SCHOOL OF COMPUTING

Faculty of Engineering

INDUSTRIAL VISIT 1 - CICT UTM (REPORT)

SECP1513

TECHNOLOGY AND INFORMATION SYSTEMS

SECTION : 08- 1 SECR

COURSE : BACHELOR OF COMPUTER SCIENCE - COMPUTER NETWORKS AND SECURITY

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DATE OF SUBMISSION : 11 NOVEMBER 2019

Introduction

On 20th October 2019, we have visited Gallerium of Centre for Information and Communication Technology (CICT) in Perpustakaan Sultanah Zanariah (PSZ) UTM. This industrial visit was organised by Faculty of Computing for Technology and Information System (TIS) subject and it is compulsory to be attended by the first year students who is taking TIS subject. Originally, the visit was held in CICT. However, the gallerium in CICT was moved to PSZ. Thus, the location of the visit had changed to PSZ on 20th October 2019.

In the gallerium, we were briefed by Mr. Mohd Zahari bin Zainal Abidin. Mr. Mohd Zahari showed and explained to us about the historical technology such as mainframe, printer, magnetic tapes unit and so on. After his explanation, we have gained knowledge about the history of technology as Mr. Mohd Zahari explained about it in details.

ORGANIZATION STRUCTURE

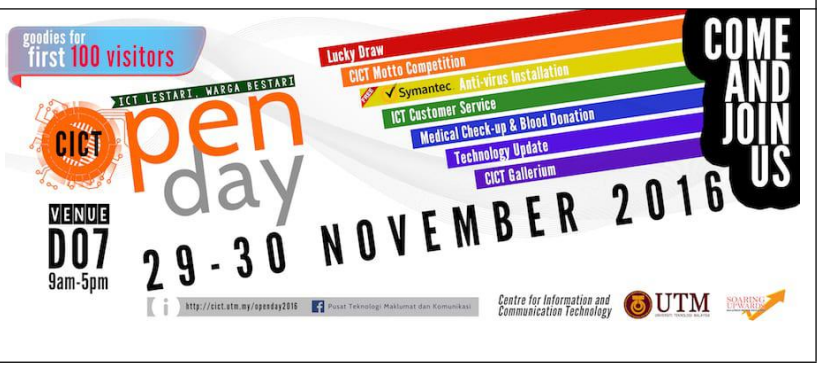
SERVICES

1. Wifi

Wifi in UTM is one of the fastest and the most convenient of all public universities in Malaysia. For instance, the Hotspot@UTM can be used through unified login portal. The students and the staffs can benefits this facility using their ACID account for login. For the guest, it is available upon request especially when an event such as graduation ceremony is held. UTM applied the multivendor access point compatibility where the wifi can be accessed from various range of places. Some of the locations which used the Wireless Controller are the Faculty of Built Environment and Surveying, Bangunan Canseleri Sultan Ibrahim, Faculty of Electrical Engineering and much more.

2. Application Development

The CICT team provides multimedia development such as corporate video, montage, promo video and quality video editing. They also provide graphics design for logo, web, presentation slide, bunting and banner. These are a few examples of the multimedia that have been done by the CICT team.

Examples	Images
Bunting	
Banner	

Poster	
Logo	

3. Software

In order to improve the user's computer security, the university has introduced new Antivirus software for all users in UTM. All users are encouraged to switch to this new symantec antivirus. The users can download this software by using UTM network (intranet access). Through CICT UTM website, users can directly download the latest Anti-Virus software. The users can also View how to install AV on their PCs or mobile devices and if they encounter a problem while installing, they can contact CICT's support team to help them.

4. Facilities

CICT provides Computer Lab for class and training with a capacity of 70 people. The facilities including PA system, 1 LCD projector, screen projector, whiteboard, tables and chairs, 70 computers for students and 1 computer for the instructor with a fast internet service.

Detailed Descriptions about Historic Component

1. IBM Personal System/2 Model 70 386

The Personal System/2 Model 70 increases the function of the IBM Personal System/2 models through new level of performance in a desktop unit. This system includes high density memory technology, Micro Channel Architecture with a 16 or 20 MHz 8 0386 32-bit microprocessor and a wide range of integrated features. In addition, this system maintains compatibility with most existing products for PC in UTM Library as it could support up to 16 MB of high speed real memory. Other than that, Model E61 could support 60 MB while Model 121 supports 120 MB of disk storage. Plus, the advanced graphics and an optional of 80387 Math Co-Processor provides a great performance enhancement for desktop computer operations. Back then, computer with this system supported the Library especially in the improving of desktop operation performance.

