC break down, administrator cannot find out which student is used the PC during the period time.
- iv. Some student is computer literate or experience in computer, they know "hack" the PC. So that, they can set back the windows configuration whatever this function are already close by administrator.
- v. Administrator password is not secure, because some of the student can guess the password or some time the password give by lecturer, then whatever administrator account set in the windows but also not use.

### 1.3 Objectives

FTMK is considering as a new faculty in KUTKM. Therefore, everything is still at beginning. For example the laboratory is still being improved to meet a current requirement. Objective e-Fakulti FTMK PC Control can be dividing by 3 categories:-

- i. Administrator Control System
  - a. Easy to the administrator to monitor computer.
  - b. To gave permission to employees to register as a new users.
  - c. To calculate usage of computer by hours for each laboratory on students.
  - d. To prepared chargers system for every minutes use by students.
  - e. To give permission to administrator makes a registration for student.
  
- ii. Student Login and Information System
  - a. To develop system that allows student's user to entry the system.
  - b. To allow register students to uses the system with through their username and password register from administrator.
  
- iii. Windows Configuration
  - a. To control students no to install any software inside the PC.

## 1.4 Scope

Below are the scopes for the e-Fakulti FTMK PC Control system:-

- i. To develop system that can monitor usage of PC in the Laboratory.
  - This system will scan and list out the IP Address for every PC if the PC opens.
  - Constraints and boundaries: the system cannot detect the off PC.
- ii. To identify users that uses the computer.
  - Constraints and boundaries: this system will identify the user through list out the matrix number.
- iii. To develop system that the administrator can makes a registration for the student.
- iv. To develop the system can calculate the total hours for every student using the PC.
  - Every time the student used the PC, the total hours will be record. Administrator can check the total hours depend which period of date they want to check.
  - Constraints and boundaries: This system just can check the total hours for the user depend which period date administrator need to know.
- v. To develop the system can calculate the price for the user using the PC per minute.
  - Actually, this system just for the future if they need to changer for the student.

- vi. To provide a student login and information system
  - The system provides student update their password
  - Student must register they own information by administrator before they using the PC, these all information will be store in the database.
  - Constraints and boundaries: if somebody which is not student use the valid student name and password to login, so the system also cannot detect whether this user is the student or not.
  
- vii. Windows Configuration
  - Need to make a configuration in the windows for the PC's to make sure the students are not allow install any others software in the PC.
  
- viii. To view, delete, update or edit administrators and students profile
  - This system will lets an administrator can view administrator and student profile from the database
  - This system also can lets an administrator can edit or update administrator and student profile

## 1.5 Project Significance

E-Fakulti FTMK PC Control is the administrator system controller. It provides the administrator control, monitoring and also management to the PC's. Actually, this system can be dividing into two benefits; one is provide to the administrator for the KUTKM, second is lets the student using the PC within their own password and username.

In the administrator system, the security is important, so that they also need to make a registration before using this system. The different between administrator and client in registration is administrator using their staff number for the username and client –side (Student) is using the student number (Matrix Number). These systems can detect which PC is using and list out all IP address for the PC. This system also can calculate the times for each of the student using the PC by weekly and monthly.

In the client-side (student), user only can use the PC after the registration by administrator. So that, client system is give the users used their register password and username from administrator before using the PC.

E-Fakulti FTMK PC Control is the system specialist provides to FTMK administrator, this is because there are a lot of the laboratories in FTMK; every laboratory is open to the student to using the PC, so that sometime administrator is hard to manage and monitoring the PC. Because of this, this system is easy the administrator to monitoring every PC in every laboratory.