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OF TECHNOLOGY & INNOVATION

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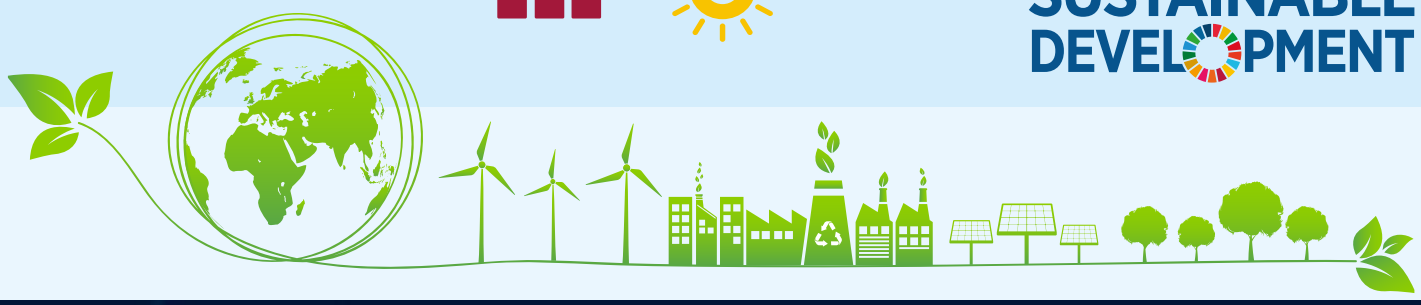
APU SUSTAINABLE DEVELOPMENT REPORT

2022

SUSTAINABLE DEVELOPMENT



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FOREWORD

Chief Executive Officer

Datuk Parmjit Singh

CEO

Asia Pacific University of Technology and Innovation (APU)

I am delighted to introduce the Sustainable Development Goals (SDG) Report for the year 2022 by Asia Pacific University of Technology and Innovation (APU). As the CEO of APU, I am immensely proud of the strides we have made in integrating sustainability into our practices, aligning with global aspirations while navigating the dynamic business landscape in Malaysia and beyond.

In recent years, the business landscape in Malaysia has seen remarkable transformations, marked by technological advancements, evolving consumer preferences, and an increasing emphasis on sustainability. As the world moves towards a more interconnected global economy, businesses face new challenges and opportunities that demand innovative and sustainable approaches.

Amidst this changing landscape, the importance of the Sustainable Development Goals cannot be overstated. The SDGs provide a universal framework that guides businesses to operate responsibly, address societal needs, and create value not only for shareholders but for all stakeholders, including communities and the environment.

At APU, we recognize that businesses play a pivotal role in driving sustainable development. Our commitment to the SDGs is deeply ingrained in our business strategies, operations, and corporate culture. We believe that integrating sustainable practices not only enhances business resilience but also contributes positively to society and the planet.

The SDG Report 2022 reflects our concerted efforts in embedding sustainability across our operations, academic endeavors, and community engagements. It showcases our dedication to fostering innovation, responsible business practices, and impactful collaborations that advance the SDGs.

As a university deeply entrenched in preparing future leaders and professionals, we understand the significance of instilling the principles of sustainability in our students. Our goal is to nurture graduates who are not only academically proficient but also socially responsible and equipped to address the challenges of the evolving business landscape.

In this rapidly changing world, our commitment to sustainable development serves as the guiding principle that steers our decisions and actions. We recognize the interconnectedness of global challenges and believe that collective efforts are essential to achieving the SDGs.

I extend my gratitude to everyone who has contributed to our SDG initiatives and invite all stakeholders to explore this report. Let us together reaffirm our commitment to sustainability, leveraging our collective strengths to create a more prosperous, equitable, and sustainable future for generations to come.

FOREWORD

Vice-Chancellor

Professor Dr. Ho Chin Kuan

Vice-Chancellor

Asia Pacific University of Technology and Innovation (APU)

It is with great pleasure that I present the Sustainable Development Goals (SDG) Report for the year 2022 by Asia Pacific University of Technology and Innovation (APU). As the Vice Chancellor of APU, I am immensely proud to witness the significant strides we have made in advancing sustainable practices and embracing the global call to action outlined by the United Nations' Sustainable Development Goals.

The SDGs serve as a blueprint for a better and more sustainable future for all, addressing critical global challenges such as poverty, inequality, climate change, environmental degradation, peace, and justice. At APU, we have embedded these goals into our academic, research, and operational frameworks, fostering a culture of responsibility, innovation, and inclusivity among our students, faculty, and staff.

Throughout the year 2022, our university remained steadfast in its commitment to contributing meaningfully to the SDGs. Our collective efforts spanned various initiatives, from education and research to community engagement and operational practices, aligning with the goals and targets set forth by the UN.

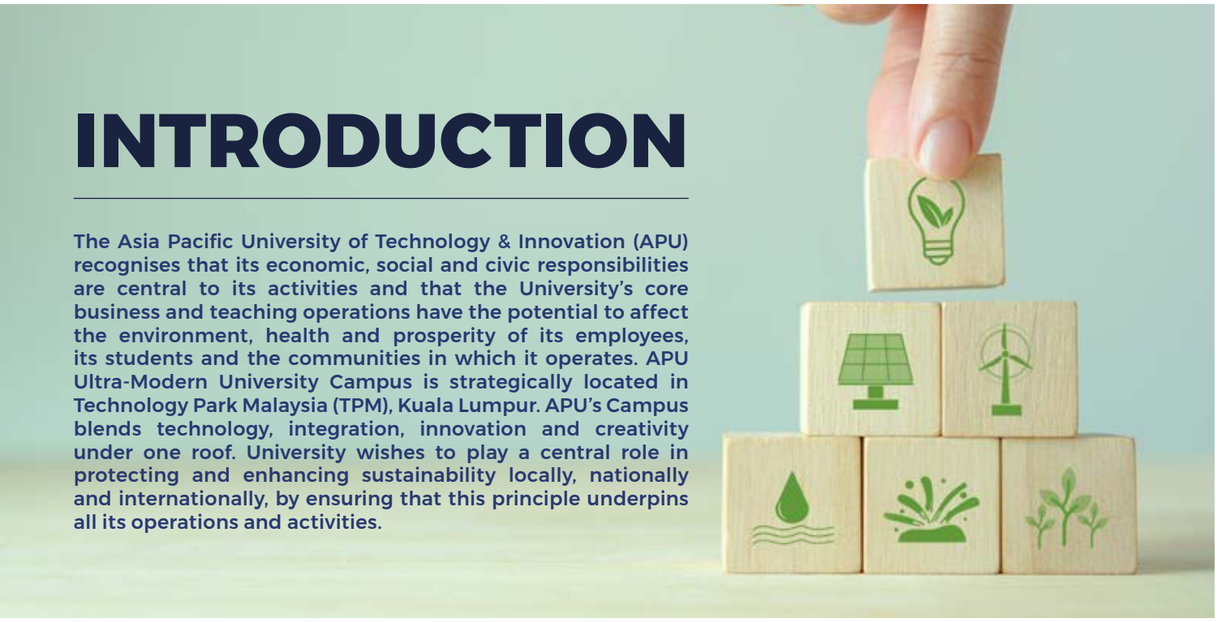
Our academic programs continue to integrate sustainability across disciplines, empowering our graduates with the knowledge and skills needed to address complex societal challenges. The dedication of our faculty and students in conducting impactful research further reinforces our commitment to finding sustainable solutions to real-world problems.

Moreover, our community engagement initiatives aimed to raise awareness, promote social responsibility, and foster partnerships that advance the SDGs. We understand that collaboration is key to achieving these goals and have actively sought partnerships with local communities, industries, and NGOs to drive positive change.

As we navigate the challenges and uncertainties of a rapidly changing world, our unwavering commitment to sustainable development remains resolute. This report serves as a testament to our continuous efforts, achievements, and the collective commitment of the APU community towards a more sustainable future.

I extend my heartfelt gratitude to everyone who has contributed to the success of our SDG initiatives. Your dedication and passion have been instrumental in propelling us closer to our shared vision of a better world for current and future generations.

I encourage all stakeholders to delve into this report, reflect on our progress, and join us on this ongoing journey towards a more sustainable and equitable future.



INTRODUCTION

The Asia Pacific University of Technology & Innovation (APU) recognises that its economic, social and civic responsibilities are central to its activities and that the University's core business and teaching operations have the potential to affect the environment, health and prosperity of its employees, its students and the communities in which it operates. APU Ultra-Modern University Campus is strategically located in Technology Park Malaysia (TPM), Kuala Lumpur. APU's Campus blends technology, integration, innovation and creativity under one roof. University wishes to play a central role in protecting and enhancing sustainability locally, nationally and internationally, by ensuring that this principle underpins all its operations and activities.

ENVIRONMENT & CLIMATE ACTION POLICY

Sustainable Development – "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Report, 1987). We at APU are committed to sustainable development and operating practices through the responsible management of building design, construction, and renovation, landscape practices, energy use, water and waste management, emissions, transportation, and procurement, within a framework of regulatory compliance and fiscal prudence. Through bold leadership and, in alignment with Government and industry, we will put environmental issues at the forefront of our operations. We recognize the role we can play in driving policy, changing behaviors and providing new ideas and solutions to difficult global problems.

CLIMATE ACTION GOALS

To integrate environmental and carbon action into all University processes and to maximize the influence of the University in reducing its footprint through education research and its operations.

APU has committed to achieving net zero greenhouse gas emissions by 2050. This is not a simple journey but it is necessary and important. Reaching net zero emissions will require collective effort and support from all our staff, students, and external stakeholders. To achieve this, we must ensure that we integrate climate action into all that we do.

RESPONSIBILITY

The Environment and Climate Action Board (attendees from Research, University, Professional Services and Students) is accountable for ensuring the Policy is implemented. Implementation will be embedded in all new decisions/ operations and activities. All employees have a responsibility to ensure that the aims and objectives of the policy are met.

APU APPROACH:

1. We will seek to create a culture on campus that supports and encourages staff and students to recognize that we all have an element of personal responsibility for the environment and to act on that.
2. We will strive to integrate and balance economic, social, and environmental responsibilities within all its activities. We are committed to operate as a responsible University, addressing the challenges of sustainable development.
3. We will continually improve, and to meet environmental legislative and regulatory requirements as they relate to all our activities.
4. We will continuously review our performance against the sustainability strategy using a quantitative and qualitative performance measurement approach. A report will be circulated to all APU Board members for review.

APU will embrace the Environment and Climate Action Agenda both strategically and globally through its development of footprint reduction initiatives, Climate Action plans and staff, student, and community engagement. We will strive to minimize negative impacts and optimize positive opportunities by delivering our Climate action targets and goals through our strategies, recognizing our global and local reach, through the divers operations, partnership and programs. Asia Pacific University (APU) is a member of various networks, organsiations and have commitment and pledges to bring positive actions for the future of our environment, through education and research, as well as facility and resource management in line with sustainability goals.

SERVING THE NEEDY AND UNDERPRIVILEGED FOR AIDILFITRI 2022

Visitors and students exchange and share culture at APU Syawal Festival 2022 while enjoying delicious 'Ketupat-Rendang' dishes and other activities.

From left (standing): Sabri Hilal, Ahmad Nadzri Roes, and Aida Zamnah Zainal Abidin distribute Raya goodies to those in need.

Despite their busy schedule, over 100 students across different study programmes and from various countries attended the **Syawal Festival 2022** held at Atrium, **Asia Pacific University of Technology and Innovation (APU)** campus.

The event was organised by **APU Malay Cultural Society (AMCS)** in collaboration with two external societies: **Majlis Belia Kawasan Wangsa Maju (MBKWM) and Cloudworks Record Malaysia.**

Members of the club and society invited 25 underprivileged children and adults from **Dar Asnaf Alfateeh Orphanage and Welfare Home Ulu Yam, Selangor**, 30 orphans and single mothers from **Saad Abi Waqas Mosque**, 5 members of the Mosque Committee; 15 elderly, single mothers, and staff from **Mahmudah Malaysia Care Center**, and five members of the Mosque Committee to celebrate Aidilfitri with APU community.

Among the activities held in this festival are ketupat palas making, prayer recited by Ustaz Fadzil Che Lah, Raya Food Feast, special performances from Cloudworks Record's artists: Farid Rashid & Ikmal Ismail, APU Dance Club and kids from Dar Asnaf Alfateeh; photo booth and lucky draw.

International students from APU are also talented in weaving Ketupat.

Beside Raya Food Feast, lucky draw is also one of the activities that every participant looks forward to.

While speaking at the event, **AMCS Vice President** and **Syawal Festival Project Manager Sabri Hilal** emphasised the importance of Aidilfitri celebrations beyond the ability to meet and get to know one another.

"Syawal Festival provides an opportunity to exchange ideas and share culture, particularly with international students, while also celebrating with those who did not return home for Eid Aidilfitri."

Celebrate Eid as 'family' in a simple yet lively way.

Part of the crowd queueing up for the Syawal Festival' open house in APU campus.

Tehreem Anjum Khan, an Accounting and Finance student from Pakistan, did not return home for Syawal and instead celebrated Eid on the university campus for two years in order to gain festive experience abroad.

"When you are away from home for an extended period of time, your perspective on the world changes dramatically. You will certainly feel lonely, but there is always someone to celebrate Eid with as 'family' in a simple yet lively way," she said.

Miriam Alexandra Geukes, a software engineering transfer student from XU Exponential University of Applied Sciences (Potsdam, Germany) felt fortunate to be able to experience Syawal in Malaysia with her friend, **Muhammad Izzat Mazlan,** APU Cyber Security student.

"In Kajang, Selangor; I experience the uniqueness of Aidilfitri with Izzat's family. His mother allowed me to try on traditional clothes and I learned about Malay culture such as 'salam' (shake hand), enjoying Kuih Semperit, Lontong, and spicy food even though they said it was not spicy, and I also got 'duit raya'," Miriam explained.

Sisters **Mona Eisa Abdelrahman**, Master of Data Science and Business Analytics student and **Boshra Eisa Abdelrahman,** Artificial Intelligence student from Sudan, agreed that celebrating Aidilfitri without family is different.

"All we can do is video call our family. Regardless of where we go, we take comfort in knowing that a part of our family's spirit will always be inside us. Even if we live far away from our family, such comforts can help us truly understand them especially when we celebrate with friends who do not return home, it also feels like 'family' here," Mona and Boshra said.

Syeda Maheen Ali Bukhari, a Marketing Management student from Pakistan, expressed her excitement about attending the Syawal Festival with her classmate.

"Some of us cry when we see our friends return to their hometowns, but I am not sad because we are not alone here."

Meanwhile, **Marzieh Khalili Chachaki,** an Iranian Artificial Intelligence student, stated that she does not feel lonely despite not returning to her hometown this year.

"APU has always plans interesting programmes for their students, including preparing tasty food for us to enjoy while learning and gaining festive experience on campus," she concluded.

International students thanked all the committee members for their great hospitality during the festival.

Also present were **Chief Operating Officer Gurpardeep Singh, Senior Director Student Services Muhammad Anis Ur Rehman, Head of School of Foundation (SoF) Dr Sarvinder Kaur, Senior Lecturers AMCS Advisor Ms Aida Zamnah Zainal Abidin, Mr Ahmad Nadzri Roes, Ts. Dr. Vinothini Kasinathan, and also Mr Muhammad Fadhirul Anuar Mohd Azami.**

‘PANDEMIC LEADERSHIP AWARD 2021’ FOR APU VOLUNTEER LEADER

Humble and caring Wei Siang receives award from Penang Chief Minister Chow Kon Yew for his efforts and contributions to youth work, society, and humanity on Penang Island.

The Pandemic Leadership Award honours volunteer leaders who demonstrated exceptional leadership commitment and contribution for the good of Penang’s community during the Covid-19 pandemic.

Tan Wei Siang, a **Software Engineering** student at **Asia Pacific University of Technology and Innovation (APU)** was awarded the **Pandemic Leadership Award** for his efforts and contributions to youth work, society, and humanity on Penang Island during the 2020-2021 Movement Control Order (MCO).

The prestigious award was presented early this year by Penang Chief Minister Chow Kon Yeow in conjunction with the **Young Excellence Award (YEA) 2021,** jointly organized by the Penang State EXCO for Youth and Sports, Penang Youth Development Corporation (PYDC) and the Penang Chinese Chamber of Commerce Young Entrepreneur Section (PCCCYES).

“Entrepreneurs who think outside the box can also significantly contribute to the country’s development of technology and solutions with a positive and long-term impact, particularly in the post-pandemic world.

“Through this (event), we can see that Penang is endowed with talented young entrepreneurs who play critical roles in economic productivity during this pandemic period,” Chow Kon Yeow explained.

