MALAYSIAN INVENTION & DESIGN SOCIETY

MINDS NEWSLETTER

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CHIEF EDITOR'S NOTE

Welcome to the April 2026 edition of the MINDS Newsletter. As we reflect on the past year, it is evident that the Malaysian innovation ecosystem is undergoing a profound transformation, moving beyond traditional boundaries to embrace the complexities of a digital and climate-conscious future. This issue captures a remarkable spectrum of milestones that underscore our Society's dual commitment: advancing scientific discourse while simultaneously nurturing the next generation of inventive talent.

Our flagship event, **MYIIC 2025**, set a high bar with its focus on "Generative AI in Innovative Technology." The convention highlighted how intelligent systems are becoming the very core of Industry 5.0, healthcare, and quantum networks. Equally strategic was the inaugural **Tropical Crops Carbon Credit Forum (TCCCF) 2025**, organized by ATAS. Attended by Deputy Prime Minister YAB Datuk Amar Haji Fadillah bin Haji Yusof, the forum charted a clear path for Malaysia to lead in nature-based climate solutions. As we were reminded, sustainability is an Amanah - a sacred trust. Our oil palm, rubber, and rice crops are not merely commodities but living carbon sinks, and the time to monetise sequestration through high-integrity carbon credits is now.

We also celebrate the human element of innovation. This is beautifully illustrated in our feature on **Wondaleaf's** multi-year journey through the national Innovathon®, proving that success requires both technical excellence and perseverance. Furthermore, at the **WISE Conference 2026**, we honoured the leadership of women in science, conferring awards upon Emeritus Prof. Dr. Phang Siew Moi and Dr. Nabihah Sallih for their immense contributions to research and engineering.

On the global stage, our members and affiliates brought home an outstanding 37 awards from **IPITEx'26** in Bangkok. This momentum was matched by our youth, who continue to inspire us. From winning 18 awards at the **HKISIIC** in Hong Kong to SMK Taman Selesa Jaya clinching a historic First Prize in Beijing for their solar-powered environmental solutions, our students are proving they can solve real-world challenges at the highest level.

As we move forward with the 12 actionable goals generated during our January brainstorming session, MINDS remains dedicated to providing the platforms that allow the "moves and grooves" of innovation to flourish. We invite you to join us in turning these ideas into lasting impact.



FOREWORD BY YBHG. ACADEMICIAN EMERITUS PROFESSOR TAN SRI DATUK DR. AUGUSTINE S.H.ONG
PRESIDENT OF THE MALAYSIAN INVENTION AND DESIGN SOCIETY (MINDS)



The Malaysian Invention and Design Society (MINDS) continues to play a pivotal role in advancing the culture of innovation, creativity and scientific excellence in Malaysia. As we navigate an era shaped by rapid technological transformation, particularly in artificial intelligence, quantum technologies and sustainability, it is both timely and essential to reflect on the collective efforts that drive progress across industries, academia and society.

This April issue of the newsletter captures a remarkable year of achievements, collaborations and forward-looking initiatives undertaken by MINDS and its partners. From international engagements such as the **Beijing International Week for Science Literacy and the Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition (IPITeX)**, to national flagship events including the **Malaysia Inventors and Innovators Convention (MYIIC) 2025 and Women in Science and Engineering (WISE) Conference 2026**, the Society has continued to provide impactful platforms for knowledge exchange, recognition and global networking.

The theme of generative AI in innovative technology, prominently featured in MYIIC 2025, reflects the growing importance of intelligent systems in shaping the future of industries, from manufacturing, healthcare to education and quantum AI. Equally inspiring are the stories of perseverance and ingenuity highlighted throughout this publication. The journey of innovators, such as those showcased in Innovathon®, exemplifies the resilience, creativity and determination required to transform ideas into meaningful solutions that benefit society.

MINDS also remains deeply committed to nurturing the next generation of innovators. Initiatives such as the **Kuala Lumpur Engineering and Science Fair (KLESF), Technovation Challenge 2026** and the selection of top primary and secondary school teams to represent Malaysia in international competitions, such as **12th Hong Kong International Student Innovative Invention Contest (HKISIIC) 2026 and 45th Beijing Youth Science Creation Competition (BYSCC) 2026**, demonstrate the Society's dedication to fostering interest in STEM and empowering young minds to think critically, creatively and globally.

Furthermore, the growing emphasis on sustainability and climate responsibility highlighted through forums such as the **Tropical Crops Carbon Credit Forum (TCCCF) 2025**, underscores the need for innovation that is not only technologically advanced but also environmentally and socially responsible. Malaysia's unique strengths in biodiversity and tropical agriculture present significant opportunities to lead in nature-based solutions and the global carbon economy.

As President of MINDS, I am proud of the collective achievements documented in this newsletter. They reflect the strength of collaboration among our members and partners, as well as our shared vision of positioning Malaysia as a hub of innovation and design excellence.

I extend my sincere appreciation to all contributors, organisers, participants and supporters who have made these initiatives possible. Your dedication continues to inspire progress and elevate Malaysia's presence on the global innovation stage.

Thank you.

BEIJING INTERNATIONAL WEEK FOR SCIENCE LITERACY 2025

Ms. Teow Chiau Yien, an educator from SJKC Ying Wah represented MINDS at the Beijing International Week for Science Literacy 2025, held from 15-21 September 2025 at the Beijing Science Center, China. Organised by the Beijing Association for Science and Technology (BAST), the event brought together science educators, innovators and stakeholders from around the world to exchange knowledge, strengthen international cooperation and promote science communication in the age of Artificial Intelligence (AI). During the mission, she delivered a presentation titled "Innovation and Project-Based Learning Approach in STEM at Preschool" and showcased her invention "CodotKit Plus" at the MINDS booth.









MINDS was honoured to be invited to participate in the inaugural annual meeting of the Beijing Global Network of Science Festivals (BGNSF) and International Science Festival Roundtable.



MALAYSIA INVENTORS AND INNOVATORS CONVENTION (MYIIC) 2025

MYIIC 2025 was successfully held on 8 November 2025 at the Royal Lake Club Kuala Lumpur, with the theme **"Generative AI in Innovative Technology"**. The convention attracted over 180 participants including university students, early-career professionals, industry leaders, government officials, researchers and educators. A key highlight of the event was the recognition of 13 Malaysian inventors and innovators for their outstanding contributions that have had a significant impact on the community, industry and growth of inventive activities. MYIIC 2025 was proudly sponsored by Graphjet Technology Sdn Bhd, ROVSKI Sdn Bhd, Silverlake Axis, Quantonation and Imagine AI Sdn Bhd. Supporting parters included the Malaysia Semiconductor Industry Association (MSIA), The Institution of Engineers, Malaysia (IEM), Technological Association of Malaysia (TAM), MIMOS Berhad and the Malaysia Board of Technologies (MBOT).



Tan Sri Augustine Ong, President of MINDS (right), presenting a memento to the Guest of Honour, YBhg. Datuk Fabian Bigar, Secretary General of the Ministry of Digital

Welcome Address, Opening Ceremony & Award Presentation

The convention commenced with a welcome address by YBhg. Academician Tan Sri Emeritus Prof. Datuk Dr. Augustine S.H.Ong. The opening ceremony and award presentation were officiated by YBhg. Datuk Fabian Bigar, Secretary General of the Ministry of Digital. The convention featured distinguished speakers across six insightful sessions, alongside an A3 Poster competition with participation from 37 registered teams. Mr. Ahmad Ezzat Ismail, MINDS EXCO Member, served as the Master of Ceremony throughout the event.

Silver Sponsor - ROVSKI Sdn Bhd







Silver Sponsor - Graphjet Technology Sdn Bhd







Bronze Sponsors - Imagine AI Sdn Bhd (left) & Quantonation, France (right)





Key Themes: Generative AI in Innovative Technology



Efficient Information Reconciliation in Continuous-Variable QKD for Reliable Communication in Future Quantum Networks, presented by Prof. Ts. Dr. Zuriati bt Ahmad Zukarnain, Deputy Dean cum Professor from Department of Communication Technology & Networks, Faculty of Computer Science & Information Technology, Universiti Putra Malaysia (UPM)



Integrated Artificial Intelligence and Multiscale Simulation for Clean Energy Paradigm, presented by Ir. Ts. Dr. Serene Lock Sow Mun, Senior Lecturer of Universiti Teknologi PETRONAS (UTP)



Bridging The Genomic Gap: Breast Cancer Research in Asians, presented by Datin Paduka Prof. Dr. Teo Soo Hwang, OBE FASc, Founder of Cancer Research Malaysia



MeMoSA: Mobile Mouth Screening Anywhere, presented by Prof. Dr. Sok Ching Cheong, FASc, Chief Scientific Officer of Cancer Research Malaysia



From Campus to Community: Empowering Youth for Urban Food Security in Malaysia and Southeast Asia, presented by Prof. Dr. Phelim Yong Voon Chen, Executive Dean, Faculty of Health, University of Cyberjaya and Assoc Prof. Dr. Yap Wei Hsum, Head of Research at the Faculty of Health and Medical Sciences, Taylor's University



AGRI-TECTURE + AI: Exploring Future Food Systems, presented by Ar. IDr. Mohamed Fariz bin Hilmi, Business Development Officer of Mutiara Figs Sdn Bhd



Quantum and Optical Neural Network with Integrated Photonic Circuits, presented by Prof. Dr. Kwek Leong Chuan, Co-Director, Quantum Science and Engineering Centre (QSec), Nanyang Technological University



Quantum Technologies: From Emerging Applications to Strategic Asset Class, presented by Dr. Christophe Jurczak, Co-Founder & Managing Partner of Quantonation, France



Panel Discussion moderated by Prof. Ir. Dr. Leong Wai Yie (4th from left)

Panel Discussion

Moderated by Prof. Ir. Dr. Leong Wai Yie, the Honorary Secretary of MINDS, the invited panelists, listed below shared their insightful perspective on the applications of Generative AI across their various industries.

