THE TRIPLE HELIX

TECHNOLOGY APPLIED TO MARKET

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CEO'S MESSAGE

Dear members and collaborators,

Since the start of the year, we have seen Malaysia make further progress towards economic normalization. With the reopening of industries in the last quarter of 2021, coupled with positive momentum from high vaccination coverage and ongoing vaccine booster rollouts, the country has made great strides in rebuilding and stabilizing its economy.

A report from Bank Negara Malaysia in February 2022 stated that the Malaysian economy will expand between 5.5% and 6.5% this year, underpinned by continued expansion in global demand and higher private-sector expenditure. The central bank also indicated that strong external demand for electrical and electronics products and commodities, particularly from Malaysia's key trade partners including China, the US and regional economies is set to grow, contributing to further expansion of the export-oriented industries.

Additionally, Bank Negara Malaysia further stated that the continuation of major investment projects in key economic sectors, such as in E&E manufacturing and digital investments, will lift this growth further.

We at CREST are greatly encouraged by the positive outlook for Malaysia's economic sectors and will continue to engage with our triple helix stakeholders to further energize the industries we are involved in. This includes identifying the right collaborators to continuously drive innovation and commercialization primarily through our cluster initiatives, in addition to nurturing a conducive ecosystem that will enable our partners to develop solutions that will pave the way forward for Malaysia to achieve sustainable growth.

In this issue of the Triple Helix, we pay emphasis on our cluster initiatives, namely Gallium Nitride (GaN) and Digital Healthcare. Read about the success of our Gallium Nitride on Gallium Nitride (GaN on GaN) Program which to date has attracted RM5 billion investment into Malaysia as well as our plans to take GaN into the future.

Find out how CREST, through the i-Connect Health & Wellness ecosystem and its partnership with Data8 Sdn Bhd is spearheading the development of a next generation medical emergency communications system, aimed at increasing efficiency for Emergency & Trauma Departments, including our partnership with MRANTI to establish the NTIS Healthtech Hub which will ultimately make healthcare more inclusive and affordable for all Malaysians.

Additionally, read about our talent development efforts where we continue to facilitate stronger collaboration between industry and academia to nurture a sustainable talent pool that is diverse in its technological skills.

As we continue to work towards bolstering Malaysia's economy, allow me to take this opportunity to extend my support and to invite all of you to reach out and collaborate with us. Let us work together to invigorate our industries and ultimately, create a sustainable future for all.

Jaffri Ibrahim
CEO, CREST

CREST and its pivotal role in elevating Malaysia's tech ecosystem

Introduction

Since its inception in 2012, CREST has played a significant role in addressing the needs of Malaysia's E&E industry and has been instrumental in creating and growing the country's R&D&C ecosystem. Through its collaborative platform it has connected organizations across multiple industries to a robust network of collaborators to jointly create solutions that benefit society and the nation.

To date, the outcomes from CREST's collaborative platform and its strengths in research and development and innovation have contributed to solutions that have shaped and transformed industries such as healthcare, electrical and electronics and manufacturing, to name a few. Additionally, it has also helped elevate Malaysia's tech ecosystem through sharing of knowledge, technology transfer, access to funding, nurturing of talent and incubation of ideas and new technologies.

Establishing collaborative partnerships

A key component of CREST's success lies in its role as a facilitator of linkages with its triple helix stakeholders from industry, academia and the government for collaborative research initiatives that drive innovation and utilization of advanced technologies for various sectors. These partnerships have, to date, resulted in products and services that have yielded economic benefits for the country and have contributed to the betterment of industries, the ecosystem, communities and the nation.

Focused on cluster development

CREST catalyzes innovation and forms partnerships in economic growth areas such as digital healthcare, smart cities, precision agriculture, smart manufacturing, optoelectronics and more.

Among its successful cluster initiatives include the Gallium Nitride on Gallium Nitride (GaN on GaN) Program, where the organization has set it sights on capitalizing on the global market for GaN Research which is slated to hit USD82 billion by 2024 and to position Malaysia as one of the top three LED solutions providers in the world.

Since its inception, the GaN on GaN Program has attracted RM5 billion investment into Malaysia, trained 70 Epitaxy researchers, and established two world-class labs in University of Malaya and Universiti Sains Malaysia. Through this program, 10 patents and IPs have been attained, including Malaysia's very own recipe for growing LED crystals.

Driving healthcare innovation

CREST's Digital Healthcare Cluster was formed to focus on the application of wearable embedded systems, Internet of Things, implantable medical devices, connected device technology and the successful commercialization of healthcare products, solutions and services by the E&E industry.