IBM PS/2 Model 70 386 Type 8570	
Processor Intel 80386 DX 16 MHz	
Memory	6 MB
Graphics	VGA Graphics
Manufacturer	IBM
Date	1987

2. IBM Personal Computer 300GL

Celeron, Pentium 1, Pentium II and Pentium III were used by this PC 300GL to operate its system.

The micro-tower case had four expansion slots and four drive bays. These systems were packaged in two case form-factors, desktop and micro-tower. There were two variants of the desktop case, one with two expansion slots and one with four. Both variants had four drive bays. Constantly, the system transforms in the Library. This computer is also not expensive which helps to increase the productivity and reduce the cost of ownership of UTM Library,

Components	Processors
Celeron	Clocked at 333, 366, 433, 466 , 500 and 533 MHz
Pentium I	Clocked at 133 and 166 MHz
Pentium II	Clocked at 350, 400 and 450 MHz
Pentium III	Clocked at 450, 500, 533, 550, 600, 667, 733, 800 and 866 MHz

3. IBM 550 POWERserver

The IBM 550 POWERserver is considered as an apt system for a medium-sized database during 1990s technology. Its performance was outstanding as it has the fastest chip in the world at that time. Other than that, model conversion from POWERstations and POWERservers 520, 530 and 540 to the performance of POWERstation 550 can be done by the user. In 1990s, IBM made RS/6000 which was a family of RISC and UNIX-based servers, workstations and supercomputers. The usage of IBM's POWER and POWER Personal Computer based microprocessors was the first time in the history of computer. It replaced the IBM RT computer platform. On October 2000, the new name for RS/6000 was made which is e-Server p-Series. This model used RISC with an IBM A IX 3.2.5.1 operating system.

RAM	192MB
Machine type	7013
Machine model	550L
Machine ID	77
Display	ASCII Display Station IBM 3151 is a 14-inch diagonal color CRT display (specify green, amber or white screen
24 lines of 80-132 characters each consists of	Display/Logic and Keyboard
Optional	Emulation of other ASCII display terminals
Manufacturer	IBM
Date	1990

4. Mainframe Data Storage

Mainframes are able to work with and process data using many different operating systems, applications, and protocols. They are also able to save that data onto many different kinds of storage media. What follows is a brief overview of some of the most common types of mainframe storage media.

This mainframe system served as a data control of students and staff information in UTM in the 1970s at computer centre in UTM Kuala Lumpur.

5. Mainframe Tape Sub-system

This method involves saving data to magnetic tape through a process of digital recording. Most modern magnetic tape storage is packaged in cartridges that can be removed from the tape drives and moved into storage for long-term data archives. The tape drives are the hardware used to write the data to the magnetic tape. Magnetic tape storage is nearly obsolete for handing active data since the time it takes to back up and restore data from magnetic tape cartridges is not competitive with other storage media.

The mainframe tape subsystem was used during 1987 untill 1995 as a ‘back up’ for mainframe system and information database of staff and students as well as other university’s information system.

6. Impact Printer

Impact printer refers to a class of printers that work by banging a head or needle against an ink ribbon to make a mark on the paper. This includes dot-matrix printers, daisy-wheel printers, and line printers. In contrast, laser and ink-jet printers are nonimpact printers.The distinction is important because impact printers tend to be considerably noisier than nonimpact printers but are useful for multipart forms such as invoices.

In UTM, the impact printer was used to print the data information of students and staff during the 1990s untill 2011, This printer was capable of printing in high volumes without stopping for 48 hours.

7. Apple Macintosh Classic Computer

The Macintosh Classic was first introduced in early January 1984. The Macintosh Classic is a personal computer designed and made by Apple Computer, Inc, according to Mr. Mohd Zahari. It has a software memory of 1 MB of RAM and 2-40 MB of hard disk. From the specifications of The Macintosh Classic, we can see that our technology has improved greatly when compare to the technology in 1980s. For example, most of our computers are equipped with high memory of RAM such as 2GB, 4GB, 8GB and 16 GB and also high capacity hard disk. According to Mr. Mohd Zahari, The Macintosh Classic was used in UTM library in the early 1990. During early 1990, its capacity was considered large. Thus, the computer was used in the UTM Library along with the Lotus 123 and Word Star application for work and simple calculation.

