

**INTERNSHIP PLACEMENT SYSTEM AND SUPERVISION SYSTEM**

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## BORANG PENGESAHAN STATUS TESIS

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INTERNSHIP PLACEMENT SYSTEM AND SUPERVISION SYSTEM

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Computer Science (Software Development)

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2011

## DECLARATION

I hereby declare that this project report entitled  
**INTERNSHIP PLACEMENT SYSTEM AND SUPERVISION SYSTEM**

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

STUDENT : *KOE CHIA LOONG* \_\_\_\_\_ Date: \_\_\_\_\_  
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## DEDICATION

*To my beloved parents, your love and support are my greatest inspiration.*

*To my friends, it is for your sacrifices, encouragement, and support.*

*To my lecturer, for being receptive and critical, and challenging me to be a better student.*

## ACKNOWLEDGEMENTS

In order to be awarded the degree in Bachelor of Computer Science (Software Development), I am as one of the students from Universiti Teknikal Malaysia Melaka (UTeM) are required to prepare a degree final year project, or more likely known as “Projek Sarjana Muda” (PSM). With this PSM, students are to be train to complete an individual project independently by applying knowledge they have learn in the university. Similar to Bengkel I, but the requirement for PSM is much more specific and advance. Students were required to complete the PSM within period of time fixed by the university in order to identify time management skill by students. Further than that, preparation of the PSM Documentation indirectly improve the soft-skills in reports. As for this, I am grateful to UTeM to provide such important facilities and services prior completing my bachelor degree project.

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## ABSTRACT

An internship or industrial training is an opportunity to integrate career related experience into an undergraduate education by participating in planned, supervised work. Students are involved as non-paid “authentic employees” receiving academic credit for work experiences. To apply for an internship placement, students need to go through a few phases before they can get a position at their desired company. These phases included application placement, company response, faculty approval, and finally the placement confirmation. As a result, Internship Placement System and Supervision System (IP3S) is promoted to provide an electric means to manage all the processes. IP3S is an information intensive system that manages and record all the information needed for student to apply for their internship placement. IP3S provide a fast and easy way for student to apply for their internship placement. As IP3S is a web-based system, students can access the system from home through the internet. LIPS also provide opportunity for companies to participate in the internship program. IP3S was designed and developed based on Object-oriented methodology, by using JAVA and Java Server Pages (JSP). As for the system database, JavaDB was selected as the DBMS.

## ABSTRAK

Latihan Industri (LI) adalah satu peluang untuk mengintegrasikan pengalaman dari pekerjaan dengan bidang yang dipelajari secara terlibat dengan kerja yang telah dicadangkan dengan bimbingan. Pelajar akan bekerja sebagai pekerja tanpa gaji atau dikenali sebagai “trainee” untuk mendapat jam kredit akademi dengan pengalaman bekerja. Untuk memohon penempatan LI, pelajar perlu melalui beberapa process sebelum mereka mendapat jawatan di syarikat yang dipilih. Process yang terlibat termasuklah permohonan penempatan LI, menerima balasan daripada syarikat berkenaan, kelulusan dari fakulti, dan akhirnya penentuan penempatan LI. Untuk memastikan process tersebut berjalan dengan lancar dan cepat, Internship Placement System and Supervision System (IP3S) dikenakan untuk menguruskan permohonan penempatan LI pelajar dan menyimpan semua maklumat yang berkaitan. IP3S akan memudahkan process-process permohonan dan penempatan LI pelajar. IP3S adalah sebuah system web-based, dan pelajar boleh mencapai system tersebut di mana-mana melalui internet. Selain itu, LIPS juga memberi peluang kepada syarikat dari luar untuk terlibat dengan program LI. IP3S dibangunkan dengan menggunakan methodology berorientasikan objek, dengan menggunakan bahasa JAVA dan Java Server Pages (JSP). Manakala, DBMS yang digunakan adalah JavaDB.



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## LIST OF ABBREVIATONS

UTeM	-	University Teknikal Malaysia Melaka
IP3S	-	Internship Placement System and Supervision System
SDLC	-	System Development Life Cycle
DBMS	-	Database Management System
PSM	-	Projek Saujana Muda
JSP	-	Java Server Page
UML	-	Unified modeling Language
IT	-	Information technology
OOAD	-	Object-oriented Analysis and Design
FTMK	-	Fakulti Teknologi Maklumat dan Komunikasi
LIPS	-	Latihan Industri Placement System



## CHAPTER I

### INTRODUCTION

#### 1.1 Project Background

Internship program is a program that provides an opportunity for university students to link theory with practice and further serve as a temporary labor pool for those organization that have committed to participate in the internship program. All university practice internship program as an important elements in completing graduate by expose them to the real working environment. However, management of internship program can be differing for each university and even between courses in a university. In UTeM, management of Internship Program is still using manual file system to handle internship information.

Management of Internship program in UTeM basically can be divided into three stages. For the stage before internship placement start, student needs to apply for placement in organization. Student will send the cover letter attached

with resume to the organization they are interested and waiting for the reply from the organization. If application accepted, organization will send an offer letter to the university. Then the Faculty Internship Program committee will inform the student and let student choose to accept or reject the offer of the company. If student agree to accept the offer, confirmation will be made to the organization and student can start the Internship program at the organization related within the internship period.

For the stage during internship placement, a faculty supervisor and an organization supervisor will be assigned to the internship student to assist them in complete the internship program. Faculty supervisor will made two visits to the student within the internship period. Faculty Internship Program committee will make visits arrangement of faculty to the organization. Organization supervisor will fill in the evaluation form regards to the student performance and handed to the faculty supervisor during their visits. Faculty supervisor also need to submit Internship Visits Report after each visits.