This cluster has successfully nurtured digital healthcare innovations such as the world's first AI-enabled stethoscope, immersive technologies for health and wellness, mobile sensors for health monitoring as well as many other Malaysian-based innovations.

Championing Industry 4.0

CREST's Industry 4.0 journey began in 2012, where it focused on emerging technologies like the Internet of Things, digital solutions and smart manufacturing as a way forward to transform Malaysia's manufacturing sector. With these technologies in mind and in preparation for the Industry 4.0 revolution, CREST pursued research and development initiatives that would bring Industry 4.0-related innovation to the fore.

Its past experiences have led the organization to play a pivotal role in mapping and catalyzing a conducive ecosystem and by collaborating with our stakeholders, it is paving the way forward for Industry 4.0 in Malaysia by going beyond the manufacturing sector, and extending these technologies to other industries such as digital healthcare, precision agriculture, smart cities and education.

Driving R&D and Innovation

Through its R&D Grant Program, CREST continues to support industry-academia research collaborations with increased focus on demand-driven research for key clusters and technology domain areas identified by the industries. Presently, 165 projects involving 103 companies and 25 universities have been approved, whereby these parties have collaborated to spark new ideas, innovations and create new products while nurturing and growing the pool of sustainable industry-relevant talents, expertise and workforce for the E&E sector.

To date, CREST's collaborative R&D ecosystem consists of more than 9,000 deep-tech talent, industry domain experts and academic researchers that have produced industry trained postgraduates in key technology areas.

Developing future-ready talent
To address Malaysia's talent gap, CREST continues to initiate academia-industry linkages that have played a key role in steering the curricula of the Institutes of Higher Learning. Through collaboration with government agencies, universities and industry players, it ensures that the education curriculum aligns with industry needs and is agile enough to keep talents adopting new trends.

Since its establishment, CREST has trained more than 8000 graduates from over 30 universities and with the support from more than 150 partners, has nurtured a pool of domain experts and equipped students with industry knowledge and skills for the future of work. Its programs have also produced 250+ industry trained MSc and PhD students and postgraduate researchers.

Conclusion
Moving into its 10th year, CREST has proven its model of collaboration between industry, academia and the government has worked to enhance the country's technology ecosystem. The organization aims to continuously play a role in leading the country forward by building a vibrant ecosystem deeply integrated with technology, centered on driving the Malaysian economy to greater heights

Taking GaN into the future

Gallium Nitride (GaN) is creating an innovative shift throughout the power electronics world. For decades, silicon-based Metal Oxide Semiconductor Field Effect Transistors (MOSFETs) have been an integral part of the everyday modern world that helps convert energy to power. However, with increasing power density and efficiency requirements and environmental pollution regulations trends, silicon is failing to meet these modern demands.

This has led to the rise of GaN in replacing silicon as the backbone of power switching technology as it can meet the growing needs with better power systems efficiency, performance and cost.

Today, GaN is instrumental to the electronics world as it is deemed suitable for myriads of today's technologies including high powered electronics, wireless communications, solid-state lighting, displays and lasers.

CREST's GaN Journey: How it all began
Back in 2012, CREST identified the LED industry as one of its key pillars to support through its collaborative R&D program by carrying out research activities that would grow the sector's value.

According to Jaffri Ibrahim, CEO of CREST "We recognized the importance of GaN and were looking to capitalize on the global market for GaN Research which is slated to hit USD82 billion by 2024 and to position Malaysia as one of the top 3 LED solutions providers in the world."

The idea, he said, is to create a complete LED ecosystem for Malaysia, encompassing the front and back end including supply chain and logistics, with CREST aiming to achieve this alongside industry and academic partners through sharing of facilities and resources.

The organization made headway towards attaining its goal when it met with Professor Dr. Shuji Nakamura, the Nobel Prize in Physics Winner, a distinguished professor of materials at University California Santa Barbara (UCSB) and regarded as a superstar for his blue light emitting diode (LED) invention. It was Nakamura who successfully used the difficult-to-handle semiconductor gallium nitride to create energy efficient and environment-friendly blue LEDs, an invention deemed as one of the greatest benefits to mankind as it enables white light to be created in new ways and is now a source of alternative to older light sources.

Familiar with the advance research by Nakamura and his team and the accolades he received, CREST approached him on the idea of a technology transfer.

Developing local capabilities, achieving success

Since the start of the GaN on GaN program in 2015, CREST now has 70 Epitaxy researchers and 15 visiting researchers who are trained by Professor Nakamura and his team. The program which ended in June 2021 has successfully led to transfer and enhancement of knowledge, as well as invention of new ideas. To date, the program has attained 10 patents and IPs, including its very own recipe on how to grow LED crystals.

