INDUSTRY REVOLUTION 4.0: PAST, PRESENT, FUTURE

MUHAMMAD ABDUL AZIM, MUHAMMAD AMIR SYAFIQ,
NUR AMEERA HANINA, KHALID ABDIRAZAK

INTRODUCTION

*The **Fourth Industrial Revolution (IR 4.0)** is the ongoing of traditional manufacturing by using the modern technology with large scale of mchine to machine (**M2M**) communication and Internet of Things (**IoT**) that are integrated to increase the automation, improved communication and self-monitoring. Most of the company and organization operating today face the challenges which is the need for connectedness and access to real-time insights across process, partner, products and people.*

Industrial Revolution

INDUSTRIAL REVOLUTION 1.0 (IR 1.0)

- *17th - 18th Century*
- *Mechanization & introduction of steam and water power*

INDUSTRIAL REVOLUTION 2.0 (IR 2.0)

- *The birth of electricity by Thomas Edison*
- *Mass production assembly line using electricity*

INDUSTRIAL REVOLUTION 3.0 (IR 3.0)

- *The era of computing and digital revolution*
- *Automated production, computers, IT-systems & robotics*

INDUSTRIAL REVOLUTION 4.0 (IR 4.0)

- *The era of Artificial Intelligence (AI)*
- *The Smart Factory, Autonomous systems, IoT & Machine Learning*

BENEFIT

- ***Education 4.0***

Learning experience using Virtual Reality (VR)

- ***Commerce 4.0***

Service provider will study our shopping pattern

- ***Smart Home***

Control our home via smartphone by using AI

- ***Smart Traffic Light***

Gather information from vehicle such as plate number, type of vehicle and etc.

- ***Introduction to 5G***

Provide faster download and upload speed to make our work easier

- ***Cloud Computing***

Save our document or file on the cloud to prevent the virus attack our files

Summary

In conclusion, industry 4.0 has been defined as "a name for the current trend of automation and data exchange in manufacturing technologies, including cyber-physical systems, the Internet of things, cloud computing and cognitive computing and creating the smart factory". Meanwhile, the development of the internet technology also happened during the era. Industry 4.0 is said to be based on the digital revolution. Industry 4.0 is about cyber-physical systems and systems that can connect the digital world with biological systems like humans through the internet. However, the reasons why industry 4.0 is important are the benefits, it helps manufacturers with current challenges by becoming more flexible and reacting to changes in the market easier. It also can increase the speed of innovation and is very consumer centered, leading to faster design processes.

Reference

- https://en.wikipedia.org/wiki/Fourth_Industrial_Revolution
- https://www.studymalaysia.com/education/top-stories/the-fourth-industrial-revolution-ir-4.0-and-what-it-means-for-students-like-you