This year’s YEA 2021 received nearly 300 submissions, with 68 of them emerging as winners across 15 award categories, including the Business Performance Award, Pandemic Business Growth Award, Technology Entrepreneur Award, Green Initiative Award, Brand Award, Social Media & Influencer Award, Woman Entrepreneur Award, Rookie Million Achievement Award, E-commerce Award, E-sports Award, Pandemic Volunteer Award, Pandemic Leadership Award, Pandemic Professional Award, University Leadership Award, and University Athlete Award.

Wei Siang exemplifies an awakened and empowered youth. The 20-year-old Penangite witnessed the plight of families living in the low-cost flats at Taman Free School — Penang’s third poorest area, built by the city council in the 1970s.

He is no stranger to the simple life, having witnessed what the less fortunate have to endure. He, too, lived a life of modest means. His father works at Lorong Kulit Flea Market as a food stall worker, and his mother is a housewife. They live in Penang’s heritage district with their aunts and uncles.

Moved by the area’s impoverished state, Wei Siang took matters into his own hands and launched a youth-led initiative called ‘Care For All’, which provided food baskets to Taman Free School residents.

Awakened and empowered youth.

Creative Ways To Raise Money In A Pandemic

When the lockdown was imposed in March 2020, Wei Siang and his team were able to raise more than RM70,000 through a series of crowdfunding and eSports tournaments, allowing them to purchase 800 food baskets, which were distributed to old folk’s homes and B40 families at Taman Free School, Penang.

Each food basket contained 5kg of rice, cooking oil, sugar, flour, salt, rice noodles, sardines, baked beans, coffee, and crackers — the bare necessities for families to survive.

When MCO was reinstated in January 2021, Wei Siang and his volunteer team decided to focus on Taman Free School residents for food basket donations. He wanted to be more strategic in his efforts to end hunger and meet people’s needs. Care For All has assisted 993 families in the Taman Free School district alone.

“We went to their homes before donating the food baskets to inquire about their conditions and what they required. I couldn’t help but be saddened by their living conditions. A 65-year-old aunty who lived alone had to sell all of her jewellery to pay her electricity bills. Nonetheless, it was insufficient,” said Wei Siang.

He added that many residents in the Taman Free School area are single mothers, the elderly, and the disabled who have lost their source of income as a result of the pandemic.

“It’s no surprise that those with low incomes have been hit the hardest by lockdowns, unemployment, job loss, pay cuts, and movement restrictions that make it difficult for them to find work. Furthermore, having little to begin with, low-income groups have few or no assets or savings, and those working in informal jobs (e.g., cleaners, odd jobs) do not have social security safety nets to fall back on,” he said.

He admits that food basket donations are only a temporary measure to assist the needy. In the future, he hopes to empower Taman Free School hawkers to earn a sustainable living and support their families. Care for All also has plans to organise more eSports tournaments in the future to raise funds for B40 families throughout Penang.

KEY ENGAGEMENTS UNDER SDG 1 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Jan-22	‘Pandemic Leadership Award 2021’ For APU Volunteer Leader	https://www.apu.edu.my/media/news/2513
2	Feb-22	APU Students Joining Forces With Kechara Soup Kitchen	https://www.apu.edu.my/media/news/2496
3	May-22	Serving The Needy And Underprivileged For Aidilfitri 2022	https://www.apu.edu.my/media/news/2576
4	May-22	Raudhathul Al-Faeez Orphans Get Aidilfitri Aid From APU Clubs & Societies	https://www.apu.edu.my/media/news/2573
5	Jun-22	APU Students Raising Funds For Charity While Sharpening Their Entrepreneurial Skills On Campus	https://www.apu.edu.my/media/news/2707
6	Oct-22	Presidential Award For SPE Outstanding Student Chapter At APU	https://www.apu.edu.my/media/news/2578
7	Oct 2022 - Dec 2022	CSR Programme To Help Underprivileged Children Acquire Digital Skills	https://www.apu.edu.my/media/news/2706

APU STUDENT COMMUNITY HUMBLED BY 'BUBUR LAMBUK' PREPARATION FOR THE UNDERPRIVILEGED COMMUNITY

International and local students prepare the aromatic 'bubur lambuk' during Ramadan for orphans and the underprivileged.

Last weekend, more than 100 students at **Asia Pacific University of Technology and Innovation (APU)** were ecstatic to be given the opportunity to prepare 'bubur lambuk,' (porridge) to be distributed and served to the Muslim community during breaking fast.

Students from Bangladesh, Indonesia, India, Kuwait, Maldives, Mauritania, Pakistan, Saudi Arabia, Sri Lanka, Thailand, the United Arab Emirates (UAE), Yemen, and other countries collaborated for the first time in the preparation of the aromatic meal; which included rice, coconut milk, beef, vegetables, and various spices such as garlic, Bombay onions, cinnamon, star anise, clove, cardamom, fenugreek seed, candlenuts, fennel, black and white pepper, and others.

Through the **Ihya' Ramadan 2022** event hosted **by the APU Malay Cultural Society (AMCS)** in partnership with the **Federation of Peninsular Malay Students (GPMS)**, some international students took part for the first time and gained experience in preparing the 'bubur lambuk' which usually takes time and requires many participants to cook it in the spirit of working together ('gotong-royong').

"The main goal of the AMCS is to convey Malay culture and traditions to all APU student community, regardless of race, religion, or nationality," **AMCS Advisor Ms Aida Zamnah Zainal Abidin** explained, adding that "GPMS also sponsored burgers that were prepared and grilled for distribution to our community, in addition to 'bubur lambuk' (courtesy of APU) lead by Mr Alang Sury, committee member of Masjid Saad Abi Waqas."

Before distributing the food packs, the children from 'Rumah Penyayang Anak Yatim dan Asnaf Ulu Yam Selangor' (Dar Asnaf Alfateeh) performed Qasidah.

Vice-Chancellor Prof. Dr. Ho Chin Kuan also presented at the event, and **Senior Lecturer Mr Ahmad Nadzri Roes** and **Ms Aida Zamnah** distributed Aidilfitri pre-Raya gift packs to 21 underprivileged children from Dar Asnaf Alfateeh and 29 orphans from Masjid Saad Abi Waqas Gombak.

"Apart from having the experience of cutting onions and ginger with friends, I can now cook 'bubur lambuk' this Ramadan," said **Ihya 'Ramadan Project Manager Mohd Zawawi Abdunrosaeh** while thanking all committee members, lecturers, GPMS, Dar Asnaf Alfateeh, and the Saad Abi Waqas Mosque for giving them such a meaningful opportunity.

Meanwhile, **Ros Amisya Fatiha** stated that Ihya' Ramadan was memorable and that the event spread positive messages, particularly by cooperating in the distribution of charity.

"This programme directly demonstrated that the students involved could also contribute to the community. Furthermore, it can help students improve their self-confidence and skill mastery," she said.

Yemeni students who wish to be known as **Hussein** said, "While I don't understand what they're saying, I understand various aspects of their culture, and this is a great way to approach other cultures and taste amazing good food."

"I like the idea of how the programme fuses our cultures together with the international students in our globalised campus," said **Muhammad Rafi Dwiyani** from Indonesia.

He concluded that "Ihya' Ramadan programme successfully met a great target where it brought together humanity through sharing and showing Malay culture to others."

CSR PROGRAMME TO HELP UNDERPRIVILEGED CHILDREN ACQUIRE DIGITAL SKILLS

Laptop gifts and technology sharing sessions bring cheer to B40 students from Lighthouse Children Welfare Home

Over the next three months (October, November & December 2022), 16 students from **Lighthouse Children Welfare Home** will benefit from the **'Upskill The Next Gen Project'**, thanks to a joint corporate social responsibility (CSR) programme to drive digital technology.

The initiative led by **Asia Pacific University of Technology & Innovation (APU)** and industry partners will provide B40 students with an end-to-end digital technology experience.

This includes providing each of them with a laptop, future-proofing skills, empathy and social development programme, and 1.5 hours of class every two weeks covering tech & computer skill sharing sessions, general IT introduction, cybersecurity awareness, IoT introduction, and IT and coding activities.

According to **Project Spearhead's Ts. Dr. Vinesha Selvarajah**, the current situation has served as a wake-up call for Welfare Home to seriously consider putting in place digital technology knowledge that can continue to upskill schoolchildren even after the Covid-19 pandemic.

She added, "As a Premier Digital Tech Institution, APU makes it a top priority to share and upskill schoolchildren with the appropriate programmes so that they will be prepared for advanced digital technology in the future.

"We are honoured to be the pioneers of this CSR programme with our industry partners, as we believe digital technology will be able to address school needs, including preparing needy children to face future technological disruptions."

Due to their limited access to technologies, Lighthouse's students are excited to receive their first laptops.

Ms Zety Marlia Zainal Abidin, Project Lead, stated that among the fundamental technological improvements that every child should adopt are IT, cybersecurity, IoT and coding.

Beyond that, this project enables Lighthouse Children to gain the most up-to-date knowledge, allowing students to enjoy and explore new subjects and deepen their understanding of digital technology concepts, particularly through the use of technology inside and outside the classroom, and students can gain 21st century technical and computing skills required for future occupations.

Head School of Technology Assoc. Prof. Dr. Thang Ka Fei explained, "We are fully supportive of the CSR programme because we believe in making digital technology accessible to all Malaysian children. To some extent, Upskill The Next Gen Project could assist and entice the B40 group to participate in becoming proficient in the use of digital technology.

"In addition to fun learning activities, icebreaker activities will help to identify each and individual's progress. We look forward to serving the marginalised community with a series of CSR activities," he concluded.

The academic team comprising **Ms Nik Nurul Ain Nik Suki, Ms Zety Marlia Zainal Abidin, Dr Kamalanathan Shanmugam, Ms Zaireeda Mohd Fauzee, Ms Hemalata Vasudavan, Dr. Kohila Malar Kalesamy, Ms Khurshid, Mr Muhamad Wafiq** (tutor) and 21 students from School of Technology (SoT) also participated in this project.

Assoc. Prof. Dr. Thang presenting a laptop to Mr.Michael as a symbolic gift on behalf of the 16 students from the Lighthouse Children Welfare Home.

KEY ENGAGEMENTS UNDER SDG 2 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Jan-22	'Pandemic Leadership Award 2021' For APU Volunteer Leader	https://www.apu.edu.my/media/news/2513
2	Feb 2022 - Apr 2022	APU Computer Wizards Emerged Top 15 In Varsity Hackathon 2022	https://www.apu.edu.my/media/news/2512
3	Feb-22	APU Students Joining Forces With Kechara Soup Kitchen	https://www.apu.edu.my/media/news/2496
4	Apr-22	APU Student Community Humbled By 'bubur lambuk' Preparation For The Underprivileged Community	https://www.apu.edu.my/media/news/2539
5	May-22	Serving The Needy And Underprivileged For Aidilfitri 2022	https://www.apu.edu.my/media/news/2576
6	Oct-22	Presidential Award For SPE Outstanding Student Chapter At APU	https://www.apu.edu.my/media/news/2578
7	Nov-22	APU Students Among Asia's Top 100 Young Talents	https://www.apu.edu.my/media/news/2744

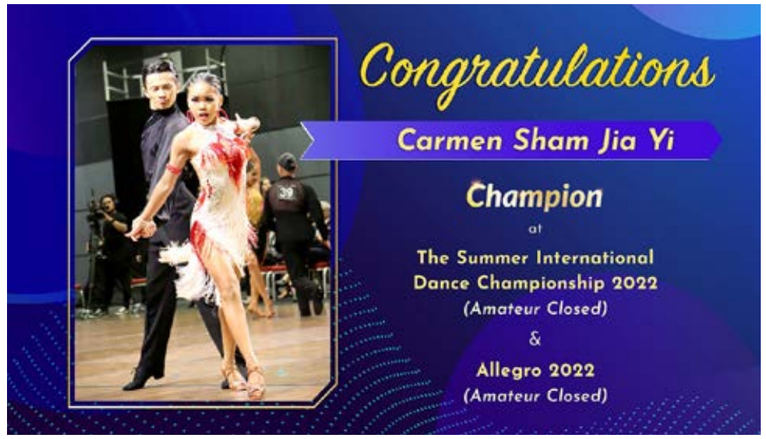
CELEBRATING OUR WINS FOR OUR STUDENT-ATHLETES

More medals from our students-athletes in the Dance and Taekwondo Competition!

Roses are red, violets are blue; our student-athletes have been doing great, as they continue to break through!

Let's go over some of the most recent successes of our students.

Story as a Dancer - Carmen Sham Jia Yi



There's a misconception surrounding dance that it isn't a sport; it's reduced to just a creative art form and nothing else. Dance is actually a true fusion of art and athletic requiring agility and grace in addition to strength, endurance, and technique.

Carmen Sham Jia Yi is an experienced dancer who has been dancing for 10 years since the age of 9.

She recently named Champion at the Allegro 2022 (Amateur Closed) and the Summer International Dance Championship 2022 (Amateur Closed), as well as attained several other awards in other categories.

"I was very happy indeed and proud of myself that I've achieved the results I was aiming for. Although I feel stressed before any competition, but I kept telling myself to enjoy the competition and be confident in what I do in order to perform the best on the dance floor."

The dances which Carmen have competed consist of 5 dances: Cha Cha, Samba, Rumba, Paso Doble and Jive for the Amateur Open and Amateur Closed categories.

Currently undergoing the Diploma in Business with Information Technology while actively competing in competitions, Carmen truly has a full plate. When asked how she juggles her studies while maintaining her passion for dancing, the answer is simple - Time Management.

"I make a conscious effort to plan my time wisely to manage both my studies and my love for dancing. I often need to go to my dance classes right after I finish my classes at Uni, and it does get quite tiring and stressful because I don't have the time to take a break. But I enjoy every moment of it."

Recently Carmen made her way to Singapore to make her first appearance at the Singapore Open Dance Championships. There was definitely pressure as 16 other couples also made their way through Amateur Closed divisions. After their performance, Carmen and her partner were ranked Top 6 among the 16 couples.

While Carmen is proud of her achievement over the year, the one competition she will never forget is when she represented Malaysia at the Southeast Asia Games (SEA 2019).

"It was such an amazing experience and great exposure for me, witnessing all these great dancers from other countries. It was definitely an unforgettable moment for me."

Carmen goes on to say that she will continue to train herself and also expanding into other dances in near future.

Taekwondo Heroes!

Navigating through university life is tough even as it is. Now, add in Taekwondo practice, personal training, juggling studies, clubs and societies, and making room for personal life — seems like a lot.

Despite being on a full schedule, our Taekwondo heroes — Darrshan A/L Vallimanalan, Crystal Lee Wan Ning, Eyu Ji Yuen, Andrew Denilson, and Liew Zhee Kit Jay pushed themselves to be resilient in spite of these obstacles, they worked together to make the most out of their efforts.

Competing against 400 contestants, they collectively gain 5 Medals in the 12th Milo-Putrajaya Taekwondo Championship 2022 which was held recently in Putrajaya.

It was a tough game with many close calls; however, our APU team took us by surprise and attain flying colours with the games they set out to conquer.

We've always been confident of our Taekwondo team. APU's Senior Sport Executive Mr. Illangovan believes that our Taekwondo team holds the edge in these athletics competitions and APU has always been the powerhouse in this area.

The results of our athletes at the competition are as follows:

MEDAL/RANKING	EVENT/SPORTS	NAME
Gold Medal	Taekwondo – Male (Light Middle)	Darrshan Vallimanalan
	Taekwondo – Female (Fin)	Crystal Lee Wan Ning
Bronze Medal	Taekwondo – Male (Welter)	Eyu Ji Yuen
	Taekwondo – Male (Light Middle)	Andrew Denilson
	Taekwondo – Male (Heavy)	Liew Zhee Kit Jay

Let us all congratulate our student-athletes for their fabulous victories and wishing all the best in their future endeavours!

WRISIE CHATBOT WINS SILVER AWARDS AT I-RIA 2022

The educational system on Carpal Tunnel Syndrome (CTS) developed for the Introduction to AI module assignment was chosen as a Top 3 winner because it benefits society, especially junior doctors and hospital assistants.

Carpal Tunnel Syndrome (CTS) can make it difficult for a person to move their hands and wrists, especially if they are elderly, while young adults think they will never have it.

But exactly what is CTS? The median nerve, which is responsible for sensation in the thumb and first three fingers, travels through a natural passageway in the wrist. The carpal tunnel is formed by the arch-shaped wrist bones and a connecting ligament.

Pregnancy, injury, arthritis, and changes in the tendons caused by repetitive motion can all crowd the already narrow tunnel and put pressure on the nerve. This increased pressure can cause tingling in the fingers and thumb, as well as numbness, pain, and restricted movement.

This set of symptoms is known as the CTS. When the operative field is completely numb, the surgeon will make an incision.

