

FINAL YEAR PROJECT
Campus Event Web-Based System

By

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16250

Dissertation report submitted in partial fulfillment of
the requirements for the Bachelor of Technology (Hons)
(Business Information System)

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CERTIFICATION OF APPROVAL

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A project dissertation submitted to the
Business Information System Program
Universiti Teknologi PETRONAS

In partial fulfillment of the requirement for the
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Approved by,

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MAY 2015

CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

(HAZIRAH BT MOHD ABDUL RAUSHIN)

ABSTRACT

This report elaborates on the chosen research, Campus Event Web-Based System. It is a system that can update, shares and register information on local events going around the campus on real-time basis. Based on this system, the target users which are students are expected to enhance their knowledge and interest of what's happening in and out of the campus.

The problem faced by students that they are not able to get the latest information on events or programmes happening inside the university. A part from that, they also did not know how to set up an event in terms of its procedures and regulations.

For this project, methodology used to design the system is by using web-based information systems development as it is best fit for the project and also, how it will impact its target users. The results gained from the methodology used are from the feedback from the users were collected through qualitative and quantitative methods such as questionnaires, interviews, comparative studies and so on.

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ABBREVIATIONS AND NOMENCLATURES

UTP	Universiti Teknologi PETRONAS
CSD	Corporate Service Department
HOD	Head of Department
WIS	Web-Based Information Systems
HOT	Heart of Tronoh

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Today, technology makes our life more convenient. It improved the methods of communication, amended the occurrence of mobility and had a great impact on cultivating our lives in this emerging world. The advancement of web-based sites has made people very keen with latest technology and they prefer to get all information within their reach and in fast manners.

University is a place for students not only to study but to be exposed to variety of activities in form of campus-wide events. These events which include cultural, music, sports, recreational, religious and many others are held for the benefit of students. Some of the benefits include educating social skills, increasing confidence level, improving health, relieving stress are very crucial for the students to keep motivated staying in the university.

This system handles events happening around the campus for students to get noted and help improve their participation in non-academic curriculum such as sports, arts and so on. Events or university programme is essential for a student and every university has their own clubs and societies are created in order to be well-rounded students.

When students join events, it allows them to become more connected to their university where there is sense of belongings in them. Thus, encouragement of joining campus events should be spread widely as it gives benefits and opportunities to the students.

In web-based system development, its interface plays a crucial part to secure public access while enhancing user-friendly computational environment for end-users but at the same time, it should be easy maintenance for administrators to handle. Therefore, this paper propositions an interactive design of web-based features that help students to get up-to-date with what happenings around their campus.

The aim is to introduce students on procedures to conduct events such as register the proposed events and wait for approval from CSD and HOD to encourage them to get involved into making their events a successful turnout. With the provided platforms, users can easily get informed and understand the process of conducting an event in the university with approval from respective authorities.

1.2 Problem Statements

There are two (2) main difficulties faced by students and management staffs in the university in event management such as:

1. Uncentralized information access to latest events / programmes for students or staffs
2. Difficulty in event registration - currently was done manually (not event handling)

Most information of the events or programmes in the campus is shared through E-Learning and social media such as Facebook and Twitter that is not centralized into one source. Students always missed out important lectures or talks held by the university given by well-known spokespersons about important educational matters that can give a lot of benefits for those students that attend it but because of the information were not fully spread, thus the attendance of the students is low.

A part from that, most students did not register or inform to respective CSD staffs for any events that they have created, which makes it difficult to see progress of each event. Many students do not know event management and the procedures need to be taken into considerations such as the facility booking, transportation and so on.



Figure 1: UTP Facebook page for campus events

Figure 1 shows a Facebook page by UTP students to promote their events. As can be seen, the posts are unorganized and difficult to keep track if it has been approved by respective authorities from CSD and HOD in the university.

The current procedure established by the university is that all events has to be approved and supervised under Corporate Service Department (CSD) and any booking to use utility or any equipment from the university has to be made to Property & Maintenance Department (PMD).

With the current process of handling events, it makes the job of authority becomes harder to keep track of events going around the university as there is no centralized or only source to get information. Therefore, a system is proposed to eradicate the current situation.

1.3 Objectives

The objectives of this project are as follows:

- To develop a web-based system to inform events happening in the campus.
- To evaluate the user satisfaction of the campus event web-based system.

1.4 Scope of study

The scope of study for this project is to solve the problem stated above in the problem statement through user experience. The development is focused for UTP students to use the system to get noted on events happening in the campus as well as register their events easier online instead of sending form to the office of CSD or HOD which is time-consuming.

All of events inside the campus require getting approval from CSD staff and HOD of their club or society to conduct any event in the university. The project will be focused on usability of web-based system in terms of user interface and navigation structure and usability.

The system was developed by using Wix Application which is a Content Management System (CMS) which provide the information such graphic displays in slideshow or picture collage to attract students to view on upcoming events, and some features which user can submit the form through this site for event or club registration.

User needs to register their club email and password by self. in order to be log in the system. The scope for this only is focusing on user and CSD. The CSD will be acting as Admin to check and approve event request by students. System Admin will help CSD understand the functions of the system to ease their role in the system.

1.5 Project Feasibility

The advantage to develop this system which to develop a graphic-oriented content management system which provides information about upcoming events, available clubs and societies, latest news and information, help information and registration of club and events form through online and direct to the CSD staff.

This project will be completed within the 28 weeks' time. For the first four months, it is to complete the project designation, proposal, idea generating and preliminary result. It is also the period of analyzing and study of literature review. The development of the application is to be done in the next 4 months, which is during Final Year Project (FYP) 2 time frame.

The scope of development is also being focused as to set the basic requirement of the development which to implement a system which converting a paper based form into website in interactive way.

CHAPTER 2

LITERATURE REVIEW

2.1 Event Management

Based on (“event - definition of event in English from the Oxford dictionary,” n.d.), an event is classified as a thing that happens or takes place providing some importance to the audience. It is also known as a planned public or social occasion such as social gathering or sports program.

Meanwhile, event management is defined in (“Event management - Wikipedia, the free encyclopedia,” n.d.) as the application of project management to the creation and development bigger events such as festivals, conferences, ceremonies and so on.

(“Event management - Wikipedia, the free encyclopedia,” n.d.) also explained that in managing an event, few process will be undertake known as event planning that covers the budgeting, scheduling, site or venue selection, booking necessary permits or rents which can be taken account by designing a proper system that can well-managed all these events.

2.2 Web-Based System

Chiu, C.-M., & Wang, E. T. G. (2008) mentioned that a successful web-based information application depends on the user’s constancy to subsequently use the system. Some researchers said that end users are looking for performance and effort expectancy, computer self-efficacy and attainment value that sustain an individuals’ intentions to continue using the web-based system.

Besides, Duan, Y., Edwards, J. S., & Xu, M. X. (2005) says that advancement of technologies in the Internet and field of expert systems has found better methods to share and distribute information and knowledge worldwide. Design, development and use of web-based expert system help to improve the system performance if correctly utilized.

In designing web interfaces, Chapman, C. (2010) said that it is not easy to portray the messages or information needed for end users from raw data, up to images. Suitable requirements must be grasped into the system in order to meet the expectation of users. Great user interface will prioritize the functionality first above anything else.

This is because most people use applications because of its easiness and flexibility. Visitor of the site will interact with the system, so it is important to have proper user interface (UI) design in terms of its color theory, negative space and layout.