- Ir. Dr. Baljit Singh A/L Bhathal Singh, Deputy Chairman of Engineering Education Technical Division – E2TD, The Institution of Engineers Malaysia (IEM)
- Ir. Ts. Dr. Nordin Bin Ramli FASc, Principal Researcher & Head of Technology Diplomacy Division, MIMOS Berhad
- Mr. YC Chia, Founder of Ticket2U, Technological Association Malaysia (TAM)
- Mr. Edwin Loh, CEO of Imagine AI Sdn Bhd
- Dr. Md Fauzi Bin Md Ismail, Registrar of Malaysia Board of Technologists (MBOT)
- Dr. Hanafiah Yussof, Founder & Group CEO of Roboprenuer Sdn Bhd

MYIIC Award 2025



Winners of the MYIIC Awards 2025 with the Guest of Honour, YBhg. Datuk Fabian Bigar, Secretary General of the Ministry of Digital (8th from right)

The MYIIC Award 2025 recognized outstanding Malaysian innovators whose contributions were evaluated based on several key criteria: IP protection and registration details, level of commercialization both locally and overseas, positive impact on society and quality of life, accolades and awards received at both national and international levels, environmental efforts and carbon footprint management, and further improvements and developments made since the initial launch of the innovation. The following winners were announced during the opening ceremony.



MYIIC Luminary Award Recipients 2025

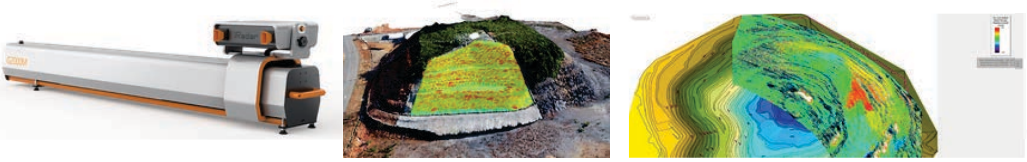
Dr. John Tang Ing Ching
Founder of Twin Catalyst Sdn Bhd
Inventions: Adhesive Pouch, Hammock Wheelchair, Assure Skywalker, Urifyx, Wondaleaf, Unisex Condom





Prof. Ir. Dr. Koo Voon Chet FASc
Multimedia University
Invention: GBSAR - Ground Based Synthetic Aperture Radar





Dr. Rohaya Binti Othman
Jabatan Mineral dan Geosains Malaysia
Invention: Green Innovation in PCC Production from Carbide Lime waste, CO_2, as well as Underutilised Limestone RADIANTCAL





Prof. Ir. Ts. Dr. Suraya Abdul Rashid
Founder of Qarbotech, Researcher at the Institute of Nanoscience & Nanotechnology, Universiti Putra Malaysia
Invention: QarboGrow, Carbon Quantum Dots (CQD) based Photosynthesis Enhancer





Mr. Ng Zim Guan
Founder of Formedic Technologies Sdn Bhd
Invention: LEGA - a portable chest percussor built on the principles of Newton's second law (F=ma)





MYIIC Meritorious Award Recipients 2025

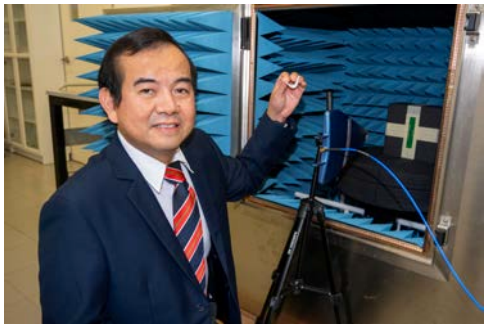
Mr. Robest Yong Han Aun
Adjunct Professor of DRB-HICOM University
Invention: Polyclone Instant Rubber Stamp Machine





Prof. Ts. Dr. Lim Eng Hock
Universiti Tunku Abdul Rahman (UTAR)
Invention: Miniature tag antennas using the low-cost flexible substrate in the field of Radio Frequency Identification (RFID)







Prof. Dr. Jidon @ Adrian Janaun
Universiti Malaysia Sabah (UMS)
Inventions: Residual Oil Extractor (ROE), Continuous Residual Palm Oil Extractor (CST System), Integrated Solar Dryer (INSOLER), UMS 3-in-1 River Cleaning Machine, LAMB Biomass Dryer, UMS Eco-Solar House, UMS Eco-Solar Dryer, UMS Coffee Roaster with Integrated Flavoring







Prof. Emeritus Ir. Dr. Mohd Azlan Hussain
Universiti Malaya (UM)
Invention: Solar Powered Automated Backwashing Ultrafiltration (UF) Mobile System





Assoc Prof. Dr. Chew Yik Ling
UCSI University
Inventions: SteenfixTM Mangosteen Hair Shampoo and Conditioner, EczcellaTM Moisturising Cream for Eczema and Dry Skin, NanoToco Vitamin E drink, Cenwort Natural Facial Cleanser, Tocopherol Moisturising Cream, MagFix, Botanical Anti-Aging Eye and Face Serum, Tocotrienol Orally Disintegrating Dosage Forms, Probiotics Fast Melt Effervescent Capsules, Cocoa Butter Fast Melt Tablet, Quetiapine fumarate medicated chocolate for Schizophrenia patients









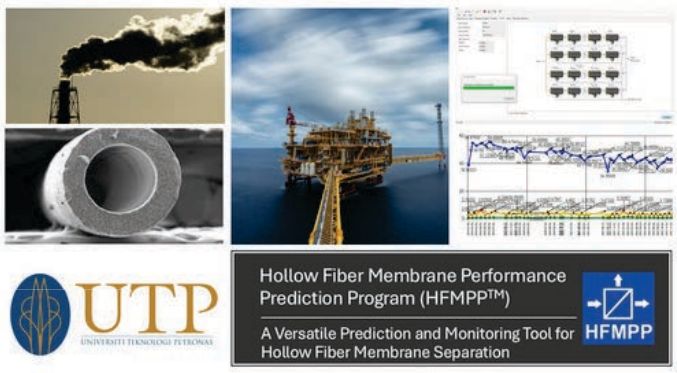
Prof. Dr. Farrukh Hafiz Nagi
Universiti Tenaga Nasional (UNITEN)
Invention: The UNITEN FlashEscape System



Assoc Professor Ir. Dr. Lau Kok Keong & Ir. Ts. Dr Serene Lock Sow Mun
Universiti Teknologi PETRONAS (UTP)
Invention: Hollow Fiber Membrane (HFM)





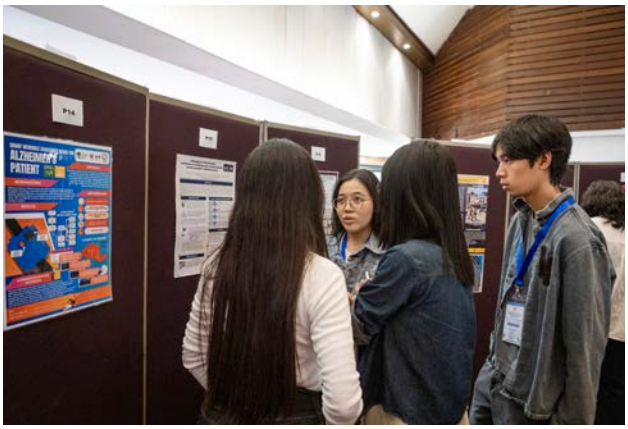


Further details of their innovations are featured in the MYIIC Souvenir Programme 2025 and can be downloaded on MINDS website.

A3 Poster Competition

MYIIC 2025 attracted over 37 teams for the A3 Competition providing a platform for them to showcase their innovative ideas. The panel of judges was led by Prof. Ir. Dr. Leong Wai Yie, and included Dr. P. Mohankumar, Assoc Prof. Dr. Thulasyammal Ramiah Pillai, Prof. Dr. Raymond Ooi, Dr. Leo Ann-Mean and Prof. Vigna Kumaran Ramachandaramurthy. The participants were awarded Certificates of Excellence and Certificates of Merit.






Registered participants presenting their innovative ideas during the convention.



Celebrating creativity and achievement - A3 Poster Competition participants with their Certificates of Excellence and Certificates of Merit






Networking Lunch Session. A great opportunity for MINDS members to reconnect and share their ideas!

What is Generative AI?

Generative AI is a transformative force in innovative technology, revolutionizing industries by enabling automated creation, optimization, and problem-solving. Leveraging advanced machine learning models, generative AI drives breakthroughs in automation, content generation, and intelligent system design.

In manufacturing and Industry 5.0, generative AI enhances product design, 3D printing, and digital twin simulations, leading to more efficient and sustainable production. It also plays a crucial role in green energy solutions through AI-driven modeling and sustainable designs. In the film, media, and entertainment sectors, generative AI can create content and immersive experiences.

In education and research, AI-generated content personalizes learning, while AI-driven knowledge systems enhance scientific discoveries. The integration of Generative AI with IoT sensors in smart farming improves agricultural efficiency, demonstrating its role in sustainability.

As human-AI collaboration deepens in Industry 5.0, generative AI fosters creativity, automation, and intelligent decision-making, positioning itself as a key driver of technological innovation across multiple disciplines. Future advancements will continue to reshape industries, unlocking new potentials in personalization, efficiency, and sustainability.

The synergy of AI and quantum technology holds immense promise in the R&D of Quantum AI, potentially revolutionizing the advancements in materials science, cybersecurity, healthcare and solving optimization problems in complex systems.

