

ePAct System (UiTM Pahang Activities System)

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ABSTRACT

This paper discusses the development of Electronic Activities Information System (ePAct). This system has been developed as a web-based application which runs on Windows Operating System. Presently, Microsoft Access is used as the database engine which utilises the relational database model. The system development uses Hyper Text Markup Language (HTML), Active Server Pages (ASP), Customs Style Sheet (CSS), and Structured Query Language (SQL). The system runs on Internet Information Services (IIS) as the web server application and Windows 2003 Server as the platform. The information security is enforced by using DBMS database password, user level and session. The system is easy to use and learn. Thus, it proposes to be a master planner of UiTM Pahang activities calendar. The system will be integrated with other applications which are under development.

Introduction

A systematic management approach towards managing an organisation's activities is important for all staff, students and the management. An absence of a systematic management information that focuses on activities organised by various departments within one big organisation will lead to difficulty in decision making and planning. With this crucial need, we carried out a simple research on the information flow and began to develop a system for that purpose. We name it as ePAct which stands for Electronic UiTM Pahang Activities Information System. The system is a web-based system which runs on

Windows Server platform. The system can be accessed easily online from anywhere. It is simple to use, easy to learn and user friendly.

Problem Statement

Currently, there is no electronic system used by UiTM Pahang in managing the campus activities conducted by any department and unit. What we have is only a filing system in which information regarding the activities is keyed in manually in separate file and stored at various places. The data are not well organised and information is not well shared by other departments and staff. The unavailability of a centralised data storage, has raised several issues:

i) Information is not well disseminated

With the manual system (with separate data storage, data and information in various departments), the information pertaining to the activities carried out are made known only to the staff of the department involved. Information is not shared with other departments. Thus, programmes organised by a certain department are mostly not known by other departments.

ii) Clash of activities

Another problem that occurs due to the non-centralised data storage is activities may be planned on the same date, at the same time. There have been many occurrence where more than one activities are held simultaneously. As a result, the number of targeted participants may not be achieved as the same participants may also be involved in some other activities.

iii) Problems in management planning

Un-shared data presents difficulty for the management to

do planning and decision making. The management has to request the data from other departments either through email, meeting or discussion in order to ensure the planning of the activities will be properly scheduled. To do this, it requires times and cost. More often than not, information is received late. This will definitely reduce the efficiency of decision making.

iv) Low participation

Some of the activities conducted receive very low participation from the staff or students. Since there is no centralised tool for the promotion and marketing of the activities on campus, the information on the activities is poorly disseminated. As a result, the targeted participants may not participate if they do not receive any information about the activities, or they have already had prior engagement on the date.

v) Postponement of activities

Since there is no central record of activities in the university's calendar, it is more likely that more than one activity is scheduled at the same time. When this happens, the more important events are usually given the priority. The perceived less important activities will therefore, need to be postponed. This definitely will cause disappointment and frustration among the organising personnel or the participants themselves.

The Importance of the Project

Among the importance of ePAct system are:

i) To manage all UiTM Pahang activities

ePAct system is created as an alternative for UiTM Pahang in managing the data of activities. With the use of

a centralised database, it permits the sharing of information among departments within such a big campus like UiTM Pahang.

ii) As an event planner

ePAct system is proposed to be an event calendar and planner for all UiTM Pahang departments. This system allows every staff to post, update, delete and retrieve data from the database efficiently. With the use of web-based technology, it allows information to be accessed anytime, from anywhere. It also promotes efficiency and fast decision making.

ePact Objectives

Among the objectives of ePAct system are:

i) to manage all UiTM Pahang activities

The main purpose of the system is to manage events and activities organised by UiTM Pahang.

ii.) for easier planning

The system will help in data sharing, promotion and better planning and decision making of activities for the whole year. The data can be archived for future references.

iii) as communication and marketing tools

This system may also act as a communication and marketing tool for activities organised by UiTM Pahang. Everybody will be able to refer to the site to view the listing of activities by day, month and between dates.

ePAct Scope

As a start, the scopes of the system are activities module and staff module. The activities module will allow activities to be posted by staff. The activities can be edited, updated and deleted. The activities posted can be viewed by guests. The staff module will keep UiTM Pahang staff information. Information about each staff with their photo will make it useful for everybody to know the people in charge of organizing a certain event. It may also act as a staff directory.