Skin and other tissue will be carefully removed to expose the carpal ligament, after which the surgeon will cut the ligament, relieving pressure on the nerve that runs beneath it, and finally close the incision with fine sutures, a sterile bandage will be applied, and a splint will be placed to prevent the wrist from moving while healing occurs.

According to the most recent research, 72% of the general public has little understanding of CTS, 76.5% are unaware of its signs and symptoms, and the number of people affected by CTS is growing by the day.

Carpal tunnel syndrome (CTS) is a condition in which the median nerve that runs through your palm, wrist, and bottom of your hand becomes compressed or irritated – leading to pain, numbness, and tingling in your fingers and hand.

Our Computer Science with a specialism in Data Analytics students **Lai Hui Chee** and **Wong Kit Yee** created a Wrisie Chatbot that provides CTS education as a preventive measure.

The CTS educational system was created for the Introduction to AI module assignment and was selected as one of the top three winners in the **Innovative Research, Invention and Application Exhibition (I-RIA) 2022** because it benefits society, especially junior doctors, and hospital assistants.

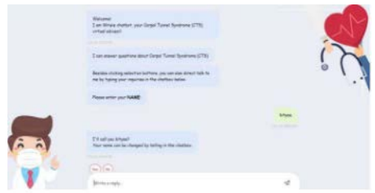
The I-RIA 2022 is a platform for young inventors from primary school to university students to showcase their innovations organised by the School of Computing, Universiti Utara Malaysia (UUM) College of Arts and Sciences.

I-RIA-themed 'Humanizing Today's Technology for Resilient Future' brings together ideas, inspiration, and a platform for students to build networking, partnerships, and opportunities to collaborate with the industry.

This is APU's first time competing in this competition, and **Ts Dr Vinothini Kasinathan** and **Ms Nur Amira Abdul Majid** sent only one 'girl power' team equipped with their AI module assignment.

"We named our chatbot Wrisie because CTS is a wrist syndrome. We began working on the chatbot in December 2021. Following assignment submission, we enhanced our chatbot once more and finally brought it to I-RIA 2022.

"We are overjoyed to have received a Silver award in the first trial. We totally did not expect that, but we put our best effort into building this system," said **Lai Hui Chee** and **Wong Kit Yee**.



Wrisie's chat interface also includes CTS training and videos to help users understand better, as well as some basic exercises.

Wrisie chatbot, according to both of them, is introduced to serve as a medical consultant on CTS knowledge for the general public, particularly CTS sufferers.

Wrisie includes numerous valuable materials for users to gain a thorough understanding of CTS, as well as various solutions, suggestions, and routines that CTS sufferers may follow when their CTS symptoms become severe.

Topic paths that provide various CTS information, such as the Introduction path, Symptom's path, and Quiz path, as well as paths that smoothen the conversation, such as the Welcome new user path, Default Message path, and Topic Selection path, are created.

Each path connects a variety of nodes in the proper order to send messages with or without options, images, videos, and carousels. When a new user first interacts with the chatbot or an existing user requests a username change, the request user data node is used to collect the username and save it in the Name attribute.

As a result, the name can be used in future conversations. Trigger path nodes are used at the end of paths. Most topic paths will be triggered to the Topic selection path, whereas the Topic selection path will be triggered to a topic path based on the user's choice.

I-RIA 2022 was inaugurated by Dato Wira Dr Ku Abd Rahman Ku Ismail, Chairman of the Kedah State Committee of Science, Technology, and Innovation, as well as Mr Fazrul Izwan Hassan, Enterprise Technology Architect of Maybank Berhad.

HERE WE 'GOLD' AGAIN AT THE 2021 HANOI SEA GAMES!

Another day, Another slay by our APU Athletes! Go Team Malaysia!

The diving camp continued their gold medal hunt yesterday (9 May 2022), with **Ong Ker Ying (APU student)** making a grand entry into the SEA Games stage by harvesting another **Gold Medal** with her partner Wendy Ng Yan Yee with their outstanding performance which dominates the women's 3m springboard synchronised event at My Dinh Aquatic Centre.

Ker Ying-Yan Yee, who are partnering for the first time on international stage, dived into victory with **276.30 points to hand Malaysia its fourth diving gold medal** at the Hanoi SEA Games.

The 20-year-old Ker Ying, who is currently our degree level 1 student in Accounting and Finance, was over the moon to make it to the top despite this being only her first competition after three years.

Ker Ying was roped into the national elite squad after attaining gold in the 3m springboard synchro with Loh Zhiayi at the Asian Diving Cup in KL back in 2019.

She had also snagged a gold in the 1m springboard individual at the same championship, however the pandemic put a stop to any chance of more international exposure.

Ker Ying has another chance to claim another gold when she competes in the women's individual 3m springboard today.

A Huge Congratulation to Ong Ker Ying and Ng Yan Yee and wishing them best of luck for their upcoming game! Go Team Malaysia!

Ong Ker Ying (left) and Ng Yan Yee will compete in the 3m springboard final individually today.

KEY ENGAGEMENTS UNDER SDG 3 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Feb-22	APU Students Go On A Trip In "Getting To Know You"	https://www.apu.edu.my/media/news/2495
2	Feb-22	Hanna Moosa's XAI Techniques Win RIPC 2022 Gold Award	https://www.apu.edu.my/media/news/2490
3	Feb-22	Exposing Cyberbullying Tweets Using Machine Learning	https://www.apu.edu.my/media/news/2489
4	May-22	Bronze Medal In The Hanoi SEA Games	https://www.apu.edu.my/media/news/2562
5	May-22	APU Student Ong Ker Ying Clinches Gold Medal in Women's 3m Springboard Synchronised Event at SEA Games	https://www.apu.edu.my/media/news/2543
6	May-22	Sweet Victory In The 2021 Hanoi Sea Games	https://www.apu.edu.my/media/news/2541
7	May 2022 - June 2022	Fun Bonding Session Among Schools in APU	https://www.apu.edu.my/media/news/2674
8	Jun-22	SoB Students Help Clean Up Gasing Hill Area	https://www.apu.edu.my/media/news/2611
9	Jun-22	Trip to explore Malaysia's Cameron Highlands	https://www.apu.edu.my/media/news/2618
10	Jul-22	First Malaysian To Score 1,000 Runs In T20I	https://www.apu.edu.my/media/news/2686
11	Jul-22	APU's Five Esports Club Members Crowne Champions At The UNITEN Valorant Championship 2022	https://www.apu.edu.my/media/news/2613
12	Jul-22	Understanding Human Behaviours With High-Tech Equipment	https://www.apu.edu.my/media/news/2607
13	Aug-22	Wrisie Chatbot Wins Silver Awards At I-RIA 2022	https://www.apu.edu.my/media/news/2700
14	Aug-22	Autonomous Wheelchair Prototype Won First Place In IEM Competition	https://www.apu.edu.my/media/news/2694
15	Aug-22	15 Medals At The SUKIPT 2022	https://www.apu.edu.my/media/news/2685
16	Aug-22	APU Student-athletes Eager For Success At SUKIPT 2022	https://www.apu.edu.my/media/news/2668
17	Sep-22	APU Sweeps 14 FUSION UX 2022 Awards, Including Gold & Special Awards.	https://www.apu.edu.my/media/news/2737
18	Sep-22	Education Tool on Online Abuse and Exploitation Bags Award at ASEAN MakeITSafe Hackathon 2022	https://www.apu.edu.my/media/news/2733
19	Sep-22	Fruitful Season For APU Athletes	https://www.apu.edu.my/media/news/2708
20	Oct-22	Presidential Award For SPE Outstanding Student Chapter At APU	https://www.apu.edu.my/media/news/2578
21	Nov-22	APU Students Among Asia's Top 100 Young Talents	https://www.apu.edu.my/media/news/2744
22	Dec-22	Celebrating Wins for APU Student-Athletes	https://www.apu.edu.my/media/news/2742

CREATING AN EXCITING LEARNING ENVIRONMENT FOR FUTURE CYBERSECURITY EXPERTS AT BATTLE OF HACKERS (BOH) 2022

BOH is bringing back the real CTF after two years of virtual competition with a tougher challenge, and two of the top six winners are APU students.

After seven months of preparation, the **Asia Pacific University of Technology & Innovation's (APU) Battle of Hackers (BOH)** 2022 concluded with two APU teams named as the Top 6 winners out of 49 teams from 13 different Malaysian universities and polytechnic.

APU's BOH is an annual Capture the Flag (CTF) cybersecurity competition open to all students from Malaysian universities and higher institutions. The aim of BOH is to provide a spotlight for talented youth and allow students from across the nation to test and enhance their knowledge and skills, particularly in cybersecurity and digital forensics.

Several criteria are used to evaluate the BOH, including relevance, technology used, scalability and limitations, and others. Using the APU global platform and accelerator programme, the BOH aims to accelerate all students' knowledge with the next level disruptive Boot2Root Challenge, in which all participants must root the server to complete the challenge.

Furthermore, BOH 2022 includes a parallel session, a webinar by Amazon Web Services (AWS) on 'Cybersecurity Challenges in Digital Landscape' and a forum from sponsors on 'Scam and How to Spot Scammers' that takes place concurrently with the CTF competition.

'Scam and How to Spot Scammers' and 'Cybersecurity Challenges in Digital Landscape' are among the forums held during the BOH competition.

Ms Nor Azlina Abdul Rahman and Ms Noris Ismail, APU Forensics and Cyber Security Research Center - Student Section (FSeC-SS) Advisors, explained that during the pandemic, BOH was unable to run the competition physically, but FSeC-SS successfully organised an online competition.

"For two years, FSeC-SS organised an online competition, and this year 2022, with the support of APU and sponsors AWS, EC-council, Standard Chartered, SecureKi, Firmus, and Across Verticals, we were back to physical competition," both said.

The competition attracted a large number of participants, including diploma, undergrad, and postgraduate students from 13 Malaysian universities and polytechnics.

"Hopefully, BOH will come back next year with more categories and challenging questions for the competition. FSeC-SS hopes that next year we will be able to open participation to ASEAN universities and polytechnics."

Learn new things and develop new skills

Team Spac3Cat's (William Wijaya, Nicholas and Ryan Martin) demonstrated their coding skills and were named 1st runner up for BOH 2022.

Team Spac3Cat's Data Analytics and Cyber Security students Nicholas, Ryan Martin, and William Wijaya were named 1st runner up for this year BOH.

Although this group won BOH 2021, this year's competition was very challenging and exciting because of the new Boot2Root challenge, in which all participating users run a virtual machine-based challenge with the goal of obtaining root permission on it in order to receive the flag.

"It is always important to learn new skills. Because there are a billion skills to learn in cybersecurity, it is important to practise learning new things. In this field, it's not so much how good you are at coding as it is how good you are at learning," said Nicholas, representing team Spac3Cat.

"The team will continue to improve on our solution to live up to our vision as well as winning the BOH 2023 challenges."

Along with team Spac3Cat, team ComeToChill (Lim Yi Siang, Lok Shang Ru, and Lee Zhen Ting) finished 3rd runner up in this year's competition.

BOH 2022 was won by team A1ph4_Sh4rk from Tunku Abdul Rahman University of Management and Technology (TAR UMT) with 1,830 points, followed by team Spac3Cat from APU with 1,810 points, team Penggθdamn from Universiti Kuala Lumpur (UNIKL) with 1,770 points, team ComeToChill from APU with 1,700 points, and team roBL0x from UNIKL with 1,650 points.

Other universities and polytechnics participating in BOH 2022 include First City University College (FCUC), German-Malaysian Institute (GMI), International Islamic University Malaysia (IIUM), Mersing Polytechnic, TATI University College (TATIUC), Universiti Teknologi MARA (UiTM), Tenaga Nasional University (UNITEN), Universiti Pertahanan Nasional Malaysia (UPNM), Universiti Sains Islam Malaysia (USIM) and Universiti Tunku Abdul Rahman (UTAR).

EDUTAINMENT OUT-OF-CLASSROOM, MAXIMISES DESIRED LEARNING OUTCOMES

APU QR IT SEEK expanded to over 400 students from various countries, with more prizes, and shows promise for a more effective teaching and learning approach for digital natives

The School of Computing and Technology (SoC & SoT) is back with a bang this year, with over 400 students from 205 teams competing in APU QR IT SEEK — an edutainment and out-of-classroom learning competition concept that uses a variety of mobile devices.

Because it is a fun edutainment outside of the classroom, this competition draws the most students/participants from both schools at Asia Pacific University of Technology & Innovation(APU).

Each team of two was required to seek and decode a series of 20 Quick Response (QR) codes hidden in random locations around APU campus using a mobile device such as a phone, iPad, or tablet.

When a code is scanned by a mobile device, it generates a quiz question related to a study topic. Some of the questions tested prior knowledge, while others necessitated additional research to obtain an answer.

Students/participants in this problem-solving competition must solve a puzzle consisting of 20 clues and 20 questions hidden in the cafeteria, carpark, stairwells, classroom, labs, or library in search of the QR code including fake QR codes placed around with motivational words.

Strategy, luck & good instincts.

After finishing third in the Treasure Hunt Fusion Fest 2022 hosted by the School of Marketing & Management (SoMM), Computer Science and Data Analytics students from team **J & K: Kerk Joo Yee and Soo Kar Yeng** won first place in this year's APU QR IT SEEK.

To win this competition, Soo Kar Yeng was in charge of solving the clues of the location given, and Kerk Joo Yee was in charge of finding the QR codes; in the end, they solved the questions together within the time limit and submitted 30 minutes earlier.

"We feel accomplished and appreciated for taking first place, and we get to learn about teamwork and interpersonal skills, which will be very useful in our learning journey because most of the questions are related to our course of study.

"Along our three-year study journey at APU, we will compete in other competitions to enrich our university life and land our dream job after graduation," said team J & K.

Team Steven Lee: Steven Yenardi and Divaldo Lee, who both studied Data Analytics, said they simply went around campus looking for QR codes and attempting to solve the questions.

Around 5 to 10 minutes before the game ended, they decided to guess the answers to some of the questions and submit them as soon as possible because submission time is also a factor in winning the contest.

"It could be considered luck, and we enjoyed it because it was our first time competing at APU, and we were only there to have fun.

"Some of the questions we encountered during the competition were taught by our previous lecturers. So, this competition also assisted us in recalling some of the previously taught materials, which helps a little with our studies," said Steven, speaking on behalf of his team.

Meanwhile, **Emilio Garvin and Marchanda Marchela Moningkey** of **Team Shallio** stated that they have no strategy for winning the competition and just simply follow their instincts to find the location and answer the questions.

"APU QR IT SEEK meets our expectations. This competition may assist us in learning more about some of the topics in the questions that we are unsure of, and we will gladly participate in any future event or competition," said both of them.

Ts. Dr. Vinothini Kasinathan confirmed that APU QR IT SEEK has become the largest event for the year 2022, with the most students participating.

"In many ways, QR IT Seek was the beginning of their journey toward growth. Each student was given a badge, which some of them still wear around campus.

"We believe that learning should be enjoyable. Please study hard and work hard, as the old adage goes. Why can't we study happily and work happily? There is substantial medical and scientific evidence that shows that your body and brain work best when you are in a pleasant state of mind," she said.

The organizing team of APU QR IT SEEK 2022 include Ms Mary Ting, Mr Justin Gilbert Alexius Silvester, Ms Lai Chew Ping, Ms T.Tulasi Sathyabama Appalasamy, Ms Nur Amira Abdul Majid, Dr. Dewi Octaviani, Mr Viknesh Ramamoorthy, Ms Minnu Helen Joseph and Ms Khalida Harun.

PROMOTES A FUN LEARNING EXPERIENCE FOR EXCHANGE STUDENTS

SoC and SoT use a 'snake and ladder' game powered by Computing and Artificial Intelligence (AI) topics and questions to help students boost their knowledge, skills, and confidence.

APU now accepts Master's Degree exchange students, and they are the first batch to arrive.

Computing exercises are key to understanding learning but doing the same programming code every day can be tedious.

Recently, **APU's School of Computing & Technology (SoC & SoT)** developed an edutainment concept that uses a 'snake and ladder' game to challenge students in a fun learning environment.

Although this game was popular during childhood, the snakes and ladders game: **Let's Play RAC (Roll, Answer & Climb**) is unique because it includes topics and questions related to computing and Artificial Intelligence (AI) as the dice are rolled from start (lower square) to finish (upper square).

Students can learn while having fun, as well as develop social skills by interacting with other players of a team. If they correctly answer the questions, they can roll the dice to move up.

