

IR 4.0: Industrial Talk 1 by TM

Introduction

In simple terms, Industrial Revolution 4.0 (IR 4.0) or Industry 4.0 refers to a new phase where the boundaries between the physical, digital, and biological worlds is blurred. It's a fusion of advances in artificial intelligence (AI), robotics, the Internet of Things (IoT), 3D printing, genetic engineering, quantum computing, and other technologies. IR4.0 further optimizes the computerization of IR 3.0 and connects the computers to communicate with one another to ultimately make decision without human involvement.

Executive Summary

national connectivity and digital infrastructure for us. The fourth industrial revolution has also occurred as a result of technological advancements. Cloud computing and the internet of things are the two central concepts of Revolution 4.0. (IoT). 4IR is expected to have a significant impact on how we live and work. For example, during this pandemic of COVID-19, we have all been taught to shop online, despite the fact that groceries and the majority of stores now have their own online store. To make this aspiration a reality, however, all efforts from other sectors, such as healthcare and industry, are required. Briefly, Industry 4.0 is a digital reality that will change the rules of production, operation and works even the communities. Therefore, All organisations must work cooperatively to transform this technology for the greater good of all.

How does industry 4.0 benefit the economy, government, and society?

Modify our modes of communication. Numerous processes are being digitalized. For instance, dispatching activities. Historically, dispatching activities were carried out manually, but as the environment changed and technology advanced, the majority of dispatching activities adapted and evolved to more efficient methods. They combined time-honored techniques with splitting technology to create a seamless result. For example, customers will stay in touch with their parcels until they arrive.

Reflection

Our globalisation is progressing toward a better life by maximising the use of technologies, thanks to recent technological advancements. However, technology can help streamline tasks, coordinate events, and more. Think about it. We used to rely on expensive prepaid lines to communicate with people miles away, but now we only use the internet and can communicate with people worldwide. And it can save lives. Prefer IoT devices. In 2021, their apple watch called 911 after detecting a hard fall and saving a man's life. And because technological advances can benefit us, society, and our country, we must value them.

Source: shorturl.at/ctxQ5

EXAMPLES OF 4.0 ADOPTION AREAS

Enchantment of technology in certain areas

CLOUD COMPUTING

Change the ways we communicate.
Example:
-Dispatching works
Customers can track their packages until they arrive, and they can register them online before sending them to a third party.



SMART CITIES

Example of smart cities:
• Smart traffic light systems
1. control traffic system on the road to avoid vehicle crash in any directions.



5G NETWORKING

Benefits of 5G
• Industry automation
• Business potential increment
• More capacity of wireless
• Fast increment of communication



5G VS 4G

4G

- 30-50 ms
- 10K
- 100 Mbps
- 350 km/h



5G

- Latency
- Connection
- Throughput
- Mobility

- Few ms E2E Latency
- 100K connection per km
- 10 Gbps per connection
- 500km/h



Benefits of industry 4.0

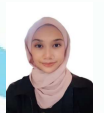
Low cost

simplification of work

Production optimization

Who is the entity in charge of ensuring that development IR 4.0 in Malaysia?

Numerous organisations, such as the government and vertical services, can contribute to Malaysia's advancement. Malaysia has a diverse range of vertical services, including banking and healthcare. Consider the healthcare industry. They can provide a robot to serve the hospital's patients.



Nur Aisyah Fatimah Binti Mohamed Rozi
A21EC0107



Aina Najwa Binti Mohd Rozi
A21EC0010



Loke Rui Kee
A20ET0329



Sofia Anak Henry
A21EC0133



Muhammad Azamuddin Nasution Bin Raduan
A21EC0069