Materials and Methods

The development of ePAct system has used the method of prototyping. The development process staggers phase by phase and involves users from the beginning stage. Prototyping method allows faster development of information system. The ePAct system has been developed for about one full week by the developer with the use of prototyping method. The system usability has to be upgraded from time to time upon user requests. The context diagram, entity relationship diagram and functional decomposition diagram of the system are described as follows:

i) Context Diagram

There are three type of users namely, *guest* which comprises of students and visitors, *staff* and *head of department*. Each type or users will have different level of permission hierarchy.

ii) Entity Relationship Diagram

Generally, this database system consists of three main entities namely *Jabatan*, *Staf* and *Events*. All entities are linked to each other with the use of relational relationship method. Attributes for the above entities are as in the Figure 1 below.

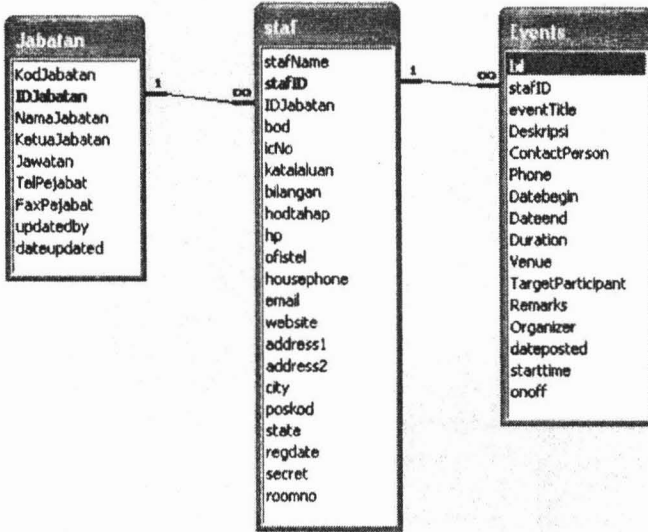


Fig. 1: Attributes of Main Entities

iii) Function Decomposition Diagram

The general view of the system hierarchical menu is shown in Figure 1. There are three main users for the systems namely *guest*, *staff* and *head of department*. *Guest* can only view and search the data. They cannot input any data into the system. *Staff* are those who have passwords. They can login, input, update, delete, search and view the data. The *heads of department* are those who are given higher permission to add new staff and update their departments' information.

Results and Discussion

Among the benefits from the system are:

i) Easier and more flexible information retrieval

The ePAct system allows data to be kept in a more organised format and accessible to everyone. The information can easily be retrieved by clicking to any hyperlink on the website.

ii) Enforcement of data security

Besides DBMS database password, there are three types of security enforcement of the system's data. Every registered user is given a password to enter the system. Without password, they cannot input anything into the system. Once users login and enter into the system, they will be given a temporary session variable which will expire after certain amount of time or when they press the logout button. The use of session variable allows each user to view only his or her data. All input data will be assigned to the user identification number. The third security method is level of permission. There are two levels of permission, normal user and head of department. Only head of department can add new staff and update department's information. The system will trace the persons who update the information.

iii) Easier data input and output

The interfaces of the system are very simple and easy to learn. The first time users can easily learn and use the system. Therefore, input and output are very effective and efficient.

iv) Management of activities

This ePAct system will be the alternative solution for managing the data of activities in UiTM Pahang. It meets user requirements, promotes efficiency and effectiveness. The system is proposed to be the official UiTM Pahang activities calendar information system. The system usability will be upgraded from time to time based on the request from the users.

System Interface

Among the selected interfaces of the system are as follows.

