



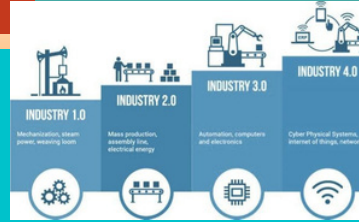
INDUSTRIAL 4.0: PAST, PRESENT AND FUTURE

INTRODUCTION

THE FIRST INDUSTRIAL REVOLUTION MAINLY OCCURRED FROM THE PERIOD OF 1760 TO AROUND 1840. NOTABLE DEVELOPMENTS DURING THAT ERA INCLUDES THE TEXTILE INDUSTRY, STEAM POWER, IRON MAKING, INVENTION OF MACHINE TOOLS ETC.

THE SECOND INDUSTRIAL REVOLUTION IS USUALLY KNOWN AS THE TECHNOLOGICAL REVOLUTION. IT MAINLY OCCURRED FROM THE LATE 19TH CENTURY TO THE BEGINNING OF THE 20TH CENTURY. NEW TECHNOLOGICAL SYSTEMS LIKE TELEPHONES, ELECTRICAL POWER, STEAM TURBINE ETC WERE INTRODUCED DURING THIS ERA.

THE THIRD INDUSTRIAL REVOLUTION MAINLY STARTED IN THE MIDDLE OF 20TH CENTURY. IT INTRODUCED US TO INVENTIONS LIKE SEMICONDUCTORS, MAINFRAME COMPUTERS, PERSONAL COMPUTERS, INTERNET AND SO ON.



FUTURE OF WORK

JOB'S OF TOMORROW:

SMART HOME, INDUSTRIAL ANALYTICS, ARTIFICIAL INTELLIGENCE, VIRTUAL REALITY, VIDEO CONSUMPTION, WEARABLES, MOBILE PAYMENTS, CONNECTED CAR, DRONES, 3D PRINTING etc. ARE THE CONTENTS OF FUTURE.

CLOUD COMPUTING

It is mainly the on-demand availability of the computer system resources. For example, data storage and computer power systems.



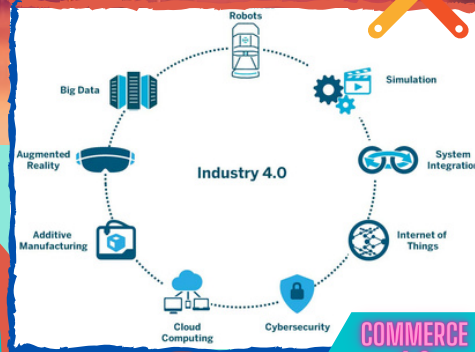
INTERNET OF THINGS

IoT mainly focuses on the physical objects. It makes sure the physical objects can connect and exchange data with various devices and systems using internet.



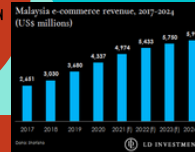
augmented reality

AUGMENTED REALITY (AR) IS THE VIRTUAL VERSION OF THE REAL PHYSICAL WORLD THAT USES DIFFERENT VISUAL, SENSORY, SOUND ELEMENTS USING MODERN TECHNOLOGY.



COMMERCE 4.0

COMMERCE 4.0 IS CURRENTLY IN PROGRESS. BUT WITH THE LIKES OF LAZADA, AMAZON AND MANY OTHER ONLINE TRADING PLATFORMS, PEOPLE CAN NOW TRADE ONLINE.



EDUCATION 4.0

IR 4.0 HAS MASSIVE IMPACT ON EDUCATION. ARTIFICIALLY DEVELOPED SYSTEMS CAN BE USED IN LABS FOR MUCH PRECISE AND ACCURATE CALCULATIONS. VR CAN BE USED TO LEARN ABOUT DIFFERENT THINGS IN A VIRTUAL WORLD.



BIG DATA ANALYTICS

IT IS A PROCESS OF TO KNOW ABOUT DIFFERENT HIDDEN PATTERNS, CUSTOMER PREFERENCES AND SO ON. IT IS USED TO GET INSIGHTS FROM TODAY'S HUGE DATA COLLECTIONS. IT CAN BE ANY FORM OF DATA LIKE STRUCTURED, SEMI STRUCTURED AND UNSTRUCTURED.



Development of IR 4.0 In Malaysia:

According to the survey made by Malaysian technology companies 2020, the number of IoT companies focusing on the development of IR 4.0 in Malaysia is the most. Besides, other companies related to Cybersecurity, Simulation, System Integration, Advanced Material, Artificial Intelligence, Big data analytics, Cloud Computing, Autonomous Robots, Augmented reality, Additive manufacturing etc are also working for the development of IR 4.0 in Malaysia. The digital infrastructure, connectivity and digital solutions of Telekom industry of Malaysia will fast forward Malaysian Industrial Revolution 4.0 and beyond. They are providing cloud services, data centres and IoT for the development of IR 4.0 in Malaysia.

REFLECTION:

We have learnt from the talk session that project industrial 4.0 can also be incorporated in our everyday lives. A project consists of time, cost, benefit, risk, scope and quality. He explained, it is possible to connect all these components to our lives. We all live to achieve profit in life, but with time on the line, the cost of it can be crucial. So when understanding our priorities, we need to scope our potential and assess the risks. We can have a quality performance in life only when we passionately do our duties.

DEVELOPMENT OF IR 4.0 IN JOHOR

ISKANDAR PUTERI DATA CENTRE LOCATED IN JOHOR IS TIER 3 DATA CENTRE. TO SUPPORT IR 4.0 IN JOHOR TELEKOM MALAYSIA IS BUILDING THEIR CORE NETWORK OR ASSET. JOHOR INTERNATIONAL INTERNET GATEWAY IS LOCATED IN ISKANDAR PUTERI WHICH WILL PLAY A GREAT ROLE FOR THE DEVELOPMENT OF IR 4.0 IN JOHOR.

TELEKOM MALAYSIA IS COLLABORATING WITH DEVELOPERS FOR THE DEVELOPMENT OF 'SMART HOMES' FOR THEIR COMMUNITY. NOW TM IS FOCUSING ON 5G SMART CITY SOLUTIONS.