As highlighted by the Honourable Prime Minister Datuk Seri Anwar Ibrahim, Malaysia must accelerate AI development by fostering innovation and adopting a comprehensive cross ministerial approach to drive more sustainable economic growth for the country.

KUALA LUMPUR ENGINEERING AND SCIENCE FAIR (KLESF) 2025



The KLESF opening ceremony was officiated by Yg. Bhg. Datuk Seri Hj. Hasnol Zam Zam bin Hj. Ahmad (6th from left), then Secretary-General of the Ministry of Science, Technology and Innovation (MOSTI), accompanied by all KLESF Partners.

The Kuala Lumpur Engineering and Science Fair (KLESF) 2025 aimed to promote interest in Science, Technology, Engineering and Mathematics (STEM) among primary and secondary school students. Themed "Quantum Future: The Infinite Possibility", the fair was held from 14-16 November 2025 at the Malaysia International Exhibition & Convention Centre (MIECC). KLESF partners included the ASEAN Academy of Engineering and Technology (AAET), The Institution of Engineers, Malaysia (IEM), Malaysian Industry-Government Group for High Technology (MIGHT), Malaysian Invention and Design Society (MINDS), Tunku Abdul Rahman University of Management and Technology (TAR UMT) and Universiti Tunku Abdul Rahman (UTAR). As a co-organiser, MINDS invited one of the MYIIC Luminary Award Winners 2025, Dr. Rohaya Binti Othman from Jabatan Mineral dan Geosains Malaysia to deliver a presentation at the event. Her topic *"Unveiling the Science of Minerals: How STEM Transforms Nature's Potential into Innovation"* highlighted the intersection of natural resources and scientific advancement.



Dr. Rohaya Binti Othman (right), MYIIC Luminary Award Recipient 2025 with Tan Sri Augustine Ong, showcasing her invention "RADIANTCAL" at the MINDS booth.





2026 BANGKOK INTERNATIONAL INTELLECTUAL PROPERTY, INVENTION, INNOVATION AND TECHNOLOGY EXPOSITION (IPITEX'26)

The 2026 Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition was successfully held in Bangkok, Thailand, from 4th January to 9th January 2026, bringing together innovators, researchers, and institutions from across the globe. The event was hosted by the National Research Council of Thailand (NRCT) in collaboration with the Ministry of Higher Education, Science, Research and Innovation, Thailand. It served as a major international platform for the exchange of knowledge, promotion of innovative ideas, and recognition of outstanding inventions.

This year's exposition featured an impressive total of 883 inventions from 24 countries, involving participation from 120 organizations. The exhibits covered a wide spectrum of fields including science, engineering, green technology, healthcare, and education, reflecting the growing global emphasis on innovation-driven development.

Malaysia was strongly represented by MINDS, which sent a delegation of 37 participants. The Malaysian contingent delivered an exceptional performance, winning a total of 37 medals comprising 13 gold medals, 17 silver medals, and 7 bronze medals. This achievement highlights the high standard and competitiveness of Malaysian innovations at the international level. In addition to medal achievements, several Malaysian projects received prestigious special awards. Two projects were honoured with the NRCT Special Awards:

- **S-Cool Box** from SMK Ulu Tiram, developed by Vijaya Kumar Rahman & team.
- **Foldable Working Table with Safety Shield** from SK Felda Sungai Panching, created by Khairul Faizi Othman Bakar & team.

Special recognitions were also awarded by the CORNELIUGROUP Research-Innovation Association from Romania. The recipients were:

- **Agro Lens** from SMK Ulu Tiram
- **BFresh Cure and Care** from Kolej Vokasional Alor Setar and LRS Enterprise, led by Noor Liza Ramli

Another notable achievement was recognised by the Korea Invention Promotion Association (KIPA), which presented a Special Award to Kolej Vokasional Alor Setar for their innovation **Eco Mushroom**.

In addition, the MINDS International Special Prize was awarded to Hee-Bong Kim of South Korea (KIPA) for his invention titled **Eco-friendly Modular Assembly Fender Fixing Device**, in recognition of its outstanding innovation and practical application.

The success of MINDS participants underscores Malaysia's continued commitment to fostering innovation, research excellence, and creative problem-solving. Their achievements not only enhance the country's reputation in the global innovation ecosystem but also serve as a catalyst for further advancement in the science and technology sectors.

In conclusion, the 2026 Bangkok International Exposition was a highly successful event that fostered international collaboration and celebrated excellence in innovation. Malaysia's outstanding performance, both in its impressive medal tally and special recognitions highlights the nation's growing prominence in the global innovation landscape. This success paves the way for future breakthroughs and further international partnerships, reinforcing Malaysia's role as a leader in the field of innovation. Congratulations to all!



The CORNELIUGROUP Research-Innovation Association (Romania), represented by Assoc. Prof. Dr. Ing. Corneliu Birtok-Baneasa, presenting a Special Award to SMK Ulu Tiram for their innovative project, "AgroLens"



Souvenir to Mr Surasak Panjaroenvorakul, Minister of higher Education, Science, Research and Innovation (MHESI).



Token from MINDS to Dr Wiparat De-Ong, Executive Director, National Research Council of Thailand (NRCT)



NRCT Special Award went to SK Felda Sg Panching for project Foldable Working Table with Safety Shield.



MINDS Special Award went to Mr Hee-Bong Kim of South Korea.



Awardees of Gold Medal



Outstanding International Invention & Innovation Award went to SMK Ulu Tiram with project S-Cool Box



Team from Kolej Vokasional Alor Star, Sg Petani 2, Langkawi and SK Sultanah Asma with their awards and certificates



The outstanding team of SMK Ulu Tiram, Johor. They achieved 4 Gold and an Outstanding International Invention & Innovation Award.



Stage presentation by Mr Vijaya Kumar Rahman of SMK Ulu Tiram on S-Cool Box



Stage presentation by SK Stella Maris (Cwg Ampang) on PawTomatic Rescue



Stage presentation by Universiti Tun Hussein Onn, Malaysia on Digitalizing the Monitoring of Availability, Performance, and Quality (OEE) through Data Analytics and the Development of New Manufacturing Systems App



The CORNELIUGROUP Research-Innovation Association (Romania) represented by AP Dr Ing Coneliu Birtok presenting a special award to Pn Liza Ramli of KV Alor Setar for the project title "BFresh Cure & Care"



Korean Invention and Promotion Association (KIPA) Vice President awarding Kolej Vokasional Alor Setar with the title "Eco Mushroom".



MINDS BRAINSTORMING SESSION 2026

MINDS held a productive brainstorming session on 10 January 2026 at the Crystal Crown Hotel PJ, bringing together 23 MINDS members to propose new ideas and identify areas for improvement. The session concluded with 12 actionable ideas, each assigned to a specific follow up action to drive progress within the organization.



23 MINDS members reconnected and shared ideas shaping the society's future

FROM CLINIC TO NATIONAL STAGE: OUR INNOVATHON® JOURNEY



The Wondaleaf team after winning Astro Innovathon Season 3 2025, presenting Wondaleaf Adhesive Pouch.

Innovathon® Seasons 1, 2 and 3 were a TV reality innovation competition produced by Astro and sponsored by the Ministry of Economics and Ministry of Science, Technology and Innovation. The programme brought inventors, entrepreneurs, and problem-solvers onto a national platform where ideas were evaluated not only for originality, but also for practicality, clarity, and public understanding. Participants were challenged to explain inventions in a way that both judges and ordinary audiences could understand immediately - something many inventors often discover is harder than developing the product itself.

The first prize winner took home a cash prize of RM 100,000 and a product development grant of RM 500,000, in addition to an eight-kilogram trophy. Given these significant rewards, Season 3 saw over 2000 teams, mainly from institutions of higher learning, across Malaysia entering the competition.

From this vast pool, 56 teams were selected to present their innovations on national TV, and out of these, nine eventually entered the grand finale on 6 December 2025 where Wondaleaf, proudly took the first prize.

Our journey started at a clinic in Sibu. It began with the repeated frustration of witnessing patient discomfort, inconvenience, and the limited, often unaffordable choices available to them. Rather than accepting these issues as routine complaints, we approached them as critical design challenges, transforming everyday problems into a mission for innovation.



Dr. John Tang demonstrating Wondaleaf Assure during the Audition for Season 2 of Innovathon. The team later progressed to on-stage TV presentations.

That mindset eventually led us beyond the consultation room and into the world of invention. Through Twin Catalyst Sdn. Bhd. and the Wondaleaf brand, our team began developing medical devices that were not only inventive, but practical, patient-centered, and designed to solve real healthcare problems.

This path, however, was not walked alone. In the early days of product development, we sought funding and support from the Sarawak Research & Development Council (SRDC) and expertise from University Technology Sarawak (UTS). Importantly, **Dr. John Tang**, our founder, found a vital professional home within MINDS. Through MINDS, he was introduced to a network of like-minded problem solvers and built lasting friendships with fellow MINDS members, especially Dr. Chew Heng Hai, the Chairman of MEDIC-MINDS. Dr. Chew frequently shared with him the strategic aspects of medical innovations, such as Health Technology Assessments. Dr Tang's involvement with MINDS also led him to the Innovative Aging Conference & Exhibition in 2021, an experience that proved crucial in refining his ideas.

Subsequently, the true test of our team's resilience began in 2023 with the launch of Astro Innovathon Season 1. What makes our Innovathon story especially meaningful for young inventors is that it was not a one-season success story. It was a multi-year journey built through return, revision, and perseverance. Wondaleaf appeared in three consecutive seasons of Innovathon, each time with a different innovation focus.