For the stage after internship placement ends, student needs to complete a survey form and submit the logbook and LI report to the Faculty. An evaluation will be made according to the report submitted by student and other report by the supervisor of the student. And the final Grading will be calculated and file is closing.

But as time passed by, number of student in UTeM participating in internship program has increased tremendously and management of internship information has become tedious. Thus, Internship Placement System and Supervision System (IP3S) is introduced to overtake the placement application & supervision process.

## 1.2 Problem Statement

Internship Program in UTeM till the date is still using manual file system to records and transmits all internship records. Records such as logbook, internship report, evaluation report, information card, are kept in the manual file. But as time passed by, the records will become many and hard to maintains, searching for a student information from a bunch of few thousands student will be time-consuming, and also not efficiency. Furthermore, application of student towards placement in organization can be difficult as delivery of cover letter and resume to the company is based on mail delivery, which may sometimes, not be able to deliver into hand of organization management. Feedback from organization may also time-consuming and will cause delays on starting date of internship at the organization.

Management of student supervision is responsible by Internship Program committee. In supervision process, distribution of student to a supervisor various depends on the location of students, number of student per company and supervisor preferable location too. To decide, Internship Program committee needs the feedback from involved lecturer and information about placement of internship. But to collect suggestion from all involved supervisor on which student to supervise, by manually, it is very hard and time-consuming. Thus, to make a decision on supervision of supervisor to students is very difficult. Something might needs to help the internship program committee to make decision easier on supervision management.

### 1.3 Objective

- i. To develop an interactive Internship Information System.
- ii. To ease lecturers/supervisors to supervise the student that undergoes Internship.
- iii. To ease the management of student information that undergoes internship.
- iv. To attract more organization to attach to the Internship Program UTeM in which this will increase the choices of internship opportunity of student.

### 1.4 Scopes

The project scope will be focus on adding supervision system into existing LIPS system. The level of user is admin, supervisor and student. Admin, which is Internship Program committee will active in two modules in this system that is placement application module and supervision system while student is active in placement application module and supervisor is active in supervision module.

### 1.5 Project Significance

Internship Placement System and Supervision System (IP3S) is targeted to take over the current process of internship placement application and supervision which is manually. In placement system, student can easily apply for placement by select the organization they interested, resume and cover letter will automatically sent to the organization through email along with the application form. Feedback from organization handles by Internship Program Committee by upgrade the status.

In supervision system, internship program committee will works on the allocation of supervisor and scheduling of internship visits, assist by the system

suggestion. Organization supervisor can submit information about student internship on related company to UTeM online. Supervisor of student can submit supervision report after internship visits. Student also can submit the survey form at the end of internship period.

## **1.6 Conclusion**

In conclusion, this chapter includes the information of IP3S project background, scope, problem statement, objective and significant. This is very important to make it clear about project information before initiate the project to make sure that project will be implemented on the right track.

In next chapter, literature review and project methodology will be stated and applied into development of the system.

## **CHAPTER II**

### **LITERATURE REVIEW AND PROJECT METHODOLOGY**

#### **2.1 Introduction**

As stated in last chapter, this chapter is to details out the literature reviews on current existing internship management system to further enhanced the system and elicit the potentiality of the internship management system.

Taken from Wikipedia (2011), a software development methodology or system development methodology in software engineering is a framework that is used to structure, plan, and control the process of developing an information system (IS). Methodology of project such as system development life cycle (SDLC) is selected to produce the systematic and structured system development approach following the predefined framework.

## 2.2 Facts and Findings

Based on findings, I discover that each university has their own internship management approaches either by manual or technology approaches. Many local universities such as UTeM is still using manual approach to manage the internship program while many oversea universities already start using information system to manage their internship program. For example, the world leading university likes University of Oxford already started using websites service as earlier as year 2002 to manage the internship program of University of Oxford. The information system (IS) named Career Connect provides a very good platform for student to upload all their details like cover letter, resume for evaluation of employer from all over the world. This provides great opportunity for students to get internship placement offers from employer. This system also helps the employer in finding potential candidates for vacancies in their organization. More information on Oxford Career Connect can be viewed by accessing official career service website of University of Oxford, <http://www.careers.ox.ac.uk>.

### 2.2.1 Domain

The domain that can relate to the Internship Placement System and Supervision System is information system (IS) and internship program of university. The internship process of a university involves a large amount of information sharing and transfer between organization and student. It concerns more on the management of information such as storage and retrieval of student and organization information.

Internship Placement System & Supervision System (IP3S) is a hybrid of Information System (IS) and UTeM internship process. Information system is refers as collection of interrelated components that manage information to support decision making, to control and to help with analysis, visualization, and

product creation. According to *Modern Systems Analysis and Design Fifth Edition*, information system basically can be categories into three classes of information systems, that is:

- a. Transaction processing systems
- b. Management information systems
- c. Decision support systems

In this project, there are two classes of information system plays most important role, which are Management Information Systems (MIS) and Decision Support Systems (DSS). Management information systems plays role where raw data of internship students and profile of company are well organized in the sense that the data have converted into related meaningful information while storage & retrieval of information are reliably safe. While Decision support System supports system admin by providing summarize of data and interactive environment that helps to makes decisions on assignation of supervisor to the student.

### **2.2.2 Existing System**

The existing system related to this system is LIPS (Latihan Industri Placement System). Same as its name, LIPS is an online information system that used to handle the placement administration process of the internship in UTeM.

This system has three intended users that are placement administrator, student, and company. Each user delivers different functions. Placement administrator is able to manage student account and company, monitor placement application, set new batch and other. While student can update their resume on system, search for company they interested and apply for placement. Company can join UTeM internship program by register itself through system or