

ISSUE 03 | JULY 2022

MIFA IN ACTION

MALAYSIA INDUSTRY FORWARD ASSOCIATION

ASEAN Industry
Forward Association :

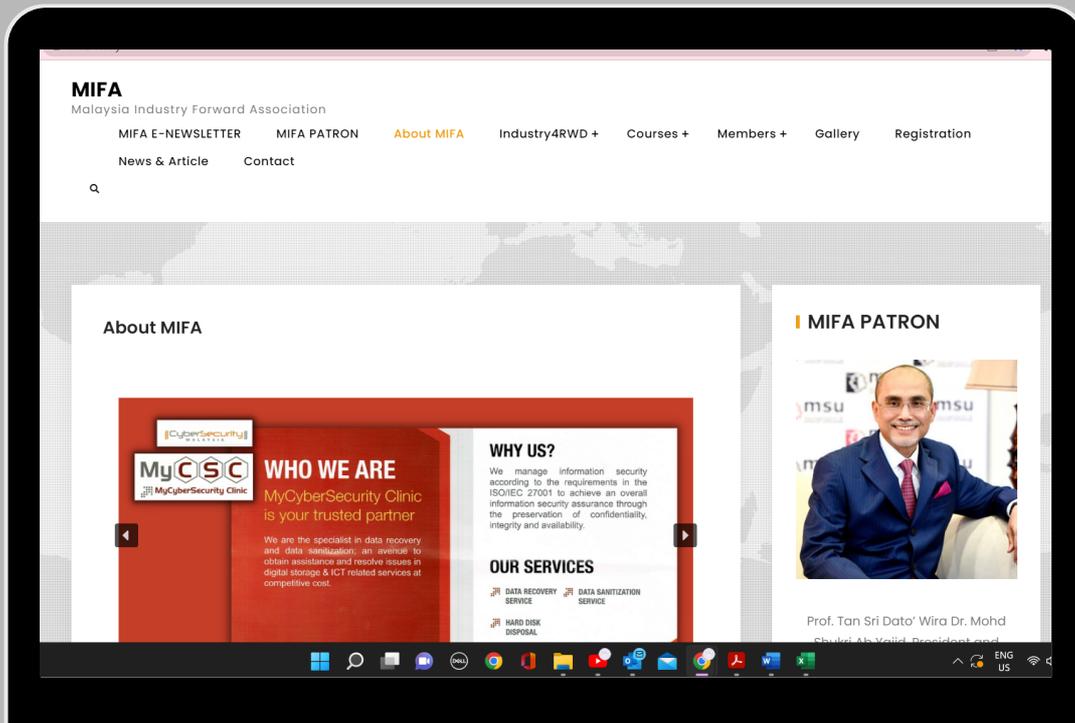
Extending presence in
ASEAN countries

MOSTI

Ministry of Science, Technology and Innovation

Science, Technology & Innovation :
Humanising Technology

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INTRODUCTION

OBJECTIVE

To be the leading community platform that provides outstanding members value relates to Malaysia Industry4WRD Policy. It will connect related stakeholders, entrepreneurs, researchers, and policymakers with a strong voice of influence on the innovation, development, and market deployment of I4.0 & IR4.0 technologies & applications while stimulating and spearheading a favorable business environment.

MISSION

- Promote adoption, usage, and governance of IR4.0 implementation.
- Deliver outstanding member's value to all key stakeholders among business communities & policy makers (govt).
- Advocate and shaping guidelines for the IR4.0 best practices.
- Generate new business opportunities, increasing collaborations among members and building professional standing.
- Build a sense of community-belonging among its members.
- Develop a comprehensive digital library or knowledge bank including successful implementation of testimony and case studies into use case scenarios.



THE PRESIDENT REMARK



remark

Alhamdulillah, this time MIFA managed to issue the third edition of the e-Newsletter in July in conjunction with the *Minggu Sains Negara* by MOSTI with the theme of Social Innovation.

Social Innovation is the use and implementation of innovative solutions to overcome problems and challenges in creating economic wealth as well as strengthening social values for the well-being of society and environmental sustainability.

Nations are dealing with stagnant economic expansion, unstable financial conditions, political unrest, hunger, poverty, and disease. These are all social issues that need to be addressed in some capacity, and as a result, there are significant business opportunities.

Now that business leaders understand that financial goals are no longer sufficient for their organizations' survival, they should recognize the greater potential for social innovation. Companies must recognize that they have the ability to lead the way and influence positive consumer behavior changes that can improve current standards.

We hope that more programs like this from the government and NGO's can assist more innovators in developing more technological inventions to help economic growth.

TS. MUHAMMAD DIDI HENDRA SHAH BIN NORHARASHID, P.TECH, CMILT
MIFA President
Managing Director of Hadi Venture Sdn. Bhd. & IOT Sata Sdn. Bhd.

Science, Technology & Innovation : Humanising Technology



Assalamualaikum & Salam Keluarga Malaysia.

Science and technologies are changing the way we live and do things in many ways that we could not previously predict. In the world that we are living today, innovation is the key ingredient for us to move forward into a developed nation, fueled by knowledge-based economy (k-economy).

In order to overcome the challenging times due to the recent pandemic and economic crises which cost us lots of lives and interrupted economic growth, Malaysia must seize the significant science and technological advancement opportunities that the world has offered through various innovations and latest inventions.



Businesses are improving their productivity by adopting and adapting new technologies including autonomous systems, robotics, drones, artificial intelligence and remote sensors into their current operations. New industries are being created together with new range of products and services alongside technological advancements, via digital platform-based solutions.

The adoption of new technologies also bringing well-paying jobs for people of all qualifications, improvements in quality of life, increasing productivity and offering a better life for tomorrow.

To ensure that no one is left behind, we must work together. MOSTI under my stewardship will continue to engage with all relevant NGOs to ensure strong collaborative framework continue to exist between the government and the industry players for the benefit of our nation.

As such, I would like to congratulate Malaysia Industry Forward Association (MIFA) for the continuous efforts in giving awareness to all the Fourth Industrial Revolution (IR 4.0) technology players and tech enthusiasts on the importance of science and technological advancement in benefitting us from all walks of life.

This publication (MIFA IN ACTION) does what it takes to become the preferred reading material for IR 4.0 technology players as well as the whole Keluarga Malaysia to keep updated with the current information from the industry players' perspective.

Way to go, MIFA!

YB DATO' SRI DR. ADHAM BABA
Minister of Science, Technology, and Innovation MALAYSIA

MOSTI MINGGU SAINS NEGARA AND HARI RAYA CELEBRATION

YB Minister of Science, Technology, and Innovation, Dato' Sri Dr. Adham Baba held the Raya Open House for Tenggara Parliament in Kg. Sg. Telur, Kota Tinggi on 14th May 2022. Also present was the Menteri Besar of Johor, Datuk Onn Hafiz Ghazi launching the opening ceremony of the MOSTI Science Carnival and Jubli Emas Kimia Johor.