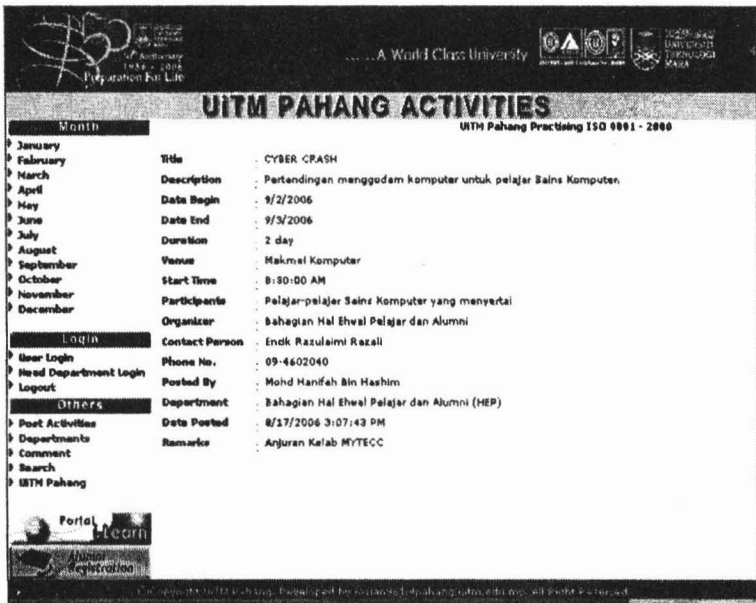
i) List of activities sort by month



The screenshot shows the 'UITM PAHANG ACTIVITIES' page with a navigation menu on the left and a table of activities. The table has columns for Month, Title, Date Begin, Date End, Start Time, Venue, and Organizer. The activities listed include 'Perkhemahan Perdana Kasabla Bahagian 2', 'CYBER CRASH', 'KARNIVAL SUKAN CEKAK', 'Kajohanan Sukan Mahasiswa (KESUMAS)06', 'MAKAN MALAM PERSIDA', 'LARIAN KAMPUS', 'DINNER BUSINESS', 'Minggu Perpustakaan 2006', 'KULIAH MAGHRIB ust Alza bin Budin (Setiap Isnin)', 'KULIAH MAGHRIB ust Zulkafli bin Mohamad (Setiap Selasa)', 'TARANJUM AL-QURAN ust Ismail bin Haji Mat Isa (Bekas Qari Kebangsaan Wakil Negeri Pahang) Tiap Rabu', 'Malam Apresiasi Bahasa', 'PERTANDINGAN DEBAT PIJALA PENGARAH', 'KULIAH MAGHRIB ust Mohd Nazmi/ ust Johari (Setiap Jumaat)', 'KULIAH MAGHRIB ust Abd Khalif bin Mohd Khalid (Setiap Sabtu)', 'Seminar Teknik Menjawab MUST', 'Pertandingan Public Speaking', and 'MALAM EKSPRESI MAHASISWA (MAKSIMA 06)'.

Month	Title	Date Begin	Date End	Start Time	Venue	Organizer
January						
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
Login						
User Login						
Head Department Login						
Logout						
Others						
Post Activities						
Departments						
Comment						
Search						
UITM Pahang						

ii) Details of an activity



The screenshot shows the 'UITM PAHANG ACTIVITIES' page with details for the 'CYBER CRASH' activity. The details include Description, Date Begin, Date End, Duration, Venue, Start Time, Participants, Organizer, Contact Person, Phone No., Posted By, Department, Date Posted, and Remarks.