Additionally, the program saw the establishment of two world-class labs in University of Malaya (UM) and Universiti Sains Malaysia (USM) which mirror Professor Nakamura's lab at UCSB. Through this process, the program has attracted RM5 billion investment into Malaysia with the establishment of a 1 billion Euro plant by ams Osram and according to the Malaysia External Trade Development Corporation (MATRADE), the export value for LED achieved by the country to date has exceeded over USD$0.8 billion.

Taking GaN in to the future

Upon completion of the GaN on GaN program, CREST, together with the Northern Corridor Implementation Authority (NCIA) signed an agreement in June 2021, to further extend the development of GaN in Malaysia. Termed as the Value-Added Program (VAP), this two phase extension program aims to expand the country's ability to produce GaN-related materials, in addition to cementing its position as one of the top LED solution providers in the world.

Phase one, which began in June 2021 and will last till the end of 2022, sees the continued collaboration between CREST, UCSB, ams OSRAM and academia partners, UM and USM as they work towards building capabilities in tunnel junction, UV LED recipe, chip design as well as micro-LED power device.

During this 18-month period, the collaborators aim to develop core materials for LED, in addition to improving its performance from between 180 - 200 lumens per watt. This phase will also see the enablement of chip design capabilities by both universities as well as the filing of up to 13 IPs related to base technology.

In the subsequent phase (between February 2022 to December 2023), the program aims to develop a prototype for UV LED and application for agriculture and subsequently file IPs related to this technology.

Since the advent of the pandemic, innovative approaches have been developed in the disinfection process to assist in reducing the transmission of Covid-19. Among the disinfection systems are UV emitting devices, which are used to kill pathogens associated with infectious disease and infections, therefore, making this technology highly sought after and has been earmarked as the biggest application potential by CREST and all parties involved in this program.

A reduction in crop productivity in cultivable land and challenging environmental factors have directed advancement in indoor cultivation systems. In the wake of this situation, LED lighting has proved to be promising in the field of agricultural lighting. Properties such as energy efficiency, long lifetime, photon flux efficacy and flexibility in application make LEDs better suited for future agricultural lighting systems over traditional lighting systems.

To capitalize on this global trend, phase two of the VAP will focus on UV LED applications for the agriculture sector. This includes creating a prototype for an LED system as well as the filing of relevant IPs related to this technology.

Introducing SIMPLE, an initiative under i-Connect Health & Wellness

In 2021, CREST was appointed as the Neutral Entity for the i-Connect Health & Wellness sector, an initiative introduced by Academy of Sciences Malaysia, under the purview of the Ministry of Science Technology and Innovation. As an entity championing health and wellness, CREST steered a consortium, consisting of 15 Founding Members who represent the industry, academia, government and civil society to catalyze innovations, nurture talent and increase Malaysia's competitiveness in developing health and wellness solutions for local and global markets.

Since its appointment, CREST has managed the Technological Development Grant under the i-Connect Health & Wellness program, whereby 20 applications have been processed since the start of the program and five, approved by the Approval Committee.

Additionally, CREST was involved in facilitating the quadruple helix partnerships between industry, academia, government and civil society for Simplified Medical Platform for Emergency (SIMPLE), the first project approved by the Project Steering Committee and championed by Data8 Sdn Bhd.

As the main developer and industry partner for SIMPLE, Data 8 spearheads the development of a next generation medical emergency communications system, which aims to increase efficiency for Emergency & Trauma Departments (ETD) at hospitals whilst simultaneously reducing mortality and disability rate among patients.

This initiative officially commenced in December 2021 and includes:
a) The development of a data dictionary for emergency registry and records.
b) Observational study on ambulance response time.
c) Observational study on type of event activation.
d) Geo-location mapping on the timing and type of event activation.

Based on the data collected from the activities above, strategic deployment of ambulances based on geospatial-event-time analysis can be performed to optimize the ETD's limited resources in managing emergency and trauma cases.

SIMPLE is currently in beta stage development and is being tested at the Emergency Department of Hospital Kuala Lumpur, Hospital Pulau Pinang and Hospital Sg. Buloh.

CREST-MRANTI collaborate to establish NTIS Healthtech Hub

At CREST, we are committed towards developing technologies that address the real needs of the healthcare industry. Over the years, we embarked on numerous initiatives, in collaboration with the government, industry, academia and civil society to nurture a conducive ecosystem that centers on digital technologies to ensure that Malaysia stays ahead of the curve in developing healthcare solutions that are accessible for all.

