TECHNOLOGY INFORMATION SYSTEM & 4.0TH INDUSTRIAL REVOLUTION

The industrial talk was held on 1st November 2021. This talk was about Industrial Revolution 4.0 and a little bit about TM and how they underwent a particular journey. The speaker, Mr. Nazri Edham, Head of Product Design, TM Commercial, mentioned that everybody in the ecosystem plays a role in enabling this 4th Industrial



By Mr. Nazri Edham (Telekom Malaysia)

INTRODUCTION



1784

First Revolution

- Mechanization
- Steam Power
- Water Power

Second Revolution

- Mass Production
- Assembly line
- Electricity

Third Revolution

- Computer
- Electronic
- Production/

Automation

Today

Forth Revolution **Cyber Physical Systems**

- IR4.0 2011 (manufacturing)
- 4IR 2015 (all aspect of human life)



TELEKOM MALAYSIA JOURNEY TO SUPPORT 41R

★ Data Centres

Expand data centre space based on the demand by its client both from public and private sectors. Data centres are the building blocks for a robist cloud strategy and a successful digital transformation

★ Cloud Services

TM ONE CLOUD α is the only Malaysia-owned aggregator and provider of end-to-end cloud infrastructure and services to enterprises and government institutions. With Cloud α , your business will be able to fulfil its cloud strategy swiftly and

★ Internet of Things

System of physical things embedded with sensors, software, electronics and connectivity to allow it to perform better exchanging information with other connected devices, the operator or manufacturer

3

Smart Water Integrated Management System (SWIMS)

The SWIMS is a system that provides total visibility for the water industry, reduces water wastage and increase water revenue

CONNECTIVITY

➤ Low power technology such as Narrowband Internet of Things (NBioT) & low-power wide-area network (LoRaWAN)



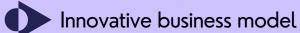
Near real-time pipeline monitoring water quality, water level sensing and measuring the chemical composition in the treatment water after wastewater

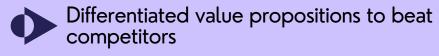
SMART METER

Smart meter reading and control for consumer, commercial, district meter area and plant

OUTCOME OF THE







NEXT GENERATION OF MOBILE

1. Enhanced Mobile broadband

communications (mMTC)

3. Ultra-reliable & low latency

Connecting all; voice call, text

messages and machine intelligence

communications (uRLLC)

2. Massive Machine type

NETWORK EVOLUTION 766



Efficient operations

5G allows for:

(eMBB)

SMART CITY

A smart city at ts core intuitively adapts and responds to the needs of its citizen (citizens' problems, sustainability, persona) through technological enablers

There are several major characteristics are used to determine a city's smartness such as a technology-based infrastructure, environmental initiatives, a high functioning transportation system and a confident sense of urban planning









SMART SERVICES

Single Focus

 Addressing major pain points, introduce pilot projects, extend/improve existing services

In Clusters

 'Vertical' digitalisation & collaboration through multiple party, public-private partnerships

City Wide Involves commitment from both government & private enterprises, a dedicated blueprint for smart city development, and cross

subsidy, combine budgets





SMART FLEET

4IR enables digital solutions to boost overall efficiency and provide real-time including visibility into operations throughout the supply chain

To ensure the safety and compliance of vehicles in order to optimize the fleet

To modify driver and fleet operator behaviour through the use of data analytics and algorithms by providing advisory roles

REFLECTION

The 4.0th Industrial Revolution has the potential to raise • global income levels and improve the quality of life for populations around the world. To date, those who have •gained the most from it have been consumers able to afford and access the digital world. Technology has • •made possible new products and services that increase the efficiency and pleasure of our personal lives

REFERENCES

- https://www.tmone.com.my/solutions/cloud-services/
- https://www.nst.com.my/business/2021/04/681752/telekom-malaysiaexpand-data-centre-space
- https://www.libelium.com/iot-solutions/smart-water/
- https://internetofthingsagenda.techtarget.com/definition/smart-city
- https://development.asia/explainer/what-smart-water-management



MUHAMMAD MUHAMMAD FIKRI BIN SHARUNAZIM HASAN BIN CHE ABDULLAH (A21EC0075) (A21EC0077)







MUHAMMAD IQMAL NADIA SYAFIQAH BINTI ALIYA ZARENA BINTI (A21EC0080) A21EC0098 A21EC0013