Exchange students from École Nationale Supérieure d'Informatique pour l'Industrie

French exchange students, Barthelemy Fidelio Pierre Drabczuk and Mikael Ferreira De Almeida won first place and received a wireless keyboard, which they immediately put to use in class.

et l'Entreprise (ENSIIE), France, Barthelemy Fidelio Pierre Drabczuk and Mikael Ferreira De Almeida (team 2) won first place, bringing home a wireless keyboard and mouse. They were excited to receive the prize and put it to immediate use in class.

The other team from France's École Supérieure d'Ingénieurs Léonard de Vinci (ESILV) was Matthieu Jeremy Thibaut and Louis Nils Liard (team 1) and Jean Pierre Cailleau and Mohammed Rayane Messaada (team 3).

Rounding up the participating teams were two non-exchange students, Xing Chyi and Thomas Rahmadan Bannatyne Clark (team 4), who are first semester Master's Degree students.

Each participant received a set of recycled straws with the APU logo printed on the cover as a token of participation.

Instead of just being in the classroom, students got an indirect workout session at APU Atrium with interactive questions in the 'snake and ladder' game.

Mikael Ferreira, who represents other exchange students, stated that this was a good coping mechanism for their studies and relieved that the method used in this game is ideal for them.

With dynamic questions in the 'snake and ladder' game, they can get on the right learning path to overcome specific obstacles or misconceptions in learning Computer Science Engineering and AI, which will help them in the future.

"It is very good for identifying our weaknesses and strengths, as well as increasing our understanding of subject matter," he said.

He added that they learned about APU from their French lecturer and decided to come to Malaysia for an exchange programme because APU is well known for its top-notch digital technology courses and as a Premier Digital Tech Institute.

When asked if APU's courses and modules met their expectations, he says, "We expected more coding sessions in some modules and are grateful for all the guidance we received from our APU lecturers."

All exchange students completed one semester of study at APU's Bukit Jalil campus and have now returned to their respective universities to complete their studies.

According to Ts. Dr. Vinothini Kasinathan, the organising committee's head, the competition was held to find a more enjoyable learning method by combining edutainment elements.

"We could do better than this. Imagine if the students could answer the questions in real exam mode via this game which we got insights into specific areas where students struggle," she said.

Other committee members who contributed to the success of this competition include Ms Tham Hoong Ching, Ms Nur Amira Abdul Majid, and Ts. Nor Anis Asma Sulaiman.

Team 4 was the first to the top, but when the dice were rolled, they ended up on the snake's head and lost first place to team 2.

PUBCC CONTRIBUTING TO MALAYSIA'S BLOCKCHAIN AND CRYPTO ECOSYSTEM

APUBCC celebrating its 1st Anniversary of promoting Blockchain and Crypto fundamentals & knowledge in one of the hottest technology areas.

Time flies! In 2021, plans to establish Asia's first and largest blockchain and crypto-based club in Malaysia began to unfold. And this year in 2022, the **Asia Pacific University Blockchain and Cryptocurrency Club (APUBCC)**, celebrates its 1st anniversary.

Many people are unaware that Malaysia is the world's sixth largest Bitcoin mining nation and one of the best countries for blockchain technology startups!

Our tropical country's technology ecosystem is so vast and accessible that it has become one of the world's premier locations for both-based projects.

However, we are not as well-known as Portugal, Switzerland, Germany, Singapore, or Malta, but Malaysia's blockchain and crypto landscape is gradually rising in the world rankings, and to advance as a blockchain and crypto-friendly country, we will need to produce more experts through focused studies in these areas.

Team behind APUBCC

Front row, from left: Meera Eeswaran, Yudhishthra Sugumaran, Lee Shuen Rui, Ng Hui Chen and Suresh Naidu Sadasivan are key figures in the APUBCC leadership, which includes both lecturers and students, while FinTech Academy: APU Financial Trading Centre prepares APUBCC members for the blockchain and crypto ecosystem.

APUBCC, a university-led initiative, was founded on 12 August 2021, with 30 members and has since grown by leaps and bounds to over 420 members within a year.

The club is led by three blockchain and crypto enthusiasts within the university teaching and consulting team, **Ms Meera Eeswaran and Ms Ng Hui Chen**, both Senior Lecturers & Programme Leaders from the School of Accounting & Finance, as well as **Mr Suresh Naidu Sadasivan,** APU's Senior Blockchain Consultant.

APUBCC aims to spread awareness about blockchain and crypto via discord channels, discussions, research, gamification, seminars, workshops, hackathons, and conferences, with the ultimate goal of promoting technology learning, as well as helping students and society to overcome common misconceptions.

Members comprise students from various levels and programmes including Information Technology (IT), Engineering, Accounting & Finance, Marketing, Management, Psychology, and Quantitative Studies, who are all interested in learning more about blockchain technology and crypto.

"Early exposure to this technology can aid in building the youth community, expanding their knowledge in the blockchain space whilst promoting a cultural bond. As the Malay proverb goes, 'Pemuda Harapan Bangsa, Pemudi Tiang Negara' (Young Men Nation's Hope, Young Women Nation's Pillar), youth will be the country's backbone," said **Ms Hui Chen and Ms Meera**.

"The grassroots level is essential for promoting blockchain and crypto because every thousand miles in a journey begins with a single step," said **Mr Suresh**.

"APUBCC provides a safe learning environment and exchange of ideas, allowing us to grow as a club with a better understanding of this technology. We need an ecosystem that is important for both the university and the blockchain industry."

Activities and events

Shiyu Serah (red shirt), a renowned NFT artist, has been invited to exhibit her NFT artwork at APU.

Committees under the APUBBCC have been very active in organising several events and activities, including a beginner-level talk session titled NFT-Digital World of Wonder by Imperium Universe CEO Mr Jason Kwong and Access Malaysia Vice President Mr Jason Chew; a visit to an NFT exhibition as part of a team-building activity.

Distinguished NFT artist, Ms Shiyu Serah, was invited to showcase her NFT artworks collection: Harmony Under the Sea, at APU on 22 April 2022, followed by a speech by Mr Jason Kwong. Fun activities such as the Crypto Trading Competition, NFT minting, and more are to come in the future.

Meanwhile, Access Blockchain Association Malaysia (ACCESS Malaysia) connects APUBCC with more professionals from various industries and backgrounds, allowing for a learning experience that goes beyond internet searches alone, and the collaboration has many benefits for APUBCC members.

Due to their active collaborations with the industry, APUBCC is frequently invited to various talks given by other communities, such as Web3 Night, 3six9 NFT Marketplace introduction, and BNB Chain Conference.

Attending these fun and insightful gatherings enables APUBCC members to converse, exchange ideas, and learn from real-world professionals, allowing them to grow with a better understanding of blockchain technology and crypto.

Some of the members have even taken part in substrate developers training and won a mini hackathon jointly organized by APU and Octopus Network, a multichain crypto network created to bootstrap and run decentralized application chains, aka Appchains.

Empowering APU students

Shiyu Serah (red shirt), a renowned NFT artist, has been invited to exhibit her NFT artwork at APU.

APUBCC President Lee Shuen Rui stated that the club is always looking for the best and different approaches that will benefit the members' knowledge pool in blockchain and crypto-related topics because the majority of its members are beginners looking to start a career in Blockchain.

"One of the initiatives our club has been working on to provide information for beginners is the informal discussion that the committees have with club members every Friday, and they are welcome to join and contribute their opinions and thoughts about blockchain and cryptocurrency.

"APUBCC also released podcasts in collaboration with APU's Student Representative Council (SRC) that discuss the technologies in depth, in addition to actively uploading meaningful and insightful postings on APUBCC's socmed. We currently have educational videos on Facebook, YouTube, and Instagram for our followers to learn more about Web3 developments," he said.

APUBCC Vice President Yudhishthra Sugumaran added that the club's future direction will be extremely exciting, with forward-thinking initiatives aimed at empowering APU students to use their unique skill sets to contribute to the growth of the blockchain ecosystem locally and globally.

"A major drawback to the adoption of blockchain technology is the onboarding component as there is a steep learning curve for developers to build decentralized applications and for the public to use these applications.

"Strategic collaborations with industry partners such as ACCESS Malaysia, KopiDAO, Metapac, and others help in creating a progressive environment where ideas are exchanged, visions are shared, and projects built on the blockchain are supported through various means.

"These initiatives are important alongside educating students about blockchain, there should be ideas on how to create more use cases for blockchain in different industries. APU has never been short on innovative students, so it is only right that efforts are channelled through the right medium to innovate for the blockchain," he said.

CREATIVITY, EDUCATION AND LEARNING BEYOND IR4.0

IN the face of rapid technological development, where the Malaysian digital economy is expected to contribute more than 25.5% to the nation's gross domestic product (GDP) by 2025, tech visionaries are already forecasting the next revolution – the Fifth Industrial Revolution (IR 5.0), even though we merely started talking of IR 4.0 a few years ago.

Stepping into the era of IR 5.0, the tech world is embracing collaborative robot systems – Cobots. It is about integrating human efforts with smart technology. Humans will no longer be scared of robots but regard them as working partners.

In tandem with the emergence of the most disruptive technologies – 4D printing, quantum Internet, miniature AI, brain-computer interface, smart robots, neuromorphic hardware – there is a growing need to develop talents that can ride along with the wave of digital transformation.

Preparing and nurturing future-proof talents, therefore, requires constant review of the course curriculum as well as teaching and learning strategies.

"Creativity, undoubtedly, is a key graduate attribute for the 21st century," stated APU vice-chancellor Prof Dr Ho Chin Kuan.

"Learning takes place everywhere, be it in the classroom, out of the classroom, and in cyberspace.

"We are no longer compartmentalising learning in specific spaces, rather, we adopt Teaching and Learning (T&L) strategies that encourage creativity.

By bringing APU students from multiple disciplines to solve a challenge, creative juices will start flowing when they are motivated by problems facing another discipline.

"Problem-based learning and project-based learning are two such strategies that emphasis knowledge discovery through exploration. This encourages the development of creativity," Prof Ho elaborated.

According to him, creativity is the ability to produce original ideas and solutions that bring value. On the technology front, though there has been great progress in making computer programmes perform human-like tasks, yet, humans still have a distinctive edge in creativity.

"While algorithms typically learn from existing information, humans have an innate ability to think out of the box. Rather than compete, we expect that technology will augment our creative ability," added Prof Ho.

Recently, a survey done by the World Economic Forum's Global Agenda Council on the future of software and society showed that people expect AI machines to be part of a company's board of directors by 2026.

This explains that while humans and machines are exploring a better way to work together, robots may help us go where we want to be faster, but they can't be as creative as humans. Therefore, creativity will become one of the top three skills workers will need.

On the concrete ways to nurture creative graduates, Prof Ho opined, "We can bring together students from multiple disciplines to solve a challenge. Creative juices will start flowing when one is motivated by problems facing another discipline.

"Students should be encouraged to take part in competitions that embody real-world scenarios. Such an approach is called authentic learning – putting students in situations similar to what they will face in the workplace."

APU is adopting T&L that blends both guided learning and independent learning approaches to cultivating innovation and creativity in students. Here, students are experiencing mixed reality by putting on smart glasses in the XR Studio.

For this, APU's T&L blends both guided learning and independent learning approaches, said Prof Ho, because independent learning gives space for students to explore and experiment with ideas, encouraging them to take responsibility for their learning.

Whereas, guided learning will ensure that energy and focus are spent in the right places.

With the above approaches, APU is fosters:

- students, who are full of creativity
- graduates, who can develop innovative solutions in a VUCA (volatile, uncertain, complex and ambiguous) world; and
- Talents, who are creating a new world and new era that is reciprocal of digitality and creativity.

APU, with its purpose-built iconic campus, is steadfast in preparing and nurturing future-proof talents, stepping into the era of IR 5.0.

The talent pipeline started at APU has been proven by the latest Annual Graduate Tracer Study by the Higher Education Ministry, which shows that 100% of APU graduates were employed upon graduation.

APU students also have the option to opt-in for the APU-DMU dual degree scheme, where they will receive two sets of degree certificates and transcripts upon graduation: one from APU (Malaysia) and another from the De Montfort University (United Kingdom).

With DMU's history of over 150 years in providing higher education to students from around the globe, this collaboration provides the students with a global outlook and shapes them into global IR 5.0 citizens.

KEY ENGAGEMENTS UNDER SDG 4 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Jan-22	Microsoft Innovative Educator (MIE) Expert Programme 2021/2022	https://www.apu.edu.my/media/news/2492
2	Jan-22	Young Inventor Recognition for Cyberbullying Detection Research	https://www.apu.edu.my/media/news/2489
3	Jan-22	APU's CSR Efforts Of Creating A Mural For The FurryKids Safehaven	https://www.apu.edu.my/media/news/2476
4	Feb-22	Memorandum of Understanding (MoU) Signing Between Asia Pacific University of Technology & Innovation (APU) and The Giving Bank Foundation (TGB)	https://www.apu.edu.my/media/news/2497
5	Feb-22	APU Students Go On A Trip In "Getting To Know You"	https://www.apu.edu.my/media/news/2495
6	Mar-22	QiZ4U@APU - Internal Edutainment Competition	https://www.apu.edu.my/media/news/2508
7	Mar-22	Collaboration Between APU and CILT Ventures Malaysia for Green Supply Chain and Logistic Excellent Centre (GEC)	https://www.apu.edu.my/media/news/2501
8	Mar-22	CMT Association Partners With Asia Pacific University Of Technology & Innovation To Advance The Discipline Of Technical Analysis	https://www.apu.edu.my/media/news/2500
9	Apr-22	APU ISUC Members Soar At TCS Sustainathon Malaysia 2021	https://www.apu.edu.my/media/news/2544
10	Apr-22	Three Musketeers' Wins 2nd Runner Up At Hilti Global IT Competition (ITC) 2022	https://www.apu.edu.my/media/news/2537
11	May-22	Raudhathul Al-Faeez Orphans Get Aidilfitri Aid From APU Clubs & Societies	https://www.apu.edu.my/media/news/2573
12	May-22	APU's Master of Project Management (MPM) Program Receives GAC-PMI Accreditation	https://www.apu.edu.my/media/news/2559
13	May-22	MAB Academy and APU Collaborate to Enhance Workforce Digital Readiness	https://www.apu.edu.my/media/news/2552
14	May-22	Malaysia PropTech Association (MPA) and APU Collaborate to Advance Technology Solutions for Property and Construction Start-ups	https://www.apu.edu.my/media/news/2542
15	Jun-22	IUCEL Awards For 5 APU Teams	https://www.apu.edu.my/media/news/2679
16	Jun-22	Trip to explore Malaysia's Cameron Highlands	https://www.apu.edu.my/media/news/2618
17	Jun-22	Emerged 5th In ACP Championship Malaysia 2022	https://www.apu.edu.my/media/news/2615
18	Jun-22	Morib Beach Cleaning Initiative	https://www.apu.edu.my/media/news/2608