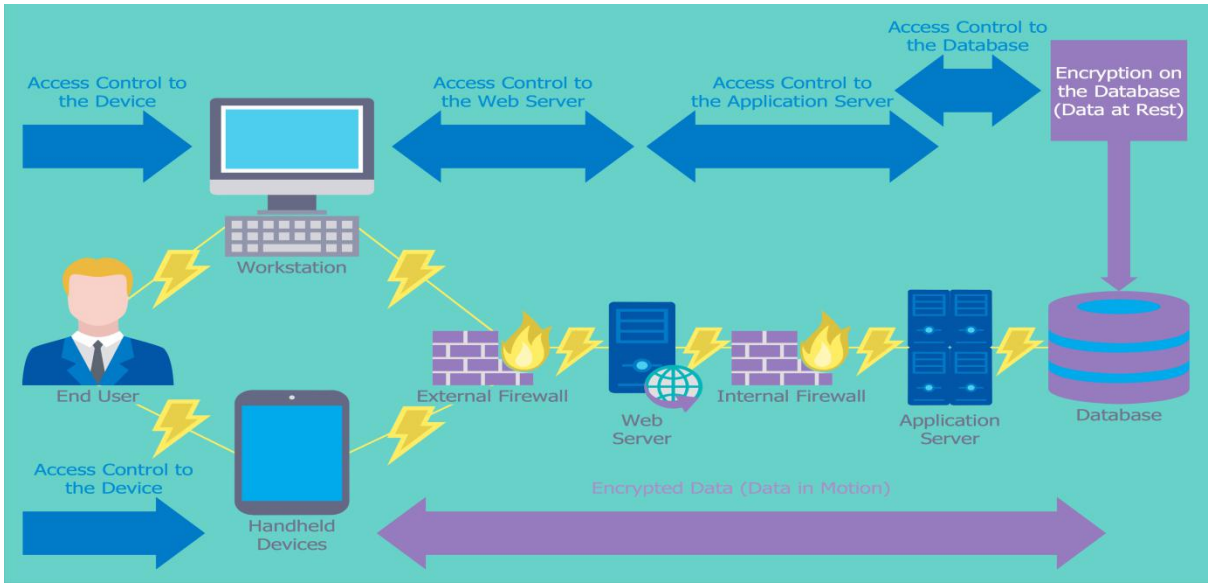
Reflection

As students studying in the course of Computer Network and Security, we all have a dream to make a better and safer network for everyone.

The world in this information age is highly dependent on the networking system especially the internet. Nowadays everyone do almost everything with Internet, from working, socializing with people, to even simple things like finding recipes for food. Unfortunately, the internet is not always safe. Many threats like viruses and hackers appear on the internet and cause problems for internet users that have weak protection.

Our goal is to minimize these threats and/or strengthen the protection for the internet users. As the rise of threats in the internet many company emerged to fight against these threats and protect the internet users from attacks like malware or viruses. We aim to be able to at least be at the same level as the people in those companies or better if possible the best, so we can help make the internet safer for everyone.

In order for us to obtain our goal we need to study very hard about computer network &security in UTM and get good grades as proof that we are capable in being the next protector of the internet. To be able to be the best in this field just studying won't suffice, we need to gain experience from competition and such and also hands on experience from working or in one of the companies.



With this Industrial visit we learn how the computer works and how far the technology of computer has evolved. By knowing this we are now able to view our goals differently. We able to see that by the time we reach our goal the technology of computers has evolved from what it is now and so we need to prepare for that. But, with this visit we also feel we understand more about the computer and feel we a bit closer to our goal and we feel more confident that we will be able to reach it.

As stated in several paragraph above, for us to be able to improve ourselves we need to study very hard. In the world of computer network and security there's so much to learn. First thing, we need to learn about programming like coding in C++ as basic and stepping up to Python or Java language next as these two is the most commonly used language in programming nowadays. Next, we also need to learn about computer networking itself and also how to make networking secure.

In our opinion only studying is not enough for us to improve to be one of the best. We think to become the best we also need hands on experience in computer networking and security. These hands on experience can be obtained from joining competition about computer network and security, or working in the field of network and security in forms of internship or projects. We can also get this hands on experience from seminars or special course and security which usually give practical lessons about computer networking which will definitely improve our knowledge and potential in this field.

Task for each member

Group members :

1. CHUA KEK AN
2. SYAHMINA FA'IZUN WAZIEN BINTI AMLAN
3. MUHAMMAD KEVIN REZZA RAMADAN
4. ABIEL PUTRA DIMYATI

All of us has given cooperation and contributes to this design thinking process. We are able to produce a video and report due to everyone's effort and teamwork. Everyone in our group participates in this project actively and every meeting was attended by everyone.

1. CHUA KEK AN

- Collects information about the history component related to computing
- Provides photos of the history components
- Works on introduction of the report

2. SYAHMINA FA'IZUN WAZIEN BINTI AMLAN

- Collects information about the history component related to computing
- Provides photos of the history components
- Collects information about the CICT

3. MUHAMMAD KEVIN REZZA RAMADAN

- Collects information about the history component related to computing
- Provides photos of the history components
- Corrects the grammar mistakes

4. ABIEL PUTRA DIMYATI

- Collects information about the history component related to computing
- Works on the reflection of the report
- Corrects the grammar mistakes

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