The MOSTI Science Carnival, themed Popularizing Science, Humanizing Technology, was held to promote science and technology innovation to the community, regardless of background, with the goal of encouraging more young people to pursue careers in science and technology.

"Through this carnival, MOSTI intends to bring STI closer to the people through various interactive, interesting, and fun activities," Dato' Sri Dr. Adham Baba said. This effort will hopefully humanize STI and spark the innovation agenda at all levels."



As one of the primary contributors to the nation's economic growth and STI, the state of Johor was selected as the venue for the first MOSTI Science Carnival this year.

The brisk economic expansion, particularly in Iskandar Malaysia, the East Coast Economic Region, and the Johor Innovation Valley, is evidence of this.

The carnival, according to YAB Datuk Onn Hafiz Ghazi, coincided with the State Government's desire to build seven (7) components of smart cities, including smart digital infrastructure, smart government, clever people, smart economy, and smart living.



MAJLIS HARI RAYA MIFA



This year, Malaysians get to enjoy Hari Raya Aidilfitri as the transitions from pandemic to endemic, two years after celebrating Syawal in the midst of the Covid-19 pandemic. Due to the relaxation of Covid-19 standard operating procedures (SOPs) since early April, Malaysians are now free to celebrate Hari Raya with their loved ones in a more joyful manner after the rigorous pandemic precautions.

All MIFA exco and MIFA members and gathered at Management Science University (MSU), Seksyen 13 Shah Alam on May 31st, 2022, to celebrate Majlis Jamuan Hari Raya MIFA. The event began from 10.30 am to 3.00 pm, and was attended by the Special Advisor of MIFA, CEO of Cybersecurity Malaysia, Ts. Dato' Dr. Haji Amirudin Abdul Wahab, VP MIGHT Dr. Razlan Bin Ahmad (Chairman of MISCA) and Vice President of Industry Linkages & Entrepreneurship of MSU, Professor Dr. Abdul Jalil Ghazali.

All the preparations have been made since the previous day, all members were together in the preparation place setup and decorations. Dishes and delicacies were filled with ketupat, nasi minyak, rendang daging, sate, nasi impit, and a variety of pastries and desserts. Thank you to all who attended & who were unable to attend but were strong in giving support for MIFA to continue to move forward deserve special thanks.

Let us remember ourselves to appreciate the moments of Hari Raya's celebration with our family and friends while suffering through the hardships and conquering the problems of the last two years. Some of us survived, while others did not, and some are still battling. May we always be safe from disease epidemics and disasters.



ROAD TO GROWTH R2G PROGRAM WITH MTDC



Malaysian Technology Development Corporation (MTDC) is devoted to increase business technology development through the Road2Growth (R2G) program, which is being implemented in conjunction with technology firms in the MTDC ecosystem.

The program, which had previously taken place in Kota Kinabalu and Kuching on March 21 and 23, 2022, was being resumed here, the third location, to broaden its coverage to the northern region.

Graduates, researchers, micro, small, and medium businesses, as well as start-ups, are among the participants. The focus of this year is on the sharing of local technology goods and solutions by MTDC ecosystem companies.

Companies working in robotics technology, automation, 3D printing, augmented reality, and drone technology are featured in today's program. The companies were also members of the Centre of 9 Pillars (Co9P) community, whose objective was to bring together Industry 4.0 companies in Malaysia for collaboration.



MOU OF COLLABORATION SIGNING CEREMONY BETWEEN BLOCKWORQ AND CONSORTIUM 21



On Thursday, May 26, 2022, a Memorandum of Collaboration (MOC) signing ceremony was held at the EQ Kuala Lumpur in Jalan Sultan Ismail between Blockworq and Consortium 21, as well as other technology partners and business communities. Blockworq will participate in the Metaverse Cities ecosystem by developing NFT, Blockchain Technology, and Data Analytics. World Halal Metaverse City will be the first in the world to be developed in collaboration with Consortium 21 and Blockworq.

Metaverse cities are a whole new way for merchants to promote brands via immersive virtual experiences. The "C21 Metaverse Cities" heralds the Web 3.0 for companies to support their current business models and marketing initiatives.



Consortium 21 was established as a directory publisher before the Internet era, Consortium 21 has ridden on the Web 2.0 trend and successfully operates its own business matchmaking portal such as MyMedicNews.com, which is relevant for Malaysia's Medical Device Industry.

Consortium 21 also specializes in blockchain solutions, such as an NFT marketplace, cryptocurrency wallet, tamper-proof and transparent supply-chain solutions for enterprises, and decentralized e-commerce for enhanced transparency over transactions processed in e-commerce

MAJLIS RAMAH MESRA SME CORP WITH STRATEGIC PARTNER & PMKS

Around the Majlis Ramah Mesra SME Corp. Malaysia with strategic partners and SMEs on 25 May 2022 at Hotel Aloft, KL Sentral.

SME Corporation Malaysia (SME Corp. Malaysia) is the central coordinating agency (CCA) under the Ministry of Entrepreneur Development and Cooperatives (KUSKOP) that coordinates the implementation of development programs for small and medium enterprises (SMEs) across all related Ministries and agencies.

SME Corp Malaysia will continue to assist local small and medium enterprises (SMEs) through the allocation of funds from the government under the Program Strategik Memperkasa Rakyat dan Ekonomi (PEMERKASA).

SME Corp will implement a long-term strategy for SME development with a focus on balanced and sustainable growth through a two-pronged strategy. The first strategy is to increase the establishment of high-growth and innovative firms to boost gross domestic product (GDP) through support for automation, digitization, and sustainability. The second strategy is to increase the contribution of micro-enterprises (B40) to the economy.



ASEAN INDUSTRY FORWARD ASSOCIATION



MIFA has embarked on a new strategic partnership with ASEAN Permanent Secretariat Office (ASEC) in Jakarta, Indonesia. The courtesy visit to ASEC was conducted by MIFA delegates, led by MIFA President Ts Muhammad Didi Hendra Shah, Mr Muhammad Hafiz (industry representative) and Mr Mohd Zakry (CEO-MIFA Academy), and the delegates was warmly welcomed by a team of ASEC senior officers led by Mr Romeo Arca Jr., Head of Community Relations Division, Community and Corporate Affairs Department ASEAN, Mr Edy Hasmy, Assistant Director, Administration and General Affairs Division and Mr Andhie Ananta, Senior Staff from Community Relations Division ASEAN.



