

INDUSTRIAL 4.0: PAST, PRESENT, FUTURE

EXECUTIVE SUMMARY

- mainly about artificial intelligence.
- consists of totally 9 pillars.
- The speaker of industry talk, Mr Redzuan have emphasised in 5 main characteristics of 4IR
- he also mentioned that 5G is a prominent key factor to boost the development of 4IR.
- 4IR is happening now and will bring better transformation to the future.

AUTONOMOUS
ROBOTS

AUGMENTED
REALITY
(AR)

MAIN CHARACTERS
OF

4IR

BIG DATA
ANALYTICS

INTERNET
OF THINGS
(IOT)

CLOUD
COMPUTING

INTRODUCTION

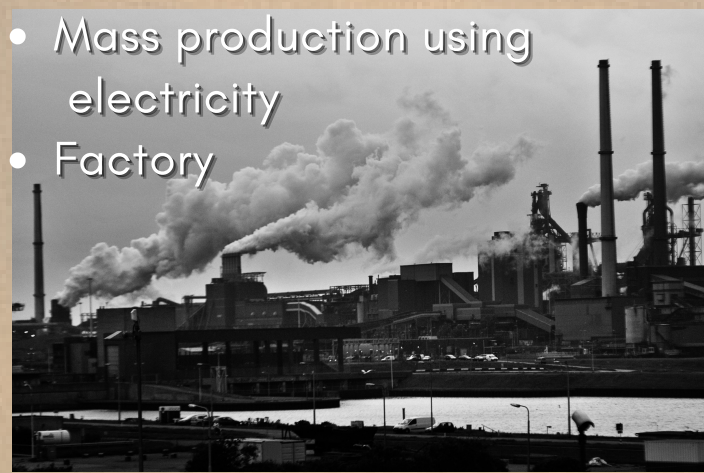
FIRST INDUSTRIAL REVOLUTION

- Steam engine train
- Manual



SECOND INDUSTRIAL REVOLUTION

- Mass production using electricity
- Factory



THIRD INDUSTRIAL REVOLUTION

- Era of automate production
- Digital and computing



FOURTH INDUSTRIAL REVOLUTION

- All the elements of previous industrial revolution come together
- Artificial Intelligence (AI) mechanism



CONTENT

Autonomous Robots

- Perform task by themselves
- Laser scanners, camera, microphones, force-torque and spectrometers
- Reduce errors
- Improve cycle times
- Used in spaceflight, household maintenance and other services



Cloud Computing

- Application-based software infrastructure
- iCloud, Google Cloud, Google Drive and Dropbox
- Easy way to access servers, storage, database and a full range of application services



Internet of Things (IoT)

- Google Home, Samsung SmartThings, and Philips Hue incorporates internet into real life



Augmented Reality

- Provide information in the forms of text, graphics or audio in real-time
- Pokémon Go
- Tourism Application



Education 4.0

- Learning by digital
- WebEx, Google Meet and Zoom



Commerce 4.0

- e-commerce
- collecting user's shopping patterns
- Shopee and Lazada



Electric Car Industry

- Use electricity to power the car
- Elon Musk
- Tesla - use cloud computing and fully autonomous



Smart Home

- Turns house into an intelligent machine
- Allow user to control their lights, CCTV, electrical appliances and kitchen appliances using your phones through an internet connection
- Tuya and Aqara



Service Apps

- Better transformation to the humanity
- Uber, Grab, Foodpanda, Google, Amazon and Aerodyne
- Convenience



Future of Work

- great development in invisible analytics, artificial intelligence, virtual reality, video consumption, 3D printing, drones, wearables and much more



- Enabling Digital Malaysia
- Smart Tourism and Smart Agriculture
- TM 5G Smart City Solutions - accelerate the 4.0 IR

REFLECTIONS

WHAT WE GAIN FROM THE TALK?



1. The 4.0 IR is mainly about artificial intelligence and consists of totally 9 pillars.
2. 4.0 IR is very important information that we ought to know and adapt to it.
3. Despite 4IR absolutely brings numerous conveniences to us, we believe that it will also produce troubles. Thus, it will enable us to do cogitation about every creation that we want to make analytically and holistically before we launch it to minimize the consequence toward human and also environment.
4. 5G Digital Malaysia is the agenda brought by TM Malaysia in order to bring a bright future for Malaysia.
5. We probably will work in collaboration with robots and the robots might able to have the ability to think itself just like humans.
6. It seems illogical but the technological revolution will basically make all impossible things to become possible.
7. As a computing student, we will be very honored if we have a chance to contribute our efforts in the 4.0 IR.