Recently, we partnered with MRANTI to develop a framework for the establishment of the NTIS Healthtech Hub. The purpose of this hub is to leverage technological solutions and innovation to help improve patients' well-being through early detection and prevention, with the ultimate goal of making healthcare more inclusive and affordable for all Malaysians.

Additionally, the hub will create a facilitation ecosystem for innovators to test and validate their health-related technology solutions in a controlled environment as well as obtain the necessary regulatory clearance, prior to bringing these solutions into the market.

The NTIS Healthtech Hub will be established before the end of 2022.

Please stay tuned for more information regarding this initiative.

Highlights on CREST's CODIQ-MY initiative

The Digital Healthcare Data Analytics Center (DAC) is a clinical data repository center where anonymized and encrypted medical data is collected, stored and analyzed for research and development and commercialization. By leveraging artificial intelligence and data analytics, the center analyzes patterns from the available data to obtain an overview of the general health of Malaysians, in addition to determining the key factors that contribute to selected health conditions.

At the height of the Covid-19 pandemic in 2021, the Ministry of Health via the Institute of Clinical Research (ICR) leveraged on the DAC to enable remote quarantine monitoring of low risk Covid-19 patients in their respective homes. Termed as Covid-19 Digital Quarantine & Home Monitoring (CODIQ-MY), this project aims to lessen the burden on the country's healthcare system, thus enabling hospitals and healthcare workers to focus on providing optimum care for its patients.

By implementing CODIQ-MY, patients were able to report their status via a mobile app, monitor their own health by utilizing a wearable sensor as well as conduct doctor-patient consultation.

CREST contributed to the first phase of this project where it was involved in the development of the solutions architecture for CODIQ-MY backend system and its implementation in the DAC. Additionally, it also provided server and hosting facilities and expert advice on managing the entire system.

Following on from the successful completion of the first phase of deployment in the third quarter of 2021, ICR has now advanced to the next stage of the development of CODIQ-MY. This includes the integration of IoT monitoring devices onto the platform and eventually an integration into the MySejahtera ecosystem.

MDT-UTAR partner to accelerates design process for RFID antenna

RFID - the technology of the future

Radio Frequency Identification (RFID) is a technology that uses electromagnetic waves to track and identify objects automatically. This technology has received rapid development due to its many benefits and to date, has revolutionized the logistics, manufacturing, and security industries by offering enhanced and cost-saving asset tracking and monitoring solutions.

Analysts predict that the global RFID market will be valued at USD 10.87 billion in 2021, and it is expected to reach USD 14.42 billion by 2026, registering a CAGR of 5.06% during the forecast period of 2021-2026. Additionally, the rise in utilization of RFID solutions to help healthcare organizations to contain the spread of COVID-19 is expected to fuel the RFID market growth further, in the coming years.

The mechanics behind RFID

Generally, RFIDs provide a stable reading distance and fast access characteristics. An RFID system consists of a reader and a tag where the latter contains the information for a particular object.

A powerful RFID reader system can read a few hundred tags within milliseconds. Different from the conventional barcode technology, the RFID sensing mechanism does not require line-of-sight alignment, in other words, the tags can be easily tracked even when they are a distance away or not within visibility range of the antenna reader.

Addressing the complexities of antenna tag design

The RFID antennas are necessary elements in an RFID system as they convert the RFID reader's signal into RF waves that can be picked up by RFID tags. Without some type of RFID antenna, whether integrated or standalone, the RFID reader cannot properly send and receive signals to RFID tags.

The performance of the reader or tag antennas shows significant effect on the reading range and detection accuracy of an RFID system. As such, the detection range and accuracy are directly dependent on the performance of reader / tag antennas. Since these RFID systems operate at frequencies varying from low frequency to microwave frequencies, these RFID antennas are designed with distinct requirements.

No doubt, this poses a huge challenge to designing a tag antenna for different objects as its read performance is affected by the antenna structure in addition to the object that is backing it. This design process is often said to be tedious and complex, with the possibility of taking up to a few weeks for a highly experienced RFID engineer to design and optimize a tag antenna.

Partnering for success

MDT Innovations, a company focused on the IoT value chains ranging from intelligent wireless communications and IoT as a service, approached CREST back in 2013 as it was in search of a collaborator to simplify the complexities of designing a RFID antenna whilst simultaneously shortening its design process.

CREST facilitated the linkage between MDT and Universiti Tunku Abdul Rahman (UTAR) and the rest is history. Since 2013, both parties have collaborated on this project whereby a team of UTAR researchers have worked in tandem with MDT engineers to effectively produce an AI-based antenna design tool that is now able to reduce the design cycle of the antenna by at least 80%.