The courtesy visit, followed by a brief introductory meeting about MIFA & ASEAN by both parties, indicates a strong signal of MIFA's commitment to ASEAN community as MIFA is poised on working with ASEAN in exploring great regional networking opportunities and support the digital transformation and future skills initiatives by the newly formed ASEAN special division on digitalisation and industry revolution.

The discussion was also on the proposed establishment of ASEAN Industry Forward Association (AIFA) to be led by MIFA local partners in Indonesia and supported by all ASEAN country-based technology players, the idea which was strongly supported and welcomed by our ASEAN secretariat senior officers.



Mr Romeo Arca personally commended the idea of the proposed establishment of AIFA and pledged his support by allowing MIFA to have any possible access via the ASEAN secretariat office for there was an air of familiarity and ease within ASEAN network to support for the groundwork of the AIFA establishment, which would be the first IR 4.0 tech-based industry community in ASEAN region.

The strong support of ASEAN secretariat team provides MIFA with a framework for deepening our cooperation, and positions our partnership for the future of industry forward 4.0 initiatives within ASEAN countries.

The brisk economic expansion, particularly in Iskandar Malaysia, the East Coast Economic Region, and the Johor Innovation Valley, is evidence of this. MIFA will continue to show its commitment to true partnership, to listening to and supporting ASEAN's priorities, and to providing a better and extended framework of technology-based industries among industry players which has emerged within ASEAN countries.

As we celebrate our new milestone in becoming strategic partner to ASEAN, MIFA will represent Malaysian IR 4.0 industry players to be with ASEAN every step of the way into a better tomorrow, with the proposed establishment of ASEAN Industry Forward Association, which will be an additional entity under ASEAN.



MOC SIGNING WITH TECH UP SDN BHD



On Saturday, June 11, 2022, a Memorandum of Collaboration (MoC) signing ceremony was placed at the Everly Hotel in Putrajaya between MIFA and Tech Up Sdn Bhd.

This MoC opens the door for MIFA and Tech Up Sdn Bhd to explore potential large market reach in education and training segments, in particular, to increase technologies as a driving force for digital education transformation, primarily in addressing the fundamental need to increase Science, Technology, Engineering, and Mathematics (S.T.E.M) participation and sustainable interest.

Tech Up is a platform that provides tools and services to empower a sustainable hybrid (online and offline) S.T.E.M. learning. Convinced by the high-quality education materials produced by Artec Co Ltd, Japan. Tech Up secures the position by being the exclusive distributor for Artec Co. Ltd in Malaysia.

Tech Up continues to build upon its core competencies in UP skilling teachers, students and parents by providing STEM education solution tools.

With the shift in the education scene, Tech Up emerge to be a software developer in 2020 and began developing gamified robotics simulation software GoTechUp, featuring Artec Robo.



MIFA ANNUAL GENERAL MEETING (AGM)



The Annual General Meeting (AGM) was conducted on June 29th, 2022, at UPM-MTDC TIC III, UPM Serdang. Ts. Muhammad Didi Hendra Shah ("the Chairman") presided over the meeting and welcomed all attendees to the MIFA AGM.

This gathering was attended by a number of previous and new MIFA members. The president has appointed a new line of exco for the 2022/2023 session with the approval of all meeting members.

The President was sure that this appointment will help MIFA's attempts to expand into ASEAN and beyond.

The chairman and members of the meeting unanimously agreed to hold the next meeting at the end of each month.



MOU SIGNING OF COLLABORATION BETWEEN MALAYSIA SMART CITIES ALLIANCE ASSOCIATION (MSCA)

YB Datuk Haji Ahmad Amzad Hashim, Deputy Minister of Science, Technology, and Innovation (MOSTI), witnessed the signing of a collaboration agreement between the Malaysian Sustainable and Smart Cities Organization (MSCA) and four (4) organizations, namely Malaysian Research for Technology and Innovation (MRANTI), Technology Depository Agency Berhad (TDA), Malaysia Industry Forward Association (MIFA), and Malaysian Photovoltaic Industry Association (MPIA) and subsequently the MSCA Smart Cities Networking And Talk Series Program.

In order to drive competitiveness and achieve Malaysia's goal of becoming a high-tech and high-income nation, the Ministry established the National Technology and Innovation Sandbox (NTIS) through MRANTI to encourage the development and use of smart city technology generated by local talent and innovation.

The collaboration between MSCA and the Malaysian Research Accelerator for Technology and Innovation (MRANTI) as the main secretariat of NTIS will enable test site identification, knowledge transfer, market access, technology integration, and more.

Meanwhile, the collaboration between MSCA and MPIA & MIFA emphasizes cooperation for technology & knowledge sharing as well as industry development towards any project requirements that will be agreed upon by all three parties.



Meanwhile, the collaboration between MSCA and MPIA & MIFA emphasizes cooperation for technology & knowledge sharing as well as industry development towards any project requirements that will be agreed upon by all three parties.

The organization behind this event is the Malaysian Industry-Government Group for High Technology (MIGHT), which operates under MOSTI's supervision. Through its functions as a think tank, platform for developing private-public consensus, and organization for business preservation, MIGHT contributes significantly to the development of high technology in Malaysia.





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SOCIAL INNOVATION

Innovation is an instrument for seeking interest and opportunity from various changes to create different business and services from competitors. It is important in enhancing the country's competitiveness and contributing to knowledge-based urban development. The development of innovation that focuses only on the economic perspective leads to the imbalance of development when there is a gap in economic growth and social development of society.

The emergence of social innovation is a complement to corporate innovation that focuses only on profit. Aspects of social innovation began to be emphasized in development in Malaysia so that the problems and social needs of society are met. The principle behind this practice is developing ideas and inventions that work to meet pressing unmet needs and to improve people's lives. Its goal could be anything from supporting underprivileged communities to protecting the environment or anything in-between Unceta, (Unceta et al., 2016), define it as a new product, process and method developed creatively and sustainably, offering better solutions to one or more social demands.

Meanwhile, Howaldt (Howaldt et al., 2016) stated the concept of social innovation involves the relationship of technology and business innovation aimed at meeting social demands, meeting community challenges and systematic change addressed by actors, networks and governance social change and development through processes dynamic.

Social innovations are new strategies, concepts and ideas, invented to meet the social needs of low-income households or the poor so that their standard of living would be transformed and uplifted for the betterment. The innovations can be in terms of improving working conditions, education for community development, stimulating a healthy environment and providing credit facility. In other words, these interventions would extend and strengthen the community towards a sustainable society.

The absolute role of academia is to generate new ideas through research and translated them in the context of innovation that impacts the wellbeing of society through economic, social and environmental development.