2.2.1 Benefits of web-based system

According to Nicholas (2015), he said that you can event's marketing campaign can only be measured by pairing them up with the analytics software in one of the many event planning platforms out there, and you'll give yourself a complete picture of how well you're actually doing from an advertising perspective which is this case, same goes to campus events.

Web-based information system helps to promote students events more easily and in attractive ways. A part from that, the previous research of (Arthur, n.d.), he mentioned that the benefits of a web-based system can be summarized as follows:

Save Money

When a business is using database online software, it saves money because no need to buy software program for the business which results in major savings of cost.

Flexible Use

Another benefit of using web-based system, it allows flexibility of the amount of storage that the business used.

In addition, researchers (Magic Web Solutions) also studied that web-based application provides other valuable advantages such as the followings:

Accessible anywhere

Web systems can be accessed at anytime, anywhere as long as there is a PC with an Internet connection, giving user the control of where and when they can access the application.

Easily customizable

The user interface (UI) of web-based applications can easily be customized in desktop application which makes it convenient to update the design and layout of the application according to different set of users.

Easy to install and maintain

It is easy to manage a computer-based system by install or upgrade into a new version application that is installed on the host server. All users can straight away access and use it.

Security

Most web-based applications have dedicated servers, which are monitored and maintained by experienced server administrators as it can supervise hundreds or even thousands of users at the same time.

Cost effective developments

Cost savings such from reduction by using of paper and print based from and to use.

2.3 Understanding graphic presentation on web-based system

Researchers known as Michael F. Guheen, James D. Mitchell, J. J. B. (2002) studied that a person can captivate and understand information better in visual representation or graphical context much faster compared to in alphanumeric text or conveyed verbally.

The individual is likely to be able to retain that information longer when it is visually represented. Nevertheless, a balance must be sustained between presenting the information in a manner that able to hold viewer's attention while keeping the graphic presentation simple enough to be easily and quickly comprehended

Researcher (Bernard, 2000) studied that in construct user-oriented websites, few design implications must be considered such as

Organization of the Information

Studies shown that user tend to fixate on text rather than images at the early visit to a site. Thus, best way to insure that user grasps the content and meaning of a web page by well-organized titles and headers under the images. Besides that, users prefer to have fit horizontal viewing area of the site as they are unwilling to scroll in a particular direction if it is located outside the main view area. A part from that, user prefers to have hyperlinks on a web page as they are link headings in a group by columns rather than rows. It increases the response time to search information. And the writing style in each page is important because some users scan the page looking for information that interests them only, so highlight keywords, bulleted lists and one key idea per paragraph is highly recommended to retain user consistency in viewing the website.

Making the Structure More Navigable

It is highly recommended that a site should only present links that are necessary for navigation to avoid user get confused on how to use the site. The placement of information should follow genera Web conventions and guidelines that have been set by most usability experts to aid in design the webpage.

2.4 Comparison between Available Technologies in the Market

Below are some explanations on previous work regarding event web-based system.

Table 1: Comparison on Previous Work regarding event web-based system

Author / Date	Topic / Focus / Question	Conceptual / Theoretical Framework	Paradigm / Method	Context / Setting / Sample	Findings	Gaps
Moncy, S. (2015)	Eaglesync creates an online community for EWU campus organizations “Designed to help clubs and organizations on campus plan events and manage everyday operations”	User-friendly method for our clubs and organizations to connect to the campus events and repository	Activity request and tools for users	Provides many other tools for users such as to-do lists, Google-synced calendars, forms for event planning and others	More time efficient and organized by using the web-based system instead of paper forms for requests is also a greener solution	Restricted requests that might take a little bit time.

<p>Huang, G.Q, Yee, W.Y, Mak, K.L (2001)</p>	<p>Development of a web-based system for engineering change management</p> <p>“To design a web-based ECM framework for facilitating information sharing between various parties that are dispersed at different geographical locations and for achieving simultaneous data access and processing.”</p>	<p>Deals with product configuration and structuring, nor with process workflow.</p>	<p>EC classification and prioritisation, and effectivity analysis.</p>	<p>Industrial case studies on the ECM subject.</p>	<p>Web technology is used to develop computer systems for engineering change management (ECM). Information regarding organisation, procedure, and forms are easily built into the system database.</p>	<p>ECM involves intensive data of products and processes. Difficult to collect appropriate data and analysis is time consuming.</p>
<p>Chang, Y.S and Park, H.D (2004)</p>	<p>Development of a web-based Geographic Information System for the management of borehole and geological data.</p> <p>“To develop a prototype model of Web-based Geographic Information System (GIS) application for efficient management</p>	<p>GeoLibrary, (Jankowski et al., 2001).</p>	<p>Qualitative descriptive</p> <p>Comparison among projects in case studies</p>	<p>History of subway construction in Seoul area</p> <p>9 subway lines with length of 316 in total starting from year 1971</p>	<p>A number of site investigation reports and borehole logs were analyzed to reveal principal components among various borehole data from different construction works of road, railway, and buildings.</p>	<p>No fully reliable data standard in preceding projects to suggest more suitable data standards for each geological data.</p>

	of borehole and geological data”					
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Based on the table above, these researchers were studying on how to enhance the process of distributing information and knowledge by using web-based system. Information must be portrayed in a way that user understood the information that is being shared.

2.5 Designing Effective Web System

Friedman (2008) have said to build a website, element of user-centric has to be considered in the design as it is more successful and profitable design because the user will keep on using the website if the designed features fit their requirement. Then, there is some usability features need to develop systems which are:

Quality and Credibility

Most user prefer to get high-quality content, rather than design that supports it as the content is more valuable to them.

Instant Gratification

A website has to meet the user’s expectations to avoid designer loses their job and the company making loss of money due to failure retaining the user on the website. If not, the user will leave the website and find another alternative if they are not satisfied.

Obvious and Self-Explanatory

When creating a web-based, the user must be able to use the system without having too much thoughts or efforts in utilizing the website. They need to make decisions consciously, considering the pros, cons and alternatives.

Relevancy

The information provided in a system must be relevant to inform. To ensure user attract with the information and help user to search according to their needs.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

According to (“methodology - definition of methodology in English from the Oxford dictionary,” n.d.), methodology is defined as a system of methods used to investigate the concept or theories in a particular area of study or activity.

In this chapter, author will describe the research methodology used for this project; explain how to design the proposed application, elaborate the procedures and process used in designing the application and data collection as well as provide methods on how to analyze the collected data.

3.2 Research Methodology

Based on Clarke, R.J (2005), he explains that there are four (4) main ideas when constructing a research; exploring ideas, enquiring an issue, solving a problem and making arguments that induces author to turn into external help. He also described that in doing research, there are two major research approaches; qualitative and quantitative methods.

Based on Hohmann (n.d.), he explains that qualitative approach is a constructive, naturalistic and interpretive perspective which is to use to gain insight into a problem, issue or theory. It is also used to study social and cultural phenomenon which includes structured and unstructured interviews, focus groups, case study, and diary accounts and so on.

For research and information gathering, author uses methods like interviewing experts to get their understanding and requirements and comparative studies on previous work of other authors in validating the feasibility and reliability of this project.

According to Hohmann (n.d.), a quantitative approach is traditional, experimental and empirical advances to study natural phenomenon. He explains that quantitative methods are including surveys, laboratory experiments, econometrics and numerical methods like mathematical modeling.

3.3 Development Methodology

In software engineering, development methodology is known as software development life cycle (SDLC). Based on McConnell (n.d.), SDLC have few stages to improve better planning and management in developing the software. It is also considered as a subdivision of systems development life cycle.