Season 1 of Innovathon saw the debut of the **Wondaleaf Hammock Wheelchair**, a specialised patient transfer system designed to safely and comfortably move bed-bound individuals between beds, chairs, and restrooms. By allowing transfers in a lying position without the need for manual lifting, it addressed a critical caregiving challenge, significantly reducing physical strain on caregivers while enhancing patient dignity.

Despite its clear practical value and innovative design, the competition was exceptionally fierce, and the project did not progress to the final round. However, this early experience provided the foundational insights that would eventually lead to our success.

Season 2 of Innovathon 2024, saw the team returning with **Wondaleaf Assure**, a hybrid walker and electric wheelchair designed to support rehabilitation, mobility training, and safer self-assisted transfers. It represented a stronger refinement of mobility support innovation, yet once again, the team did not enter the final round.

What made the repeated return meaningful was that each season demanded more than simply presenting a new product. We had to rethink how inventions were introduced to a broader audience. In a clinical or technical setting, the value of a device may seem obvious to professionals who understand the problem immediately. On a public stage, however, an inventor must translate technical value into language that ordinary viewers can connect within seconds. This became one of the biggest lessons throughout the Innovathon journey: innovation does not end when a product works. It must also be explained clearly enough for others to believe in it.

By Season 3 of Innovathon, the team introduced **Wondaleaf Adhesive Pouch**, a novel transparent adhesive pouch dressing that protects wounds or medical device sites while allowing easy monitoring and absorbent changes without repeated full dressing removal. Even then, the product did not initially secure a spot in the final round and only returned through a wildcard opportunity.

The wildcard opportunity became the turning point. With persistence, clearer communication, and stronger teamwork, Wondaleaf Adhesive Pouch eventually won the competition. For us, the victory represented far more than one successful product; it reflected three seasons of learning, repeated rejection, perseverance, and trust in one another. Looking back, the Innovathon journey reflects something many inventors eventually discover: the first version of an idea is rarely the final version, and the first rejection is rarely the end of the story.

This journey is a reminder that strong ideas are not always accepted immediately. Rejection does not always mean the invention lacks value. Sometimes innovation requires refining the product. Sometimes it requires refining how the story is told. And often success only arrives after several attempts.



The Wondaleaf team during Season 1 of Astro Innovathon in 2023, presenting the Wondaleaf Hammock Wheelchair.

WOMEN IN SCIENCE AND ENGINEERING (WISE) CONFERENCE 2026

In conjunction with International Women's Day, MINDS successfully organized the Women in Science and Engineering (WISE) Conference 2026 themed "Give to Gain", on 5 March 2026 (Thursday) from 9am to 1.10pm. Formerly known as the National Conference on Contributions to National Development by Malaysian Women Scientists and Inventors, this conference continues to serve as a key platform celebrating women's contributions to science and innovation.

The Conference Organizing Committee was chaired by YBhg. Datuk Choo Yuen May FASc, Vice President MINDS. EXCO Committee members included Prof. Ir. Dr. Leong Wai Yie, Honorary Secretary of MINDS, Prof. Ts. Dr. Lee Chien-Sing and Dr. Raviga Sambanthamurthi FRS, FASc.

The event was sponsored by Silverlake Axis Sdn Bhd and supported by the Ministry of Science, Technology and Innovation (MOSTI) and Technological Association Malaysia (TAM). The Conference attracted a diverse audience of academics, scientists, technologists, engineers, professionals and students from upper secondary, pre-university, undergraduate- and postgraduate levels. A total of 111 out of 118 registered participants attended the webinar.

The programme commenced with a Welcome Address by YBhg. Academician Emeritus Prof. Tan Sri Datuk Dr. Augustine S.H.Ong, President of MINDS. A highlight of the Conference was the conferment of the MINDS Lifetime Scientific Research Achievement Award and the MINDS Young Woman Scientist Award. These prestigious honours were awarded to Emeritus Prof. Dr. Phang Siew Moi FASc, Deputy Vice-Chancellor (Research & Postgraduate), UCSI University and Dr. Nabihah Sallih, Senior Lecturer & Research Leader, Universiti Teknologi PETRONAS (UTP) respectively.

The citation for the recipient of the MINDS Lifetime Scientific Research Achievement Award was delivered by Dr. Ravigadevi Sambanthamurthi FRS, FASc, while Prof. Ts. Dr. Lee Chien-Sing gave the citation for the recipient of the Young Woman Scientist Award.



Two award recipients were announced during the WISE Conference 2026.

Conference Highlights

Seven distinguished female speakers shared their research, professional journeys and achievements across two modules. Both modules were chaired by Prof. Ir. Dr. Leong Wai Yie, Honorary Secretary of MINDS, while the closing remarks were delivered by Dr. Ravigadevi Sambanthamurthi FRS, FASc on behalf of YBhg. Datuk Choo Yuen May FASc.

Module I:

Keynote Address: *Algae at the Nexus of Climate, Industry and the Circular Economy*, presented by Emeritus Prof. Dr. Phang Siew Moi FASc, FMBA (UK), Deputy Vice-Chancellor (Research & Postgraduate), UCSI University

The Power of Tikta Herbal Enzyme, presented by Datin Professor Dr. Clara Chee, Founder & Chairperson of Clara International Beauty Group

Closing The Cancer Care Gap with Innovative Technologies, presented by Prof. Dr. Cheong Sok Ching FASc, Chief Scientific Officer of Cancer Research Malaysia

The Science of Biomass and Bioenergy Innovation Towards a Circular Palm Oil Economy, presented by Dr. Loh Soh Kheang KMN, ChM, Head, Energy and Environment Unit, Engineering & Processing Research Division, Malaysian Palm Oil Board (MPOB)



Module I Speakers
Top from left: Dr. Loh Soh Kheang, Prof. Ir. Dr. Leong Wai Yie, Prof. Dr. Cheong Sok Ching FASc
Bottom from left: Datin Prof. Dr. Clara Chee, Emeritus Prof. Dr. Phang Siew Moi FASc

Module II:

Shape Memory Acoustic Intelligence: Smart Materials, The Strategic Engine for the Future of All Industries, presented by Dr. Nabihah Sallih, Senior Lecturer & Research Leader, Universiti Teknologi PETRONAS (UTP)

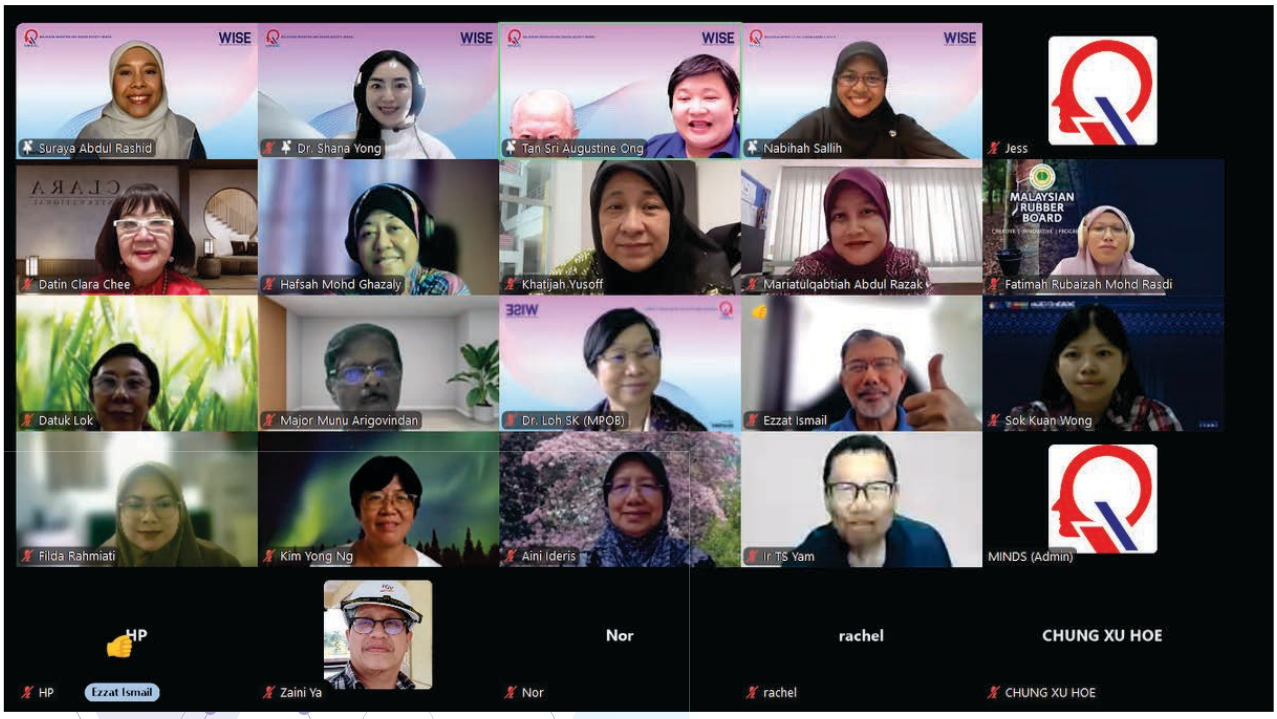
Female Fortitude: A Journey in Science, Leadership & Impact, presented by Prof. Ir. Ts. Dr. Suraya Abdul Rashid, Institute of Nanoscience & Nanotechnology, Universiti Putra Malaysia (UPM)

Global Carbon Sequestration and the Roles of Tropical Forests and Crops: Prospects for Using Innovative Carbon Trading Approaches to Address the Climate Emergency, presented by Dr. Shana Yong, Director of RegenCapitol Sdn Bhd



Module II Speakers
Top from left: Prof. Ir. Ts. Dr. Suraya Abdul Rashid, Bottom from left: Dr. Nabihah Sallih,, Dr. Shana Yong

The WISE Conference 2026 served as an inspiring platform to highlight the achievements of women in science and engineering while fostering knowledge exchange, collaboration, and motivation for future generations of scientists and innovators. Registered participants will receive a digital certificate of attendance (upon request) and will have access to conference recordings for a limited time.



