

TESIS ^ APPROVAL STATUS FORM

JUDUL: EDUCATION VARSITY UNIFIED SYSTEM

SESI PENGAJIAN: 2004

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EDUCATION VARSITY UNIFIED SYSTEM

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Education Varsity Unified System (EVUS) / Lau Siew Chuan.

LAU SIEW CHUAN

This report is submitted in partial fulfillment of the requirements for the Bachelor of Information and Communication Technology (Software Development)

**FAKULTI TEKNOLOGI MAKLUMAT DAN KOMUNIKASI
KOLEJ UNIVERSITI TEKNIKAL KEBANGSAAN MALAYSIA**

2004

ADMISSION

I admitted that this project title name of
EDUCATION VARSITY UNIFIED SYSTEM (EVUS)

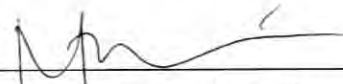
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DEDICATION

I am as ever, especially indebted to my parent and family, Ng Geok Sen, Lau Siow Yong and Lau Siew Lan for their love and support throughout my life...

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Projek Sarjana Muda (PSM) is compulsory for a KUTKM student before being awarded the degree. The primary purpose of this PSM is to provide guidance and chance to students to develop a complete and individual project whereby students will encounter many new problems and challenges.

I would like to take this opportunity to express my gratitude to KUTKM for giving me this well planned industrial training, especially my academic supervisor, Miss Noor Azilah Muda who has given her editorial support, supervision and opinion via email, telephone and personal meeting. I would like to give my highest gratitude for her constructive guidance, tireless assistance, advice and patience in helping me to complete this project.

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ABSTRAK

Education Varsity Unified System (EVUS) adalah satu laman web aplikasi yang berasaskan kepada pendidikan tinggi di Malaysia yang memberi peluang kepada pelbagai pengguna, terutamanya pelajar lepasan sekolah menengah. Sistem ini membekalkan maklumat-maklumat yang berkaitan dengan institusi pengajian tinggi awam dan swasta yang merangkumi universiti tempatan, universiti swasta, kolej universiti, kolej swasta dan politeknik. Kursus-kursus yang ditawarkan, pembiayaan biasiswa atau pinjaman dari organisasi, berita terkini mengenai bidang pendidikan dan maklumat berkenaan dengan peluang untuk melanjutkan pendidikan di dalam negeri juga boleh dicapai dari laman web ini. Pengguna boleh menyertai sesi perbincangan dan *guestbook* yang ada dalam system ini. Mereka boleh mengemukakan pendapat, pengalaman dan komen masing-masing di dalam sesi ini. Kajian literatur adalah untuk mengumpulkan data dan maklumat dengan mengkaji skop dan keperluan sistem dalam bidang tersebut. Manakala perancangan dan metodologi boleh membantu mengeluarkan hasil yang berkualiti dan konsisten. Model Waterfall bagi pembangunan perisian telah dipilih untuk menyelesaikan masalah yang dihadapi seterusnya mencapai objektif berdasarkan metodologi yang bersesuaian dengan keperluan sistem. Dengan adanya teknologi yang terkini, sistem ini mampu berfungsi dengan lebih baik. Rekabentuk sistem yang dinamik dengan antaramuka yang ramah pengguna mampu memberi perkhidmatan yang sempurna kepada semua pengguna. Sistem ini akan dapat menyumbangkan usaha kepada pengguna. Mereka diberikan keizinan untuk melayari sistem pendidikan ini secara berkesan dan menarik perhatian para penuntut dari Malaysia dan menjayakan usaha kerjasama kerajaan dalam bidang pendidikan. Akhir sekali, ini adalah peluang yang baik untuk membangunkan laman web yang berunsurkan kepada maklumat pendidikan di Malaysia. Dengan itu, taraf pendidikan Malaysia dijangka akan meningkat berikutan dengan wujudnya sistem ini.

ABSTRACT

The Education Varsity Unified System (EVUS) is a web-based application that allows users to access the web and get information through the web. This system is established for all the students after their secondary education. It provides comprehensive information on various higher educational institutions like private colleges, private universities, public universities, university colleges and polytechnics, the courses they offer, scholarship and loan, updated news on education field, as well as other valuable information on study opportunities for local and foreign students in the education industry. They can participate in the discussion forum and guest book wizard by sharing their knowledge, experiences and comments. The purpose of research, particularly literature review is to collect data. Through this literature review, scope of project and user requirements can be retrieved whether how big the project is. The use of a methodology helps to produce a better quality product, in terms of documentation standards, acceptability to the user, maintainability and consistency of software. Waterfall Software Development Model has been chosen as a methodology for this project and will be implemented along the system development process to ensure the objectives of the project can be fulfilled. With the latest and powerful technology, the system is not only expected to be workable, but also highly efficient in terms of execution speed and response time. The system design is dynamic and supporting concurrent users to interact with the system over the Internet. The EVUS system will contribute effort to users. They can use the power and global accessibility of the Internet to assist this type of educational information effectively and attract target students from Malaysia and overseas, as well as complement the government's efforts in educational field. Finally, this is a precious opportunity to develop a web-based reference resource on all issues of the Malaysian education system.