There are common development methodology approaches such as waterfall, prototyping, iterative and incremental development, spiral development, rapid application development, extreme programming and agile methodology.

For this project, author decides to use agile software development as it is more suitable for this project which uses both iterative and incremental development at the same time.

3.3.1 Web-Based Information Systems (WIS)

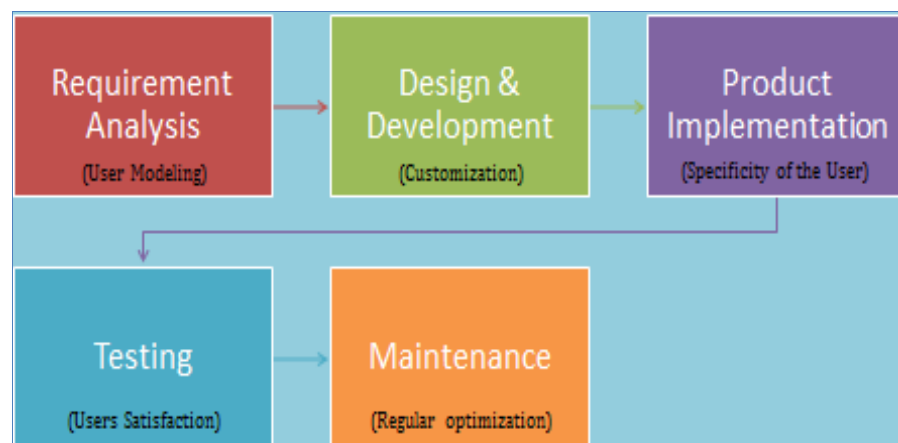


Figure 2: Web-Based Information System (WIS) Phase Methodology

Web-based Information System (WIS) approach is more detailed than traditional Information System (IS) approach in terms of its presentation, user profiling and so on. In web engineering, as was mentioned by (Gnaho, 2001), he studied that user modelling and customization is vital in WIS.

He also said that by identifying and meeting the user needs, he was able to define directions on how to navigate in his system in order to achieve his user satisfaction. There are three (3) different phase in abstraction of the system, namely conceptual, logical and physical.

WIS also specifically separates the management of potential users, data, content design and many others to lead to a higher level of independence and flexibility.

3.4 Project Phases

Phase 1: Requirement Analysis

In the WIS life cycle, a requirement analysis includes elements of the traditional planning and analysis phase. During this phase, user's requirements are determined but the determination is done in the framework of a discussion of the problem statement.

Once specific requirements have been identified for development, developer had will decide on suitable and feasible requirements that can be included. This stage requires analysis made up such define problem, finding title proposal, collect data, review previous research, initial drafting for user interface, analyse data and conduct literature review.

An interview was conducted with CSD Manager Universiti Teknologi PETRONAS and some of staffs under same jurisdiction were there to help author understand their needs from the system.

Phase 2: System Design

This stage is the designation of the interfaces and creates system architecture. At this phase, author design the system by following the features mentioned in literature review sections. Author creates prototypes that capture systems requirements and that become the basis for the physical design of the system being developed. The outcome of this project is storyboard and prototype procedure created.

There are five chosen modules for the development of the mobile learning application shown as below.

- Module 1: Home - This module will show student all events happening in the campus in a masonry position to attract student to click on each event poster to know more about certain events. Students are more attracting to see images rather than reading numerous words; this homepage helps to promote events.
- Module 2: Clubs & Societies - This module will sort available clubs and societies in the university, therefore it is easier for students to know and join any clubs that fit their interest. At the same time, this module provides links that connect to the club's Facebook to find out more about previous club activities.
- Module 3: News & Information - This module will provide the students about the latest information and achievement on any club activities to get positive review from the students. Students can give feedback by give comments on this module.
- Module 4: Club Registration - In this module, student can register on their new club. Admin will add their details in the clubs & societies module thus attract new members to join the new established clubs.
- Module 5: Event Registration - In this module, it will provide students function to request to conduct any events by filling important details of their proposed events and have to wait for approval from CSD and HOD. Once approved, admin will send confirmation email to the respective requester. All approved events will be uploaded in Module 1 which is the homepage.

Before user can carry out any given tasks in the system, they have to be log in using their club emails especially for club and event registration. Other module like viewing available clubs or news and information, no log in is needed as they can preview as free access.

This is because the main goal of this application is to give information and attract students to know and join any interesting events handled both by students and the university itself.

Phase 3: Development

During this phase, author start to develop system after analyze the data and information needed by using software such Wix Content Management System and database is connected to Gmail and hardware such laptop and local host. The outcomes of this project design have been finalized and system success builds are Wix application and connected with Gmail Database.

Phase 4: Cutover

Cutover is the delivery of the new system to its end users. Planning for cutover must begin early in the WIS process because the WIS approach is flexible. Cutover involves many of the traditional implementation of activities, including testing the system, guiding users, dealing with administrative changes, and running the new and old systems in equivalent, but all these activities occur on an fast-tracked basis.

The outcomes of this project are the new system has been implemented and testing. Therefore, by building this system able to solve the problem and give a better solution to the user.

3.5 Key Milestone

Table 2: Project Key Milestone

Num.	Milestone	Completion Week
1	Requirement Gathering	Week 10
2	Interim report submission	Week 12
3	Proposal Defense	Week 14
4	Progress Report	Week 18
5	Dissertation and Technical Report	Week 25
5	Prototype Development Complete	Week 26
6	Project Submission and Presentation	Week 28

3.6 Gantt Charts

Table 3: FYP 1 Gantt Chart

No.	Project Activities (FYP1)	Week													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Selection of Project Title	Process	Suggested Milestone												
	Search for Project Title	Process	Process												
2	Planning & Research Analysis			Process	Process	Process	Process	Process	Process	Process	Suggested Milestone				
	Conduct interview and Questionnaire			Process	Process	Process	Process	Process							
	Define the system scope				Process	Process	Process	Process							
	Determine system outline						Process	Process	Process						
	Literature review research						Process	Process	Process	Process					
3	Proposed Design											Process	Process	Process	Suggested Milestone
	Design storyboard diagram											Process	Process		
	Preliminary design layout												Process	Process	Process

 Process

 Suggested Milestone

Table 4: FYP 2 Gantt Chart

		Week														
No.	Project Activities (FYP2)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
4	System Construction	■										■				
	• Build	■														
	Develop User Interface	■														
	Create pages in Wix Content Management System		■													
	Homepage design and navigation structure			■												
	• Demonstrate					■										
	Run simple test to show the workability					■										
	Ensure all components interrelated and working						■									
	• Refine								■							
	Fix coding error								■							
	Reconstruct the system									■						
5	System Cutover												■		■	
	Testing system functionality and usability												■			
	Check system specification aligned with the requirements													■		
	System implementation														■	



Process



Suggested Milestone

3.7 Tools Used for Development

To develop this project, there are several tools and requirements needs to be used to run the system. Below is the minimum requirement and tools required:

- Personal computers with Windows platform, 1 GB RAM (minimum), 50 GB hard-disk space, including 115 MB of available space on the hard disk that contains the operating system – to store all files and documents regarding the system
- Wix Content Management System Application – to design the user interface of the system for all the features and functions required
- 123 Form Builder Application – To generate registration form, user testing form to get their feedback on the use of the system
- Gmail Database – To store all club and registration request send from user through the system
- Microsoft Excel – To calculate percentage of user satisfaction after using the system

CHAPTER 4

RESULT AND DISCUSSION

4.1 Data Collection and Research

Below are some findings throughout the project such as previous research regarding chosen topic, campus events web system and other medium such as interviews, user feedback has been carried out to get proper results.

