UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SECP1513-07 TEKNOLOGI DAN SISTEM MAKLUMAT

ASSIGNMENT 01

(Poster on 4th IR, Industrial Talk 1 & 2)

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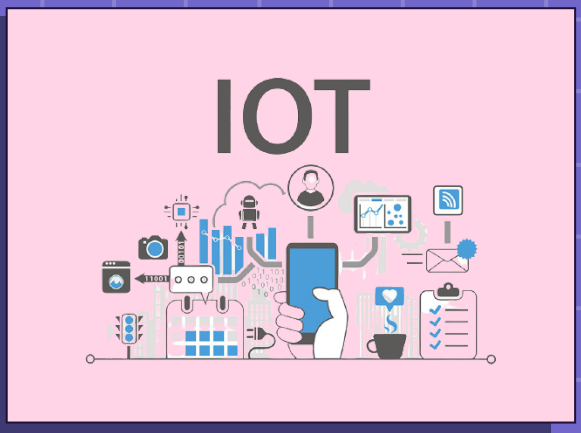
The Internet of Things (IoT)

The fourth industrial revolution is changing people's lives worldwide, making people enter the intelligent age. The term Internet of Things was put forward in the United States in 1999, but it has gradually entered our lives closely related to our lives. **Internet of things** is through various information sensors, infrared sensors, radio frequency identification system（RFID）, global positioning systems, laser scanners, and other devices and technologies, combined with the Internet 5G, to achieve intelligent identification and link management of objects. The **Internet of Things** can connect everything in the world with the Internet 5G and combine the information of various objects through the network to form a massive Internet of things system. The application of the **Internet of things** involves all aspects, such as industry, agriculture, transportation, logistics, etc. Through intelligent development and management, people, things, and network have changed people's way of life and work and improved work efficiency. Internet of Things technology has effectively improved military intelligence, intelligent missiles, aircraft, and others in life and the military. Shortly, countries with developed IoT technologies will make a huge leap in national capabilities.



Details & Example of IoT

In the 21st Century, our lives have been improved from better to better during the Industrial Revolution 4.0 (IR 4.0). IoT is also a part of IR 4.0, which help our lives go digitally no matter around the business or in our home or on the road to anywhere.

How are, do IoT works?

- When devices or objects with built-in sensors are connected to an IoT platform, the data from the many devices are combined, and analytics are applied to share the information with apps designed to answer specific needs.

- Example:

One day, you plan to take a flight to Bangkok at 11 a.m, and the flight company ask you to arrive at KLIA 2 hours earlier, but the time is the peak hour in Klang Valley Region. So, an IoT-enabled alarm clock would reset the suitable time to wake you up. While for the GPS System will also calculate the route and consider the factor you might face on the road. The GPS System will consider those factors and navigate you to KLIA in the best way and shorter time.

Reflections towards IoT

Internet of Things had entered our daily life, we can use IoT devices to ensure our schedule is on time. While the following is the benefits of IoT from my view:

- Smart home systems improve the quality of life, which can control all applicants with one device and it runs automatically.
- In the educational region, IoT helps students to get their personalized education plan which can increase their study effort and results.
- For the agriculture sector, the IoT helps our farms to water the crops according to the current weather and other factors, which can produce the best quality of crops.

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TECHNOLOGY INFORMATION SYSTEM & FOURTH INDUSTRY REVOLUTION

SPEAKER

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INTRODUCTION

TM is one of the most advanced and well-known telecommunication company in Malaysia. We live in the era of technology revolution which the way we live is closely related to technologies. Throughout the talk, you will find out that the arrival of the 4th industrial revolution is very distinct from the past. The evolution of the industrial revolution is increasing at an exponential rate and affects almost every industry in a positive way. Adoption areas within the 4th industrial revolution includes cloud and digital, smart cities and 5G.

EXECUTIVE SUMMARY

The talk briefs about the specialty and unique features of 4th industrial revolution. The world is undergoing the evolution of rapid progression in technology. Malaysia also started their journey in 4th industrial revolution such as application of smart services in digital government, digital economy and digital society. The clear explanation of advanced technology such as cloud and digital, smart cities and 5G gives the attendees a clear vision of the future world we are going to live in.

CONTENT OF THE TALK

• CLOUD AND DIGITAL

With cloud and digital, everything can be done online. The advancing improvement of it in the 4th industrial revolution makes everything convenient and easier for the people. As an example, digital pay is enabled for online purchase, digital working platform prepares the space for online user collaboration etc. This very much suits the people nowadays who are living in a fast pace. The enhancement of digital experience gives a brand-new vision to everyone, leading us to a new technological era.

• SMART CITIES

The application and combination of technologies in a city which strives to improve operation efficiency. Smart cities aim to have everything under supervision, easing the people and the corporation. For instance, logistics performance can be tracked with smart fleet and total visibility is enabled for water industry. Without a doubt, these smart services can make our live easier. However, the approach for smart cities requires the cooperation of all parties, especially from local government and private enterprises.

• 5G

This new generation of wireless technology aims to provide internet services with higher speed. Its ability to connect devices other than handheld devices grants it a wide range of possibility. Already, machines and artificial intelligence can be found everywhere around us, from self-driving cars to drones and even daily electrical appliances. The significant implication of 5G can have great impact to every industry such as agriculture, security etc.

REFLECTION

From the industrial talk, we get to know that the 4th industrial revolution plays an essential role in improving human's quality of life. The innovation of cloud and digital helps human to use the internet for greater and wider purposes. The smart city keeps everything on track and give humans a more intuitive view. On the other hand, 5G enables strong and instantaneous connectivity, constructing a truly connected world.

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Cyber Security Malaysia serves as an agency which helps users to reduce vulnerability of digital system. It is highly trusted with great reputation and plays an essential role in promoting and implementing the 4th Industrial Revolution. With reliable statistics and information, the talk presents out the necessity of the innovation in manufacturing industry, together with the readability of Malaysia towards 4th Industrial Revolution.

Technology Information System and Fourth IR

The talk illustrates the current progression of 4th Industrial Revolution in Malaysia. The evolution of industrial revolution in Malaysia is forced to advance due to multiples manufacturing aspects such as international competition, global economic order etc. The digitalization of the manufacture industries is unavoidable for the greater need and benefit. However, Malaysia is facing difficulties in introducing the 4th industrial revolution, the necessary means and measures are further discussed throughout the talk.

From the industrial talk, we get to know that Malaysia is already on the track of stepping towards the 4th Industrial Revolution. It is also an undeniable fact that great effort is needed to advance Malaysia towards 4th Industrial Revolution. This innovation of technology particularly helps the manufacturing industry in producing higher quality products with lower labour cost. With high hopes and great efforts from all parties, Malaysia is looking forward in becoming one of the most advanced country in smart manufacturing and related services.

ISSUE DISCUSSED IN THE TALK

Industry 4.0 Transformation

The 4th Industrial Revolution is a must in Malaysia due to various internal and external reasons. From the manufacture aspect, the transformation is necessary for higher quality of labour with lower base model. The international competition puts on high pressure on Malaysia industry to strive towards evolution.

Malaysia Issues and Challenges

The lack of talents and technology halts the continuous progression of 4th Industrial Revolution. Government support together with people's effort is needed to promote the establishment of the evolution. Money, skills, and awareness play the most essential role in implementing the 4th Industrial Revolution.

Attract, Create, Transform

(A-C-T), the optimum approach against 4th Industrial Revolution is hoped to enhance the progression of evolution. Attracting stakeholders, creating the correct Ecosystem and transforming Malaysia's industry capability are the key actions in bringing success to Malaysia industries.

ACT

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