19	Jun-22	APU's Information Technology & Computer Science Students Won Multiple Awards At International Innovation Arsvot Malaysia 2022	https://www.apu.edu.my/media/news/2604
20	Jun-22	Power Electronics Research In Denmark For Merdeka Grant Award Recipient	https://www.apu.edu.my/media/news/2667
21	Jun-22	APU Mega Career Fair 2022	https://www.apu.edu.my/media/news/2599
22	Jun-22	BlockMe @ APU Championship	https://www.apu.edu.my/media/news/2598
23	Jun-22	APU Grads Are Media And Communication Experts Of The Future	https://www.apu.edu.my/media/news/2597
24	Jun-22	APU Redesigns Curriculum To Future-proof Business Graduates	https://www.apu.edu.my/media/news/2591
25	Jun-22	Nurturing Future Entrepreneurs: Start-up Weekend	https://www.apu.edu.my/media/news/2587
26	Jun-22	Overcoming Malaysia's Acute Shortage Of Cybersecurity Professionals	https://www.apu.edu.my/media/news/2586
27	Jun-22	Digital Skills For The Era Of IR 4.0 In Facing The VUCA World	https://www.apu.edu.my/media/news/2585
28	Jun-22	Society of Petroleum Engineers (SPE) Student Chapter 2022	https://www.apu.edu.my/media/news/2578
29	Jun-22	Coming Out Stronger With UK Based CMI Dual Accredited Degree At APU	https://www.apu.edu.my/media/news/2577
30	Jul-22	Team Horizon Finished 1st Runner-Up In The Sear PLC Design Competition 2022	https://www.apu.edu.my/media/news/2698
31	Jul-22	Virandeep Singh, an International Business Management student at APU, becomes the first Malaysian to score 1,000 runs in Twenty20 International (T20I) cricket	https://www.apu.edu.my/media/news/2686
32	Jul-22	8th Consecutive Year Of IEM Gold Medal Awards For APU Engineering Students	https://www.apu.edu.my/media/news/2670
33	Jul-22	ERASMUS+ FRIENDS Project Malaysia National Conference On Internationalisation At Home (IaH)	https://www.apu.edu.my/media/news/2669
34	Jul-22	ViRa Robot Workshop with SJK(T) Kinrara Students	https://www.apu.edu.my/media/news/2616
35	Jul-22	APU's Five Esports Club Members Crowne Champions At The UNITEN Valorant Championship 2022	https://www.apu.edu.my/media/news/2613
36	Jul-22	APU Data Analytics Technoids Emerged Big Winners Of The Data Mining Cup 2022	https://www.apu.edu.my/media/news/2612
37	Jul-22	Actuarial Professionals With Data Analytics And Fintech Specialisation Hold The Advantage	https://www.apu.edu.my/media/news/2610
38	Jul-22	Maybank Techies Internship Programme Launched At APU	https://www.apu.edu.my/media/news/2609
39	Jul-22	Understanding Human Behaviours With High-Tech Equipment	https://www.apu.edu.my/media/news/2607
40	Jul-22	Collaboration between Bank Islam & APU Constructing on Digital Talent Pipeline	https://www.apu.edu.my/media/news/2606
41	Jul-22	APU Professor Appointed As UNESCO Chair	https://www.apu.edu.my/media/news/2602
42	Jul-22	APU Collabs With The Department Of Statistics Malaysia For Driving Data Studies	https://www.apu.edu.my/media/news/2601
43	Jul-22	Embracing IR 5.0 and Fostering Creativity in Education	https://www.apu.edu.my/media/news/2600
44	Aug-22	APUBCC 1st Anniversary Celebration: Nurturing Blockchain and Crypto Enthusiasts in Malaysia	https://www.apu.edu.my/media/news/2705
45	Aug-22	Wrisie Chatbot Wins Silver Awards At I-RIA 2022	https://www.apu.edu.my/media/news/2700
46	Aug-22	Sohan Singh From APU Hits The Right Notes At The World Pipe Band Championship 2022	https://www.apu.edu.my/media/news/2699
47	Aug-22	Autonomous Wheelchair Prototype Won First Place In IEM Competition	https://www.apu.edu.my/media/news/2694
48	Aug-22	"The Capables" from APU secured joint third place at the ASEAN Finals of Tata Consultancy Services (TCS) Sustainathon 2021 in Singapore	https://www.apu.edu.my/media/news/2690
49	Aug-22	APU's contingents at SUKIPT 2022 secured a total of 15 medals in various sports, showcasing their excellence and competitive spirit	https://www.apu.edu.my/media/news/2685
50	Aug-22	FELDA and APU's strategic collaboration: New Generation Digital Education Programme	https://www.apu.edu.my/media/news/2677
51	Aug-22	Strategic University-Industry Collab Between APU And ZEISS	https://www.apu.edu.my/media/news/2676
52	Aug-22	APU Student-athletes Eager For Success At SUKIPT 2022	https://www.apu.edu.my/media/news/2668
53	Sep-22	Meta Maths League 2022	https://www.apu.edu.my/media/news/2721
54	Sep-22	SUKMA 2022 - Fruitful Season For Our Athletes	https://www.apu.edu.my/media/news/2708
55	Oct-22	APU's Battle of Hackers (BOH) 2022	https://www.apu.edu.my/media/news/2747
56	Oct-22	Ethereum Developers Conference (Devcon) Bogotá	https://www.apu.edu.my/media/news/2732
57	Oct-22	Bett Asia Leadership Summit 2022	https://www.apu.edu.my/media/news/2728
58	Oct-22	CSR Programme To Help Underprivileged Children Acquire Digital Skills	https://www.apu.edu.my/media/news/2706
59	Nov-22	APU QR IT SEEK 2022: Edutainment Out-of-Classroom	https://www.apu.edu.my/media/news/2746
60	Nov-22	Monstar Asia Young Talent Awards 2022 - "The Extroverted Introvert: A Transformation Story"	https://www.apu.edu.my/media/news/2744
61	Nov-22	Let's Play RAC (Roll, Answer & Climb)," by APU's SoC & SoT	https://www.apu.edu.my/media/news/2736
62	Nov-22	ReGov & APU Sign an Agreement for Web3 Talent Development	https://www.apu.edu.my/media/news/2731
63	Nov-22	Signing of an Industry-Academia Collaboration (IAC) between the School of Business at Asia Pacific University of Technology & Innovation (APU) and Tech Murah	https://www.apu.edu.my/media/news/2720
64	Dec-22	APU & DNB Sign MOU to Forge Development Of 5g Curriculum and Related Digital Services	https://www.apu.edu.my/media/news/2748
65	Dec-22	APU's International Cultural Night (ICN) 2022 - "Garden of Kingdoms"	https://www.apu.edu.my/media/news/2745
66	Dec-22	Celebrating Our Wins for Our Student-Athletes	https://www.apu.edu.my/media/news/2742
67	May 2022 - June 2022	Team Bonding Activities at APU	https://www.apu.edu.my/media/news/2674
68	Oct 2022 - Nov 2022	Dr. Lau Chee Yong Certified as IEC Young Professional: Fostering Quality Education and Industry Innovation	https://www.apu.edu.my/media/news/2729
69	Sept 2022 - Dec 2022	4th National Symposium on Human Computer Interaction - FUSION 2022: Student Design Competition	https://www.apu.edu.my/media/news/2737

Research Publication 4
SDG 5 Related Activities 5

15 MEDALS AT THE SUKIPT 2022

Celebrating our student athletes as SUKIPT come to an end

Throwing back to August, APU's contingents had a prosperous sports season celebrating their triumph over the SUKIPT 2022. Here are quick recaps of our teams' successful seasons.

Sukan Institusi Pengajian Tinggi (SUKIPT) — is a biennial national event that is part of the Higher Education Ministry's efforts to develop and advance sports at the IPT, national and international levels, in an integrated manner.

Athletes from 67 universities competed in 21 different types of games in the tournament. Our contingents consist of 45 students who participated in 8 different sports: Taekwondo, Karate, Golf, Swimming, Table Tennis, Track & Field, Chess, and Badminton.

APU contingents had a busy and productive season

SUKIPT preparations began at the start of the year, when each APU sports club was informed of the competition to select their best athlete to represent APU.

Since then, our athletes have been devoting their time after classes to training and hustling throughout the season in the hopes of taking home a few medals in the intense competition with exceptional competitors.

For some athletes, this competition was about developing the skills for the sport they already loved. For others, it holds a special meaning behind to discover new possibilities and challenging themselves to strive further than before.

Throughout the preparation, our APU contingents did a fantastic job of coming together to learn their own strengths and weaknesses, to bond and care for fellow teammates, and to show off their sportsmanlike and competitive nature all while training together.

It's Show Time!

On 9th August, APU's senior leadership flagged off 45 student-athletes who are participating in the highly anticipated SUKIPT 2022, wishing them best of luck while hoping for good news to come.

Our contingents together with Mr. Illangovan Thirumal set off to University Pendidikan Sultan Idris, situated in Tanjung Malim, Perak as they embark to fulfill their goal. The month-long event was held from 12 August until 21 August 2022.

The team gave it their all at every game and fought through the challenges, leading us to several victories!

As SUKPIT ended with our last victory match, the athletes hugged each other and congratulated one another. As exhausted as it may be, it is definitely heart-warming to see them on cloud nine after attending their medals.

Let us all congratulate our athletes for their fabulous victories and wishing all the best in their future endeavors.

APU PROFESSOR APPOINTED AS UNESCO CHAIR

Prof. Dr. Abtar Darshan Singh of the Asia Pacific University of Technology & Innovation (APU) is the first academic from a private university in Malaysia to be appointed to the prestigious position

Professor Dr. Abtar Darshan Singh of the Asia Pacific University of Technology & Innovation (APU) has been appointed to the prestigious position of the UNESCO Chair on Harnessing Innovations in Technology to Support Teachers & Quality Learning.

Abtar, who is currently Professor of Innovative Digital Learning & Director of the Digital Learning Hub at APU, thus becomes the first academic in a Malaysian private university to be appointed to such a position for a four-year term.

As the UNESCO Chair, Abtar will drive research, training and knowledge-sharing initiatives on harnessing innovations in technology to support teachers and quality in teaching and learning in Malaysia as well as developing economies in Asia, Africa and other parts of the world. This also includes equipping teachers and professionals in education with state-of-the-art knowledge and tools to enhance hybrid learning, which has become increasingly important in the post-pandemic learning context.

CEO of APU, Datuk Parmjit Singh said, "We are honoured and delighted with Prof. Dr. Abtar's appointment to the UNESCO Chair. It is a tremendous recognition of the ability not only of APU by a premier UN agency but also of our tertiary institutions to promote technological innovations that could strengthen the quality of our teaching profession, be it in the public or private sectors".

"Technology, innovation, and creativity form the heart of APU's education philosophy. The appointment of Prof. Dr. Abtar as the Chairholder will further catalyse our efforts to produce graduates who intuitively embrace technological innovations and help make a difference to the diverse international communities they represent," said Parmjit.

Speaking of her appointment, Prof. Dr. Abtar said, " I'm humbled by the appointment and wish to thank UNESCO for their trust and confidence in me and APU."

"Together with our partner organisations, we will work very hard to promote innovations in technologies including AI to help enhance the quality of teaching and learning among teachers, educators and curriculum developers in Malaysia and the region."

A key objective of the UNESCO Chair is to foster collaboration among stakeholders in education and leverage technological innovations to promote inclusive education for everyone including girls and children. It is an integral part of UNESCO's wider Medium-Term Strategy and Sustainable Development Goal (SDG) to leverage education programmes to reduce poverty.

The UNESCO Chair will also serve as a research and innovation hub to capitalize on disruptive technologies in the areas of the Fourth Industrial Revolution (IR4.0) such as artificial intelligence (AI), Internet of Things (IoT), and Big Data & Analytics to promote inclusive and equitable education for people in developing economies.

Launched in 1992, the UNITWIN/UNESCO Chairs Programme involves over 850 institutions in 117 countries with the vision to advance an integrated system of research, training and activities in diverse fields by building university networks and encouraging inter-university cooperation through the transfer of knowledge and expert.

Prof Abtar has more than three decades of experience in the education field. A former Fulbright scholar, she has been closely involved in the research, teaching and development of technological innovations in higher education in Malaysia and abroad. She was the winner of the coveted International Competition on Innovative University Practices in ICT in Education, a competition organized by the UNESCO Institute for Information Technologies in Education (UNESCO IITE) in St. Petersburg, Russia, in 2015.

KEY ENGAGEMENTS UNDER SDG 5 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Dec-22	Celebrating Our Wins for Our Student-Athletes	https://www.apu.edu.my/media/news/2742
2	Oct 2022 - Dec 2022	CSR Programme To Help Underprivileged Children Acquire Digital Skills	https://www.apu.edu.my/media/news/2706
3	Aug-22	APU's contingents at SUKIPT 2022 secured a total of 15 medals in various sports, showcasing their excellence and competitive spirit	https://www.apu.edu.my/media/news/2685
4	Jul-22	APU Professor Appointed As UNESCO Chair	https://www.apu.edu.my/media/news/2602
5	May-22	31st Hanoi 2021 SEA Games - Men's 3m Springboard Synchronised Diving	https://www.apu.edu.my/media/news/2541

INNOVATIVE ECOTOURISM & GREEN OCEAN INVENTION GAINS JAMES DYSON AWARD

The Synergy of APU Industrial Design and Engineering Students to address the global issue won them a ticket to the James Dyson Award International 2022 Competition

A recent study by scientists reveals that micro and nano plastics are in every human tissue they sampled . Aware of the global issue of plastic pollution, especially in the world's oceans, Industrial Design and Engineering students at Asia Pacific University of Technology and Innovation (APU) joined hands and try to solve this problem with design thinking. This initiative won them a runner-up at this year's Malaysia James Dyson Award competition.

Team Techgasus, comprising of Industrial Design degree student **Mostafa Marzouk**; and four Bachelor of Engineering in Mechatronic Engineering with Honours final-year students – **Chan Jing Hung, Lim Cher Khai, Lim Joon Yi and Tan Jia-Hao**, invented "Whalecro", an underwater propulsion vehicle with an all-new micro debris filtering system.

"Inspired by the filtered feeding system of the whale shark, we designed a whale-like structure with a filtering system in it that made up of Velcro straps, a commonly used material with a hook-like surface that can efficiently capture micro debris in the ocean," explained Chan Jing Hung, the team leader.

Chan and the engineering branch kicked off the project with numerous experiments,

concept-proofing and prototyping. To maximise the efficiency of the micro debris capturing mechanism, they tested it with different designs and shapes on one of the beaches along the Straits of Malacca. Upon identifying the best design, the team continued with prototype building, refining and enhancing by using a motor to enable automation.

"Mostafa's role as an industrial designer is the cornerstone of our project as he transformed our technical idea into an attractive and visually appealing product without forgoing the ergonomics concept," said Chan.

According to him, the team members of different disciplines worked toward understanding each other's mindsets and how one approached a problem. Ultimately, this made the most valuable takeaway of the entire journey which took them months of hard work.

Their Lead Mentor, **Mr Eekang Ooi,** concurred and lauded the synergy between both disciplines. "While the engineering students focused on the technical side, the industrial design student looked into the User Experience (UX), consumer market and transforming intangible ideas aesthetically to attract the end users. The combination of both sides' efforts brings an attractive and fully functional product to the market."

Ooi is a lecturer at the School of Media, Arts and Design (SOMAD). He mentored Team Techgasus for this competition together with Associate Professor of the School of Engineering (SoE), **Dr. Sathish Kumar Selva Perumal.**

Soon after Team Techgasus clinched runner status at the national level, they will be moving on to the James Dyson Award International 2022 competition which will be held in October with the top three winners. This is the third consecutive year APU won the National James Dyson Award.

In the more challenging international arena, Team Techgasus will showcase how Whalecro works – As the vehicle accelerates forward underwater, the water current will flow in the opposite direction of the vehicle. As a result, it pulled in the surrounding micro debris with the aid of current and passes through a series of motor-powered filters.

The rotating filters will then capture the micro debris as the water current flows through. The filtered ocean water will then flow out of the vehicle. Finally, a specially designed device is used to extract micro debris trapped on the filters where it can be easily brushed off and disposed of accordingly.

"In the future, the team could enhance the efficiency of the product by experimenting with different sizes or surface designs of Velcro straps. Furthermore, we would like to raise awareness of ocean pollution through eco-tourism. With a lineup of various products, raising more awareness of the manifestation of plastic pollution in our ocean is possible with hopes of one-day achieving ocean sustainability," concluded Ooi.

APU WATER CONSERVATION PROGRAM

APU is dedicated in creating awareness on the understanding the importance of water conservation in daily lives of its communities. This wise management of the water resources act can be vividly translated through its conservation methods such as Rainwater Harvesting & Efficient Water Fittings promoting resource efficiency at all time.

Rainwater harvested is used for irrigation system, toilet flushing, combined with efficient water fittings such as dual flush toilets, waterless urinals and water taps equipped with aerators. This reduces potable water usage by more than 35%.

Other Initiatives & Campaigns Undertaken

- Notices in washrooms to remind staff and students to save water and to ensure that taps are not left running
- Review of water harvesting solutions

KEY ENGAGEMENTS UNDER SDG 6 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Aug-22	Innovative Ecotourism & Green Ocean Invention Gains James Dyson Award	https://www.apu.edu.my/media/news/2691
2	2022	APU Water Conservation Program	https://www.apu.edu.my/apu-water-conservation-program

POISED TO SHINE ON A CAREER PATH IN PETROLEUM ENGINEERING

Aspiring O&G and energy professional Abdallah El Badaoui from Asia Pacific University of Technology & Innovation (APU); was among the Top 100 worldwide selected to participate in the **IPTC Education Week**, a sideline of the **International Petroleum Technology Conference (IPTC) 2022**, which took place in Riyadh, Kingdom of Saudi Arabia, from 21st to 23rd February.

Abdallah El Badaoui (Back row, L-R) and his peers from public universities – Ganga Thevi Arul (UTM), Au Min Yan (UM), Chan Kuan Yi (UTM), representing Malaysia at IPTC Education Week, IPTC 2022. In this picture, they pose with the organiser (Front row, L-R) Ms. Viktoryia Kavalionak, and Ms. Jackie Hoffmann in front of the national flag.

More than 30,000 visitors – including regional energy ministers, industry leaders, and governmental representatives from across the world were in attendance – to exchange views, expertise, and experience on industry trends, stimulating technical research and business activities.

Abdallah was picked among a pool of thousands of applicants worldwide in a year that saw the largest number of applicants since its inception. Following a one-minute video pitch by hopefuls, only 100 were selected and won full sponsorship by Saudi Aramco, the Saudi Arabian public petroleum and natural gas company.