Group photo with all participants

The Conference Organizing Committee extends its sincere appreciation to all contributors, speakers, sponsors, supporting partners, MINDS secretariat and participants for their dedication and support in making this event a success.

12TH HONG KONG INTERNATIONAL STUDENT INNOVATIVE INVENTION CONTEST (HKISIIC) 2026

The 12th Hong Kong International Student Innovative Invention Contest (HKISIIC) 2026 was successfully held in Hong Kong from 12 to 15 March 2026. A total of five teams were selected by MINDS to represent Malaysia. The Malaysian delegation was led by Major Munusamy A/L Arigovindan of MINDS EXCO, with members including 13 students, 5 teachers and 15 parents accompanying the participants. The delegation bagged a total of 18 awards: 2 Gold, 1 Silver, 2 Bronze, 7 Special Awards, 5 Teacher Appreciation Awards and 1 Innovation Cup. Each team received cash prizes and certificates in recognition of their achievements.



Welcoming the International Delegation at Hong Kong Airport



Well done to the Malaysian delegation for their outstanding achievements!

Uniting Creativity: Five Schools' HKISIIC 2026 Journey

Gold Medal : SJKC Ying Wah
Invention : CODOT Kit Plus
Students : Yap Yu Zhe, Loke Yee Qing, Elsa Len Zi Xin

Participants' Comments:
Our participation in HKISIIC 2026 was a profoundly valuable and successful experience. The students gained immense exposure to international innovation standards and benefited from, exceptional hands-on educational visits. The workshops held at the secondary school and Hong Kong Productivity Council (HKPC) were particularly impactful, fostering both creative and critical thinking skills. Winning a Gold Medal and multiple international special awards is a testament to the dedication and continuous improvement our team invested in the CODOT Kit Plus. We are also deeply honoured that our mentor received the Teacher Appreciation Award, recognizing the vital role of guidance in fostering student excellence.



SJKC Ying Wah received the HKISIIC 2026 Gold medal, cash prize HKD 800, Thailand Special Award, Vietnam Special Award, Macau Special Award and Teacher Ms. Teow Chiau Yien (left) received the Teacher Appreciation Award.



Competition Day

Gold Medal : SJKT Ladang Ebor
Invention : FRESHBUDDY
Students : Muhammad Ziqry Bin Shaidatul Khamidi, Nithiyasri A/P Murugan, Mognavani A/P Mathan Kumar

Participants' Comments:
Overall, the participation in HKISIIC 2026 exemplified the spirit of Malaysian innovation. The programme not only enhanced our technical knowledge in robotics, prototyping, and sustainable design but also cultivated cross-cultural collaboration and problem-solving skills. By engaging with leading educators, industry experts, and fellow students, the team strengthened its capacity to contribute meaningfully to Malaysia's innovation landscape. The experience reaffirmed the importance of nurturing young inventors through international exposure, and the team performance at HKISIIC 2026 stands as a testament to the potential of Malaysian students to compete and collaborate on the global stage.





SJKT Ladang Ebor received HKISIIC 2026 Gold medal, cash prize HKD 800, Hong Kong Special Award and Teacher Selvam A/L T. Myandy (left photo) was honored with the Teacher Appreciation Award.

Silver Medal : SJKT Ampang
Invention : SMART KNIFE HOLDER
Students : Thushantnair A/L Pobalan, Dishita Batmanathan, Jai Ganeesh A/L Vinod

Participants' Comments:
For many of us, it sparked curiosity and gave us fresh motivation to think about our own future in science and technology. Another highlight was meeting students from local schools. This was not just a formal exchange - it was lively, fun, and full of energy. We played games, shared activities, and learned from each other in ways that felt natural and joyful. The students were welcoming and enthusiastic, and it reminded us that learning doesn't always have to be serious or rigid. Sometimes the best lessons come from laughter, teamwork, and simple conversations. By the time we returned, we weren't just carrying back knowledge; we were carrying back memories, friendships, and inspiration. The trip showed us that education can be fun, engaging, and full of surprises. It reminded us that exploring new places and meeting new people is one of the best ways to grow.



The school received the HKISIIC 2026 silver medal, cash prize HKD 600, Hong Kong Special Award and International Innovation Cup while the teacher R.Lila Romanazan (left) was honoured with the Teacher Appreciation Award.



SJKT Ampang proudly presenting their innovation "The Smart Knife Holder"

Bronze Medal : SJKT Kajang

Invention : Eco Bloom Fertiliser

Students : Michelle Dass A/P Santana Dass, Lashirah Aziz Binti Razali, Dashigan A/L Naresh

Participants' Comments:

This is an exciting event that brings together creative minds from around the world to share their inventions and innovative ideas. One interesting fact about this competition is that it is not only for professional scientists and engineers but also for students from secondary schools and universities, giving young inventors a chance to shine on an international stage. Another fun fact is that the event is not just about winning medals, but also about presenting ideas to judges and visitors who may be interested in developing the inventions further. Sometimes, inventors even get opportunities to connect with companies or investors who can help turn their ideas into real products. For many students, this competition becomes their first international achievement and motivates them to continue pursuing science, technology, engineering, and mathematics in the future. Even those who do not win medals still gain valuable experience, confidence, and feedback that can help them improve their inventions.





SJKT Kajang received the HKISIIC 2026 Bronze Medal, Cash Prize HKD 400 And Hong Kong Special Award, while the teacher Patma A/P Subaramanyam (2nd from left photo) received the Teacher Appreciation Award.

Bronze Medal : SJKT Bandar Mahkota Cheras

Invention : Plastoscope: A DIY Microscope

Student : Arjun Ram Prekash

Participants' Comments:

Representing Malaysia alongside my student presenter gave me a deep sense of pride and responsibility. As a supervisor guiding a solo presenter for the innovation project Plastoscope: A DIY Microscope, I witnessed firsthand the courage and determination required to present confidently before international judges and participants. Watching my student rehearse repeatedly and improve his presentation skills each day became one of the most rewarding and enjoyable parts of the trip. These experiences created a perfect balance between academic learning, cultural exchange, and real-world innovation exposure. HKISIIC 2026 was not just a competition trip - it was a journey of inspiration, collaboration, and professional growth. It remains one of the most rewarding international experiences in my mentoring journey and continues to motivate me to bring more students onto global innovation platforms in the future.





Left photo: Major Munusamy A/L Arigovindan, Head of the delegation guiding the students during the project showcase
Right photo: Teacher Vijay Ravichandran and student Arjun Ram Prekash received HKISIIC 2026 Bronze Medal, Cash Prize HKD 400, Thailand Special Award and the Teacher Appreciation Award

MINDS SUPPORTING YOUNG INNOVATORS AT THE TECHNOVATION CHALLENGE 2026



From left: Mr. Ahmad Ezzat Ismail, Mr. Gabrie Supra, Mr. Rhys Thomas, Tan Sri Augustine Ong, Student Yap Yu Bo

MINDS visited Sri KDU International School Klang on 12 February 2026 to meet the Campus Principal, Mr. Rhys Thomas and Head of Creative Arts, Mr. Gabrie Supra. MINDS was impressed by the school facilities and their efforts in fostering interest in STEM among the young learners. The mission of the school is to empower a diverse and inclusive community of Safe, Happy and Successful learners by providing a high-quality international education that nurtures academic excellence, character, global awareness and supports students in achieving success in further education and life.

Following up from the recent visit, Sri KDU International School Klang was honoured to collaborate with MINDS during the Technovation Challenge 2026, held on 14 March 2025. The event brought together students, educators, and the wider community in a shared celebration of innovation, creativity, and purposeful learning. Centred around the theme "Digital Wellbeing and Innovation", the challenge provided a meaningful platform for students to explore real-world issues and propose thoughtful, technology-driven solutions that promote healthier and more responsible digital lifestyles.

As part of this valued collaboration, Mr. Ahmad Ezzat Ismail and Dr. Leo Ann-Mean, representatives from MINDS were invited to serve on the judging panel, contributing their expertise and insights to evaluate the students' work. Their presence added depth and perspective to the event, reflecting a shared commitment to nurturing young minds, encouraging inclusivity, and supporting initiatives that empower students to think critically and creatively.

Throughout the event, students presented a diverse range of projects, with a strong focus on digital wellbeing through website design and innovative concepts. They demonstrated not only technical competence but also a deep awareness of current societal challenges.



Dr. Leo Ann-Mean, Chief Judge explained the results.



Mr. Ahmad Ezzat Ismail and Dr. Leo Ann-Mean represented MINDS to serve as judges during the Technovation Challenge 2026.

In addition to the innovation showcase, the event featured a variety of engaging and interactive activities that complemented the theme. Students and parents participated in hands-on robotics sessions using VEX GO, fostering collaboration and problem-solving skills. The "Build and Race the Car" challenge introduced an exciting element of engineering and teamwork, while an arts-based activity invited students to express their emotions through colour, emphasising the importance of emotional wellbeing. A virtual reality experience further enriched the programme, offering immersive opportunities that connected technology with real-life applications.





Right photo: Dr. Leo Ann-Mean (2nd from right) with Mr. Rhys Thomas, Campus Principal of Sri KDU International School Klang



The event concluded with a prize giving ceremony that celebrated not only the winners but also the participation and dedication of all students involved. The collaboration between Sri KDU International School and MINDS for the Technovation Challenge 2026 highlights the importance of strong community partnerships in education. By being part of this initiative, MINDS continues to support platforms that inspire young learners, promote inclusivity, and encourage the development of future-ready skills. Such partnerships play a vital role in shaping a generation of students who are not only innovative but also empathetic and socially aware.