4.1.1 Literature Review Findings

From previous literature review research, the findings can be simplified as:

- Event Management – process of managing an event that covers the budgeting, scheduling, site or venue selection, booking
- Web-Based System - application depends on the user's constancy to subsequently use the system
- Understanding graphic presentation on web-based system
- Comparison between Available Technologies in the Market
- Designing Effective Web System

4.1.2 Interview and Research Findings

In order to determine the requirements needed for Campus Events Web-Based System, an interview was conducted with CSD Manager of Universiti Teknologi PETRONAS and staff through a meeting to collect the information and request the form to be used for sample. Below are description of each respondent and their roles in the university.

Interviewees:

1. Mohd Zulkarnain bin Zulkifli
 - Manager of Corporate Service Department, CSD in UTP
 - Working under Conference Management unit
 - Deals with the university's corporate and official events or programmes
2. Sayuthi bin Shaaran
 - Senior clerk in Property Management & Maintenance Department, PPMD in UTP
 - Working under Property (Project & Civil Engineering) unit
 - Deals with facility booking such as venue, IT & Media support and many more
3. Mohd Azizi bin Abd Wahab
 - Senior executive in Property Management & Maintenance, PPMD in UTP
 - Working under Property (Project & Civil Engineering) unit
 - Deals with development and maintenance of the facility booking system

Objectives of Interview:

1. To understand current problems faced by two important departments, CSD and PMD in handling any UTP events and programs.
2. To get the department's requirements in the system and application.

3. To seek their ideas and future planning for the proposed system.
4. To get brief ideas on how the system should look like.

4.1.3 System Testing and User Feedback

System testing was divided into two parts, which are developer testing and user testing. The project needs to be tested for conformance with the system requirements stated in the early stage. Below is the two parts involved:

a. Developer Testing

The developer needs to test the application that deals with request sent by users. The user needs to register their account in the application and try to send request. Log in function need to be synchronize with sign up details of the user account.

Plus, the every request made will be send to developer's email and it will be recorded and updated where CSD has approved the request. Beside, testing also involves syntax, functionality and logical errors. No major problem found in this testing.

b. User Testing

The system had been tested with university students when the system was almost completed. The system is tested by 20 students under the instructions of the developer. Each student tested all the functionalities.. After the application prototype testing, the students need to fill in survey feedback form.

The purpose of the survey is to collect the feedback from students regarding the usage of the application. There will be 4 categories be asked in the feedback form which basically related to the perceived usefulness, perceived ease of use and ease of learning.

The bar chart in Figure 5 shows the result of the user testing. The rating is from 1 to 5 which rating 1 signifies strongly disagree by the users and 5 signifies strongly agree by the users. It shows that most of the students like the modules lesson in the application.

Most of them agree with functionalities provided in the system. Moreover, most of the students also want to use the system again if it is available in the future as additional support tool to register and promote their events. Regarding the modules, the students agree that it can help them to keep track of any upcoming events in the university from the system. Lastly, the user believes that the system is easy to use and it saves their time to know events happening in their campus.

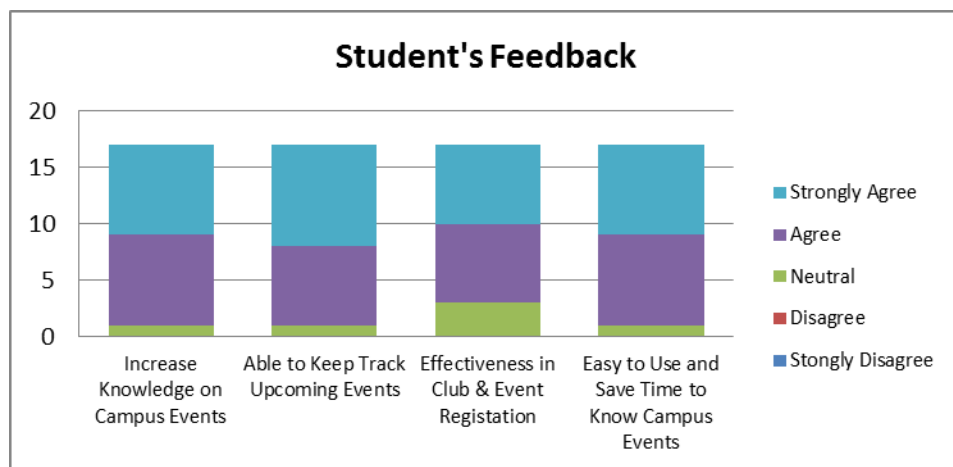


Figure 3: Student's Feedback for Application System Testing

The development of Campus Event Web-Based system could be enhanced in the future in order to add more improvement for students to know about their campus events. More research on campus event modules and interactive platform should be done.

This will definitely enhance the modules to be more interactive and complex in terms of solving the problem. Besides that, more interesting features can be added such as sortation and geographical information can also be added to give more edges on the interface whereby students can mapped out the location of the event for future recommendation.

4.2 System Architecture

Figure 4 shows the design of the system architecture for campus events web-based system.

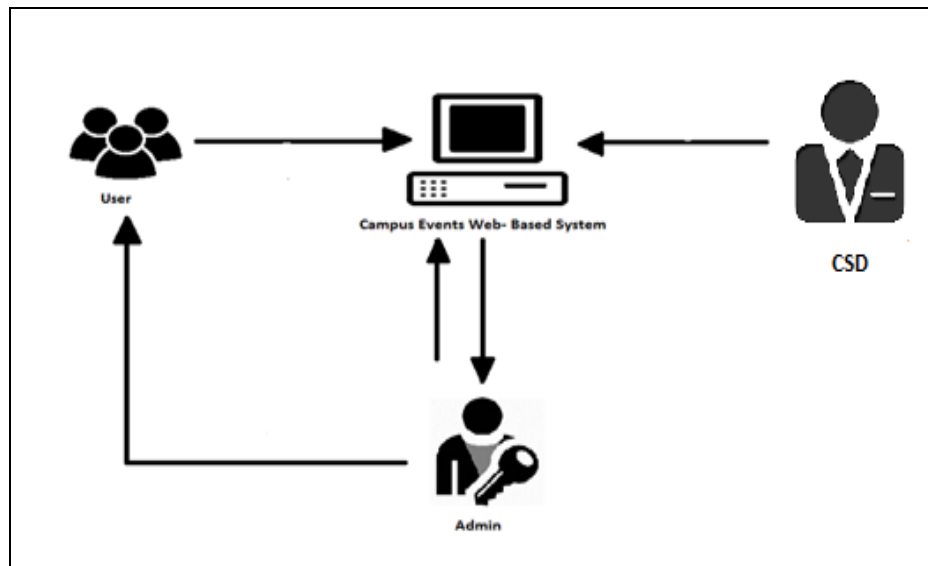


Figure 4: System Architecture

From the figure, the users i.e. the students (user) will start the communication with the system by logging in and accessing the system through their club email and password that has been approved by the admin.

The model also illustrates several levels of user authentications i.e. Student and Corporate Service Department (CSD) staff, which have different role of permission in accessing the contents and functionalities and the system will be handled by the admin in regarding to maintain the system.

Each of the users has to go through an authentication function before proceeding to the individual function such as club and event registration. For user, functionalities provided for them are club and event registration as well as public access to latest events and programmes in the campus.

