

We are in an age of modern science. Life has changed a lot and changing in every single moment and the reason behind this, modern technology. This technology has made our life easy and comfortable. We can say this Modern Technology and Information System has brought our dreams to reality. That's why our 21st century is already being called as the era of science and technology and we have advanced so much in this field, in just 19 years. TIS turn our world into a global village. This seems unbelievable but yet it has happened. We are getting infinitive numbers of benefits by TIS. Some of them are like Ease Of Access To Information, Ease Of Mobility, Cost Efficiency, Better Learning Techniques, Better Communication, Innovation In Many Fields and so on. Our UTM life is also changing rapidly because of this TIS. And we realized it more after our Industry visit to UTM library. We are getting all our needs in hand through this system. E-learning, Library access, all UTM related mail, moreover our results and everything those what are related to our beloved UTM. And also we got to understand that TIS system is updating very rapidly. En. Mohd Zahari was explaining all about how UTM using TIS. He described how they are switching to latest technology. We got to realize the days of previous decades and we can imagine a little how it going to be after 10 years. We think we students are getting the most benefits in all circumstances. This system is so fast that we are able connect internet in every corner of our varsity moreover we can trace our UTM bus to reach our destination and make sure we are in our class on time. Specially our medical records, exchange program all depends on TIS.

There are variety of history component related to computing as show in the Gallerium, Perpustakaan Sultanah Zanariah, where it was a very meaningful experience that can build up the interest of Computer Science students' to be more passionate through-out the years of studying in this computer field. All of the related history computing components brings different functions that have been used in UTM through-out the years. There was IBM Personal Computer 300GL which was used for almost 10 years being an all-inclusive and less costly computer. It helped extended the productiveness and reduced the price of ownership of UTM Library. The transformation of device is taking vicinity constantly in the Library. Apparently, technological revolution of PC utilization coincides with device trade and this was once evident with the utility of Dynix system.

Also, there was a motto featuring UTM that said 'Untuk Tuhan Dan Manusia' which used a hot stamping block in 1978. This golden hot stamping were used on official publications or documents and can clearly seen against buckram (book covers that are made of a type of cloth). The motto on the logo has changed to "Kerana Tuhan Untuk Manusia" that still used until now.

There was also a machine with outstanding performance that were used in UTM, which is the IBM 550 POWER server with its fastest chip in the world during the 1990's technology. It used to be considered as an apt machine for a medium-sized database at the time. In relation to the Library's technology, the application of the library administration device on a 'freeze' terminal which operated on a Mainframe was once seen as the starting factor of the information technology evolution and performed an extraordinary impact on UTM Library's history. This shows how advanced UTM is not only in this era, but also in ancient times, it has gained a reputation in technology. Obviously, UTM had been performing very well in the global stage.

Furthermore, Radial Line Plotter was also there in the Gallerium. Back in 1960s to 1990s, this Radial Line Plotter was used at the Department of Photogrammetry, Faculty of Surveying to produce topographic maps using a photogrammetry method. By using photographs as the main data source, the students were exposed to mapping concepts and topographic mapping produces. Photographs with overlapped images were attached to this device and the creation of 3D images were displayed through a telescope. It is incredible how technology in UTM is so advanced considering the times they were in. However, this tool was used until the end of 1990s, after that, it was relied heavily on stereoplotter and digital plotter which were controlled by a computer.

Additionally, one of the components displayed in Gallerium is the Time Control Device 'Gralab Model'. It was mainly called as the 'Darkroom Timer'. As the name has the word 'timer', this tool was used to control the time during the process of soaking the microfilms manually in the chemical mixture in the darkroom. Also, this tool was needed to control the period of soaking in accordance with the procedure so as not to affect the quality of the microfilms. Just by looking at the size of it, it was hard to believe that technology has been advancing pretty fast even though it was only about 40-50 years ago.

## **REFLECTION**

First and foremost, as a student who took a course in Software Engineering, our dreams and goals are to be able to make a better world for the future. As we all know, our generations and is full of technology and most of it need a program for it to run its specific tasks. For instance, nowadays, there are applications for ordering food, transportation, finding a life partner and online shopping. All these applications are done by programmer, which is what we are majoring in our university now. Our vision is that the future now requires programming skills for anything includes application, car interface and machinery.

In addition, the show in Gallerium has many benefits towards us in terms of education and the future. It is wonderful how UTM and the students survived back in the days where technology was still not advance. Most of the tools or technologies there quite big in a size compared to what we have now, for example a timer size is as big as a book but now we have it in the palm of our hands. These tools were used in around 1970 – 1990, somehow, we can see nowadays that technology has been too advance even though it was only around 30-40 years ago. As technology is advancing, we are trying our best to learn better in our course to make the upcoming generations in a better world.

To improve our potential in the industry firstly we need to know and set our goals. By setting our goals we will know all step that we need to take so our future become clearer. In setting our goals, we need to set our goals based on our strength and ability. Lots of students set their goals just based on what people always talked about around them. This might leads them become unsuccessful person considering that a successful person is someone who know their strength and weaknesses and they can implement their strength also always improve their self. Secondly, we need to learn continuously. As a result

of technological developments we need to always catch up with all these innovations. Also in achieving all our goals, after reaching one goal obviously we still have many goals that we still want to achieve. Surely a lot of knowledge that we must have and then we apply. As a result of that, we should not easily satisfied and always gain our knowledge.

Networking is one of the most important potential that we need to improve in the industry. Mostly hiring happens through networks. Building networking and realizing goals are 2 things that are very closely related. In an effort to realize the goal requires extensive networking. This is important because realizing dreams does not necessarily result in one's own efforts, but also with the help of friends, colleagues, and even our enemies. Extensive network makes us learn better than before. Building networking is not a place to use one another. Networking is an opportunity to find out whether our values are appropriate or not with the people we know. Networking is a place for mutual learning and not using one another. The goal is to contribute to one another and work together to create a common goal.

Growing an entrepreneurial spirit is very important for everyone. The establishment of a business is not an instant thing. There are many stories of successful entrepreneurs starting from pioneering small businesses to becoming businesses that can develop rapidly and successfully. Most obstacles for someone, especially students who try to start a business are influenced by several factors such as fear of trying, limited capital, innovation, and intention. These four factors can actually be overcome if someone has positive and creative thinking. Students as future successors must respond to it well in order to be able to take advantage of existing opportunities.

### **EACH MEMBER TASK**

Maidul Hasan Masum (A19EC4011)

- Prepared questions to ask the CICT staff regarding the tour visit
- Recorded every detail descriptions and explanation by the staff (for the report use)

Husny Musharraf Bin Shamsul Kamal (A19EC0051)

- Took pictures of the history components and the descriptions
- Gathered all the informations that related about history components that we've got during the tour sessions

Robby Samudra (A19EC0279)

- Drafted all the sequences of our activities plan
- Jotted all notes and summarized the necessary questions for the Question and Answer session

Nabila Husna Binti Rosli (A19EC0110)

- Prepared report and coordinates report writing