Empirical and Policy foundation for Social Innovation in Europe (TEPSIE) outlines five elements in the core development of social innovation, namely reform, implementation of ideas, meeting the needs of society, effectiveness and enhancing the ability of society to act (The Hope Institute, 2017).

- First, reform does not mean universal or absolute innovation but leads to the acceptance of something new in the political, social or cultural context in which cases of social innovation arise.
- Second, the implementation of ideas through the practical application of social innovation ideas. Ideas created and tested must be applied to the field to qualify as social innovation. It also implies that the application needs to be sustainable.
- Third, meet the needs of the community. Research that meets the needs of society and effective outcomes reflects the success of social innovation.
- Fourth, effectiveness, which is the element of focusing on the idea of effective social innovation in the form of results over existing solutions.
- Fifth, increase the ability of society to act.

1. The Hope Institute. (2017). 10 social innovation in Asia: Trends and characteristics in China, Korea, India, Japan and Thailand. ANU Press. 249-274.
2. Unceta, A., Spila, J. C., & Garcia-Fronti, J. (2016). Social innovation indicators. *Innovation The European Journal of Social Science Research* 29(2)
3. Howaldt, J., Domanski, D., & Kaletka, C. (2016). Social innovation: Towards an innovation paradigm. *Revista de Administração Mackenzie* 17(6), 20-44

AGRICULTURE ROBOT



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An agricultural robot is defined as any robotic device that can improve agricultural processes, by taking over many of the farmer's duties that are slow or labour intensive. Using robots in agriculture makes many tasks simpler, faster, and more effective. Linear robotics system, mobile robot, drones, autonomous precision seedings as well as automated irrigation and harvesting systems are some of the example of agricultural robots used for farming, crop and soil management in Malaysia. Farmers are increasingly relying on robots to solve their labour shortage and meet a growing demand for food.

These advanced systems enable labour and time savings, as well as increased crop yields, proving that technological progress is saturating in all parts of our lives. Agriculture is quickly becoming an exciting high-tech industry, drawing new professionals, new companies and new investors. The technology is developing rapidly, not only advancing the production capabilities of farmers but also advancing robotics and automation technology as we know it. Agricultural robots increase production yields for farmers in various way as the technology is being deployed in a creative and innovative applications. Harvesting and picking for example is one of the most popular robotic applications due to the accuracy and speed of a robots can achieve to improve the size of yields and reduce waste in the field. The agricultural robotic arm for instant must be flexible in a dynamic environment and accurate enough not to damage the crops as they're being picked.

In Malaysia for a wider adoption of robotic technologies in agriculture, especially for crops grown on open field, there is a need for:

- Robotic solutions that understand the variability of the fields and can adjust to get the desired output, and do not exceed the cost of any concurrent system. These solutions must be reliable, valuable, and user-friendly.
- Platforms that can integrate different solutions - Currently many robotics start-ups in Malaysia are working on developing their own technologies to solve specific problems. However, by integrating them in one platform accessible to the end user could lead to a faster adoption of the solutions.
- Collaboration among the different stakeholders (including larger manufacturers) in terms of knowledge exchange and standardization of processes. This could facilitate the integration of different components (hardware or software) for the development and improvement of existing and new technologies.
- Proper awareness program for the end users to understand better how robots work. When customers understand the technologies, they are more likely to use them and spread the word.
- Improved and reliable global supply chain that allows companies to develop and commercialize their technology in a shorter time.
- Updated standards and harmonized regulations, which define precise outlines for agricultural robots, adapted to the specific requirement of the new applications and technologies.



We may be used to hearing about the Industrial Revolution 4.0 but rarely do we hear about Society 5.0. What is meant by Society 5.0?

The idea of Society 5.0 was coming from Japan. Society 5.0 describes the 5th generation of society trends in world history based on chronology starting from the hunting society (Society 1.0), agricultural society (Society 2.0), industrial society (Society 3.0), information society (Society 4.0). Meanwhile, Society 5.0 creates new services, values and ways of life.

More specifically, Society 5.0 is a society that can dominate life in the virtual and physical realms. If Society 4.0 is only able to access information or various forms of information in cyberspace but Society 5.0 can analyze that information using "Artificial Intelligence" or Artificial Intelligent (AI), and the results are returned to humans in real space in various forms which surpasses human ability. As a result, this process will provide new value to industries and societies that were previously impossible for humans to do.



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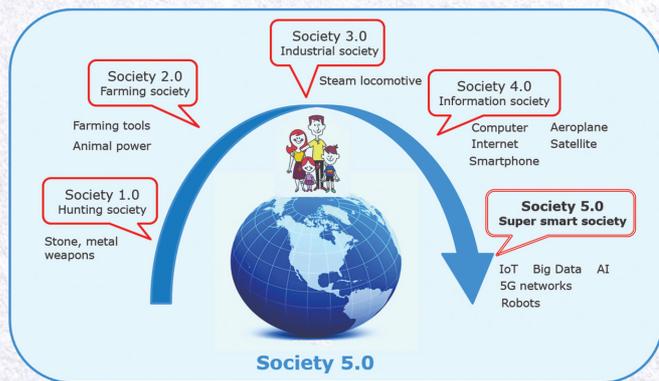
So, it is necessary to create in this country a preparation for our society to face the speed and rapid change brought by the Industrial Revolution 4.0 (IR4.0). Previously our focus was only on Industrial Revolution 4.0 or more precisely focused on that technology. However, how do we prepare society to face this current of change? In fact, the success of the Industrial Revolution 4.0 and Society 5.0 must go hand in hand so that the development achieved is comprehensive, that is, so that we can build and develop a sustainable environment for the whole society.

Society 5.0 is a smart society that emphasizes the integration of smart technology and human beings. This society is known as a "soul machine" that emphasizes technology and people based on the cores associated with the Industrial Revolution 4.0 such as Cloud Processing

Technology or cloud in data storage and processing, Internet of Things (IoT) that connects smart senses on equipment with internet connection, Cyber Security to protect data and minimize risk, and 3D Printing or 3D Printers that facilitate prototype development, Drone technology, Artificial Intelligence (AI), Robotics, System Integration, Big Data and so on.

INTERMEDIATE REALITY

In addition, it is an “intermediate reality” that can combine the physical world with the virtual world as well as being able to analyze service data and make more accurate projections or get closer to the truth. In other words, every prediction produced by AI is getting more and more accurate day by day.



The reason why Japan is very committed to bring the vision of Society 5.0 is that country economy grew by less than 2% in 2017 for the sixth year in a row. As recalled by the UNESCO Science Report (2015), Japan has experienced prolonged economic stagnation since the 1990s, owing to a combination of factors: ever-intensifying global competition, the changing structure of value creation in the new digital economy, depopulation and ageing, and growing fiscal pressure from rising government expenditure on social security.



