

Internet of Things

What is IoT ?

A SYSTEM OF PHYSICAL THINGS EMBEDDED WITH SENSORS, SOFTWARE, CONTROL SYSTEMS, ELECTRONICS AND CONNECTIVITY

ALLOW BETTER COLLECTING AND EXCHANGING INFORMATION WITH OTHER CONNECTED DEVICES, OPERATORS OR MANUFACTURERS TO IMPROVE THE QUALITY OF HUMAN LIFE

Examples

HOME SECURITY (SMART HOME)



- sensors, alarms, lights, etc of your house are connected by IoT and can be controlled through software on smartphone 24/7

ACTIVITY TRACKER

- sensor devices collect users' information and data by sensors and transmit the health indicators in real-time

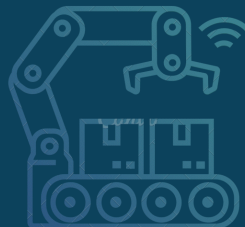


AR GLASSES

- lightweight computer that is worn like eyeglasses
- the lenses of the glasses display the information and it can access to variety of applications (Gmail and Google Maps)

INDUSTRIAL INTERNET

- engineers use IoT technology to create powerful machines such as robots that can speed up industrial processes and work without human power



Introduction of 4th IR



- 4TH IR (INDUSTRIAL REVOLUTION)
- FIRST INTRODUCED BY A TEAM OF SCIENTISTS WORKING FOR THE GERMAN'S GOVERNMENT
- PROMOTES TECHNOLOGIES THAT COMBINE HARDWARE, SOFTWARE AND BIOLOGY WHICH IS ALSO CALLED CYBER-PHYSICAL SYSTEM (CPS)
- THESE TECHNOLOGIES SIGNIFICANTLY CHANGE HOW PEOPLE LIVE, WORK AND COMMUNICATE NOW AND IN FUTURE

Reflection



LEARNING 4TH IR HAD HELPED US TO ENHANCE OUR KNOWLEDGE ON IOT. IOT HAD BROUGHT A LOT OF BENEFITS TO US, ESPECIALLY IN OUR DAILY LIFE. IOT GATHERS AND PROCESSES A HUGE AMOUNT OF DATA AND INFORMATION FROM HUMANS TO MAKE LIFE BECOMES EASIER AND MORE CONVENIENT. HOWEVER, WE NEED TO BE CAUTIOUS TO BE HACKED BY LAWBREAKERS OR CRIMINALS FOR PERSONAL BENEFITS IN ORDER TO PREVENT INFORMATION LEAKAGE ON IOT. BESIDES, WE MUST ALSO BE ALERT WHEN IOT COLLECTS OUR DATA TO PROTECT OUR PRIVACY.

References

https://en.wikipedia.org/wiki/Fourth_Industrial_Revolution

4th Industrial Revolution

by: **TM**

Summary

Mr. Nazri briefly explained about the 4th Industrial Revolution and the adoption areas with 4th IR in various fields. He showed that how 4th IR technology increase the efficiency and performance of complex procedure to help to develop our country.

Introduction

Mr. Nazri had represented journey of TM to support the evolution of 4IR in Malaysia. TM provides Data Centres, Cloud Services and Internet of Things to help the developing of Digital Malaysia including Digital Government, Digital Economy and Digital Society.

4th IR technology adoption area

Smart Fleet

help to improve the logistic performance and efficiency

Smart Manufacturing Solutions

help in driving production volume and speed up sales transaction as well as improving overall manufacturing performance

SWIMS

provide total visibility for water industry in order to reduce water wastage and increase water revenue.

5G vs 4G

	5G	4G
Latency	few ms	30~50ms
Throughput	10 Gbps per connection	100 Mbps per connection
Connections	1000 K per km ²	10 K per km ²
Mobility	500km/h	350km/h
Network Architecture	Slicing	Inflexible

Reflection

Throughout this talk, we have learned about the importance of 4th IR and how it helps us in various field such as industry, economy and society. The future of our country and lifestyle is closely related to 4th IR technology now. Therefore, as Malaysian, we should give support to TM which the pioneer of 4th technology in Malaysia to make Malaysia become more advance and better in the future.

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IR 4.0: A MALAYSIA PERSPECTIVE

INDUSTRIAL TALK 2.0



MALAYSIA ISSUES & CHALLENGES

DEMANDS

- awareness
- innovation
- digital readiness and connectivity
- skill enhancement
- high cost of investment
- best practices

SUPPLY

- governance
- funding and incentive
- ecosystem support
- training providers
- standards and digital integration
- infrastructure

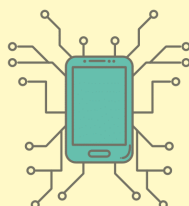


CYBERSECURITY MALAYSIA

AN AGENCY UNDER THE
MINISTRY OF
COMMUNICATIONS AND
MULTIMEDIA

AIM

SECURE THE NATION'S
CYBER SPACE



PEOPLE

CREATE KNOWLEDGE
WORKERS

- upskilling
- certification and job-attachment program
- awareness program



PROCESS

DEVELOP PROCESS
ACCEPTABLE BY NATIONAL
STANDARDS

- develop process method, SOP, and guidelines

TECHNOLOGY

SET UP LAB TO TEST AND
CREATES PRODUCTS

- product development and testing
- pilot project

MALAYSIA MOVING FORWARD TO

- UPSKILLING & RESKILLING
- INCLUSIVE INVOLVEMENT OF SMES
- SIGNIFICANT EVOLUTION IN INNOVATION
- FOCUSED FUNDING SUPPORT
- GOOD DIGITAL INFRASTRUCTURE

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COMMUNITY

CyberSAFE
Cyber Security Awareness For Everyone

INCREASE AWARENESS ON
ONLINE SAFETY AND SECURITY
ISSUES

CyberGuru
CYBER SECURITY PROFESSIONAL DEVELOPMENT

INFORMATION SECURITY PROGRAMS
FOR ONGOING PROFESSIONAL
DEVELOPMENT

MyCERT
Malaysia Computer Emergency Response Team

PERFORMS 24X7 COMPUTER SECURITY
INCIDENT RESPONSE SERVICES

CyberCSI
Cyber Crime Investigation

INVESTIGATION AND PROSECUTION
FOR CRIMINAL CASE (DIGITAL
FORENSICS)

REFLECTION



THROUGH THIS INDUSTRIAL TALK, WE ENHANCED OUR UNDERSTANDING ON IR4.0 IN MALAYSIA PERSPECTIVE. THE RAPID EVOLUTION OF MANUFACTURING INDUSTRY HAD PRODUCED MORE TECHNOLOGICALLY-COMPLEX PRODUCTS. THIS DRIVE THE COMPETITIVENESS AMONG COUNTRIES. MALAYSIA FACED MANY PROBLEMS BUT DEVELOPED A POLICY TO ADDRESS THE ISSUES AND CHALLENGES. WE SHOULD BE INNOVATIVE AND ALWAYS IMPROVE OURSELVES TO REMAIN COMPETITIVE IN THE MANUFACTURING FIRMS. BESIDES, WE MUST ALSO INCREASE OUR AWARENESS IN CYBER SECURITY TO PREVENT LEAKAGE OF OUR PERSONAL INFORMATION AND DRAGGED IN CYBERCRIME.