



SECP 1513 - Sec 07





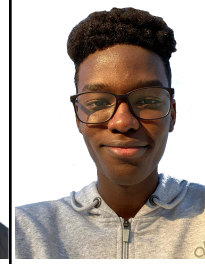
**TECHNOLOGY AND INFORMATION SYSTEM
ASSIGNMENT:**

**ASSIGNMENT 1, POSTERS ON:
4th IR, Industry Talk 1 and Industry Talk 2
GROUP 6**

LECTURER: Hairudin Bin Abdul Majid

DUE DATE: 13/11/2021

Group leaders contact number: 016-5653191

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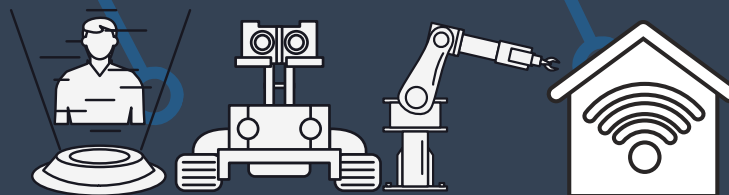
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INDUSTRIAL 4.0

MOVING FORWARD TO A BETTER FUTURE



INTRODUCTION

- Industry 4.0 is a new stage in the structure and control of the industrial value chain that is used interchangeably with the fourth industrial revolution.
- Manufacturers are incorporating new technology into their manufacturing facilities and processes, such as the Internet of Things (IoT), cloud computing and analytics, and AI and machine learning.
- In the 4th industrial revolution, artificial intelligence was born.
- Advanced sensors, embedded software, and robots are used in these smart factories to gather and analyze data, allowing for better decision-making.

REFLECTION

- According to the 1st talk, the key components of industry 4.0, such as cloud computing, manufacturing, e-commerce, autonomous robots, the internet of things, and data systems, were already in place. These components have the potential to make our technology more effective and efficient.
- As a result, global players such as TM Telekom and others Telekom are positioned today. They have formed partnerships and are working on Industry 4.0 solutions while also producing demonstrations. It allows us to do a lot of things and not squander our time.
- We do not hesitate to follow the lead of industry 4.0, as this period presents us with numerous potential to improve and expand our country's technological capabilities.
- The talk also taught us to look at our surroundings. Are we still using a manual process like writing on paper? Or are we have using technologies efficiently in our daily life?
- Therefore, to qualify for technologically sophisticated workplaces, we, as consumers, must become used to these technologies especially in the Internet of Things in everyday life.

INTERNET OF THINGS

The Internet of Things (IoT) is a system of interrelated and internet-connected objects that can gather and transmit data without the need for human interaction across a wireless network.

Any physical object that can be connected to the internet and controlled or communicate information can be transformed into an IoT device.

INTERNET OF THINGS APPLICATIONS

Smart Home, Wearables, Smart Cities, Connected car

INTERNET OF THINGS DEVICES & EXAMPLES



CityBikes app, App&Town, SOS info built thanks to Open Data of the City

IoT trash cans report their status in real-time

ApparkB and Bicing encourage Smart Mobility

Smart City Campus Innovation Area to promote synergies and innovation in urban solutions



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1st INDUSTRIAL TALK

TECHNOLOGY INFORMATION SYSTEM & 4TH INDUSTRIAL REVOLUTION

EXECUTIVE SUMMARY

In summary, 4th IR is really important to thrive our nation to modernity.

Industrial Revolution has gone through four phases, and nowadays it is focusing on cyber physical systems, networks, IoT and all aspects of human's life. TM served the nation since 1946 and supported the revolution of 4th IR in Malaysia. TM has contributed a lot to our nation, by driving the Digital Nation agenda for Malaysia. TM also supports government initiative and protects the nation's infrastructure from any intrusion.



Speaker: Mr. Nazri Edham

Head of Product Design, TM Commercial

Date: 1st November 2021 Time: 3pm – 4.30pm



INTRODUCTION



The speaker mentioned that the lifestyle might change in couple years later as everything is going autonomous and efficient after the 4th IR. Nowadays, TM Commercial is targeting to connect Malaysian everywhere, inclusively, with enriched digital lifestyle and empowering and creating values businesses digital possibilities.