Japan might be able to overcome such disadvantages by pursuing Society 5.0. Even though Japan has not been much of a leading light in digital industries so far, the nation may be able to take advantage of its traditional strengths in mechanical and material engineering to develop advanced cyberphysical systems. By actively introducing AI into the workplace, depopulation and ageing might cease to be disadvantages – or even become advantages – in a less labour-intensive economy.

Japan is facing some tough problems but the government and business leaders see the concept of Society 5.0 as being a way to overcome these. They reason that Japan might then be in a position to share its own experience with the rest of the world, given that other countries may encounter similar problems sooner or later. Already, Japan is not the only high-income country facing an ageing population and sluggish demographic growth, while struggling to compete in the new digital economy.

SOCIAL INNOVATION FOR SUSTAINABLE FUTURE



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Social innovation presents a new hotspot area for engineers and researchers in which it is aimed to realize sustainable solutions for widespread social problems. Engineering and technology-based social innovations are complex but the development of digital technologies such as artificial intelligence, machine learning, augmented reality, big data, and Internet-of-Things enable huge progress and open a wide range of new opportunities for social innovations. Researchers and engineers played key roles in many real-world technological applications, viz. extracting fossil fuels, cars, roads, and water systems for humanity. On top of that, they have the social responsibility also to address urgent problems faced by humanity such as climate change, congestion, urban sprawl, emissions, and rising fuel costs through more efficient ways of technological innovation.

Government agencies, educational institutions, and industries need to join hands in supporting engineering-based social enterprises and initiatives. Furthermore, community engagement is one of the main cores of social innovations in making a significant impact on lives and eradicating social problems such as unclean water, energy waste, environmental pollution, and the movement of disabled people. It is preferable that successful technological innovation should realize sustainable social innovation.

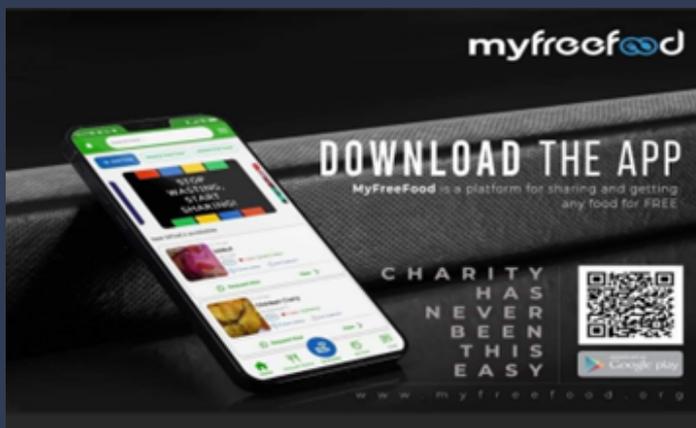
Social technological innovation will promote new ideas to achieve sustainable cultural, economic, organizational, and environmental for the benefit of humanity. For instance, the dream project of smart cities should undertake a variety of technological strategies to develop the physical and digital aspects of smart cities. It should consist of sustainable energy for both supply and demand, sustainable interconnected transportation, and also intelligent ICT infrastructure targeting the real social problems.

Indeed, these interconnections between all these innovations can lead to achieving a better quality of urban life and people can gain the benefits of these technologies in their daily life such as their savings related to energy bills, easy moving by the interconnected transportation systems, cleaner environments and intelligent ICT applications. Therefore, social innovation plays a bigger role in engineering daily discourse for a better future, sustainable development, and maintaining the supply of essential services with a wide range of technological possibilities and affordable prices so that communities reap all these benefits in their daily life and realizing the sustainable quality of life.

HOME GROWN SOCIAL INNOVATION PROJECT



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THE BIG WHY

It's easy for many people to discard food waste as someone else's issue. However, the reality is that in the 'developed world, more than 50% of food waste takes place in our kitchen. In contrast, less than 2% of food waste takes place at the retail store and manufacturer levels.

So, the sad news is we are half the enigma. But the good news is..... this means we can be half the answer! Hence we should work towards 'zero wastage' as we go along with development.

When humans start sharing their food, it will automatically balance up the demand and supply for food. This is because humans consumed what they need to live and if sharing is becoming a trend, those in need will have easier access to an overabundance of good food, henceforth will reduce hunger and food waste. This will tremendously clear off landfills and agricultural waste, farmers now can focus on their agricultural land to produce food and time needed to fertile lands cycle and this will be more systematic and manageable.

There's no more need to search for other wild fertile lands as the existing allocated land can cater to the demand for agricultural goods. And, will consequently stop the activities such as slash and burn, deforestation, and conversion of wild areas into farmlands. The natural habitats for birds, fish, mammals and amphibians will not be destroyed.

What is Myfreefood?

"Myfreefood" is a very unique Innovation and it is the only mobile app that provides a platform for food sharing and free meals every day.

This unique idea is believed to benefit all Malaysians and soon people from all over the world.

Objective

The project is to reduce the amount of wastage efficiently because of the easy sharing system through this application, this is a peaceful way to share food that is not consumed (in good condition), surplus food, and fresh food by simply uploading food information in "Myfreefood" app and users will get notifications and besides people can continue to make requests for the food.

The Process

Food receivers selected by food givers may continue to take food at a place designated by food givers such as taking their meals at home or meeting in public areas such as shopping malls, petrol stations or any places convenient for both parties to meet.

It is going to be revolutionary within our society, the app will be able to enhance the social relationship among mankind and restore our love towards mankind.

Myfreefood is a sharing platform for all kinds of superfluous food. Food needs water to produce and the volume is immense. If people start using this app it will indirectly reduce the amount of food waste and that means the freshwater used to produce more food will be also reduced.

Small changes make a lot of differences if people can understand the idea of our Myfreefood platform, which is to induce the habit or culture of sharing should be a way of life.

SOCIAL INNOVATION IS CRUCIAL IN CLOSING THE FUNDAMENTAL GAP OF WORKFORCE DIGITAL SKILL

ACCELERATING MALAYSIA INDUSTRY FORWARD AGENDA



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Together , We are the ArchiTECHs of the Future



Industry 4.0 consist of many technologies, and it constantly expands. These rapid technology advancement demands an understanding of science, mathematics, physics, design, analytics, machine learning, artificial intelligence, connectivity & protocol computing and will only develop exponentially daily.

Reality is, what we envision and dream for in this new economy will be highly dependent on our ability to adapt to an even more digital future than what we are experiencing today. Deep inside, we all secretly know that it will all go back to the key enabler, people. Digital Transformation is about talent, not technology. Talent that adapts and innovates without discounting the need of social and environment preservation. Being in the technology industry business ourselves, every single day, the gap just gets widened if we don't take the first step. We need to increase the speed of reskilling the existing workforce while addressing the expanding gap of the future workforce.