"We met Datuk Tengku Muhammad Taufik Tengku Aziz, president and group CEO of Petronas. He encouraged us to continue on the energy path and reassured us of the needs of young innovative engineers to address challenges related to energy transitions, such as managing greenhouse emissions and work towards global sustainability," said Abdallah, a final year Petroleum Engineering student at APU.

He was thrilled with a geological field trip where he observed an enriching exchange between earth scientists that provided him with a vivid learning experience.

A light-hearted moment when Abdallah El Badaoui (left) meets his 4 groupmates originally from Saudi Arabia, Egypt, Venezuela, and Pakistan who worked together as a team in the educational challenges.

Participants were divided into different groups and took part in educational challenges on the second day. The completely hands-on learning began with a "geosteering" (drill wells) competition using software by Rogii, followed by a field development competition by Schlumberger, a French technology company, through the application of their software, Petrel.

"Participants got a chance to interact with energy leaders through workshops and panel sessions that catered for their professional growths," continued Abdallah, who served as the President of the Society of Petroleum Engineers (SPE) APU Student chapter for the term of 2020/2021, where he led his chapter to win their first SPE Excellence award.

The last two days of the conference were a precious chance for the young students to rub shoulders and network with industry leaders and potential employers, as they were permitted to join in the professional exhibition and technical sessions.

A proud and pleasure moment for Abdallah El Badaoui (2nd from right) and his international peers to be selected participating in IPTC Education Week. Here, they pose in front of a giant poster at IPTC 2022.

"We interacted with Dirk Orlowsky, the European Association of Geoscientists and Engineers (EAGE) President; Anna C. Shaughnessy, the Society of Exploration Geophysicists (SEG) President, and Mr Adif Zulkifli, Executive Vice President and CEO, Upstream, PETRONAS. They reassured us about the future of the energy industry," shared Abdallah, whose motto is 'Your network is your net worth'.

On the importance of networking before graduating, Abdallah further elaborated, "As global citizens, we don't know where will we work in or which door we may knock-on. However, building rapport with the industry leaders goes beyond career opportunities, as it will also bring impact to our society, promoting social, cultural, academic and scientific exchange while celebrating our diversity," opined this student-leader.

A Comorian by origin, Abdallah, 22, who was named as one of the Energy Leaders for Tomorrow in 2020 by Energy Intelligence, supported by TotalEnergies, Saudi Aramco and Gunvor Group, firmly believes there is an advantage in knowing people of different backgrounds in an ever-connected world.

To transmit this unforgettable and precious experience to his fellow junior in the society, the unstoppable Abdallah swiftly initiated a virtual talk upon returning to the campus, by collaborating with other student chapters' representatives from Oman, India and Indonesia. "In this joint event, we shared our experience of participating in IPTC 2022."

A group picture of all the selected students from around the world to the IPTC Education Week, IPTC 2022, held at the Riyadh International Convention and Exhibition Centre, Riyadh, Kingdom of Saudi Arabia.

Recognising his vast co-curricular experiences, SPE APU Advisor, Ts. Harvin Kaur Gurchran Singh affirmed, "This is not the only international arena that Abdallah has gone to, he had earlier represented his chapter and university in worldwide conferences, including the SPE Annual Technology Conference and Exhibition (ATCE 2021), and was one of the rapporteurs of the UN Youth Forum on crime prevention and criminal justice, Kyoto 2020."

"For competencies in professional knowledge, people skills and working attitude that he demonstrated, I think he has shown high potential to develop into a competent Petroleum Engineer in the future," Harvin continued.

Abdallah's achievement impressed **APU's Chief Innovation & Enterprise Officer, Prof. Ir. Ts. Dr. Vinesh Thiruchelvam**, as he commented, "As academics, we can open the door, but students must enter into it by themselves, this was exactly what Abdallah did. He ventured and explored opportunities on his own effort and initiative. His maturity and his pursuit of engineering led him to this achievement."

KEY ENGAGEMENTS UNDER SDG 7 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Feb-22	Poised To Shine On A Career Path In Petroleum Engineering	https://www.apu.edu.my/media/news/2506

APU SWEEPS 14 FUSION UX 2022 AWARDS, INCLUDING GOLD & SPECIAL AWARDS

Asia Pacific University of Technology & Innovation (APU) had a memorable moment a the virtual **4th National Symposium on Human Computer Interaction - FUSION 2022: Student Design Competition**; winning Gold award for development category, as well as three Silver awards, five Bronze awards, three special jury awards for best poster and best video, and two lucky draws.

FUSION 2022 is organised by the **Kuala Lumpur ACM SIGCHI Chapter (myHCI-UX)** and supported by **ACM SIGCHI**, with the theme 'Designing a Sustainable Future' which looks into ideas and solutions that address the 17 United Nations (UN) Sustainable Design Goals (SDG).

The organisers call for action, particularly in the areas of Good Health and Well-being (SDG #3), Quality Education (SDG #4), and Decent Work and Economic Growth (SDG #8), which are important to young people in Malaysia and around the world.

The judging panel consisted of local industry leaders who evaluated entries based on merit, integrity, performance and raising awareness on human-computer interaction (HCI) and user experience (UX).

Team **TRAVO**: **Theenesh Sivakumar and Gells Tan Yin Zhao**, both Computer Science with a specialism in Data Analytics students, received the Gold award for their design **The Selangor Tourism Chatbot,** with the tagline 'Fulfill your desires with your ideal vacation'; the same design also received **special jury awards for best poster and best video.**

Data Analytics students Theenesh and Gells display the prototype design of TRAVO: The Selangor Tourism Chatbot.

Commenting on this accolade, Theenesh stated that it was an honour for him and Gells to be able to represent APU for Fusion 2022 and that throughout the competition, they were able to learn a lot about various topics, primarily pertaining to workplace experiences and situations.

"When we first entered this competition, we knew it would be difficult to win because all of the other participants were either final-year students or working adults with far more experience than us.

"However, this did not dampen our spirits as we continued to work very hard in order to create a system capable of sustaining the future of the world in which we live, with so many different experts providing us with valuable insight based on their experiences in the industry and what we should do to make the most of it," said Theenesh and Gells.

"Overall, it was a fantastic experience, and we would like to thank our supervisors, Ts Dr Vinothini Kasinathan and Ms Nur Amira Abdul Majid, for guiding us on this incredible journey. We would absolutely like to represent APU in future competitions."

Here are the other winners from APU in FUSION 2022.

BANK ISLAM & APU CONSTRUCTING DIGITAL TALENT PIPELINE

Bank Islam Malaysia Berhad (Bank Islam) and Asia Pacific University of Technology & Innovation (APU) officially formalised a mutual working partnership to reinforce the Bank's digital talent pipeline through a number of strategic initiatives, which include graduate work placements through talent hiring and internship programmes, Bank Islam's participation in APU's Industry Advisory Panel (IAP) and allowing the Bank to tap into APU's expertise to upskill and reskill its employees' digital capabilities.

The collaboration was formalised on 21 July 2022 through a Memorandum of Understanding signed by **Mr Iskandar Shah Zulkarnain**, Group Chief Human Resources Officer, Bank Islam and **Mr Mohd Helmy Norman**, Chief Financial Officer, APU. Witnessing the event that was held at APU's campus were **Mr Mohd Muazzam Mohamed**, Group Chief Executive Officer, Bank Islam and **Datuk Parmjit Singh**, Chief Executive Officer, APU.

APU is the first private university in Malaysia selected by Bank Islam to formalise such a working relationship.

"The partnership with APU is essential as our view of digitalisation is holistic. Bank Islam's digital transformation journey is a moving target and constantly evolves with our growth.

The Bank invests not just in enhancing our technology capabilities but also in building our digital talents. We can't do this alone but always explore ways to enhance our capabilities through partnerships with the best in the digital space in academia and the industry," said Mohd Muazzam.

Bank Islam and APU's mutual working partnership is now formalised and celebrated by (from left) Bank Islam's Group Chief Executive Officer Mr Mohd Muazzam Mohamed, Group Chief Human Resources Officer Mr Iskandar Shah Zulkarnain; APU's Chief Financial Officer Mr Mohd Helmy Norman, and Chief Executive Officer Datuk Parmjit Singh.

"APU is proud to be chosen by Bank Islam and this is evidence of our steadfast commitment to provide high-quality tertiary education with a unique fusion of technology, innovation and creativity that has been well received by industry players," said Parmjit Singh.

Senior leadership and staff of both Bank Islam and APU celebrate the newly formed partnership by documenting this important moment with a group photo.

Under this collaboration, Bank Islam aims to take in highly competent, employable, and future-proof professionals from APU to fulfil critical requirements in digital roles. These include IT Architects, Process Consultant, Business Analysts, Organisational Change & Comms, IT Developer, Cloud or Infra Engineer, UI/UX Designer, Data Engineers and many more.

The participation of Bank Islam in APU's Industry Advisory Panel (IAP) will enable both parties to collaborate in developing and reviewing programme curricula, with leaders from Bank Islam providing timely insights on industry requirements for sustaining the digital pipeline for the bank and the job market generally.

Through a collaboration with Bank Islam Digital Academy, APU will support its digital upskilling and reskilling agenda by offering professional training and certification programmes for Bank Islam's employees of all levels. This effort aims to fulfil the digital needs crucial for the Bank's digital transformation journey.

APU MEGA CAREER FAIR MAKES A GRAND RETURN

Over 7,500 jobs offered, 120 employers, 14 industries, and thousands of CVs received

A very strong turnout saw APU's Mega Career Fair making a glorious return after two years of interruption by the global pandemic. Thousands of visitors and job seekers thronged the 120 booths set up for a day at the Asia Pacific University of Technology & Innovation (APU) campus on 29th June 2022.

More than 400 recruiting personnel from top-notch companies and brands in 14 different industries, were awed by the enthusiastic participation of APU's graduating and existing students as well as walk-in visitors beyond APU.

Exhibition booths by 120 employers that are made up of top-notch companies and brands in 14 different industries receive fervent attendance from the graduating students as well as walk-in visitors beyond APU.

Brands that were seen putting up their recruiting booths for this mega event included AirAsia, Maybank, Alliance Bank, Arvato Systems, Bank Islam, Bank Negara Malaysia, BDO, CIMB Bank, Coca-Cola, DHL, DKSH, Epson, Fusionex, Great Eastern, Habib Group, Hilti IT Services, Hong Leong Bank, Micron Memory, POS Malaysia, Public Bank, PwC, Schlumberger, Sun Life Malaysia, Tata Consultancy Services, Maxis, Deloitte, KPMG, Standard Chartered Bank and many more.

"I have been informed, that the registered number of vacancies offered includes 3498 full-time positions and about 3000 internships, which added up to more than 6400 job positions," enthused APU's CEO **Datuk Parmjit Singh**, addressing industry players at the talent partners engagement session, an opening for the career fair.

50% of the above companies were open to hiring international students, echoing the multicultural demographic at APU with an international student community of more than 13,000 students from more than 130 countries.

"APU is considered to be a Professional Development Institution in keeping with its vision of ensuring that our students emerge as professionals and not merely graduate with a degree. You can reasonably rest assured that the graduates of APU would be professionally guided with highly competency-based courses," Parmjit told the brand leaders.

A throng of visitors and job seekers crowding at the booths set at the APU Mega Career Fair, the first physical Career Fair on campus after a two-year hiatus.

A representative from Hilti Corporation, a Liechtenstein multinational company and also APU's strategic partner, explains the job offered to the booth visitors.

Elaborating on the success factors of such a physical event since the pandemic, Prof. **Dr. Ho Chin Kuan**, APU's Vice-Chancellor opined, "We set out to ensure that both stakeholders – employers as well as students – fully enjoyed the best possible experience and hospitality on campus.

"There was continuous engagement with both employers and students leading up the event to ensure that they received timely updates and knew exactly what to expect and more importantly, how they would be able to maximise the impact from attending the event.

According to him, despite some students still in their hometowns and home countries, they were encouraged to send their CVs to the organiser to be made available to all employers. Close to a thousand CVs from students were received as a result of this initiative.

In conjunction with the mega career fair, APU also launched its "Exclusive Partner Engagement Programme" which is a unique model of collaboration where the university will assist employers in the key areas of Talent Acquisition, Upskilling and Retention.

"I think APU has done a better job compared to many others in preparing their students or young professionals to come into the workforce," stated **Sanjay Sidhu**, Executive Director, BDO Governance Advisory Sdn. Bhd.

Sanjay expressed his happiness for BDO, the 5th largest accounting firm in the world, to formalise its partnership with APU under the engagement programme. "Today, we are formalising our position as a partner of APU, and we are looking forward to that turning into recruitment."

BDO has hired APU graduates since six years ago and for this event, Sanjay was accompanied by his two co-workers who had earlier graduated from APU with a BA (Hons) in Accounting and Finance – specialising in Forensic Accounting degree, and the other with a BSc (Hons) in Computer Science degree.

"They are two of my higher performers, two pillars of students that I am involved with. What I see in them is an absolute combination of 'I can do' and 'I need to learn something new' spirit – a desire for constant self-improvement," Sanjay elaborated.

"Right now, we are looking to hire people for the forensic unit, IT, and cybersecurity. Apart from academic performance, what I am looking for from job seekers is the attitude, enthusiasm, and people who can appreciate the hurdles and come back to me with their alternate approaches, confidence and creativity,

"I am satisfied with the talent search today. I have seen many very promising resumes, and I have spoken to very promising people. I am happy," Sanjay winded up.

Syakirah Aisha, a human resources personnel from AceTeam Networks, an IT solutions provider, shared, "This is our first time joining the mega career fair with APU, we didn't expect the turnout would be so good. It is a very good experience. We are targeting to recruit four cloud engineers, two network security engineers, and we also have positions like product managers."

"I think today's response in the career fair is a clear testimony to what APU students stand for and what you can see from them, the drive! Today's response shows that APU students want to drive their success throughout their campus career and also

KPMG, a global network of professional firms providing audit, tax, and advisory services, is offering jobs on the spot and actively recruiting potential employees at APU Mega Career Fair.

follow up with their actual careers," said **Vishnu Varthan**, Hilti Asia IT Services.

It is worth mentioning that there were also jobs offered on the spot by employers like KPMG and Maybank, recruiting the most suitable candidates who meet the job requirement.

Generally, the positive feedback from employers bears testimony to the distinctive quality of APU's students that has been a key differentiator for Asia Pacific Institute of Information Technology (APIIT) and then APU in the industry for the past 30 years since APIIT was established. This also reaffirmed the Institution's consistently strong employability record over the years, including achieving 100% employability in the Tracer Study conducted by the Ministry of Higher Education.

The event had created golden opportunities for APU's graduating students to secure employment and internship, whereas the job recruiters had first-hand, direct access to a large pool of talented, professionally developed students.

"I have submitted my resume at the booths of Deloitte, Swift, Philip Capital, Schlumberger, and Finiro Capital Management because the jobs offered by these companies are relevant to my degree in International Business Management," said **Kizuna Kuramoto**, an international student from Japan.

"I am interested in and looking for a cybersecurity job because it is my major, and today is my first step toward finding the job I want the most, conveniently at the campus," said **Snirnov Matrey** from Khazastan.

The event even attracted undergraduates beyond APU, as **Racheal Bingas, Siti Nabilah Mohd Noor and Norliana Akilah Mohammad Adam** walked in from Universiti Kuala Lumpur (UniKL) and discovered that the event was a good opportunity for all graduates to come and look for a job. They shared that they would like to give it a try after seeing an advertisement on APU's Instagram.

Summarising the outcome of APU Career Fair 2022, Prof. Dr. Ho shared, "It was very heartwarming to see many of our amazing alumni coming back to campus representing their companies to recruit our current graduates and students. We are delighted with the enthusiastic response that we received from employers.

"Even more gratifying were the highly positive comments received from employers during and after the event regarding the quality of our students, the organisation of the event and the APU campus itself. We will plan to organise events such as this regularly in the future, just as we did before the pandemic," he concluded.

GUIDING MILLENNIAL STUDENTS TO EXPERIMENT WITH THEIR OWN START-UPS

Budding entrepreneurs at Asia Pacific University feel empowered to crystallise ideas, build organisations brick by brick

(From left) Sharvin Ravindran, Vishal Maheshwari, Prof Angeline Yee and Kirana Maharani believe start-ups are the way forward for millennials.

KUALA LUMPUR – Vishal Maheshwari, Kirana Maharani and Sharvin Ravindran share a common bond. All three believe that developing a start-up – an enterprise at its nascent stage – provides a pathway to bigger and better opportunities for themselves, as opposed to working as salaried employees.

They subscribe to the view that building a brand and a name in the field of business and entrepreneurship through budding companies with strong potential is the future for millennials.

Currently all three are final-year students at Asia Pacific University of Technology and Innovation (APU), where they attend different schools of study. Vishal and Kirana are international students.