According to Sim Hon Wai, Chief Operating Officer of MDT Innovation, the company deals with highly complex use cases in IoT implementation, therefore having an AI simulated antenna allows it to dissect and provide scientific and holistic assessments on the environment where RFIDs will fully operate rather than rely on trial and error methods.

"We are immensely pleased with the progress of this project which has saved us a massive amount of time to produce these antennas. As a result of the AI-based design tool, the process of producing these antennas has shortened significantly, from two months to less than two weeks, thus enabling us to go to market with our products quicker."

Sim added "I would like to thank Professor Lim and the research team at UTAR for collaborating with us on this initiative and we look forward to expanding our partnership, moving forward."

Professor Lim Eng Hock from UTAR said "We were extremely motivated with this research as we acknowledge that our findings would make a significant impact to a myriad of industries who rely on RFID tag antennas. From the onset, the team at MDT provided us with ample support, including the necessary readers and firmware platforms that were required for the design process."

"We thank MDT for the opportunity to collaborate with them on this project and for their continuous support and constructive feedback along the way.
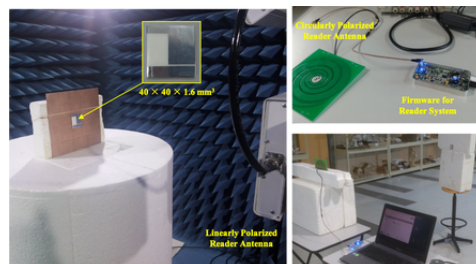
The design process

During the course of this project, the team at UTAR applied artificial intelligence techniques to ease the RFID tag design process. By incorporating design-of-experiment with neural network and genetic algorithm to design an easy-to-use simulator, the team were able to use machine learning algorithms to learn the complex electromagnetic properties of the tag antenna, thus providing the final optimized design parameters to the designer.

Having been adequately trained, the simulator works as a competent RFID designer. As there is no access-wait time for post-processing, the simulator is able to provide optimum design parameters within a tenth of a millisecond when there are new changes in the design targets.

This newly developed AI-assisted system is easy to use as it does not require the user to have any professional qualification and is able to profoundly reduce the design cycle time and costs of up to 80%.

Looking into the future

With funding from CREST, this project has successfully built up a strong research group actively involved in RFID research. Additionally, with CREST's support, the project has now entered into its commercialization stage and plans are in the works to extend this application to solve other engineering challenges.

With high penetration of RFID into various industries, this technology sector is experiencing exponential growth. Therefore, it is the goal of both MDT and UTAR to become a one stop service provider of RFIDs, from design to fabrication, in the near future.