As the owner and founder of the leading STEM Education Solutions provider, Tech Up Group, I got the opportunity to work among the smartest and most dedicated people I have ever met in my life but, that was not the only thing I saw.

Although these people have brilliant minds, I saw that some of these people are stuck in their own narrow-minded thinking and processes as well some others have no sense of care to the environment and communities impacted by the development.

Therefore, I believe that social innovation demands development of core fundamental learning and joyful learning to ensure continuous implementation of new solutions which ultimately aim to improve the welfare and wellbeing of individuals and communities. We know fundamental breeds confidence. And confidence brings comfort of joy and satisfaction which will then allow for new ideas to be created and innovated.

Our dream future economy will be built upon the multidisciplinary application of Science, Technology, Engineering and Mathematics (S.T.E.M). Knowing this, we need a structured system (at all age and group) that develops and encourages creativity and innovation. The key to a digital nation is to provide the comfort to all ages which is by normalizing technology and social innovation in our daily life.



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UNMANNED AUTOMATED VEHICLE (UAV)



The Revolution of drone or Unmanned Automated Vehicle (UAV) to help most of the industries in the world such as constructions, Mapping, Surveying, securities, cinematography, logistic and many more. The Global Commercial Drone Market size was estimated at USD 14.95 billion in 2021, USD 18.92 billion in 2022, and is projected to grow at a Compound Annual Growth Rate (CAGR) of 26.73% to reach USD 61.95 billion by 2027. The Drone Industry findings, we can see a few trends emerge at-length regarding the future of construction, energy, agriculture, and other key industries. From our results, it's clear that companies are turning to digital twins, drones, robotics, and automation technologies now more than ever – and reaping the benefits.

Learning to fly a commercial drone or UAV as a professional pilot is becoming more and more important within many industries and sectors. Understanding the ins-and-outs as well as being aware of the legal and regulatory issues can be complex, confusing, and intimidating. Most of the expert training classes take you through the complete process in an introductory drone pilot training course designed to cover everything you need to know. Without the use of simulators, the focus on the practical elements of learning hands on with an actual drone, through the use of expert instructors and drone operators. Drone powered solutions are simpler if they're to be offered as an integrated service. Combination of several service items or resource sharing would be ready to satisfy the clients requirements.

Drone service providers should have an integrated solution and collaborate with cloud services and data analytics companies to supply end-to-end solution. Within the future, IoT and Big Data are useful to accelerate the implementation of drone. But the current issue and problem in the development of drone in most of the country are the cost of using and operation expenses, the endurance and capabilities of the drone, the autonomy of the drone that include payload capacity, the pilot competency, the scarcity of the satellites and wave, stealth technology, and the law of the country that most of them not into it. Drones business in the world is booming. Like public, the private sector has also invested heavily in the business and is offering „drone services“ to the needy states, and non-state organizations. UAVs are the future not only of the warfare, but their use in the civilian arena will also be unmatched.

MIFA EVENT PLANNER

Year of

2022

January

22/01/2022

- **MIFA Exco Meeting with Patron @ MIFA**

27/01/2022

- **MIFA Official Launch Event @ MSU**

February

15/02/2022

- **MIFA 2nd Exco Meeting @ MTDC**

22-26/02/2022

- **Advanced Industrial IoT Training**

March

14-18/03/2022

- **Advanced Industrial IoT Training**

22/03/2022

- **Workshop : Smart Urban Farming**

April

- **Ihya' Ramadhan**

22/04/2022

- **Minggu Sains Negara by MOSTI - " Planetary Health & World Earth Day "**

May

30/05-1/6/2022

- **Participating in Hanover Messe Expo 2022 @ Hanover, Germany**

22/05/2022

- **Minggu Sains Negara by MOSTI - " Kimia & Bioteknologi "**

24/05/2022

- **Workshop : Cybersecurity**

June

14-16/06/2022

- **Robotic Controller Programming & IoT Application Training**

18/06/2022

- **MIFA Mid Year Review & Conference**

05/06/2022

- **Minggu Sains Negara by MOSTI - " Sains Nuklear "**

July

07/07/2022

- **MIFA Sports Day**

18-20/07/2022

- **MIFA RoboCon & Drone Fest 2022**

15/07/2022

- **Minggu Sains Negara by MOSTI - " Inovasi Sosial "**

August

17/08/2022

- **Linear Robot and Its Application in SME**

01/08/2022

- **Minggu Sains Negara by MOSTI - " Kejuruteraan 50th Anniversary Board of Engineers Malaysia "**

23/08/2022

- **Seminar : Electrical Vehicle**

September

- **MIFA Courtesy Visits to All Relevant Ministries & Agencies**

7-10/09/2022

- **Minggu Sains Negara by MOSTI - " Nanotechnology " " World Nano Day "**

October

- **ASEAN Industry 4.0 Networking Month (Singapore / Indonesia / Thailand / Brunei)**

4-10/10/2022

- **Minggu Sains Negara by MOSTI - " Space Theme "**

November

17/11/2022

- **MIFA Year End Review & Submit Conference**

28/11/2022

- **Advanced Industrial IoT Training**

December

6-8/12/2022

- **MIFA Academy Virtual Open Day 2022**

19/12/2022

- **Workshop : Big Data**

27/12/2022

- **Workshop : AR/VR**

NO	TRAINING TITLE	DAY(S)	PRICE (RM)
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PROGRAMMING LANGUAGES

1.	JAVA	3	2,500
2.	PYTHON	3	2,500
3.	JSON	3	2,500
4.	NODE-RED	3	2,500
5.	R LANGUAGE	3	2,500
6.	FLUTTER PROGRAMMING	2	2,700
7.	JAVASCRIPT	5	2,600
8.	HTML5	2	1,500
9.	CSS3	2	1,500
10.	TYPESCRIPT	3	1,800
11.	JAVA – Entry level Java Programmer: JAVA SE7 Fundamentals	5	3,400
12.	JAVA – Professional Programmer: JAVA SE7 Fundamentals	5	3,400
13.	JAVA - Servlet & Java server Pages (JSP) Developer	5	3,400
14.	PHP – Beginner to Intermediate	5	2,600
15.	PHP – Oriented Programming (OOP)	5	2,600
16.	PHP 7 Programming	5	2,600
17.	COLDFUSION – Beginner to Intermediate	5	2,600
18.	COLDFUSION - Advanced	5	2,600
19.	C# - Programming C# with Microsoft Visual Studio	5	2,600
20.	R Programming	4	2,200
21.	Secure Programming	5	2,600
22.	Unit Testing Programming	5	2,600
23.	LUCEE	5	2,600

