

### SECP1513-03 (TECHNOLOGY AND INFORMATION SYSTEM) Group 4

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## INTRODUCTION

### 4TH industrial revolution:

We are currently implementing the 4TH industrial revolution. It is the era or the birth of artificial intelligence. An era which all three elements (1ST, 2ND, 3RD industrial revolution) come together. In this period, we start to explore mainly about artificial intelligence mechanisms. Industrial 4.0 contains 9 key components. That are autonomous robots, stimulation, system integration, industrial internet of things, cybersecurity, cloud, additive manufacturing, augmented reality and big data and analytics.

### Why IR 4.0 invented?

Increasing in human productivity is the main reason for the invention of industrial revolution 4.0. The technologies used in IR 4.0 like artificial intelligence, autonomous robots and augmented reality helps humans a lot in their daily lives and also helps us to think and make smart and innovative choices that never invented before. It also helps us to make good decisions faster.

### Benefits of IR 4.0:

The first is it improves productivity. Humans can produce more and faster of their products which is cost effective and more efficient. Second, IR 4.0 improves efficiency. By using IR 4.0 related technologies multiples areas of our production line will become more efficient



## CONTENT BASED ON THE SITUATION

In the present, Autonomous Robots is one of the AI components. It is the advancement of 3rd industrial revolution to IR 4.0. These robots can automatically carry out tasks and aid in improving accuracy. They are equipped with a variety of technologies such as laser scanners, cameras, microphones, sensors and spectrometers that could open up more possibilities to perform more functions in different fields.

For the education sector, by now, most of the schools are adopting to IR 3.0 when there are online teaching and learning through online platforms such as Google Meet and Cisco Webex. IR 4.0 comes in when there is the use of AR and VR. Unfortunately, some of the higher learning institutions in Malaysia face difficulties in practising IR 3.0 in education.

Nowadays, there are some applications such as Uber and Grab that has altered the taxi calling service in the past. During the past years, people have to wave their hands beside the road or call the taxi drivers with phone numbers. By now, passengers can set their desired locations, pick-up time, and vehicle types as well as read the drivers' information before calling the taxi service. Besides, people are adapting to the new way of food ordering service where the Foodpanda service was established. Shopee and Amazon are the Commerce 4.0 platforms that influenced the consumers' shopping behaviours in the present. The invention of the search engine and website, Google has assisted in people's productivity.

In the future, there will be certain jobs related to IR 4.0 arose based on the prediction of the present trend. According to the Malaysian Technology Companies 2020 statistic, IoT sectors hold the highest number of companies (73%), followed by Cybersecurity sectors (42%) and Simulation (38%). It is believed that there will be more employment possibilities in these industry sectors.

## EXECUTIVE SUMMARY

Mr. Redzuan Shah Bin Yusoff starts the talk with past, present, and future where he wants us to understand the past, appreciate the present, and learn how it changes in the future. He also explains the changes from the 1st to 4th industrial revolution with the respective examples.

Education 4.0 is very important and it can be seen through this pandemic. If there is no online class, all the education is postponed until covid-19 is successfully solved. Students cannot attend any class to get knowledge

E-commerce 4.0 now is more efficient since the covid-19 cases. For the services from the restaurant like delivery, Food Panda now is more famous. Online shopping also becomes a daily event for some people through Shopee, and Lazada when we were locked down.

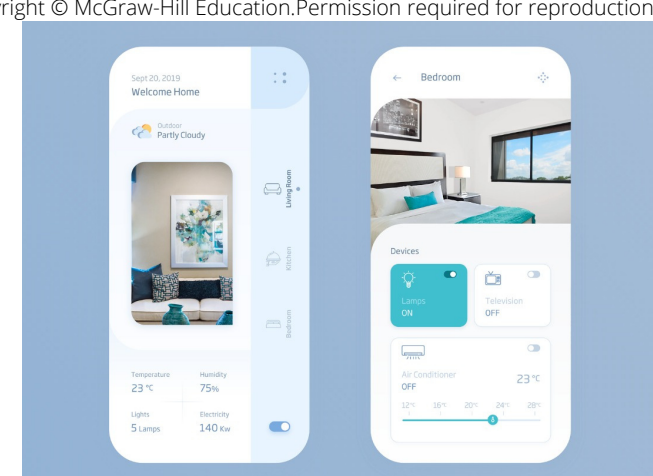
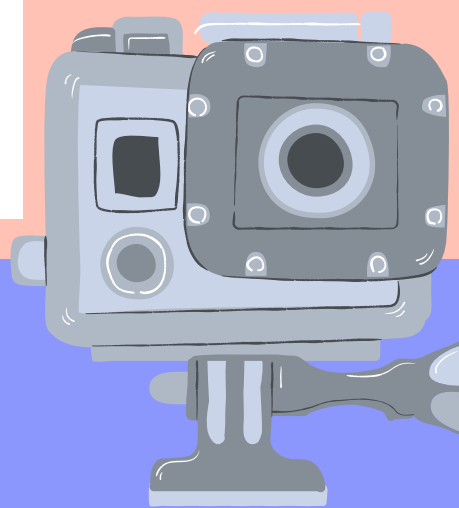
We cannot predict what will happen as time goes on. The comparison of the job from past to present and to future is a big difference. We need to improve ourselves in our field and train our imagination for the problem faced to understand better. Internet becomes a psychological need to everyone during MCO and Internet usage has a big increase. Malaysia now is working toward the 5G technology where it needs fiber ready and spectrum and wait for MCMC.

## SUMMARIZE REFLECTION

Today the internet is used in every aspect of our lives, we may have not noticed it in the past, but as we live through the pandemic, we have realized how crucial it is, today we can practice open distance learning in our education without worrying about the spread of the virus.

Moreover, the Internet has prevented the economy from collapsing as many enterprises are already operating on the Internet, such as e-commerce businesses or the taxi businesses like Grab. We also learned about how the internet can be used in smart homes and smart cars through cloud computing and how that helps us live a safer and easier life.

The speaker at the end of the talk encouraged us to learn more about the different fields of computer science and to work hard on our design and creative thinking as it will help us in solving the problems that we may face in our future in this field.



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