

INDUSTRIAL 4.0: PAST, PRESENT, **FUTURE**

Speaker: Redzuan Shah Bin Yussoff

(Director, Southern Strategic Economic Region, Telekom Malaysia)

Industrial revolution is an era of digital transformation. The main focus that contributing to the change. It involve many technologies and are used in a variety different complexes. Each piece of technology is similar in nature, but when integrated together, it creates capability that has never before been possible

HISTORY OF INDUSTRIAL REVOLUTION



•IR 1.0 (1784)•

The era which transform from muscle power to mechanical power. Mechanical power is derived from steam. Example: steam engine train

• IR 2.0 (1870) • The birth of electricity.

Major contributor is Thomas Edison. This is the era in which max production of goods and materials were shared throughout the world & emergence of factory

•IR 3.0 (1969)•

The birth of first PLC and microcontroller. Mainly digital revolution. Example: electronic and

IT systems, automation

●IR 4.0 (Today)●

The birth of artificial intelligence (AI). The era in which all three elements comes together and start to explore into Al mechanism









System integration

Autonomous robot





Industrial <u>IO</u>T

Cyber security

Cloud computing

REFLECTION

We need to understand the past to appreciate the present and learn about how it will change our life in the future.

1. Education

- online learning
- lecture via digital (webex)

2. Commerce

- e-commerce
- online shopping (shopee, lazada)

3. Transportation

- electric car connected to cloud
- can enjoy movie inside car
- automatic drive to destination
- choose type of car, time (Grab, Uber)

4. Accommodation

- smart home
- connected to internet
- can control house from inside or outside the house (light, air condiioning)

5. Food delivery

order food from application (food panda)

6. 5G

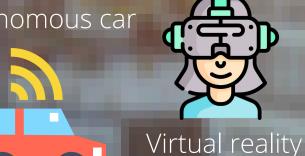
- 5G accelerates IR 4.0
- deliver services for safer, sustainable and enrinching community

TRENDS OF THE FUTURE

In Malaysia, the development on IR 4.0 technology in technology companies is increasing over the years and gives higher opportunities on these emerging industries.



Autonomous car





Smart home

3D printer

WAY FORWARD OF IR 4.0



- Minimize the cost of transition Make sure infrastucture is to IR 4.0
- Studies more about IR 4.0
 - ready