Left photo: Project "Oasis Pod" was the champion of Technovation Challenge 2026!

SMK Taman Selesa Jaya shines at 45th Beijing Youth Science Creation Competition (BYSCC) 2026



Proudly presenting Team Malaysia at the Beijing Youth Science Creation Competition.
From left to right: Young Inventors Kirthika Muthu Kumaran, Jayesh Ram Muthu Kumaran, Head of Delegation Dr. Leo Ann-Mean, Teacher Pherarasi Mukan, and Teacher Muthu Kumaran Jayaram.

SMK Taman Selesa Jaya from Johor represented Malaysia at the 45th Beijing Youth Science Creation Competition (BYSCC) 2026 held from 25 to 29 March 2026 at Beijing University of Chemical Technology (Changping New Campus). Themed *Discovery Innovation Responsibility*, the competition brought together global young innovators to showcase their scientific creativity.

The Malaysian delegation was led by Dr. Leo Ann-Mean, Chief Judge of ITEX and accompanied by students Kirthika Muthu Kumaran and Jayesh Ram Muthu Kumaran, along with teachers Ms. Pherarasi Mukan and Mr. Muthu Kumaran Jayaram. The title of their project was **Solar Powered Smart Toilet Odor Detection System**.



Where young minds meet global expertise - Our Malaysian innovator engaging with an international judge on the world stage.



Student Jayesh Ram Muthu Kumaran proudly representing Malaysia at the opening ceremony, bringing our culture, traditions and cuisine to the global spotlight.

This innovation ensures hygiene and air quality in restrooms by using solar powered smart toilet odour detection system for real-time monitoring of air quality in restroom environments. The system includes a gas sensor module comprising a MQ sensors configured to detect harmful gases such as ammonia (NH_3), carbon dioxide (CO_2), benzene, and other volatile organic compounds (VOCs). Sensor data is processed by a microcontroller, ESP32 which transmits the data via Wi-Fi to a cloud-based platform for remote monitoring, data logging, and alert generation.

The system is powered by a solar panel rated 12V, 20 watts connected to a 12V, 3000mAh rechargeable battery. A solar charge controller is incorporated to manage battery charging and protect against overcharging and deep discharge. The system also supports a direct power supply option for use in locations with available electrical infrastructure.

This low power, standalone device enables continuous, maintenance-free monitoring of air quality in restrooms and is suitable for deployment in public facilities, schools, healthcare centres, and remote areas.

The integration of renewable energy with cloud-based Internet of Things (IoT) functionality supports sustainable sanitation management and enhances odour detection and hygiene control.

The team shared that it was more than just a competition—it was a fun-filled journey that combined learning, cultural exploration and unforgettable experiences. From visiting historical landmarks and science attractions to enjoying delicious food and warm hospitality, every moment contributed to a truly enriching and enjoyable experience that we will always cherish.



Celebrating success—our young innovators, Jayesh Ram Muthu Kumaran and Kirthika Muthu Kumaran showcased their award medals and certificates with pride



Teachers and Students of SMK Taman Selesa Jaya from Johor visited Tan Sri Augustine Ong, President of MINDS at the MINDS office.
From left: Teacher Muthu Kumaran Jayaram, Jayesh Ram Muthu Kumaran, Dr. Leo Ann-Mean, Tan Sri Augustine Ong, Kirthika Muthu Kumaran and Teacher Pherarasi Mukan

SMK Taman Selesa Jaya clinched the **First Prize** for **"Excellent Youth Science & Technology Innovation Project"** in the Environmental Science category.

It's outstanding achievement underscores Malaysia's commitment to nurturing young scientific talent and inspiring the next generation of global innovators.

This also marks the highest achievement attained by a Malaysian delegation sent by MINDS to represent the nation at this competition since 2024.





MINDS AT THE BRITISH HIGH COMMISSION'S "LEADING THE FUTURE: WOMEN AND GIRLS IN SCIENCE" DINNER FORUM



Opening Address by His Excellency Ajay Sharma, British High Commissioner to Malaysia



Keynote Address by Dr. Ravigadevi Sambanthamurthi FRS, FASc

In conjunction with International Women's Day 2026, MINDS was honoured to receive an invitation from the British High Commission to the **"Leading the Future: Women and Girls in Science"** dinner forum, held on 30 March 2026 at the DoubleTree by Hilton Hotel, Intermark, Kuala Lumpur. The event brought together distinguished guests, policymakers, and scientists to celebrate and advance the role of women in STEM.

The evening was graced by the presence of MINDS President, Tan Sri Datuk Dr. Augustine S.H. Ong, whose long-standing advocacy for scientific excellence has been a cornerstone of the Society's mission. Dr. Ravigadevi Sambanthamurthi FRS, FASc was invited by the British High Commission to deliver the Keynote Address on **"Women's Leadership Shaping Equitable Futures in STEM"**.

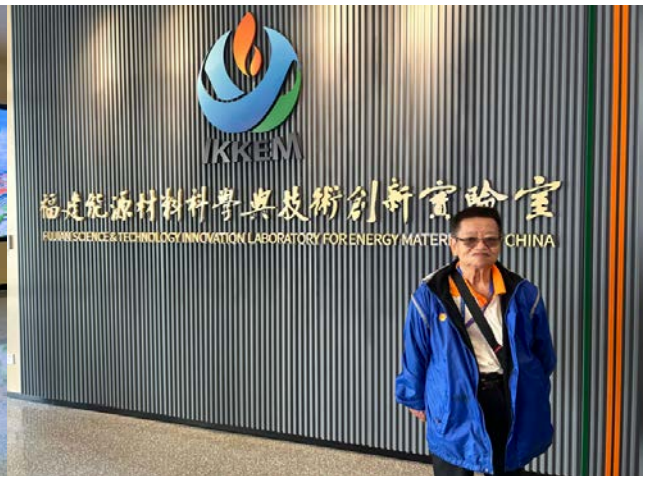
In a deeply personal and reflective speech, Dr. Ravigadevi shared her journey from a spirited student at Convent Bukit Nanas to becoming a Fellow of the Royal Society. A poignant highlight of the address was her tribute to Tan Sri Ong's pivotal role in her professional life. She shared how Tan Sri, decades ago as her interviewer, saw the potential in a young aspiring woman scientist and offered her a position at the Palm Oil Research Institute of Malaysia (PORIM), now the Malaysian Palm Oil Board (MPOB). That single opportunity, she noted, set the stage for everything that followed – including her leadership of the biotechnology programmes and her election as the first Malaysian Fellow of the Royal Society.

Dr. Ravigadevi also spoke candidly about the "leaky pipeline" in STEM – the phenomenon where women drop out at various stages of their education and careers due to structural barriers that penalise caregiving – and the need for equitable systems, not special treatment, but fair recognition of talent. Her address was a powerful call to action for both young women and institutional leaders.

The evening reaffirmed MINDS' commitment to fostering inclusive platforms where scientific excellence and leadership can flourish, regardless of gender.

MINDS – PERAK CHAPTER'S ACTIVITIES





The Perak Chapter Chairman, Mr. Tan Kim Seng, visited Xiamen University's Invention Laboratory and the Fujian Science & Technology Innovation Laboratory for Energy Materials in Changzhou on 16 and 17 February 2026



A Chinese New Year get-together, briefing on the 2026 projects, and lunch were held at the Taiping Dragon Phoenix Restaurant on 22 February 2026.



Perak Chapter attended the brainstorming session organised by MINDS on 10 January 2026 at Crystal Crown Hotel PJ.
From left: Mr. Tan Kim Seng, Ms. Dong Siew Feng and Dr. Chakr Sri Na Nagara

MINDS – UTAR CHAPTER'S ACTIVITIES







The second installment of the Introduction to MINDS series was organised on 26 February 2026. It was conducted to familiarize UTAR students with MINDS. The session featured several guest inventors who shared their experiences, aiming to inspire students to engage actively in the fields of invention and innovation.

ACADEMY TROPICAL AGRICULTURAL OF SCIENCES ASSOCIATION (ATAS)

ATAS Annual General Meeting 2025



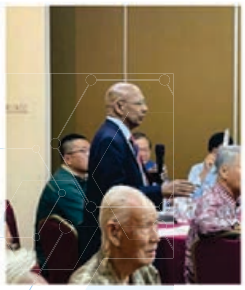


The Academy of Tropical Agricultural Sciences (ATAS) successfully held its Annual General Meeting (AGM) on 28th June 2025. The event brought together members to review the Academy's progress, share insights, and chart the way forward in advancing tropical agricultural science. As part of the AGM, ATAS was honoured to invite Mr. Lim Chin Khee, renowned durian expert, to deliver a special talk titled "Cultivating Excellence: A Focus on Musang King Durian." His presentation provided valuable knowledge on best practices, market opportunities, and innovations in the cultivation of one of Malaysia's most celebrated durian varieties.

The AGM offered members the opportunity to gain fresh perspectives from industry leaders. The session with Mr. Lim enriched the meeting, inspiring participants with his expertise and passion for elevating Musang King durian to greater heights in both local and international markets.

ATAS and UMAGA Host Knowledge Sharing Session with the China Academy of Tropical Agricultural Sciences (CATAS)







On 25 August 2025, the Academy of Tropical Agricultural Sciences (ATAS) in collaboration with the University of Malaya Agricultural Graduates' Alumni (UMAGA) successfully organized a knowledge sharing session with the China Academy of Tropical Agricultural Sciences (CATAS).

The session brought together experts, researchers, and practitioners from Malaysia and China to exchange insights on tropical agriculture, fostering greater collaboration in areas such as sustainable farming practices, innovation in crop science, and future opportunities for joint research.

