

Industry 4.0

INTRODUCTION AND CONTENT

In this talk, we will learning what of the important range in era digital transformation. The main focus for industrial 4.0 is contributing to the change. The concept is not the simple one because it envelop many technology and is uses in a variety differant contents.

COMPONENTS OF INDUSTRIAL 4.0

1. AUTONOMOUS ROBOTS
2. AUGMENTED REALITY
3. CLOUD COMPUTING
4. INDUSTRIAL INTERNET OF THINGS
5. SIMULATION
6. BIG DATA AND ANALYTICS
7. ADDITIVE MANUFACTURING
8. CYBERSECURITY
9. SYSTEM INTEGRATION



- EDUCATION 4.0 – IR 4.0 IN EDUCATION ARE WHEN PEOPLE BEING EDUCATE BY USING VR. MOST SCHOOL IN MALAYSIA ARE STILL STRUGGLING TO ADAPT WITH 3.0 REVOLUTION
- COMMERCE 4.0 – NEWER GENERATION MORE COMFORTABLE EMBRACING THE E-COMMERCE LIKE SHOPPEE AND LAZADA. 4.0 REVOLUTION E-COMMERCE, IT CAN STUDY OUR SHOPPING
- TESLA 3 – THIS KIND OF CAR ARE ONE OF 4.0 INDUSTRY REVOLUTION. IT CONNECTED TO THE CLOUD, AN ELECTRIC CAR, THE BATTERY CAN LAST MORE THAN 300 MONTHS, THE SPEED OF THE CAR CAN BEAT A FERRARI AND LAMBORGHINI, IT IS FULLY AUTONOMOUS (CAN DRIVE BY ITSELF)
- HOME – NOWADAYS HOME ARE CONNECTED TO THE INTERNET. IT IS CALLED SMART HOME OR CONNECTED HOME. PEOPLE CAN CONTROL THE HOUSE WHETHER IN THE HOUSE OR REMOTELY AWAY FROM THE HOUSE. CAN PROVIDE SOME INTELLEGINCE
- NOWADAYS PEOPLE USE THESE – UBER, GRAB, FOODPANDA, SHOPEE, GOOGLE, AMAZON, CONVES, AERODYNE(COMPANY THAT FOCUSING ON DRONE), TESLA

- PAST JOBS
- 1. COMPUTER OPERATOR
- 2. FILM PROJECTIONIST
- 3. ICE CUTTER
- 4. LAMPLIGHTER
- 5. PRINT SETTER
- 6. RAG AND BONE MAN
- 7. SWITCHBOARD OPERATOR
- 8. TYPESETTER
- 9. TYPIST

- PRESENT JOBS
- 1. BIOMASS PLANT TECHNICIAN
- 2. BLOGGER
- 3. CLOUD SERVICES SPECIALIST
- 4. COMMERCIAL MARKETING SPECIALIST
- 5. GREEN FUNERAL DIRECTOR
- 6. MOBILE APP DESIGNER
- 7. SOCIAL MEDIA MANAGER
- 8. WIND TURBINE
- 9. ZUMBA TEACHER

- FUTURE JOBS
- 1. 3D PRINTING TECHNICIAN
- 2. BIOMECHANICS SERVICE PERSON
- 3. COMPUTER VISION ENGINEER
- 4. DE-EXTINCTION ZOOLOGIST
- 5. ELECTRONIC TEXTILE DESIGNER
- 6. ETHICAL HACKER
- 7. INFOGRAPHIC DESIGNER
- 8. MACHINE LEARNING ENGINEER
- 9. TRANSPHOSSION TECHNICIAN