Meanwhile, admin has the functionalities to approve or disapprove the event requested by user. Email confirmation will be generated through the system to both admin and user when an event request has been made. But only, admin will send approval or disapproval email once CSD or PR staffs approve the request and upload the approved event poster on the homepage.

4.3 Data Flow Diagram (DFD)

At its simplest, a data flow diagram looks at how data flows through a system.

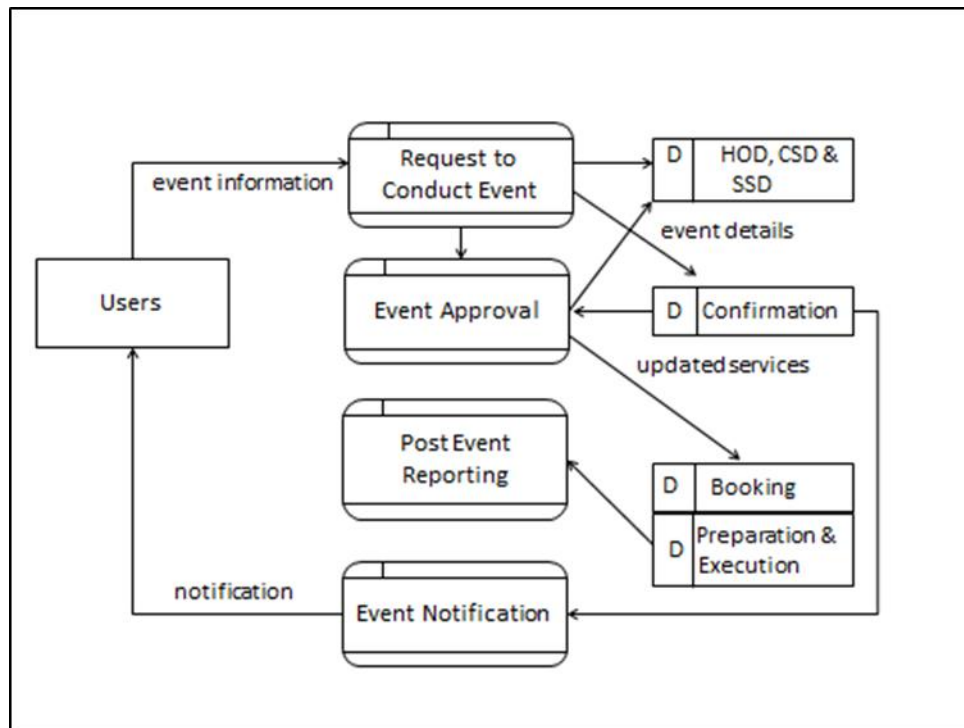


Figure 5: Data flow diagram of Campus Event Web-Based System

Process involved in the data flow diagram:

1. Event Request

- Users will create an event request to book the date, time and place.
- The data will be stored in the server.
- The data request will be forwarded to administration (HOD, CSD and SSD).

2. Event Approval

- Get approval from HOD and CSD on the confirmation on the event requested.

3. Event Notification & Post Event Reporting

- Once approved, an email will be sent to inform on status of the request that has been made.

4.4 Use Case Diagram

Figure 5 shows the use case diagram for Campus Event Web-Based System. Three different actors engage in this system which is the user, CSD and admin.

It illustrates two main use cases which are login and choose function for the student. From Choose Function use case, the student can select to view homepage, available clubs and societies and help & support from the system.

There are registrations that can be chosen under registration function; club or event. Then, the student also can view their university official news and information. Meanwhile, admin also has six main use cases which are login, get HOD & CSD approval, booking confirmation, notify supporting services and send email confirmation.

Lastly, the system administrator is the one that will manage the application in terms of improve the performance of the campus event system.

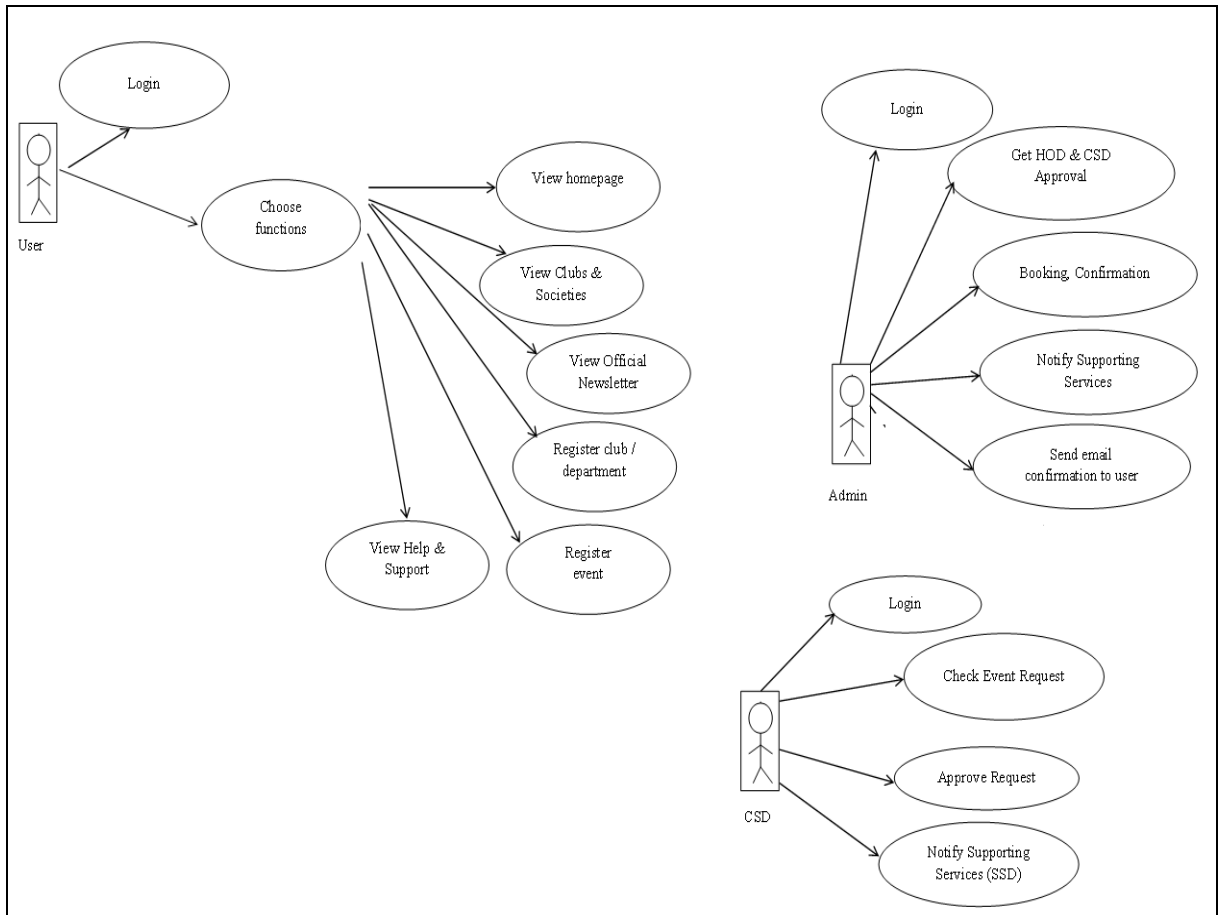


Figure 6: Use Case Diagram

4.5 Functional and non-functional requirements

Functional Requirements

Table 5: Functional Requirements

*Must Have	1.0	User	<p>User friendly interface for students to</p> <ul style="list-style-type: none"> - Auto-populate student username upon log in - Update club information and details. - Log In system, - View homepage on latest upcoming events - Update and register club or society to admin - Receive auto-reply email from admin. - Register event - Receive auto-reply email from admin once approved by CSD - Contact and email person in-charge.
	2.0	CSD Staffs	<p>An easy to use online tool for staffs to</p> <ul style="list-style-type: none"> - Auto-populate event information and details. - View pending request directly. - Approve student events through email. - Assign supporting staff to the event. - Receive an application through email. - Receive and send inquiry through email.
	3.0	System	<ul style="list-style-type: none"> - Register and add a user - Update user information - Delete user - Update record - Send auto-reply email to user and CSD staffs.
*Should Have	1.0	CSD staff	<ul style="list-style-type: none"> - Auto populates email and approve button.
*Could	1.0	User	<ul style="list-style-type: none"> - View and edit their details before sending request.
	2.0	CSD staff	<ul style="list-style-type: none"> - Approve application through the system.