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LIST OF ACRONYMS

ACRONYMS	DESCRIPTION
ASP	Active Server Pages
AUT	Application Under Testing
CGI	Common Gateway Interface
DSN	Data Source Name
ERD	Entity Relationship Diagram
EVUS	Education Varsity Unified System
HTML	Hyper Text Markup Language
HTTP	Hypertext Transfer Protocol
IE	Internet Explorer
IIS	Internet Information Server
IPTA	Institut Pengajian Tinggi Awam
IPTS	Institut Pengajian Tinggi Swasta
JSP	Java Server Pages
KUTKM	Kolej Universiti Teknikal Kebangsaan Malaysia
MMC	Microsoft Management Console
MOE	Ministry of Education
ODBC	Open Database Connectivity
OOP	Object-Oriented Programming
PHEIs	Private Higher Educational Institutions
RAD	Rapid Application Development Model
SCM	Software Configuration Management
SDLC	System Development Life Cycle
SQL	Structured Query Language
UML	Unified Modeling Language
URL	Uniform Resource Locator
WBS	Work Breakdown Structure

WMI

Windows Management Instrumentation

WSH

Windows Script Host

XML

Extended Markup Language

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CHAPTER I

INTRODUCTION

1.1 OVERVIEW

1.1.1 BACKGROUND OF PROJECT

Education in Malaysia is an on-going effort towards further developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonious, based on firm belief in God. The efforts are focused towards creating Malaysian citizen who are knowledgeable and competent, who possess high moral standards, and who are responsible and capable of achieving a high level of personal well being and able to contribute to the harmony and prosperity of the family, the society and the nation at large.

The project that suggested to undergo and develop is entitled **Education Varsity Unified System (EVUS)**. This system is a web-based application that allows users to access the web and get information through the web. The main purpose of this system established for all the students after their secondary education. They can use this system through educational web to get information of the *Public Higher Educational Institutions* or *Institut Pengajian Tinggi Awam (IPTA)* and *Private Higher Educational Institutions* or *Institut Pengajian Tinggi Swasta (IPTS)* in Malaysia, course offers, scholarship and loan, user details, latest news, discussion

forum and guest book wizard. Figure 1.1 below shows all the functionality of the EVUS system.

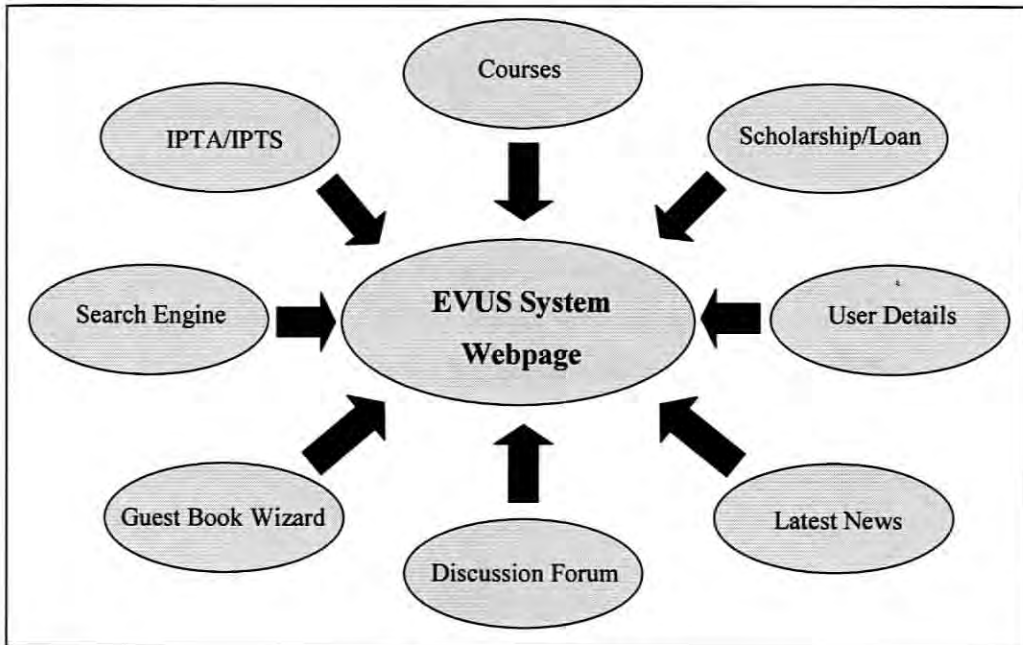


Figure 1.1: Functionality of the EVUS System

1.1.2 DESCRIPTION OF PROJECT

Education Varsity Unified System is one of the most authoritative education websites in Malaysia. It provides comprehensive information on various higher educational institutions (private colleges, private universities, public universities, university colleges and polytechnics), the courses they offer, scholarship and loan, updated news on education, significant individuals in the education industry as well as other valuable information on study opportunities for local and foreign students.