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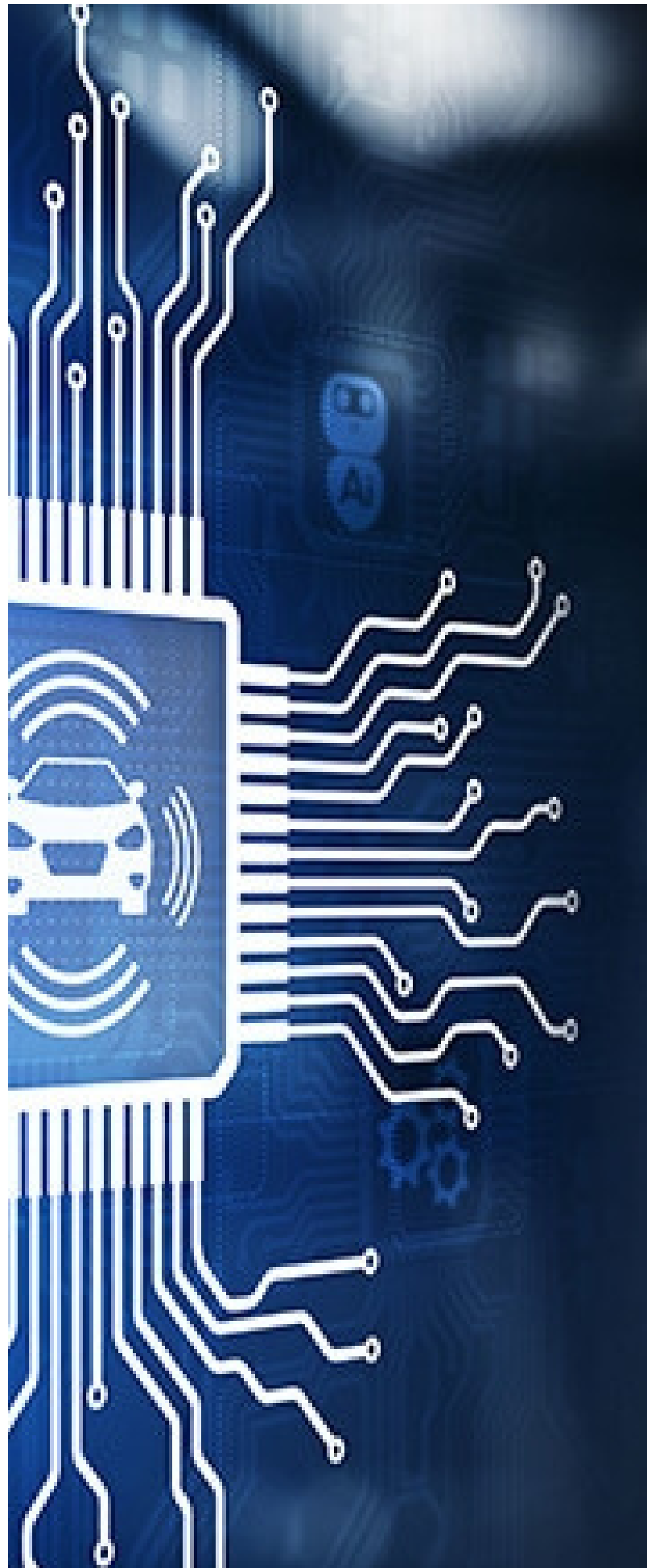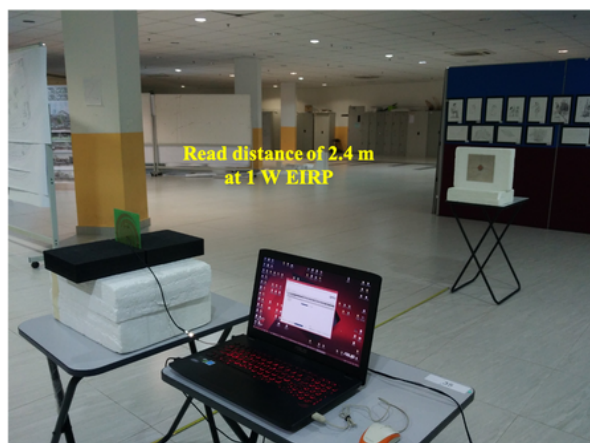
CREST progresses with EnSofT, introduces new batch of training participants

CREST initiated the Engineering Software Talent Program (EnSofT) in 2021 to address the industry's need for engineering software talent in the current workforce and to build a sustainable talent pool for the future.

Piloted in collaboration with industry and academia partners such as Universiti Sains Malaysia, Intel, Motorola Solutions, Exiatec Technology Sdn Bhd, Sensoft Technologies Sdn Bhd and Orionplex Sdn Bhd, the EnSofT program encompasses four key areas: grooming domain experts, pre-graduation, upskilling and reskilling.

For 2021, three software training areas were identified to develop talent with knowledge in Embedded Systems, Android Embedded and Android Applications. These training sessions commenced in October 2021.

On 16th October, 2021, CREST initiated a HRDF training on Android Applications topics as part of its in-house training program for 23 participants from Motorola Solution's workforce. After 18 days of rigorous training, the program concluded on 21st February, 2022, with each of the participants successfully completing a project that they were tasked to do, as a part of their training requirement.

Additionally, the Embedded Systems HRDF in-house training commenced on 19th February 2022, whereby 25 participants from Motorola Solutions are in the midst of undergoing ten days of online training.

Beyond these initiatives, EnSofT is looking to expand its training programs to include other types of engineering software related courses such as AI, integrated circuit design, machine vision and cloud computing.

These programs will serve as a stepping stone to develop industry-relevant talent that will be trained to meet the current and upcoming market demands.
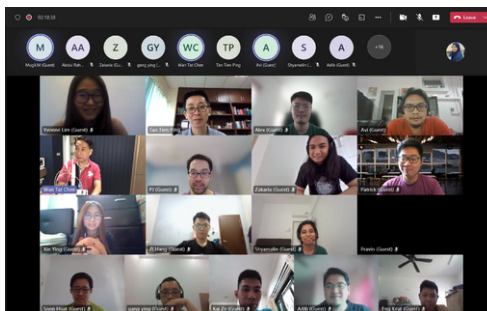
AI For Youth Program Highlights

Intel and CREST with the support of the Ministry of Education Malaysia, State Education Departments, MARA as well as relevant government agencies, universities and industry partners successfully launched the Intel® AI For Youth Program in Malaysia in 2021.

As the pilot program, Intel and CREST co-organized the 2021 AI Readiness Bootcamp, a seven-day online bootcamp for high school students, aimed at introducing and demystifying Artificial Intelligence (AI) for youth and equipping them with skillsets and mindset required for AI Readiness.