Nonfunctional requirements

Table 6: Nonfunctional Requirements

Performance	System responses should not be more than 10 seconds
	The system should be accessible concurrently to few hundred users with no performance degradation
Availability	The system should be online 24 x 7
Scalability	Phased roll out to other departments and employee between the organizations.
	Support unlimited users
Localization	Support multiple time zones
Security	Allow access to only authenticated users [system admin and CSD staffs]

4.5 System Design



Figure 7: Homepage of the UTP Campus Events system

UTP Campus Events

To view this page, you need to be logged in.

Sign up [I'm already a user, Login](#)

Email

Password

Retype password

[Cancel](#) **GO**

Figure 8: Login or sign up page of UTP Campus Events system

Figure 6 shows the homepage of UTP Campus Events system. Meanwhile, figure 7 shows the login or sign up page to UTP Campus Events system. User need to register or log in if they want to register for their club or event application. There is a login form that user need to log in to enter the system.

Then, new users need to create accounts, and user forgets their username or password, our system will trace user authentication through their registration. Before users log in the system, they only can view homes, clubs and societies available in the campus, news and information as well as help instructions.

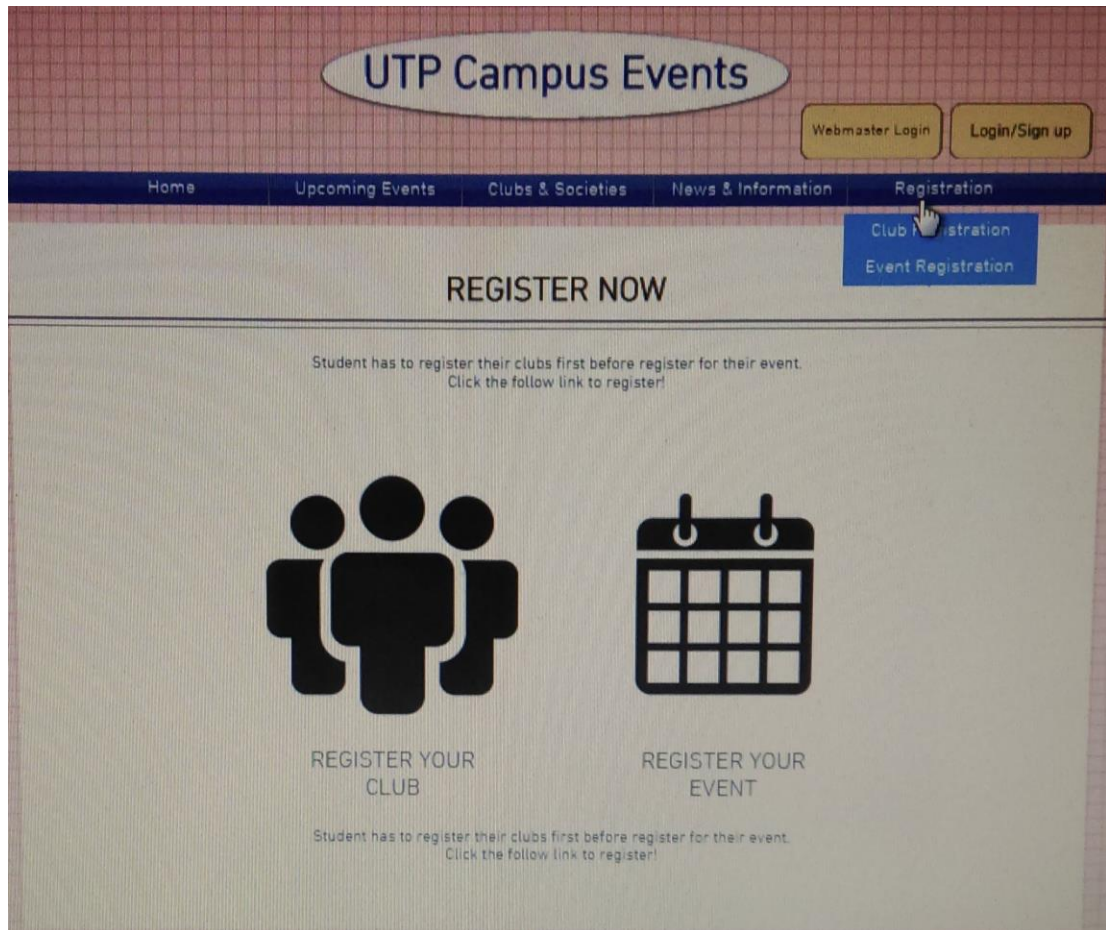


Figure 9: Registration navigation page

When a user click on the registration menu, figure 8 will pop out and the user has to choose which tasks to do. An instruction has been pointed at the top of the page saying that a user has to register their club first before registering for an event.

Club Registration

Students or any club must register their club before registering their upcoming events.
All details must be filled and an email confirmation will be sent to the user who has registered in this website.
Each club or department can only REGISTER ONCE.

Register Your Club / Department

Name of Club / Department:

Club Email:

Facebook:

Twitter:

Figure 10: Club registration page

Event Information

Name of Event:

Category: ▼

Date From: / /

Date To: / /

Time From: :

Time To: :

Venue:

Description:

Upload Your File / Poster Image:

Personal Details (Person in Charge)

Name:

Email:

Contact Number:

Club / Department:

Figure 11: Event registration page

Only users with registered login can view the registration feature as in figure 9 and 10. For home navigation site will view the image transaction gallery as a masonry slideshow.

By using a graphical presentation design of concept will attract a user to meet the system expectations. Keep it simple and clear with the visual concept to ensure people remember using a system.