Month	Title
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	
Login	
User Login	
Head Department Login	
Logout	
Others	
Post Activities	
Departments	
Comment	
Search	
UITM Pahang	

Title	CYBER CRASH
Description	Pertandingan menggodam komputer untuk pelajar Sains Komputer.
Date Begin	9/2/2006
Date End	9/3/2006
Duration	2 day
Venue	Makmal Komputer
Start Time	8:30:00 AM
Participants	Pelajar-pelajar Sains Komputer yang menyertai bahagian Hal Ehwal Pelajar dan Alumni
Organizer	
Contact Person	Enik Razulaimi Razali
Phone No.	09-4602040
Posted By	Mohd Hanifah Bin Hashim
Department	Bahagian Hal Ehwal Pelajar dan Alumni (HEP)
Date Posted	8/17/2006 3:07:43 PM
Remarks	Anjuran Kalab MYTECC

iii) List of departments and the heads of department's



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UTM PAHANG ACTIVITIES


UTM Pahang Practising ISO 9001 : 2008

Month	Department	Head	Position
▶ January	▶ Bahagian Hal Ehwal Akademik (HEA)	Mohd Nor Bin Ramlan, Prof Madya	Timbalan Pengarah Kampus
▶ February			Timbalan Pengarah Kampus
▶ March	▶ Bahagian Hal Ehwal Pelajar dan Alumni (HEP)	Mohd Nasir bin Hj Ibrahim	Timbalan Pengarah Kampus
▶ April			Timbalan Pengarah Kampus
▶ May	▶ Bahagian Pengurusan Fasilitas (Fasiliti)	Ahmad Fadil bin Ismail Ikram	Jurutera
▶ June	▶ Bahagian Pentadbiran (Pentadbiran)	Zulkifli bin Bohaini	Timbalan Pendaftar
▶ July	▶ Banking (Banking)	Azaman bin Abd Majid	Ketua Program
▶ August	▶ EMBA (EMBA)	Rasali bin Ismail, Prof Madya	Koordinator
▶ September	▶ Fakulti Pengurusan dan Teknologi Pejabat (OH)	Mae Anom binti Abdul Rashid	Ketua Program
▶ October	▶ Fakulti Perakaunan (Perakaunan)	Zuhairah Husin	Koordinator AC110
▶ November	▶ Fakulti Perakaunan 2 (Perakaunan AC220)	Cik Anis Binti Abul Hasan Ashari	Koordinator AC220
▶ December	▶ INEC (INEC)	Ahmad Nazlan bin Ahmad Shamsuddin	Koordinator
	▶ Insurance (Insurance)	Izren bin Ismail	Ketua Program
	▶ Jabatan Bahasa (Bahasa)	Mazlana binti Osman	Koordinator
	▶ Jabatan Industri Persewaan (DIP)	Abdul Jalil bin Hj Ahmad, Prof Madya	Ketua Program
	▶ Jabatan Keguruberaan Awam (KA)	Ahmad Rasidi bin Osman	Ketua Program
	▶ Jabatan Pengurusan Pertadangan (DPIH)	Md Jamaluddin bin Sula	Ketua Program
	▶ Jabatan Pengurusan Perniagaan (Business)	Mustah binti Mahamad Arif	Ketua Program
	▶ Jabatan Sains (Sains)	Halizah binti Kasim	Ketua Program
	▶ Jabatan Sains Komputer (CS)	Zarina Binti Zainul Rashid	Ketua Program
	▶ Kampus Kuantan (Kuantan)	Jelani bin Sulaiman, Prof Madya Dr	Koordinator
	▶ Kampus Raub (Raub)	Roseleenda binti Abdul Rahman	Koordinator
	▶ Kausahawanan ETR (Kausahawanan)	Noor Hishamuddin bin Sulaiman	Koordinator
	▶ Koperasi UTM Pahang Bahhad (Koperasi)	Rasid bin Muhammad	Pengurus
	▶ Pejabat Bendahari (Bendahari)	Zabedah binti Abd Karim	Penolong Bendahari
	▶ Pejabat Pengarah Kampus (Pengarah)	Abdullah Suhaimi Bin Mohamed, Prof Madya Ir	Pengarah Kampus
	▶ Perputakaan Al-Bukhara (Perputakaan)	Khasiah Binti Zakaria	Timbalan Ketua Pustakawan
	▶ Pre Law (Pre Law)	Farah Hansem Binti Ahmad Jamal	Koordinator
	▶ Program Usahazama (Franchise)	Mohd Nor Bin Ramlan, Prof Madya	Koordinator
	▶ Unit Hubungan Industri (UHC)	Ahmad Azhar bin Jaafar, Prof Madya	Koordinator
	▶ Unit Kapriman dan Pengurusan Kualiti (UK-PK)	Abd Razak bin Saad	Koordinator
	▶ Unit Keselamatan (Keselamatan)	Aziz Bin Ahmad	Pegawai Keselamatan
	▶ Unit Kualiti (Kualiti)	Shaiful Azlan bin Abdul	Koordinator
	▶ Unit Matematik dan Statistik (Math)	Nor Atiqah binti Md Yasob	Koordinator
	▶ Unit Pendidikan Islam (CITU)	Abd Khalil bin Mohd Khalid	Koordinator
	▶ Unit Pengurusan Ladang (Ladang)	Kafnuddin bin Ali, Iq	Ketua Penyelaras Pembangunan Ladang
	▶ Unit Penyelidikan Pembangunan dan Rekamercialian (URDC)	Ashan bin Hashim, Dr	Koordinator