ROBOTICS AND AUTOMATION TRAININGS

24.	PROGRAMMABLE LOGIC CONTROLLER - SIEMENS	3	3,900
25.	PROGRAMMABLE LOGIC CONTROLLER - MITSUBISHI	3	3,900
26.	PROGRAMMABLE LOGIC CONTROLLER - OMRON	3	3,900
27.	PROGRAMMABLE LOGIC CONTROLLER - PANASONIC	3	3,900
28.	PROGRAMMABLE LOGIC CONTROLLER – SCHNEIDER ELECTRIC	3	3,900
29.	PROGRAMMABLE LOGIC CONTROLLER - ABB	3	3,900
30.	INDUSTRIAL HMI	2	2,600
31.	SCADA SYSTEM	5	6,500
32.	ADVANCE PLC, HMI & SCADA SYSTEM	10	11,700
33.	ROBOTIC AUTOMATION	5	6,500
34.	ROBOT OPERATING SYSTEM (ROS)	3	4,700
35.	ARM CONTROLLER & IOT PROGRAMMING	3	3,500
36.	SCARA ROBOT (SELECTIVE COMPLIANCE ARTICULATED ROBOT ARM)	3	5,800
37.	PLC & IOT (PROGRAMMABLE LOGIC CONTROLLER)	3	3,500
38.	LINEAR ROBOT	2	4,500
39..	AUTONOMOUS MOBILE ROBOT	3	4,500
40.	MOBILE ROBOT DEVELOPMENT	3	5,700

INDUSTRY 4.0 – IOT & IIOT TRAINING

41. FUNDAMENTAL OF INDUSTRY 4.0 & INTERNET OF THINGS (IOT)	3	3,500
42. IOT FOR SMART AGRICULTURE	3	3,500
43. IOT FOR SMART CITIES	3	3,500
44. LORA-WAN TRAINING	3	3,500
45. IOT WITH RASPBERRY PI (NODE-RED)	3	3,500
46. IOT WITH RASPBERRY PI (PYTHON)	3	3,500
47. IOT WITH RASPBERRY PI & FAVORIOT	3	3,500
48. BASIC INDUSTRIAL INTERNET OF THINGS (IIOT)	3	3,500
49. ADVANCE INDUSTRIAL INTERNET OF THINGS (IIOT)	5	4,850
50. BASIC INDUSTRIAL INTERNET OF THINGS (IIOT) WITH SIMATIC GATEWAY – CERTIFICATION FROM SIEMENS	3	4,600
51. ADVANCE INDUSTRIAL INTERNET OF THINGS (IIOT) WITH SIMATIC GATEWAY – CERTIFICATION FROM SIEMENS	5	6,500
52. ARDUINO & IOT PROGRAMMING	3	2,700
53. RIG : IOT ALL IN ONE	3	4,500

INDUSTRY 4.0 - CLOUD COMPUTING & BIG DATA TRAININGS

54. CLOUD COMPUTING FOUNDATION	3	3,500
55. DATA SCIENCE FOUNDATION	3	3,500
56. BIG DATA ANALYTICS WITH MONGODB ATLAS CLOUD	5	4,800
57. BIG DATA ANALYTICS WITH AWS CLOUD	5	4,800
58. BIG DATA ANALYTICS WITH HADOOP TECHNOLOGY	5	4,800
59. DATA MINING AND WEKA SOFTWARE TOOL	3	4,800
60. BASIC ARTIFICIAL INTELLIGENCE TRAINING	3	3,500
61. MASTERING ARTIFICIAL INTELLIGENCE & DEEP LEARNING	5	4,800
62. ANDROID PROGRAMMING AUGMENTED REALITY (AR)	5	4,800
63. ANDROID APPS	3	2,700
64. MACHINE LEARNING	3	3,700
65. CLOUD COMPUTING	3	3,700
66. BLOCK CHAIN	2	4,500
67. MYSQL DATABASE ADMINISTRATOR	3	1,800
68. MYSQL QUERYING	3	1,800
69. DATABASE DESIGN	3	1,800

DATA ANALYSIS

70. GOOGLE ANALYTICS	3	1,800
71. BUSINESS INTELLIGENCE (BI)	3	2,600
72. MICROSOFT EXCEL DASHBOARD	5	2,600
73. WIRESHARK	2	1,800

WEB SERVICE

74.	JAVA	3	2,200
75.	PHP	3	1,800

DISTRIBUTED VERSION CONTROL

76.	GITN	3	1,800
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MOBILE APPS

77.	CROSS-PLATFORM: PHONEGAP / APACHE CORDOVA	5	2,600
78.	CROSS-PLATFORM: REACT NATIVE	5	2,600
79.	UI FRAMEWORK: IONIC FRAMEWORK	5	2,600
80.	UI FRAMEWORK: FLUTTER FRAMEWORK	5	2,600
81.	NATIVE: JAVA FOR ANDROID	5	2,600
82.	NATIVE: SWIFT FOR IOS	5	2,600

UI FRAMEWORK

82.	ANGULAR JS	5	2,600
83.	NODE JS	5	2,600
84.	VUE JS	5	2,600
85.	EXT JS	5	2,600
86.	REACT JS	5	2,600
87.	METEOR JS	5	2,600
89.	BOOTSTRAP	3	1,800
90.	JQUERY - MOBILE	4	2,200
91.	JQUERY	3	1,800
92.	FOUNDATION	5	2,600

FRAMEWORK

93.	PHP - Laravel Framework	5	2,600
94.	PHP - CodeIgniter Framework	5	2,600
95.	PHP - Yii Framework	5	2,600
96.	PHP - Slim Framework	5	2,600
97.	JAVA - Struts Framework	5	3,400
98.	JAVA - Liferay Framework	5	3,400
99.	COLDFUSION - Railo Framework	5	3,400

SERVER

100. INSTALLING & CONFIGURE WINDOWS SERVER	5	2,600
101. ADMINISTERED WINDOWS SERVER	5	2,600
102. CONFIGURING, MANAGING & MAINTAINING WINDOWS SERVER	5	2,600
103. UBUNTU QUANTEL QUATZEL	5	2,600
104. VMWARE VIRTUALIZATION	5	2,600
105. RED HAT SYSTEM ADMINISTRATION I (RH124)	5	2,600
106. RED HAT SYSTEM ADMINISTRATION II (RH134)	5	2,600
107. CENTOS FUNDAMENTALS	5	2,600
108. CENTOS SYSTEM ADMINISTRATOR	5	2,600