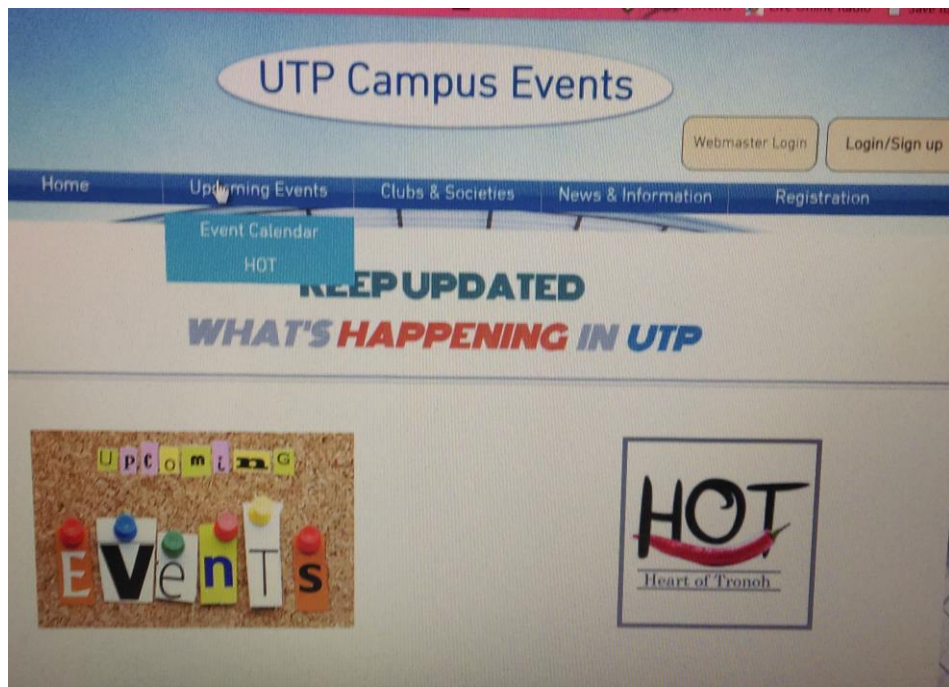


Figure 12: Upcoming Events page

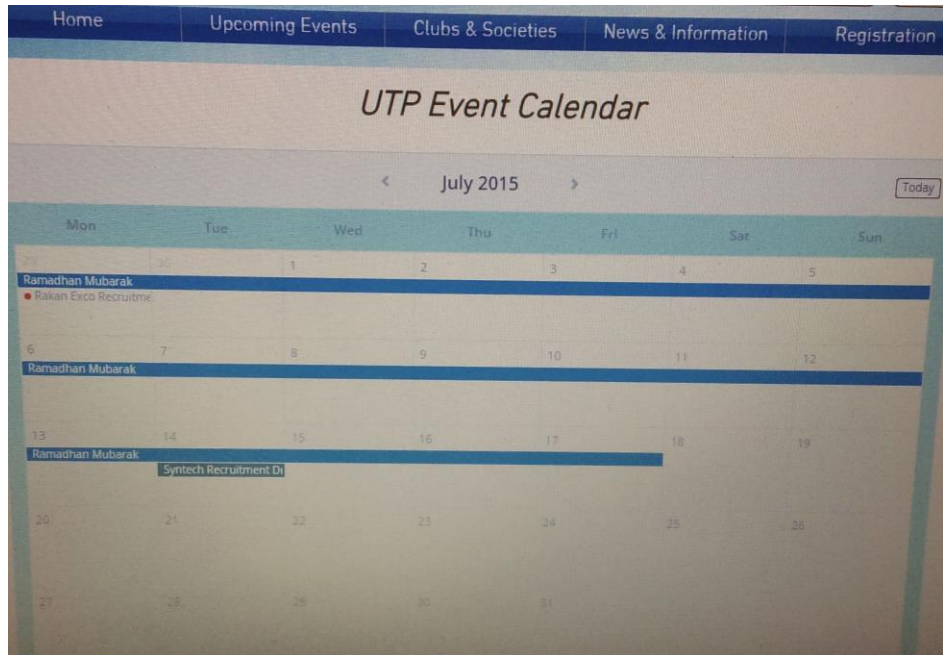


Figure 13: UTP Event Monthly Calendar

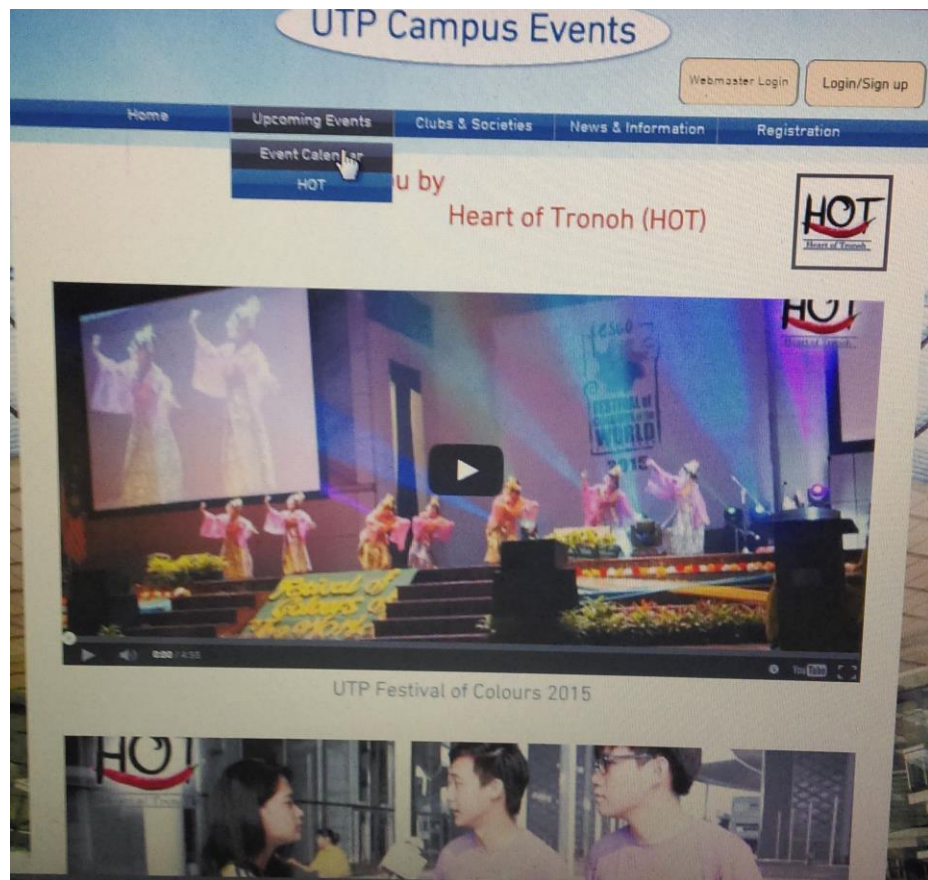


Figure 14: Heart of Tronoh (HOT) page

This page is designed by arranging video per video to get user interested more on events happening in the campus. Each video have briefly explained give highlights on each events turnout. Instead using articles or words to share information, author decided to enhance on visual and hearing aid to user to get faster information time.

The logo HOT on the right side on top of the page is can be clicked by user to get into HOT's official Facebook page where user can get to know more about campus events and at the same time, see their friends who follow the page.

In figure 14, user can find more information on available clubs and societies as the page is designed based categorization element to help user choose and get the information they are looking for instead of searching it one by one which might take some time.