This engagement provided a meaningful platform to strengthen bilateral ties between Malaysia and China in the field of tropical agriculture. It also highlighted ATAS's commitment to advancing scientific dialogue and building international partnerships for the benefit of the agricultural community.

The knowledge sharing session was a fruitful exchange, paving the way for continued cooperation between ATAS, UMAGA, and CATAS in promoting innovation and sustainability in tropical agriculture.

ACADEMICIAN TAN SRI DATUK DR AUGUSTINE ONG, PRESIDENT OF ATAS INVITED TO DELIVER THE KEYNOTE ADDRESS AT AGRI 2025



Academician Tan Sri Emeritus Prof Datuk Dr Augustine S H Ong, President of ATAS was invited as a keynote speaker at the Agri Malaysia 2025 on 12 September 2025. His presentation, titled "The Myths of Palm Oil: What Are the Surprising Facts" was attended by more than 80 participants.

The session was truly a wonderful event, drawing participants from across the agricultural and scientific community. Tan Sri Datuk Dr Augustine S. H. Ong, widely regarded as the Father of Malaysian Palm Oil, shed light on long-standing misconceptions about palm oil while presenting clear, evidence-based insights.

His presentation highlighted the nutritional benefits, health aspects and sustainable qualities of palm oil, while also addressing critical issues such as environmental impact, global trade barriers and opportunities for innovation. The talk not only dispelled common myths but also gave the audience a deeper appreciation of palm oil's role in food security, economic growth, and sustainable agriculture.

This event provided a valuable platform for awareness and understanding, reminding participants that palm oil, when responsibly managed, is one of the most efficient and versatile crops in the world. The lively Q&A that followed further enriched the discussion, showcasing the strong interest in re-examining palm oil with facts rather than misconceptions.

Tropical Crops Carbon Credit Forum (TCCCF) 2025



ATAS successfully hosted the inaugural Tropical Crops Carbon Credit Forum (TCCCF) on 24 November 2025 at Royal Lake Club Kuala Lumpur. It was a strategic platform to address the urgent challenges faced by rice, oil palm, rubber plantations, and forestry in the era of the climate crisis. These sectors, while vital to Malaysia's and the region's economy, face increasing risks from erratic weather, soil degradation, deforestation, and global market fluctuations. Yet, they also present powerful opportunities as tropical crops hold strong carbon sequestration potential that, if harnessed through better plantation practices, can create new income streams in the form of carbon credits.

More than 200 participants from the academia, government agencies, industries and policymaking attended the forum themed *"Turning Tropical Crops into Climate Solutions"*, to explore how sustainable agricultural methodologies and carbon market mechanisms can enhance productivity, resilience and long-term economic security. At its core, the Forum highlighted the principle of "Sequestering Carbon, Securing Livelihoods" to ensure that both large plantations and smallholder farmers can benefit equitably from the carbon economy.





All sponsors of TCCCF 2025 received the token of appreciation presented by Guest of Honour YAB Datuk Amar Haji Fadillah bin Haji Yusof (5th in photo), witnessed by Tan Sri Augustine Ong, President of ATAS (4th from right) during the opening ceremony.
From left: Mr. Ng Hon Seng, Mr. Mavath R. Chandran, Mr. Mark Tho Tze Wei, Dr. Calvin Chok Vui Soon, Mr. Arshad Nuval Othman, Prof. Dr. Chuah Cheng Hock and Ms. Christine Ong May Ee.

TCCCF was sponsored by Kuala Lumpur Kepong Berhad, ROVSKI Sdn Bhd, Tun Tan Sri Raja Alias Foundation, Tun Dr. Lim Keng Yaik Foundation, ATAS Tropical Agriculture Fund, CIMB and EeHSSE Consulting Sdn Bhd. The Guest of Honour was YAB Datuk Amar Haji Fadillah bin Haji Yusof, Deputy Prime Minister of Malaysia and Minister of Energy Transition and Water Transformation, who delivered the opening speech and presented the memento to the TCCCF sponsors during the opening ceremony.

TCCCF received wide coverage from media outlets such as The Vibes, Bernama, The Star, Utusan Borneo, Bernama, Astro Awani, Malaysia Bangkit, TV Sarawak, Kwong Wah, United Daily News, Oriental Daily, NewsWav, Media Selangor and Malaysia-China Insight. By bridging science, policy, and industry practice, the TCCCF charts a pathway for tropical crop industries to remain competitive and resilient while contributing meaningfully to national and global climate goals.

Summary of Key Points



YAB Datuk Amar Haji Fadillah Bin Haji Yusof, Deputy Prime Minister of Malaysia and Minister of Energy Transition and Water Transformation stressed that discussions today are not merely technical - they are also moral. They are an Amanah - a sacred responsibility entrusted to us as stewards of this land, our farmers, and future generations. YAB reminded us that Malaysia's identity was built from its soil: from rice fields that nourished our ancestors, to forests that shaped our heritage, to rubber and oil palm that built our early prosperity. And as climate change threatens these foundations through droughts, shifting rainfall and degrading soils, he urged us to recognise that within every hardship lies a gift: our tropical crops themselves hold the key to Malaysia's climate future.

YAB emphasised that palm oil, rubber, rice, bamboo, and our forests are not merely commodities, but living carbon sinks capable of anchoring Malaysia as a global leader in the tropical carbon economy. Sustainability, he reminded us, is no longer just an economic agenda but it is a moral duty, a reflection of our national character, and a measure of how we protect what has been entrusted to us.

YAB also highlighted the Government's commitment through the National Carbon Market Policy (DPKK), the forthcoming Climate Change Bill, and Malaysia's strengthening of the Bursa Carbon Exchange in ensuring that every tonne traded reflects real, verifiable impact. He called for collaboration across government, industry, academia, communities, and global partners, reminding us that Malaysia's success in the carbon economy will require one ecosystem moving together with trust, science, and shared purpose.

His message set the tone for the entire forum: That sustainability must be inclusive, prosperity must be shared, and nature-based solutions must uplift our people as much as our environment. And ultimately, that the honour of our nation lies in how faithfully we carry out this stewardship.



Academician Emeritus Prof. Tan Sri Datuk Dr. Augustine S.H. Ong, President of ATAS, whose lifelong work has elevated Malaysia's global standing in tropical agriculture and palm oil science reminded us that the oil palm remains one of Malaysia's most misunderstood yet most scientifically validated crops particularly in its ability to function as a high-efficiency carbon sink.

He highlighted that oil palm plantations sequester carbon at remarkable rates, absorbing more CO_2 per hectare than many natural forest types, and that this biological strength must be recognised as a foundation for Malaysia's palm oil-based carbon credit ecosystem. He underscored the urgent need for Malaysia to monetise this natural sequestration through high-integrity palm oil carbon credits that are backed by science, Monitoring, Reporting and Verification (MRV), and transparent governance.

He also corrected long-standing misconceptions about palm oil itself by affirming that palm oil is not simply a saturated fat, but rather a balanced, high-quality commercial cooking oil comparable in nutritional value to olive oil, with a healthy ratio of saturated and unsaturated fatty acids and rich in antioxidants such as tocotrienols. His message was clear: Malaysia must reclaim the scientific narrative, elevate palm oil through truth and evidence, and unlock its full climate and economic potential.

Focusing on sequestration, biological solutions, and the sectoral pivot required

In this forum, discussions across agriculture and forestry revealed key insights for our nation's climate strategy and for the future of tropical crop systems. And one thing is clear: Malaysia holds an extraordinary potential to turn its landscapes into powerful climate solutions.

1. The climate challenge is now a biological challenge.
Agriculture and forestry sit at the frontline of challenges from climate impacts, erratic weather, soil degradation, methane emissions, biodiversity loss, and other factors. Yet these same sectors hold the largest untapped climate solution via their own natural carbon sequestration. From tropical forests to rice fields, from rubber plantations to oil palm, our landscapes are already absorbing carbon at a scale no engineered solution can yet match.

2. Malaysia's comparative advantage is biological, not mechanical.
The Forum speakers reminded us that while global investment continues to prioritise engineering technology, the greatest opportunities for tropical countries like Malaysia lie in biological pathways of photosynthesis enhancement, soil carbon uplift, agroforestry, improved forest management, methane capture, biochar, and regenerative practices. If we are serious about climate mitigation at scale, we must pivot investment, policy, and innovation toward nature-based, plant-based, and soil-based systems. These include innovations in oil palm and rubber agroforestry, soil carbon enhancement, and biologically driven rice farming technologies that optimise photosynthesis, reduce methane emissions, and improve soil health and crop yields.

3. Sequestration is not only about forests agriculture must rise beside forestry.
Forests remain our strongest, most scalable carbon sinks. But agriculture is our sleeping giant. With the right methods, rice, rubber and oil palm plantations, and mixed cropping systems can become major carbon-removal engines. This dual-engine approach forestry + agriculture will define Malaysia's climate strategy for the next decade.

4. Sequestration must be monetised to be sustained.
As discussed, biological sequestration can only scale with economic signals. MRV, certification, improved management, mixed cropping, and inclusion of smallholders all point toward one conclusion: namely that nature-based solutions will only grow when carbon value is recognised and rewarded, including rubber smallholders and rubber cooperatives accessing carbon income fairly.

Nature-based Solutions



The potential for nature-based solutions is reinforced by science. **Prof Dr. Denis J Murphy**, Emeritus Professor of Plant Biotechnology, University of South Wales & CEO of OLEATECH Consultancy Ltd, UK demonstrated how tropical crops, particularly oil palm, act as high-performance carbon sinks absorbing 64.5 tons of CO_2 per hectare per year, outperforming steady-state tropical forests at 42.4 tons CO_2. Globally, oil palm sequesters over 200 million tons of CO_2 annually. Meanwhile, engineering solutions such as carbon capture and storage (CCS) and direct air capture/storage (DAC/S) capture less than 0.1% of global emissions, despite over US$40 billion invested. CCUS captured only 50 million tons in 2024, mostly used to support fossil fuel extraction via enhanced oil recovery. The message is unambiguous: biology remains superior to geo-engineering in scalability, cost-effectiveness, and climate efficiency.