The main purpose of EVUS system is to give students and foreigners access to a more personalized Education Web page with additional features that contained valuable resources for educational information.

1.1.3 RESOURCES OF CASE RESEARCH

There are various types of educational web. But the most frequently visited are Ministry of Education web page, Study Malaysia web page and Malaysia Education web page. Ministry of Education web page was established to develop a world-class quality education system, which will realize to the full potential of the individual and fulfill the aspiration of the Malaysian nation. This web plays an important role for all students in Malaysia. They can gather information and latest news about education fields. This webpage provides education legislation for all levels of education, such as Pre-School Education, Primary and Secondary Education, Post-Secondary and Pre-University Education and Higher or Tertiary Education. However, this webpage only provides the introduction of education system in Malaysia.

Study Malaysia Online is not much different from the previous explained web page, also one of the most authoritative education websites in Malaysia. The Minister of Education launched it on 28th December 1998. It provides comprehensive information on various higher educational institutions, especially for private colleges and private universities, the courses they offer, education financing, updated news on education and significant individuals in the education industry. Meanwhile, Education Malaysia web is another type of information web that provides the students in Malaysia with the latest news, options for students, major providers of higher education, useful links and forum.

1.2 PROBLEM STATEMENTS

Analyst the identified problems is collection of information about all the providers of higher education in Malaysia. During the information stage, the main problem statement for the current educational web page is as below.

Some of the current educational webpage provide little information about the higher education system. These current webpage does not provided enough information of all higher education providers in Malaysia. For example, the StudyMalaysia.com is only provide information about educational resource for private universities or colleges. The students have to visit to other public universities website in Malaysia. With the fast growing media of telecommunication and the upward of education field in Malaysia, there is a great need to have a service to assist the increasing number of students who are rushing for information regarding education opportunity like information on Higher Education Institution in particular. It provides complete information of all Higher Education Institutions in Malaysia would benefit students, Higher Education Institutions, parents and people in the education field.

Some of current educational webs are lacked with the user friendliness element and non-interactive interface design. Interface design is most often associated with the development of web pages, computer software, and multimedia, but is relevant to the creation of any instructional media or technical equipment. In the web development, criteria of designing a good website make an important role, such as design variables, site details, navigation elements, page length and others. For example, some of the current systems are developed with long body of the page until the users have to scroll to read the information. This type of design element will not produce a good webpage.

1.2.1 PROBLEM SOLVING

Due to solve the problems above, a good educational web with full information resource in educational field has to be developed for the users. The EVUS system will be developed to fulfill the user requirements. The effective method for gathering information to define the system requirements is fact-finding. There are many techniques of fact-finding to solve the problems. The techniques that had been used are research/site visits and existing documentation.

The research and site visits technique is purposely to look thoroughly into the problem domain. Computer trade journals and reference books are a good source of information. They can provide information on how to solve the similar problem. Exploring the Internet via personal computer can provide immeasurable amounts of information.

To accomplish the project, collect and review documents that describe the problem is very important. Documentation such as past and present information systems project requests, documents that describe the business function being studied or designed, articles, samples of databases as well as reports are the reference to develop this system.

To develop this educational web, the programming skill is not a big problem. This is because the client and server script, such as Active Server Pages (ASP) and skill in Macromedia Dreamweaver had been learnt. There are also many sources can be downloaded from Internet.

1.3 OBJECTIVE

The objectives of the EVUS system are as below:

- a. To provide information about higher education to all graduated students and foreigners.
 - Students can know more details about the information for their higher educational level. It is easier for them to choose the course they are interested in and which the university and college that suit their needs. They can view the details of each university or college, such as information about location and type of course offered. They can go through the application of scholarship and loan that are sponsored by any organizations. Besides, they will be provided with the latest news about the education fields through this system.

- b. To provide a cheap and effective online platform for students to reach out for information of Malaysian educational institutions.
 - This system will provide a power and global accessibility to Internet to assist Malaysian educational institutions in promoting their institutions and to attract potential students locally and overseas, as well as complement the Government's efforts to project Malaysia as an international center of educational excellence.
- c. To provide a discussion forum for all the students and foreigners in Malaysia.
 - Students can involve themselves in the forum site by post their discussion to the web-based system. They can post their questions, knowledge and experiences through this forum.
- d. To provide guest book wizard for the students who explore this EVUS system.
 - Guestbook is an easy way to allow Students and foreigners write their greetings and comments about the web site. They can leave their message in the guest book wizard about their comment of this EVUS system. Nowadays guest book is almost a standard feature on a web site.
- e. To provide search engine for the users to find more details about IPTA/IPTS
 - Search engine is one of the primary ways that Internet users find information. (George Anderson, 1999). This system will provide search engine for all users to get information resource in educational field.