Vishal attends classes at the School of Technology, pursuing an IT degree specialising in business information systems, while Kirana is at the School of Business where she is studying for a business management degree, specialising in e-commerce. Sharvin is pursuing software engineering studies at the School of Computing.

Their common dream is to develop and build their own start-ups with mentorship from successful industry partners. They are currently looking forward to attending an Entrepreneurship Summit slated to take place at APU in August this year.

"The exposure at APU has been great," said Kirana, who hopes to bring the ideas and connections she makes here back to her native Bali in Indonesia.

We have made so many connections with industry leaders and have had time to think through our plans and ideas for e-commerce start-ups."

Prof Angelina Yee, who is director of research and enterprise at APU, feels it is important to impart entrepreneurship DNA into students, regardless of their field of study.

The Enterprise @ APU forum provides a platform for students to explore their entrepreneurial ambitions and to bring ideas to reality. It features the APU SandBox Incubation Centre (ASBX) that organises talent development programmes on campus, which provides a pathway for students to have entrepreneurship as a career option.

"The Enterprise @ APU is composed of a team of 23 APU academics with technology and business expertise, and has more than 200 student participants in their programmes, with one aim – to build their entrepreneurial skills and transform their mindset," Yee said.

"The programmes will help students test the viability of their ideas, pitch to potential investors, grow their business ventures and address challenges faced.

"Throughout the programmes, they are in touch with an appointed industry mentor," she added.

Aspiring future entrepreneurs at APU regularly discuss initiatives for their start-ups.

Currently, one such initiative is the "start-up weekend", an idea-formation boot camp organised twice a year. It provides an opportunity for enterprising students to work as a team to transform their start-up ideas to reality.

One such initiative organised in March 2022 attracted the interest of 54 participants, who brainstormed their start-up concepts from all angles.

The group winner for the start-up weekend this year was "Foodport", headed by Vishal, with the idea to design an app that directs trucks to locations where the largest customer clusters can be found.

"The idea for the two-way GPS was to allow customers in need of food trucks to track the location of their chosen food trucks, and for food trucks to head to large clusters of much-needed customers," said Vishal.

Students forge own ideas, build on own forte

Kirana feels that luxury brands are craved by many but are quite unaffordable. So she decided to create a platform for the rental of luxury branded labels, to allow those interested to wear such items for a day, or even a month, depending on how long they can afford to rent.

"The platform, 'Luxon', is now in the process of being refined and my team is working out how to market and sell the platform," said Kirana, who feels that while there is demand for luxury items, few can afford to buy them.

"Perhaps, a start-up that offers rental is a better option," she said.

Sharvin, who chose to complete his 16-week internship at ASBX, said it gave him the opportunity to "forge his own ideas" and he decided board games are his forte.

He hopes his new board game, Master of the Eeons, will be marketable in the future, with other board games in the pipeline.

Vishal, currently vice-president of the Enterprise Club, also known as the e-Club, feels passionate about the organisation set up for students by students.

"At the committee level, we organise multiple workshops and activities for the students to develop and train their minds to think as an entrepreneur would.

As a good example, Jason Chew, the founder of the codeless movement in Malaysia and CEO of KopiDao, taught students to create their very own minimal viable products (MVPs) with minimum coding," Vishal recalled.

"The students are taken on company visits so they can see first-hand how a company was created, built and scaled-up, and the various challenges faced by the founders."

He added that a Venture Day Carnival, jointly organised by the e-Club with eight other clubs in APU on June 18, provided a platform for students to test their marketing skills in promoting their newly created products.

Aspiring future entrepreneurs at APU regularly discuss initiatives for their start-ups.

Yee also said that APU supports Malaysia's National Entrepreneurship Policy, where the nation aspires to become an outstanding entrepreneurial nation by 2030.

"In support, APU further expanded its initiative to include nine other universities in Asean and Africa, mainly to exchange knowledge and skills among the various universities, providing a further platform for the enterprising students," she added.

The nine universities involved from across the Asean region are Tra Vinh University and Can Tho University in Vietnam; Universitas Trisakti, Telkom University and Universitas Indonesia in Indonesia; Palawan State University in the Philippines; Chea Sim University of Kamchaymear in Cambodia; and the National University of Laos, while an institution from Africa, the University of Mpumalanga in South Africa, is also part of the initiative.

With the cross-border programme, Yee hopes APU students and staff, as well as those from the nine universities, can collaborate through mutual visits; access to facilities in incubation centres; understanding and accessing each other's markets; and joint research related to entrepreneurship.

MAB ACADEMY JOINS FORCES WITH APU TO RESKILL & UPSKILL AVIATION CREWS

This collaborative initiative also promotes industry-academia tech knowledge sharing

MAB Academy, a one-stop aviation and hospitality centre, recently inked a Memorandum of Understanding with the Premier Digital Tech Institution – Asia Pacific University of Technology & Innovation (APU), as part of its efforts to future-proof and instil digital readiness within the workforce of its parent company, Malaysia Aviation Group (MAG). This is in line with global trends where new technologies are changing work and labour patterns that will significantly change employees' core skills .

The partnership seeks to identify and implement upskilling initiatives for MAG employees to stay on top of emerging technology trends that can be applied to further improve its airlines and non-airlines services, particularly in areas of security, fuel efficiency, flight planning, and customer experience among others.

This collaboration between both parties was formalised by **Captain Kamarudin Kamilin,** Chief Executive Officer, MAB Academy; and **Datuk Parmjit Singh**, Chief Executive Officer, APU at APU's campus, Technology Park Malaysia, Bukit Jalil, Kuala Lumpur.

Datuk Parmjit Singh, Chief Executive Officer, APU (left) and Captain Kamarudin Kamilin, Chief Executive Officer, MAB Academy, formalised the collaboration through an MoU signing ceremony.

Captain Kamaruddin commented, "Together with APU, we will continue to heighten our efforts in building a robust talent ecosystem and enhancing the skills and capabilities of the workforce, especially in the aviation industry, aligned with the national agenda to enhance digitalisation, improve digital infrastructure, and build a more trusted and secure digital environment."

Concurring, Datuk Parmjit Singh said, "This is an interesting programme and I am excited to see the first collaboration between us and MAB Academy, for it is a starting point to sharpen our hired hands through micro-credentialing that can be accepted as credits for an academic degree, even up to the Masters' level. I hope this relationship continues to reinforce APU's status as a Premier Digital Technology University as endorsed by the Malaysia Digital Economy Corporation (MDEC). In addition, the collaboration will also allow our students and staff the possibility of applying their skills and knowledge in technology and innovation, by working on joint research projects with MAB Academy."

Moving ahead, APU and MAB Academy will include micro-credential offerings – such as Leading Digital Business Transformation, Digital Strategy & Analytics, Digital Marketing, Digital Finance, Digital Thinking & Innovation, Artificial Intelligence (AI), Internet of Things (IoT), Virtual / Augmented Reality (AR/VR), Security & Forensic Tech, Data Management – between the various tech-focused courses held, such as Professional Certificate in Digital Leadership, and Professional Certificate in Digital Technology.

At the same time, this valuable collaborative tie will also benefit graduating students from APU through opportunities for job placement at MAB Academy.

A group picture of signatories and senior management representatives of MAB Academy and APU after the industry-academia collaboration was officially formalised.

KEY ENGAGEMENTS UNDER SDG 8 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Feb-22	CEO of Asia Pacific University Sdn Bhd Datuk Parmjit Singh named EY Entrepreneur Of The Year (EOY) 2021 Malaysia.	https://www.apu.edu.my/media/news/2504
2	Mar-22	Collaboration Between Asia Pacific University of Technology & Innovation (APU) and Nine Universities in ASEAN and Africa	https://www.apu.edu.my/media/news/2499
3	May-22	Team Bonding Activities at APU	https://www.apu.edu.my/media/news/2674
4	May-22	MAB Academy and APU Collaborate to Enhance Workforce Digital Readiness	https://www.apu.edu.my/media/news/2552
5	May-22	CMT Association Partners With Asia Pacific University Of Technology	https://www.apu.edu.my/media/news/2500
6	Jun-22	Venture Day Carnival 2022: Fostering Entrepreneurship and Social Responsibility	https://www.apu.edu.my/media/news/2707
7	Jun-22	Trip to explore Malaysia's Cameron Highlands	https://www.apu.edu.my/media/news/2618
8	Jun-22	APU's Information Technology & Computer Science Students Won Multiple Awards At International Innovation Arsvot Malaysia 2022	https://www.apu.edu.my/media/news/2604
9	Jun-22	APU Mega Career Fair 2022	https://www.apu.edu.my/media/news/2599
10	Jun-22	APU Grads Are Media And Communication Experts Of The Future	https://www.apu.edu.my/media/news/2597
11	Jun-22	APU Redesigns Curriculum To Future-proof Business Graduates	https://www.apu.edu.my/media/news/2591
12	Jun-22	Nurturing Future Entrepreneurs: Start-up Weekend	https://www.apu.edu.my/media/news/2587
13	Jun-22	Digital Skills For The Era Of IR 4.0 In Facing The VUCA World	https://www.apu.edu.my/media/news/2585
14	Jun-22	Coming Out Stronger With UK Based CMI Dual Accredited Degree At APU	https://www.apu.edu.my/media/news/2577
15	Jun-22	APU's Master of Project Management (MPM) Program Receives GAC-PMI Accreditation	https://www.apu.edu.my/media/news/2559
16	Jul-22	Virandeep Singh, an International Business Management student at APU, becomes the first Malaysian to score 1,000 runs in Twenty20 International (T20I) cricket	https://www.apu.edu.my/media/news/2686
17	Jul-22	8th Consecutive Year Of IEM Gold Medal Awards For APU Engineering Students	https://www.apu.edu.my/media/news/2670
18	Jul-22	ERASMUS+ FRIENDS Project Malaysia National Conference On Internationalisation At Home (IaH)	https://www.apu.edu.my/media/news/2669
19	Jul-22	UNITEN Valorant Championship 2022	https://www.apu.edu.my/media/news/2613
20	Jul-22	Maybank Techies Internship Programme Launched At APU	https://www.apu.edu.my/media/news/2609
21	Jul-22	Collaboration between Bank Islam & APU Constructing on Digital Talent Pipeline	https://www.apu.edu.my/media/news/2606
22	Aug-22	APUBCC 1st Anniversary Celebration: Nurturing Blockchain and Crypto Enthusiasts in Malaysia	https://www.apu.edu.my/media/news/2705
23	Aug-22	Wrisie Chatbot Wins Silver Awards At I-RIA 2022	https://www.apu.edu.my/media/news/2700
24	Aug-22	Sohan Singh From APU Hits The Right Notes At The World Pipe Band Championship 2022	https://www.apu.edu.my/media/news/2699
25	Aug-22	Prof. Ts. Dr. Murali Raman, Deputy Vice-Chancellor (Academic Development & Strategy) at APU, and his team have been awarded the Fundamental Research Grant Scheme (FRGS) 2022	https://www.apu.edu.my/media/news/2687
26	Aug-22	APU's contingents at SUKIPT 2022 secured a total of 15 medals in various sports, showcasing their excellence and competitive spirit	https://www.apu.edu.my/media/news/2685
27	Sep-22	4th National Symposium on Human Computer Interaction - FUSION 2022: Student Design Competition	https://www.apu.edu.my/media/news/2737
28	Oct-22	Bett Asia Leadership Summit 2022	https://www.apu.edu.my/media/news/2728
29	Oct-22	Entrepreneurs-In-The-Making Solving Real-World Problems	https://www.apu.edu.my/media/news/2722
30	Nov-22	Monstar Asia Young Talent Awards 2022 - "The Extroverted Introvert: A Transformation Story"	https://www.apu.edu.my/media/news/2744
31	Nov-22	Signing of an Industry-Academia Collaboration (IAC) between the School of Business at Asia Pacific University of Technology & Innovation (APU) and Tech Murah	https://www.apu.edu.my/media/news/2720
32	Oct 2022 - Dec 2023	CSR Programme To Help Underprivileged Children Acquire Digital Skills	https://www.apu.edu.my/media/news/2706

TEAM HORIZON FINISHED 1ST RUNNER-UP IN THE SEAR PLC DESIGN COMPETITION 2022

Scribbles the general system requirements for Automation Studio in OneNote and manages to clarify the required function block as well as the system components with one another based on the team's understanding

Every engineering student is encouraged to learn new technologies and exhibit skills required of future engineers who operate in a disruptive technological environment. Future graduates also have to exhibit creativity and innovation in solving problems.

That is exactly what our Engineering students **Wong Chee Kei, Suah Jing Ye and Wong Chee Sheng (team Horizon)** did recently. The trio qualified for the finals round of the SEAR PLC Design Competition 2022, where they finished 1st runner up.

The SEAR PLC Design Competition 2022 jointly organized by Institution of Mechanical Engineers, Asia Pacific University of Technology & Innovation (APU) and Republic Polytechnic Singapore.

Prior to the competition, the event organiser held a workshop on the use of Automation Studio to familiarise participants with the layout and fundamentals, allowing them to better understand the software.

Automation Studio is a circuit design, simulation and project documentation software for fluid power systems and electrical projects conceived by Famic Technologies Inc.

It is used in CAD, maintenance, and training. Engineers, trainers, and service and maintenance personnel are the primary users. Automation Studio can be used for hydraulics, pneumatics, HMI, and electrical control system design, training, and troubleshooting.

The educational version of Automation Studio is a simplified version that engineering and technical universities use to train future engineers and technicians. The software is designed for use in universities that teach technical subjects like industrial technologies, mechatronics, electromechanical technologies, electrical & electronics, automation, and maintenance. Modelling and simulation are used to demonstrate theoretical aspects.

All participants were surprised by the missing runtime directory (error) that was discovered in all software installations after installing both the software and the material from Google Drive, which was a hindrance. And in order to solve this, they must communicate via the Team channel provided by the organiser during the competition.

PLC Design Competition 2022

Two pumps are used to pump chemicals from the factory nearby as part of the chemical mixing process for a chemical plant shown in Figure 1 below. The operational logic of this mixer shall be controlled by a **Programmable Logic Controller (PLC)**.

The control logic shall be as below:-

1. Start pushbutton **StartPB** is used to turn on **Pump A**.
2. **Pump A** will turn on for 10 seconds.
3. After Pump A is turned off, the **Mixer M1** will turn on for 5 seconds.
4. After the Mixer M1 is turned off, **Pump B** will turn on for 8 seconds.
5. After Pump B is turned off, the Mixer M1 will turn on for 5 seconds.
6. Step 2 to 5 are repeated until Limit Switch **S1** or Limit Switch **S2** is activated, which indicates that the tank is full.
7. When the tank is full, the drain valve V1 will open to release the excess chemical.
8. A counter keeps track of how many times the StartPB has been pressed. The counter can be reset by the Reset Pushbutton **ResetPB**.

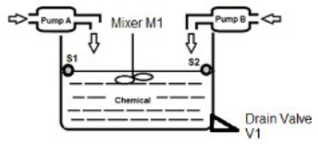


Figure 1: Chemical plant

You are required to do the following

1) Program the control logic above using PLC **ladder logic**
2) Design a user interface as HMI to allow the control of plant using the pushbuttons (Start Stop and Reset). The HMI should also show status of pumps, mixer, drain valve and counter. Feel free to choose the best widgets to represent the equipment.
3) **Add 2 backup pumps of the chemical plant, in case Pump A or B fails. You are to do additional logic and HMI. State your own assumptions and explain why.**

The question was shared from a Google doc, and the competition lasted 3.5 hours in total.

Team Horizon scribbles the general system requirements in OneNote and manages to clarify the required function block as well as the system components with one another based on their understanding.

Following that, they began building the system from the first step and progressed to the fifth steps. Their group approached the problem from a programming standpoint, using flags and variables to solve it, but they quickly realised that it was not feasible due to the nature of the software.

They devote considerable time to determining how to prevent the system from entering an infinite loop in steps 4 and 5. When they did, the time remaining was insufficient to complete the rest of the question.

Team Horizon were unable to complete the question and only managed to successfully build up to step 5 without error, but they were able to submit the file along with the simulation video to the link provided and began to prepare their 5-minute presentation, followed by a 5-minute Q&A session.

"We gained many experiences from this competition, and with the guidance of our mentor, **Ts. Dr. Arun Seeralan Balakrishnan**, we were able to properly utilise the software with the fundamentals required to initiate the programme.

"The competition was enjoyable and interesting for us because it was our first time participating in such an event. Our team is looking forward to the next opportunity to broaden our 'horizon'," said Jing Ye, representing team Horizon.

Ts. Dr. Arun mentioned that team Horizon gave an excellent presentation on their programme and was very thorough in their explanation.