Gs. Dr. Hamdan Bin Omar reinforced the indispensable role of forestry in Malaysia's nationally determined contributions (NDCs). Forestry projects from afforestation and reforestation to improved forest management and agroforestry deliver not only carbon sequestration but also biodiversity, hydrological benefits, and socio-economic uplift. Strong MRV systems and clear legal frameworks are essential for trust, transparency, and long-term project credibility.



Collaboration across federal and state agencies, indigenous communities, private sector, and global partners is critical to scaling forestry-based climate solutions.



On rice farming, **Mr. Chor Chee Hoe** from Qarbotech highlighted how smarter, biology-led photosynthesis enhancement can reduce methane emissions while increasing yields proving that rice can shift from being a high-emissions crop to a climate-positive system.

On rubber, **Dato' Seri Dr. Abdul Aziz Sheikh Ab. Kadir** presented more than 50 years of breeding success, increasing yields from 300 kg/ha/year to 3,500 kg/ha/year. Natural rubber plantations remove 10–15 tons of CO_2 per hectare annually, outperforming even the Amazon. Globally rubber plantations offset 0.5–0.7% of annual atmospheric CO_2 growth. Yet challenges remain: disease, brown bast, TPD, labour issues, and low technology adoption. RRIM and



TARRC continue to lead the world with clone exchange programmes, research collaboration, and training, proving that natural rubber is not only an economic commodity but also a global climate asset.



The Economic Opportunities

From a profitability perspective, **Mr. Supun Nigamuni** reminded us that carbon standards now determine market access. Deforestation-free requirements, EUDR compliance, tightening global regulations, and rising buyer expectations mean that producers who cannot demonstrate carbon integrity will face shrinking markets. Recognised standards such as Verified Carbon Standars (VCS), Gold Standard, Afforestation and Reforestation (A/R), Agricultural Land Management (ALM), and Reducing Emissions from Deforestation and Forest Degradation (REDD)+ supported by credible MRV systems now shape how plantation landscapes can generate high-integrity carbon credits. Malaysia, especially Sabah and Sarawak, holds strategic regional advantages in terms of scale, governance, and land availability.



Ir. Ts. Shamsul Bahar Bin Mohd Nor highlighted the need to build both the Malaysia Carbon Standard and the ASEAN Carbon Standard, positioning tropical plantations as engines of global climate recovery through clear methodologies, governance, and measurement frameworks.



From the financial lens, **Mr. Arshad Nuval Othman** of CIMB walked us through the critical role of carbon insurance, carbon ratings, and risk management from pre-validation counterparty insurance to non-delivery and political risk coverage, buffer depletion insurance, and post-issuance protections. These mechanisms are now essential to make carbon projects bankable and investible. Malaysia must develop a robust pipeline of carbon projects aligned with international markets and emerging compliance systems.

On circularity, **Ms. Loh Phui Nying** demonstrated how palm oil by-products can be transformed into carbon assets such as: POME into biogas, EFB into compost, kernel shells into biomass, and various Residues into biochar.



These practices not only reduce emissions but also strengthen soil health, displace fossil fuels, and embed Malaysia's palm oil sector firmly into a circular, regenerative, and carbon-integrity-driven future. Governance, transparency, and community inclusion remain central to ensuring project permanence and international confidence.

People – The Human and Social Capital

Ultimately, none of this transformation is possible without people.



Ts. Raja Shazrin Shah Bin Raja Ehsan Shah FASc reminded us that the future of agriculture and carbon markets depends on human capital and social capital. Upskilling, reskilling, and certification are essential to building a workforce capable of managing MRV, regenerative agriculture, biodiversity monitoring, carbon project development, and climate finance. Malaysia's transition requires talent engineers, agronomists, technologists, auditors, farmers, community leaders working together.

All these insights converge toward one conclusion: the world has shifted decisively from non-market ideas to market-based climate action. COP30 confirmed this shift. As UN Climate Change Executive Secretary Simon Stiell said: "COP30 has racked up an impressive scorecard of real-world climate actions that will also mean stronger economies, more jobs, and better lives for many millions. The Climate Action Agenda is showing global cooperation at work."

Malaysia must now move beyond policy discussions and into real project development.



Session on Understanding Carbon Economy and Carbon Market Ecosystem, moderated by Academician Prof. Dato' Dr. Ahmad Bin Ibrahim FASc, UCSI University (first on left)

The infrastructure for a sustainable future is already in place: non-market mechanisms, biodiversity credits, carbon insurance, and rigorous carbon ratings. Central to this is the Article 6 cooperation framework of the Paris Agreement which provides the international rules for high-integrity carbon markets. Now is the time to accelerate implementation and scale.

The next step is not another seminar. It is projects across oil palm, rubber, rice, forestry, agroforestry, soil carbon, biochar, methane capture, circularity, regenerative agriculture, and nature-based solutions. Malaysia has the land, the crops, the science, institutions, and expertise. What we need now is mobilisation and scale.

Let us build Paris-aligned projects quickly and credibly.
Let us strengthen MRV and certification.
Let us prepare smallholders and communities for carbon markets.
Let us align finance through carbon insurance and ratings.
Let us develop bankable carbon pipelines for voluntary and emerging compliance markets.

Our mission is clear: Transform tropical crops into climate solutions. Turn sequestration into income. Position Malaysia as a regional leader in nature-based climate action.

Let us move from awareness to action, from pilots to pipelines, and from potential to performance. The time for Malaysia's carbon project acceleration starts now.



A big thank you to the TCCCF Organising Committee and volunteers for making this inaugural forum a resounding success!

Networking Lunch, Sponsor Table Showcases and Over 200 Participants attended the Forum















ATAS and Taylor's University organized the inaugural Knowledge Sharing Session (KSS)



ATAS successfully organized a Knowledge Sharing Session (KSS) at Taylor's University on 2 December 2025. The session aimed to provide students with valuable industry insights, particularly in the field of food and beverage (F&B), entrepreneurship and innovation.

The session featured Ms Caroline Fong, Founder of Coffeezone Malaysia as the invited speaker. Her presentation, titled "Discovering How a Simple Coffee Bean Can Open Doors to Powerful Career Paths and Business Opportunities", offered an inspiring and practical perspective on building a career within the coffee industry.

During the session, Ms Caroline Fong shared her 10-year journey in establishing an award-winning mobile coffee enterprise. She highlighted key experiences from entrepreneurship and event catering to bean sourcing and branding. Her insights demonstrated how the coffee industry is interconnected with multiple sectors and how it can serve as a platform for innovation, job creation, and sustainable business growth. The session provided students with a deeper understanding of how passion and creativity can be transformed into viable business opportunities. It also emphasized the importance of strategic branding, market positioning, and adaptability in a competitive industry.

This Knowledge Sharing Session was particularly beneficial for students pursuing studies in food science, food technology and business, as well as those interested in entrepreneurship pathways. It served as a valuable platform to inspire and equip participants with knowledge on how to explore and navigate opportunities within the F&B sector.

ATAS remains committed to fostering industry-academia engagement through such initiatives and looks forward to organizing more impactful sessions in the future.

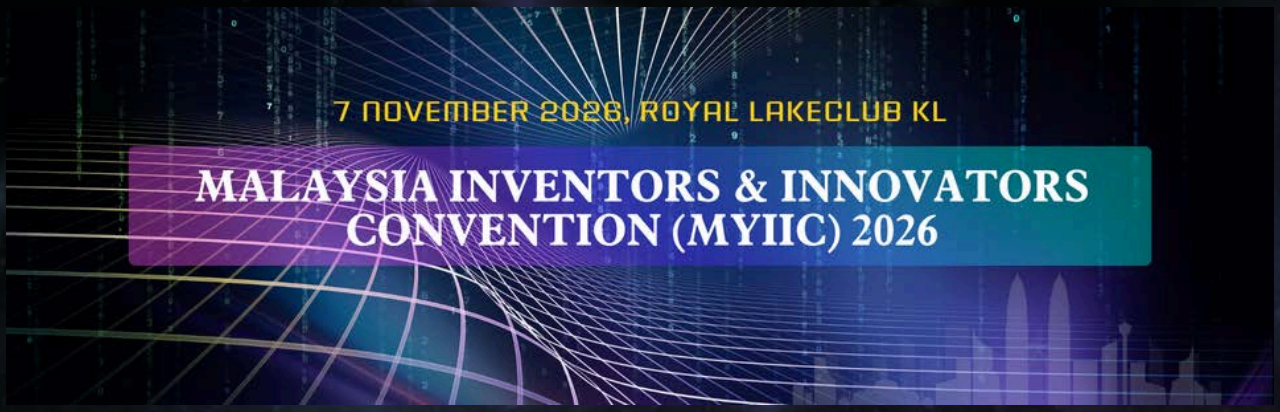




UPCOMING EVENTS 2026

[PUBLIC] 18-20 MAY | MINDS | ITEX 2026 | KL CONVENTION CENTRE, MALAYSIA
[MEMBERS] 06 JUNE | MINDS & ATAS | AGM | MEMBERS ONLY | CRYSTAL CROWN PJ
[PUBLIC] 07 NOV | MINDS | MALAYSIA INVENTORS & INNOVATORS CONVENTION (MYIIC) 2026 | ROYAL LAKECLUB KL





INTERESTED TO JOIN MINDS?

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