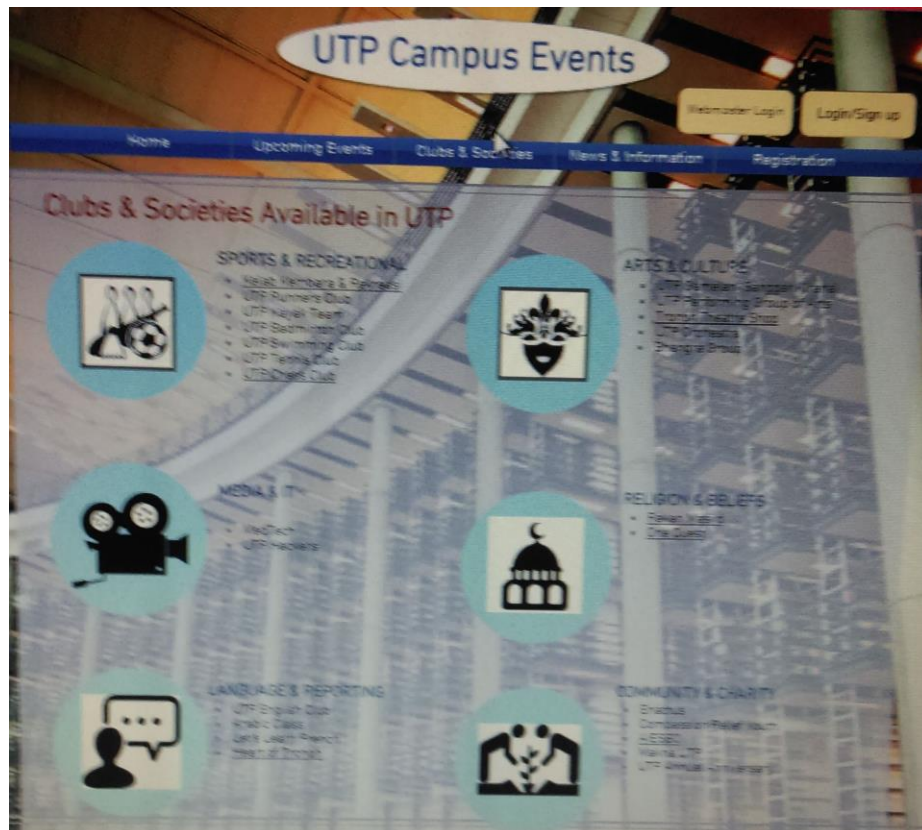


Figure 15: Clubs & Societies Available in UTP

UTP Campus Events

Webmaster Login Login/Sign up

Home Upcoming Events Clubs & Societies News & Information Registration

2015	2014	Institution	Overall Score
29	32	Universiti Malaya (UM)	64.8
48	57	Universiti Sains Malaysia (USM)	60.4
50	58	Universiti Kebangsaan Malaysia (UKM)	60.4
61	66	Universiti Teknologi Malaysia (UTM)	64.5
65	76	Universiti Putra Malaysia (UPM)	63.4
151-200	145	International Islamic University Malaysia (IIUM)	45.1
151-200	181-200	Universiti Teknologi PETRONAS (UTPET)	45.2
191-200	201-250	Universiti Utara Malaysia (UUM)	39.7
201-250	201-250	Universiti Teknologi MARA (UiTM)	34.5
201-250	201-250	University of Malaysia Sarawak (UNIS)	32.0
201-250	201-250	University Malaysia Perlis (UNIMAP)	31.7
201-250	201-250	Multimedia University (MMU)	31.3
201-250	201-250	Universiti Malaysia Sarawak (UNIMAS)	30.9
201-250	-	Taylor's University	29.7
251-300	251-300	Universiti Malaysia Pahang (UMP)	27.4
251-300	251-300	Universiti Sunway Darul Uloom (SUHAK)	26.8
251-300	251-300	LinnKwang University of Creative Technology	25.3

UTP improves its ranking in Asia and still Malaysia's only private university in the top 200 QS Asian Ranking 2015

Congratulations #UTP #UTPlan!
Full story
<http://www.themalaysianinsider.com/malaysia/article/um-breaks-into-top-30-in-qs-asia-rankings-2015>

Interbeatz did it again!
Well Done & Congratulations to UTP Interbeatz for Champion in the Never Stop Street Dance Competition
As was said by Chris, the leader,
"Dance Never Stop Street Dance Competition. It was at Aeon Seri Manjung though
Thank you UTP for providing us the chance and support!

1 comment

Leave a message...

You guys are awesome!
Hazirah Raushin · 21 hours ago · Reply

Figure 16: News & Information page

This page is designed for user in a masonry position where each news are next to one another, so that user can keep on reading the news in just one page instead of opening many links by link to read more. A part from that, user can also view and comment on the news posts that is in the site. The user can comment by log in to their login email or in more conventionally way, is by using their personal social network such as Facebook and Twitter.

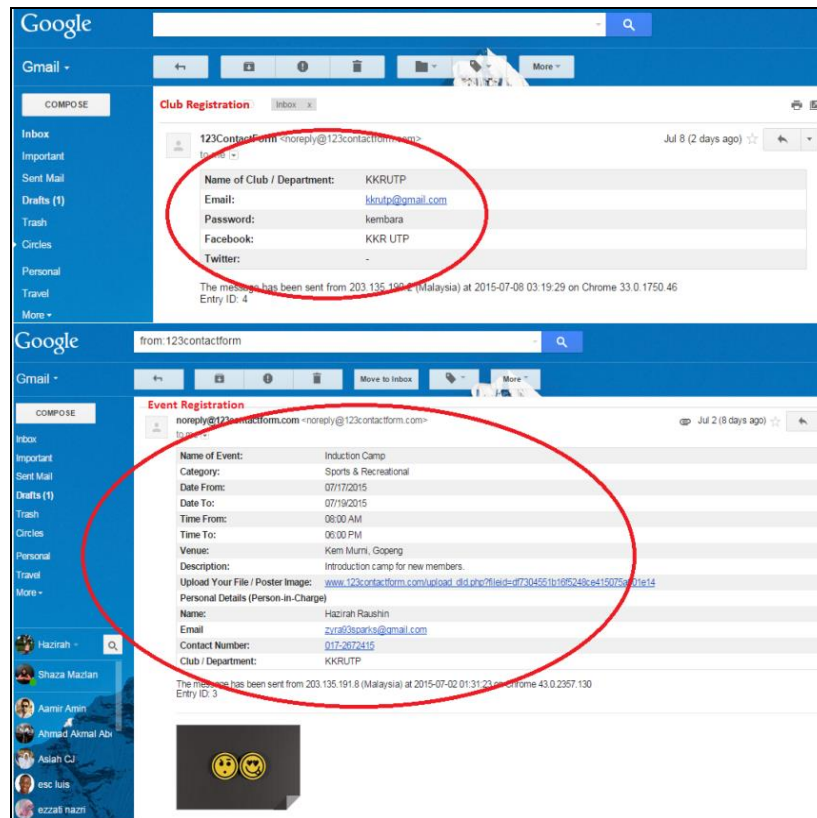


Figure 17: Email confirmation received to admin from the system

Once a registration has been made on both club and event, an email will be sending to the admin from the system and will be forwarded to CSD staffs for event approval process.

CHAPTER 5

RECOMMENDATION AND CONCLUSION

In conclusion, the advancement in the web technologies, designing a system seems reliable and suitable in exchanging information between two parties. From traditional based information sharing, to electronic information sharing environment then upgrade to the new way of greener solution; paperless method that widely implemented in developed countries abroad.

After three months developing this system, the prototype application is tested almost 20 students in different programme and year of study at the same university. The results of the testing showed the excitement of the student towards the system which is a good feedback for the implementation as additional support tool for the university to handle student's events or programmes.

Overall, the objectives of the project have been met and the system has increased the interest of student to get active in their campus events. In another word, to create a user-friendly, time efficient and greener solution for campus event information sharing and registration.

For future recommendations, the system should be upgraded to mobile version in the future. A part from that, the approval status feature for the administration should be enhanced. The system should also be linked or connected to official university portal for guest (non-students) user to get informed any events on the campus. In the future, the system could become one-stop event management portal system that include booking of venue, equipment and tools as well as personnel or technicians.

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