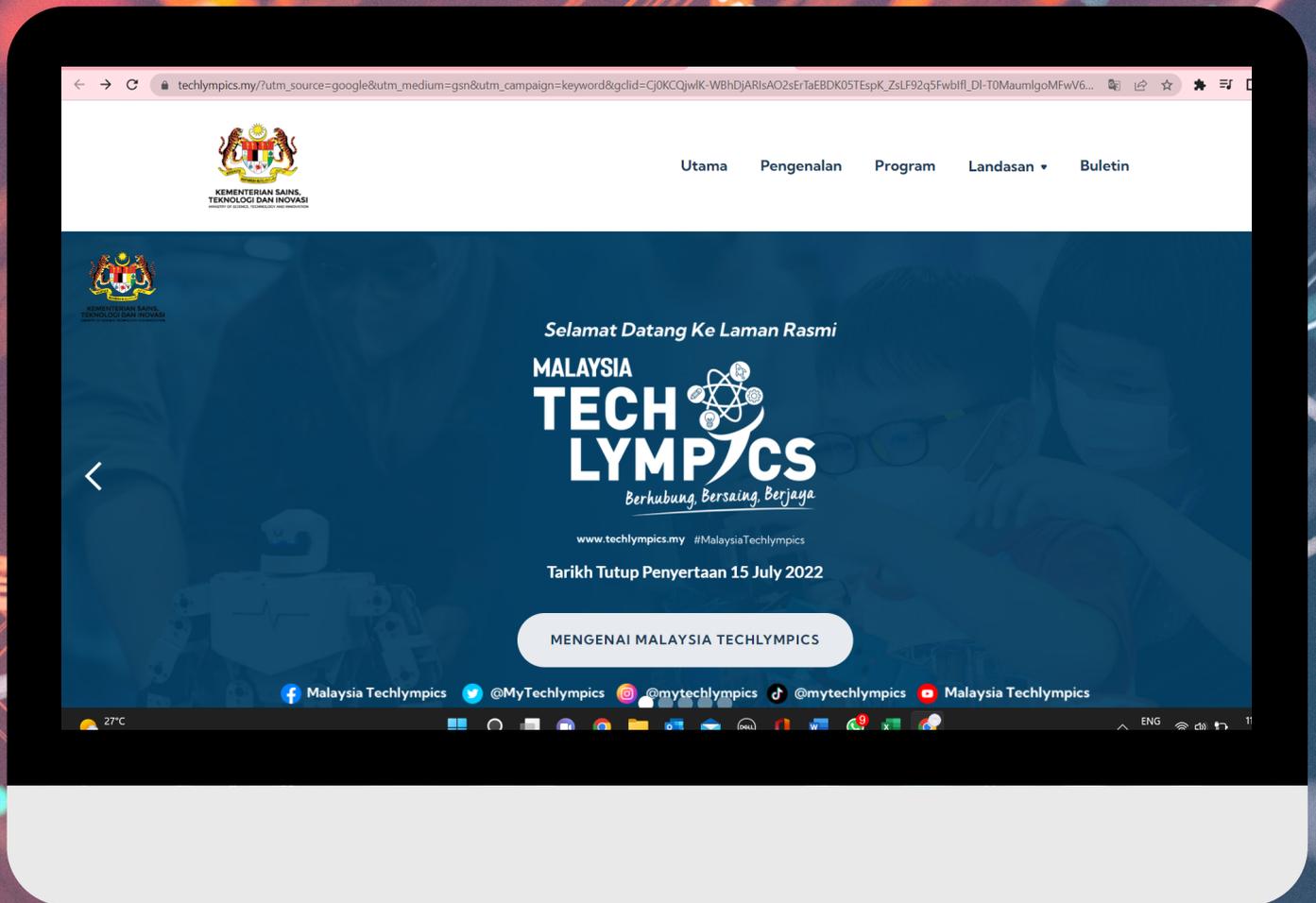
ENGINEERING (USING LABVIEW)

109. FUNDAMENTALS OF G PROGRAMMING USING LABVIEW	3	1,800
110. BUILDING YOUR OWN DATA ACQUISITION SYSTEM	3	1,800
111. IOT SYSTEM DEVELOPMENT USING LABVIEW	3	1,800

NETWORKING

112. BASIC NETWORKING CERTIFICATION FOR PLANT CONTROL SYSTEM APPLICATIONS	3	2,550
113. ADVANCE NETWORKING CERTIFICATION FOR PLANT CONTROL SYSTEM APPLICATIONS	3	4,550

MALAYSIA TECH LYMPICS



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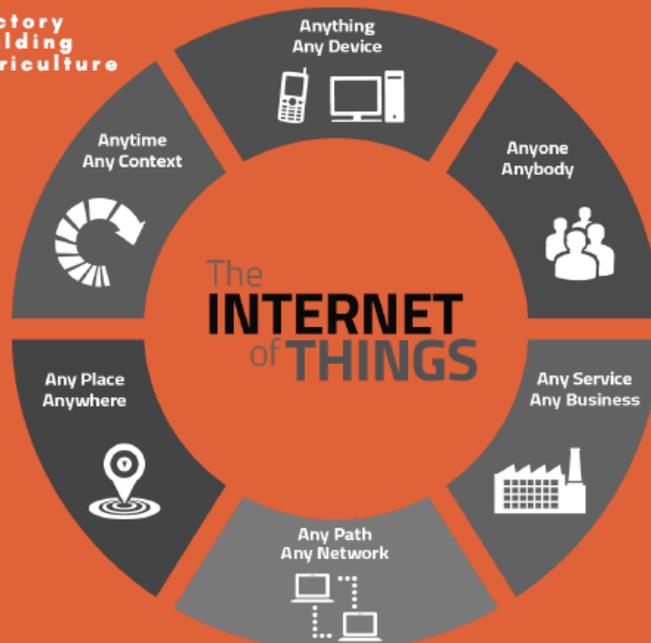
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Talent Synergy Sdn Bhd, is another subsidiary of Ingress Group and it specializes in the design, fabrication and integrations of industrial automation system and sub-system also with robotic integration, industry 4.0 & technologies development



1. Robotics & PLC

- Robot size selection & accessories
- System programming & design
- System interlocking / interfacing



2. System Integrator

- Robot, machines, jigs & monitoring system
- Control system integration
- Fabrication & Installation
- Commissioning & Trial
- After sales & service



3. Simulation

- Automation process
- Validation & testing
- Working envelope check
- Workability
- Cycle Time & Output



4. Design

- Concept, ideas & design
- Robot, machines & jigs
- Concept layout
- Process design
- Electrical / HMI / PLC



5. Engineering Services

- Palletization
- Assembly line installation
- Machine refurbishment



6. Industry 4.0

- Collaborative Robot
- Internet of Things
- Big data analysis
- Cloud Computing



Talent Synergy
Sdn Bhd



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