This bootcamp was supported by AI for Youth Lead Coaches from Universiti Sains Malaysia (USM), Universiti Malaya (UM), Universiti Teknologi MARA Pasir Gudang (UiTM), Collaborative Microelectronic Design Excellence Center (CEDEC), Exiatec Technology, Veecotech Innovation and Oriontrain Sdn. Bhd.

Held from 25 September to 16 October 2021, the online bootcamp was attended by 124 high school students from 20 schools across Malaysia, with ages ranging from 13 to 17 years old. Upon completion, each student received a Certificate of Participation from Intel.

Subsequently, five teams (encompassing 20 students from five schools) continued their AI journey and participated in the 2021 TheGreatLab Grand Design Challenge, a design competition organized by CREST. Upon completion of this challenge, these students were awarded with a Certificate of Accomplishment from Intel.

intel

Intel recognizes three Malaysian students and a teacher for their AI projects & innovations as part of the Intel® AI Global Impact Festival

Intel® AI Global Impact Festival

Congratulations Team Malaysia

Grand Award Winner	Country Award Winners		
AI Enthusiasts	AI Impact Creator	AI Enthusiasts	AI Impact Shaper
Mohd Farith Ibrahim	Lim Chee Wei	Chloe Poon Riou Yi	Jasy Liew Suet Yan

In October 2021, 13 participants consisting of a university lecturer, high school and university students represented Malaysia at the inaugural Intel® AI Global Impact Festival in October 2021. Themed 'Enriching Lives with AI Innovations', this worldwide event, which aims to democratize and celebrate AI innovations, garnered participation from over 110,000 students, next generation technologists and future developers from 135 countries.

Mohd Farith Ibrahim, from University Malaysia Sabah made our country proud by emerging as a Global Winner for the AI Enthusiast 100 category whilst three other Malaysians, Dr. Jasy Liew Suet Yan and Lim Chee Wei from USM and Chloe Poon Rou Yi, from SMJK Perempuan China Pulau Pinang emerged as Country Winners in other categories.

These winners together with other Malaysian students and agency partners, namely CREST, Malaysian Investment Development Authority and Malaysia Productivity Corporation were recognized by Intel during a virtual felicitation ceremony held on 11 March 2022.

Following the success of the 2021 Intel® AI For Youth Program, CREST and Intel have outlined three upcoming programs for 2022. They include:
a. Train-the-Trainer Program for high school teachers.
b. 2022 Building Digital Readiness Program – an AI design competition for high school and university students as well as educators from high schools and tertiary education institutions.
c. 2022 Intel® AI Global Impact Festival Program – with participation from Malaysian youth (aged between 13 – 19 years old), tertiary education students and educators in a virtual AI global festival to be organized by Intel in 2022.