iv) List of department staff



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Month	Department	Jabatan Sains Komputer (CS)
▶ January	Head	Zarina Binti Zainul Rashid
▶ February	Position	Ketua Program
▶ March	Phone No	6094602305
▶ April	Fax	6094602207
▶ May		
▶ June		
▶ July		
▶ August		
▶ September	Department Staff	
▶ October	▶ Anis Haszila binti Hashim	
▶ November	▶ Kamariah binti Kamarudin	
▶ December	▶ Khairul Nizam Abd Halim	
	▶ Mahfudzah Othman	
	▶ Mazlana Hanan	
	▶ Mohd Norzaila bin Abd Aziz	
	▶ Muhamad Jassrif Saïd @ Mahadi	
	▶ Nor Zalina Ismail	
	▶ Noraini Mohamed	
	▶ Norhafizah Hashim	
	▶ Rasuleimi Rasali	
	▶ Rozlan Jamaludin	
	▶ Wan Rahana binti Wan Endut	
	▶ Zainab Othman	
	▶ Zarina binti Zainul Rashid	
	▶ Zuriani binti Ahmad Zulkarnain	

v. Staff Information

The screenshot shows the 'UiTM PAHANG ACTIVITIES' website. At the top, there is a banner with the text 'Global Aspiration...' and logos for '50th Anniversary 1946-2006 Preparation For Life' and 'UNIVERSITI TEKNOLOGI MALAYSIA'. Below the banner, the page title is 'UiTM PAHANG ACTIVITIES' and the location is 'UiTM Pahang Praising 150'. On the left, there are navigation menus for 'Month' (listing January to December), 'Login' (User Login, Head Department Login, Logout), and 'Others' (Post Activities, Departments, Comment, Search, UiTM Pahang). A central profile picture of Roslan Jamaludin is shown. To the right of the photo, it says 'See top hits' and 'This profile has been viewed: 43 hits' with a 'Details' link. Below the photo is a table of personal information:

Name	Roslan Jamaludin
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Department	Jabatan Sains Komputer (SS)
E-mail	roslan961@pahang.uitm.edu.my
Personal Website	http://www.pahangbusiness.com/roslan

At the bottom of the page, there are logos for 'Portal', 'UICAM', and 'Alumni Registration'. A footer contains the copyright notice: '© Copyright UiTM Pahang. Developed by roslan961@pahang.uitm.edu.my. All Right Reserved.'

System Model

The system can be accessed at URL <http://www.pahang.uitm.edu.my/activities/>

Conclusion

The absence of a systematic tool to manage the campus activities in UiTM Pahang has posed many problems to the management, organisers and targeted participants. ePAct system can be an answer to a more efficient management of the activities.

Acknowledgement

I would like to express my gratitude to all staff who have been involved directly or indirectly in implementing the system.

Knuckles, C. (2001). *Introduction to Interactive Programming on the Internet using HTML & JavaScript*. John Wiley & Sons.

Morneau, K. & Batistick, J. (2001). *Active Server Pages*. Thomson Learning.

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