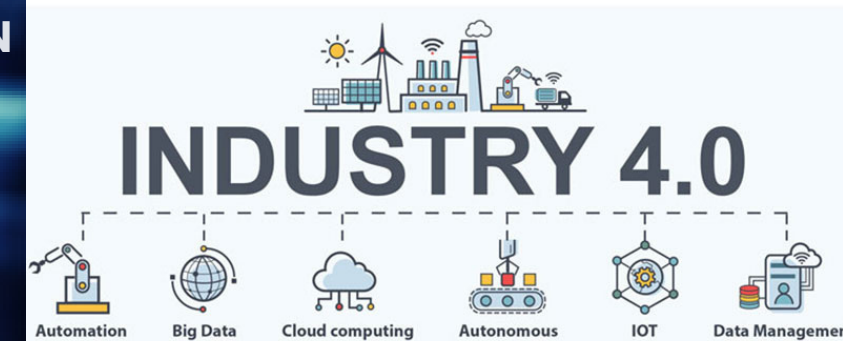
REFLECTION

IN TODAY'S WORLD, INDUSTRIAL REVOLUTION (IR) 4.0: PAST, PRESENT, FUTURE TALK WILL PLAY A PIVOTAL ROLE IN EVERY MANKIND LIFE. IN A WAY, IT SETS AS A MOTIVATIONAL EXAMPLE BECAUSE IN ORDER TO ACHIEVE A GREAT FEAT THAT CAN BE A HELPING HAND TO THE SOCIETY TO MAKE LIFE EASIER ONE SHOULD HAVE COURAGE AND DETERMINATION TO CREATE INVENTIONS FROM THE WILDEST IMAGINATION OF DREAMS. FOR EXAMPLE, SOME THE GREATEST INVENTORS WE HAVE HAD OVER THE TIME SUCH AS THOMAS ALVA EDISON WHO INVENTED THE PHONOGRAPH, INCANDESCENT LIGHT BULB AND NIKOLA TESLA FOR INVENTING FIRST ALTERNATING CURRENT (AC) MOTOR, TRANSMISSION TECHNOLOGY TOOK SUCH A HEFTY RISK AND HAD COURAGE TO MAKE IT HAPPEN TO CREATE A BETTER FUTURE FOR TOMORROW'S NEW GENERATION.

MOREOVER, WE GOT ANOTHER INSIGHT FROM THIS INDUSTRIAL TALK WHICH IS THAT THERE WILL BE NO LIMITS FOR IMAGINATIONS ON TECHNOLOGY. THIS IS BECAUSE TECHNOLOGY IN EVERY SECTOR HAS BEEN INCREASING RAPIDLY AND GETTING IMPROVISED DAY BY DAY. THE TECHNOLOGY WE HAD SEEN YESTERDAY IS GETTING BETTER THE FOLLOWING DAY AFTER IMPROVISATION TO EASE HUMAN'S LIVES EASIER. THIS THE KIND OF WORLD WE HAVE BEEN LIVING IN BECAUSE EVERYONE STARTING FROM FARMER TO ENTREPRENEUR ALWAYS TEND TO MAKE THEIR IMAGINATIONS POSSIBLE THROUGH INVENTIONS TO REDUCE THE HUMANS' WORKLOAD AND TO CREATE A MORE URBANIZED WORLD. THEREFORE, WE LEARNED THAT IMAGINATIONS ARE NOT THE KEY TO THE NEW TOMORROW.

SUMMARY

IN THIS HIGHLY COMPLEX OF SOCIETY, THE WORLD IS IN THE PROCESS OF TRANSITION TO A NEW INDUSTRIAL REVOLUTION. INDUSTRIAL REVOLUTION (IR) 4.0: PAST, PRESENT, FUTURE ENABLE US TO UNDERSTAND THE PAST, APPRECIATE PRESENT AND THE CURRENT SITUATION AS WELL AS KNOW ABOUT HOW IT WILL CHANGE OUR LIFE IN FUTURE. THE FIRST INDUSTRIAL REVOLUTION OCCURS IN 17TH TO 18TH CENTURY. IN THIS PHASE MECHANICAL POWER, WHICH IS DERIVED FROM STEAM ENGINE, IS USED TO REPLACE MANUAL WORK. NEXT, THE SECOND INDUSTRIAL REVOLUTION INVOLVES THE USE OF ELECTRICITY WHEREAS AT THE THIRD INDUSTRIAL REVOLUTION, THERE OCCURS THE BIRTH OF PLC, MICROCONTROLLER AND SO ON. THIS IS AN ERA OF COMPUTING OR COMMONLY KNOWN AS DIGITAL REVOLUTION. AFTER THAT, IN FOURTH INDUSTRIAL REVOLUTION, ALL THE THREE ELEMENTS ABOVE COME TOGETHER AND THEN ARTIFICIAL INTELLIGENCE (AI) IS EXPLORED. FOR COMPONENTS OF IR 4.0, AUTONOMOUS ROBOTS ARE INVENTED, WHICH WOULD HELP IN REDUCING ERRORS AND IMPROVING CYCLE TIMES. FOR INSTANCE, THERE ARE A LOTS OF FACTORIES ADOPTING AUTONOMOUS ROBOT SUCH AS FACTORIES OF BMW AND TOYOTA. THEY USE SCANNERS, MICROPHONES AND SO ON TO SENSE AND GENERATE. THE NEXT COMPONENT ARE CLOUD COMPUTING AND INTERNET OF THING (IOT), WHICH ARE THE COMPUTER SERVICES. BESIDES, THERE ARE ALSO AUGMENTED REALITY (AR), WHICH IS CONVENIENT TO USE IN TOURISM FOR VIEWING THE PLACES AND SO ON. MOREOVER, BIG DATA ANALYSIS IS HELPFUL IN ANALYZE AND GET ANSWERS OR DECISIONS FROM ALL THE DATA GIVEN. IN FUTURE, WE WOULD HAVE USE 5G INSTEAD OF 4G, WHICH HAS BEEN USED CURRENTLY BECAUSE OF THE RAPID DEVELOPMENT IN OUR COUNTRY. 5G IS NEEDED TO ACCELERATE THE IR 4.0 TO DELIVER SERVICES FOR A SAFER, SUSTAINABLE AND ENRICHING COMMUNITY.



IR 4.0