REFLECTION



From the industrial talk, we learned and realized that 4th IR is really vital for the improvement of human's life, future of work and business. Therefore, we as the future leaders of this nation, should be motivated and learn about what are the possibilities and benefits that 4th IR brings and take advantages of this phase of time where everything in life is going efficient and autonomous. Through 4th IR, we should also appreciate the current technology as its benefits which are helping us making our country technological advanced and bringing our country becoming a modern country also having the ability to compete with other countries. Therefore, students and graduates must prep up their skills and knowledge on applying technology into daily life from now in order to be qualified into technologically advanced workplaces.



CONTENT OF TALK



TM journey to support 4th IR



TM drive the Digital Nation agenda for Malaysia

- Connecting Malaysians
- Empowering and creating values businesses digital possibilities
- Supporting government initiatives



Adoption areas with 4th IR:



Cloud/Digital

- Outcome - innovative business model etc.
- Digitalization of services

Smart Cities



- Allow a city to adapt and respond



5G

- Next generation of mobile network evolution



WAY FORWARD

The improvement of 4th IR will help to create a lot more opportunities, potentials and jobs.



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2nd INDUSTRIAL TALK

TECHNOLOGY INFORMATION SYSTEM & 4TH INDUSTRIAL REVOLUTION



CyberSecurity
MALAYSIA

Speaker: Ms. Sarah Khadijah Taylor

Strategic & Project Manager Digital Forensics Department

Date: 2nd November 2021 Time: 3pm – 4.30pm



Introduction

- The talk was from Ms Sarah, a representative of CyberSecurity Malaysia, an agency under KKMM, to secure nation's cyber space
- Industry 4.0 is an infusion of automation to the manufacturing sectors which enhances efficiency.
- The shift in the global economy, the rate of technology advancement, the increasing complexity of the global supply chain, the competitiveness of nations, the increased regulations, and the emergence of new products move us towards industry 4.0



EXECUTIVE SUMMARY



- The geographies and global value of production is changing allowing Malaysia to have new opportunities to transform itself to IR 4.0.
- The new technology that improves product quality is becoming normal requiring Malaysia manufacturing firms to adopt these technologies to stay competitive.
- The enablers for the transformation to industry 4.0 are:

The funding to start private investments, the infrastructure to secure industry 4.0 operations, including SMEs to power a step-in labor productivity, upskilling the labors, the collaborative platforms to foster the development and access to cost effective technologies

- Cybersecurity Malaysia is determined to create high skilled knowledge workers, to develop guidelines that are accepted by the international standards, to setup labs to create and test products

Reflection

- This talk motivates us to gain more awareness towards the importance of IR 4.0 and how we need to approach the transformation to its technologies just like how the development of AI can shift us from manual labor to automation
 - As an example, IR4.0 has created many new automation industries such as transportation and surgeries being done by robots.
- Also, the development of simulations in manufacturing will ease the process of making more complex and flawless products.



CONTENT OF TALK

Transformation to IR 4.0 issues :

IR 4.0

- Advance digitalization
- Advanced technologies
- Efficient resource utilization



- Lack of developments to support IR 4.0

- Demand for customization to local products



- Demand for digital readiness and connectivity to SMEs

- Demand for high cost investments

Malaysia's A-C-T policy (addressing issues)



- Attract stakeholder



- Create the right ecosystem



- Transform industry



- Limited digitization

- Lack of clear standards



- Shortage of experts

- Limited cooperation and etc.

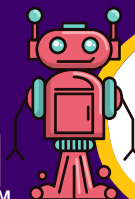
WAY FORWARD

Vision

- To become a strategic partner for smart manufacturing in Asia Pacific.
- To become a primary destination for high tech industry and to become a solution provider for advanced technology

Goal

- To increase labor productivity growth, to offer high skilled jobs and to increase innovation capacity



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