Watch out for the latest updates on these programs in our next newsletter.
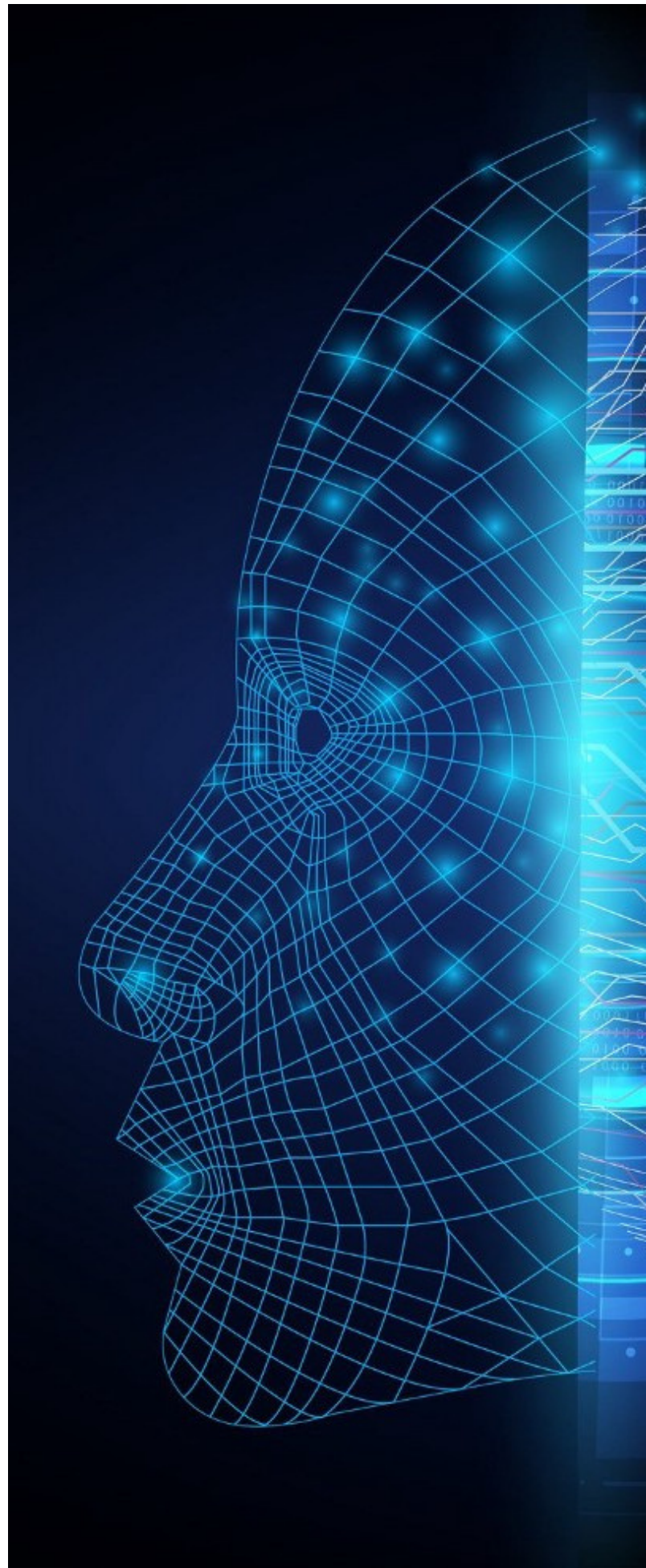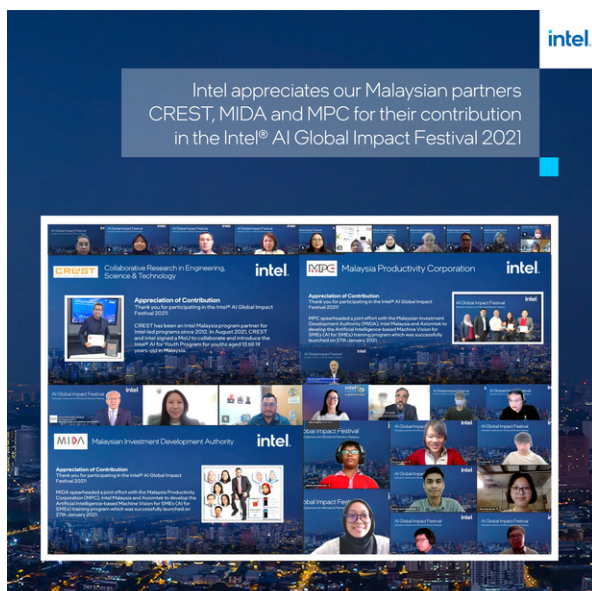
MSTS Asia aims to transform industries with digital technologies

We are proud to introduce you to MSTS Asia, our tenant at CREST Place.

MSTS Asia is a member of RelyOn Nutec, a company that provides solutions for safety-critical industries. Headquartered in Copenhagen and with a global footprint, the organization supports its customers by delivering safety and competency services, helping them protect their people, assets and the environment.

Since its humble beginnings, RelyOn Nutec has been leading the industry and through the intelligent application of leading-edge technology it has carved a name for itself and is now the preferred end-to-end partner for customers to develop and maintain a safe workplace for its employees.

Transforming industries with digital technologies
MSTS's market-leading suite of digital applications offer a modular approach in managing safety across their business processes whilst minimizing risks. Its innovative cloud-based SaaS technology is built to allow users to select from a range of applications to suit their individual needs, whilst revolutionizing the way companies track workforce safety, compliance and competence.

Additionally, its solutions are built on a solid foundation of past experiences, where it combines and leverages skills and knowledge within traditional safety and survival training, whilst adding state-of-the-art digital capabilities such as e-learning competence management system, compliance management system and control of work to offer clients a myriad of solutions.

Embracing digital transformation and driving improvement of productivity and efficiency
To date, MSTS Asia has built strong collaboration with a few technology principals to expand its capabilities to become a truly digi-physical business on a global scale.

Together with its partners, the company offers fulfillment of high value added digitized QHSE management applications that are equipped with data analytics and machine learning.

Looking ahead
With the advent of digitalization, MSTS Asia has diversified its business to include consultation services for organizations interested to embark on this transformational journey. Through extensive experience from its team and leveraging on RelyOn Nutec's strengths in this area, the company is leading the way by providing innovative solutions for its customers who are interested in making the digital transformation leap.

COLLABORATE WITH US

For details on our programs and initiatives, contact our team below:

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