"When the results were announced, Horizon was overjoyed to learn that they had won 1st runner-up," he explained.

IUCEL AWARDS FOR 5 APU TEAMS

Agricultural, traditional instruments, protection and system identification bots attract jury's attention in the virtual IIDEL category

Innovation that is stimulated through the education sector, requires a person to be dynamic, resilient, adaptable, innovative, and creative as we have witnessed during the COVID-19 pandemic.

This matter was emphasised by **International University Carnival on E-Learning (IUCEL) 2022** — a platform that promotes, explores and shares global best practices and expertise in e-learning applications across various learning institutions around the world.

The organiser of IUCEL 2022 theme 'Innovating Education for a Better Tomorrow', aims to promote, explore, and share best practises and global expertise in e-Learning at all levels of learning institutions from around the world.

In 2021, **Asia Pacific University of Technology & Innovation (APU)** won three awards in the Invention, Innovation, and Design on e-Learning (IIDEL) category. The successful trend continued this year where APU took home **five awards: four silver and one bronze.**

The IIDEL competition featured nearly 300 teams, the majority of which were a final year and postgraduate students from various local universities including international universities from Malaysia, Singapore, and Indonesia.

APU, on the other hand, sent several junior and senior teams to gain experience and showcase their innovative ideas.

Team 1 formed by **Cristina Mahanta** and her teammates **Ghassan Y. J. Rashwan** and **Wong Tze Byng** introduces Chamobot.

Chamobot is a chatbot that promotes Chamomile as a digital learning medium that benefits agricultural producers and diversifies the medium of spreading knowledge.

They build this system for their Introduction to Artificial Intelligence (AI) module in level 1, semester 2 of their Software Engineering Degree, and they are now in their second year.

Tan Xiu Haw, a Diploma in Information and Communication Technology student representing team 2 presented Gambot, an expert system designed to guide and assist people seeking information about Gambus.

This system will ensure users have a great experience by providing them with some quick quizzes as well as bringing back traditional Malay music instruments.

Diploma in Information and Communication Technology with a specialism in Software Engineering students **Ng Jian Wei, Tan Siew Nee, and Tan Yi Ting** from team 3 presented KomX, a knowledge-based chatbot that promotes Kompang to both locals and foreigners interested in learning more about traditional Malaysian hand drums.

Furthermore, the chatbot can answer any questions a user may have about Kompang, and the topics covered by the KomX chatbot include the history of Kompang, where to buy Kompang, the roles of performers and events where a Kompang performance will take place, and the myth of Kompang.

Ts. Dr Vinothini Kasinathan and Ms Nur Amira Abdul Majid mentored teams 1, 2, and 3 to silver awards.

Chin Choy Yeng's final year project, Face Mask Detection System: Reduce the Spread of Coronavirus, also received silver awards mentored by **Ts. Dr. Vinothini Kasinathan and Mrs Hairul Asya Abdul Halim Sithiq.**

This Computer Science student with a specialism in Intelligent Systems developed Mask Up, a face mask detection system that would be implemented in educational institutions using deep learning algorithms capable of detecting different types and colours of masks as well as multiple faces at the same time.

Meanwhile, **Yap Qin Yue**'s Covid19 Identification System Using CT Scan Images won a bronze award and was mentored by **Ts. Dr Vinothini Kasinathan and Dr Vazeerudeen Hameed.**

"All of the students showed interest in developing Bots, and by participating in this competition, they gained their first experience through an online competition and online presentation mode, answering judges and demoing the system live, which is something to be proud of," said **Ts. Dr. Vinothini** represented all of the teams.

This carnival and competition hosted by Universiti Putra Malaysia (UPM), allowed academics and students from higher learning institutions to showcase their innovative ideas/products/innovation in areas such as learning analytics, virtual/augmented reality, e-learning pedagogy/approach, multimedia tools, computer applications, mobile and systems applications and other related areas.

APU TEAM CROWNED GOLD AT ITEX 2022

Showcasing Creativity and Innovation at the International Level!

APU Team from the Center for Research and Development of IoT (CREDIT) has managed to secure yet another **GOLD Award** at the **33rd International, Invention, Innovation & Technology Exhibition (ITEX 2022)**, since our last Gold award in 2019 which was before the pandemic.

The project which was crowned Gold was a **Firefighting Drone capable of autonomous flight and could be deployed for firefighting autonomously.**

The talents behind the innovation

While drones continue to get more powerful, one thing that stays the same is its ability to quickly reach a vantage point where humans cannot easily get access to.

With this in mind, the team developed an autonomous flying platform to make people's jobs easier and more efficient through better information gathering and surveying. The Firefighter Drones can be sent to fire locations as scouts, **using fire extinguisher retardant balls which incorporates an AI swarm model with cloud analytics of IoT sensor data** that coordinate with the ground station to maximise its firefighting capability.

Stepping up to the challenge was **Rabah Anakkachery** (Team Leader), **Aaron Raj Bhatti, Sharen Chrisan Fabian Perera, Zifaan Abdulla, Ng Joo Kiat, Ryan Teo Han Ji & Cajun Tai Ka Joon**, Mechatronics Engineering, Electrical and Electronics Engineering & Computer Engineering students from CREDIT at APU.

From planning to executing the idea, this firefighting drone took the team **12 months** to construct the project from zero to hero.

As the mentor of the team, **Ir. Narendran Ramasenderan** expressed his excitement with the following: -

"The project aims to reduce civilian harm and property damage from fire incidents through an autonomous drone solution. It can immediately respond and aid in evacuation of the civilians through laser-guided sensors which cut through smoke and other elements. It also uses its artificial intelligence solution to determine the best strategy to control or extinguish fire with its payload."

"Apart from supplying firemen with fire characteristics from an aerial view, it can work with them to extinguish the fire with real-time fire analytics. The team worked on a novel solution using the skills and knowledge they acquired in their engineering degree programme at APU."

The judging process was not an easy one, as participants will need to satisfy the following criteria to be qualified as a potential gold medalist:

- **Criterion 1: Novelty and inventiveness** (new, original, creative, unique)
- **Criterion 2: Usefulness and application** (solving problem and contribution to industry)
- **Criterion 3: Presentation and demonstration** (able to demonstrate knowledge, functionality and product readiness)
- **Criterion 4: Market and commercial potential** (market spread, affordability, product market life span)
- **Criterion 5: Environmental Friendliness** (RoHS compliant, recyclable, reusable, renewable)

APU's Team was handpicked to receive the gold award for their ability to map out big fire incidents to coordinate firefighting efforts between humans and drones, as well as its creativity and capability to put out fire remotely from a safe distance which won the heart of the judges. Special Thanks to Prof. Dr. Ir. Ts. Vinesh Thiruchelvam, and Mr. Krishna Ravinchandra for the guidance and support throughout this project.

MPA AND APU SIGN LANDMARK MOA TO BOOST TECHNOLOGICAL SOLUTIONS FOR PROPERTY AND CONSTRUCTION SECTOR

MPA President Dr. Daniele Gambero (left) and Chief Innovation & Enterprise Officer Prof. Ir. Ts. Dr. Vinesh Thiruchelvam signed the MoU recently in Kuala Lumpur during the MPA Annual General Meeting (AGM) dinner.

KUALA LUMPUR, 10 May 2022 — Malaysia PropTech Association (MPA) and Asia Pacific University of Technology & Innovation (APU) signed a historic Memorandum of Agreement (MoA) that will benefit the advancement of technology solutions for Malaysian technology start-ups in the property and construction sector.

MPA President Dr. Daniele Gambero and Chief Innovation & Enterprise Officer Prof. Ir. Ts. Dr. Vinesh Thiruchelvam signed the MoU during the MPA Annual General Meeting (AGM) dinner in Kuala Lumpur, which was attended by more than 80 Proptech companies and officials from the Malaysian Research Accelerator for Technology and Innovation (MRANTI), Malaysia Digital Economy Corporation (MDEC), and Small and Medium Enterprise Corporation Malaysia (SME Corp. Malaysia).

The MoA hereby grants APU a royalty-free, irrevocable, non-transferable, non-exclusive licence to use MPA's Foreground Intellectual Property for non-commercial purposes such as teaching and research on joint industry research projects.

MPA will facilitate industry study visits for APU undergraduate and postgraduate students, as well as mutual visits by staff members, as appropriate, to improve learning experiences, professional development and curriculum development.

In addition, more than 80 proptech companies will receive support through matching, mentoring, connections, and onboarding.

The collaboration's ultimate goal is to prepare future-ready digital talents who can now work on real-world projects arising from a sector that is rapidly digitally transforming.

Highlights of this MoA include :

- MPA's involvement on APU's Industry Advisory Panel (IAP).
- The APU Sandbox team will also have an opportunity to learn from the MPA member start-ups in venture building areas.
- APU students will now be linked with industry-led projects which can be worked on as final year projects, Post-Graduate dissertations or working at MPA registered members/partners.

The MoU's ultimate goal is to prepare a future-ready digital talent who can now work on real-world projects arising from a sector that is rapidly digitally transforming itself.

There is a growing awareness of technological solutions for Malaysian tech start-ups in the property and construction sector throughout Asia, particularly in Malaysia. This MoA between MPA and APU is yet another concrete achievement that strengthens relationships with multiple entities in Malaysia.

According to Dr. Daniele, MPA members — mostly Malaysian tech startups — are very excited about this collaboration with APU and hope to contribute industry insights, workshops, and mentoring APU students.

"In today's fast-changing world, the ability to adapt is a prerequisite for success, and MPA members are eager to collaborate with APU to open students' minds to it and prepare them for the future. Every aspect and layer of our work, learn, and play lives is infiltrated by technology," he explained.

In order to be successful, new digitalized solutions must be developed based on a deep knowledge thorough understanding of the processes and flows of the specific field of application.

"MPA will always be ready to arrange sharing sessions and case study analysis to provide the academic side with real-world insight into pain points, problem statements, and actual needs. We look forward to a long-term constructive collaboration for the benefit of students, academics, and the built environment," Dr. Daniele added.

Meanwhile, Prof. Ir. Ts. Dr. Vinesh stated that the MoA will allow APU to partner with Malaysian tech startups to infuse emerging technologies into the property and construction sector while allowing our talents to engage directly with the industry.

"We are proud and excited to be collaborating with MPA on this historic event. Technological innovation and entrepreneurship DNA have the potential to alter the face and trajectory of a country's tech start-ups.

"Future market stability will be ensured by technologies that have the potential to either improve or transform, preserve and tailor improvement functional values within the sector. Given the size of the market and development potential, as well as Malaysia's exciting tech scene, this partnership has the creadibility to provide incredible opportunities, particularly in the property and construction sector," he concluded.

APU has been awarded the Premier Digital Tech Institute status by the Malaysia Digital Economy Corporation (MDEC) since 2017 for its commitment to offering top-notch digital technology courses and ensuring highly-skilled graduates continue to fill future digital job demands locally and globally. In addition, as a graduate of a Premier Digital Tech Institute, APU students will be accessible to a wide range of resources, internships and job opportunities with top technological firms in Malaysia.

CONGRATULATIONS TO ALL MICROSOFT INNOVATIVE EDUCATOR EXPERTS!

7 APU Educators just earned a spot in the MIE Experts Programme!

Back in September 2021, three of our academicians were recognised as the Microsoft Innovative Educator (MIE) Experts. Today, we are honouring another **7 of our inspiring educators who had worked relentlessly to earn a spot in the second round of the Microsoft Innovative Educator (MIE) Expert programme 2021/2022!**

Each year, Microsoft selects Innovative Educator Experts to be part of this exclusive global community paving the way for their peers to share ideas, try new approaches, and learn from each other.

In an increasingly digital world, technology will continue to evolve. Educators must remain well informed and proactive to developments in technology in education.

To step up their game, our following educators have exhibited their competency in using Microsoft tools extensively in their classes while enriching the teaching and learning experiences to ensure our students are right on track.

- **Dr. Janitha Kularajasingam** (School of Marketing and Management)
- **Ms. Akansha Mandhana** (School of Technology)
- **Mr. Mohamad Firdaus Che Abdul Rani** (School of Computing)
- **Ts. Dr. Siti Azreena Binti Mubin** (School of Computing)
- **Mr. Wong Chung Wei** (School of Computing)
- **Ts. Dr. Alexander Chee Hon Cheong** (School of Engineering)
- **Ms. Goh Yong Lin, Mindy** (School of Media, Arts and Design)

In this MIE Expert programme, educators will be leveraging on the Microsoft technology to achieve new levels of productivity, implement useful digital tools to expand learning opportunities for students, and increase student support and engagement. This also further enhances the overall lesson plans and facilitate personalised learning.

The effective use of MS Teams, MS Whiteboard, MS OneNote and other tools not only makes a class more lively, but they can also create a more inclusive learning environment that stimulates collaboration and inquisitiveness, as well as allowing our lecturers to collect data on student performance.

The MIE Expert programme is an annual programme dedicated to recognising global educator visionaries through self-nomination.

A MIE Expert is exposed to first-hand information and invitation to Microsoft educator conferences & publications, certification and recognition badges as well as gaining access to exclusive Microsoft Educator Network privileges.

Special thanks to **Mr. Jerry Chong Chean Fuh, Ir. Dr. Freddy Tan Kheng Suan and Ms. Sireesha Prathi Gadapa** for initiating the session with our respective academicians in sharing relevant knowledge and necessary training to support our colleagues in becoming better educators!

KEY ENGAGEMENTS UNDER SDG 9 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Jan-22	Explainable Artificial Intelligence (XAI) For Prediction By APU Team Wins AWS Special Award	https://www.apu.edu.my/media/news/2480
2	Feb-22	Varsity Hackathon 2022	https://www.apu.edu.my/media/news/2512
3	Feb-22	IPTC Education Week, a sideline of the International Petroleum Technology Conference (IPTC) 2022	https://www.apu.edu.my/media/news/2506
4	Feb-22	SAF Senior Lecturer Dr Leow Hon Wei's Research Paper Published In An Esteemed Journal	https://www.apu.edu.my/media/news/2491
5	Mar-22	QiZ4U@APU - Internal Edutainment Competition	https://www.apu.edu.my/media/news/2508
6	Mar-22	Collaboration Between APU and CILT Ventures Malaysia for Green Supply Chain and Logistic Excellent Centre (GEC)	https://www.apu.edu.my/media/news/2501
7	Mar-22	CEO of Asia Pacific University Sdn Bhd Datuk Parmjit Singh named EY Entrepreneur Of The Year (EOY) 2021 Malaysia.	https://www.apu.edu.my/media/news/2504
8	Apr-22	APU ISUC Members Soar At TCS Sustainathon Malaysia 2021	https://www.apu.edu.my/media/news/2544
9	Apr-22	Three Musketeers' Wins 2nd Runner Up At Hilti Global IT Competition (ITC) 2022	https://www.apu.edu.my/media/news/2537
10	May-22	APU Team Crowned Gold At ITEX 2022	https://www.apu.edu.my/media/news/2678
11	May-22	MAB Academy and APU Collaborate to Enhance Workforce Digital Readiness	https://www.apu.edu.my/media/news/2552
12	May-22	Malaysia PropTech Association (MPA) and APU Collaborate to Advance Technology Solutions for Property and Construction Start-ups	https://www.apu.edu.my/media/news/2542
13	Jun-22	IUCEL Awards For 5 APU Teams	https://www.apu.edu.my/media/news/2679
14	Jun-22	Emerged 5th In ACP Championship Malaysia 2022	https://www.apu.edu.my/media/news/2615
15	Jun-22	APU's Information Technology & Computer Science Students Won Multiple Awards At International Innovation Arsvot Malaysia 2022	https://www.apu.edu.my/media/news/2604
16	Jun-22	Power Electronics Research In Denmark For Merdeka Grant Award Recipient	https://www.apu.edu.my/media/news/2667
17	Jun-22	Embracing IR 5.0 and Fostering Creativity in Education	https://www.apu.edu.my/media/news/2600
18	Jun-22	Making Learning Fun At The Blockme@APU Competition	https://www.apu.edu.my/media/news/2598
19	Jun-22	APU Grads Are Media And Communication Experts Of The Future	https://www.apu.edu.my/media/news/2597
20	Jun-22	Nurturing Future Entrepreneurs: Start-up Weekend	https://www.apu.edu.my/media/news/2587

21	Jun-22	Overcoming Malaysia's Acute Shortage Of Cybersecurity Professionals	https://www.apu.edu.my/media/news/2586
22	Jun-22	Digital Skills For The Era Of IR 4.0 In Facing The VUCA World	https://www.apu.edu.my/media/news/2585
23	Jun-22	APU's Master of Project Management (MPM) Program Receives GAC-PMI Accreditation	https://www.apu.edu.my/media/news/2559
24	Jul-22	SJK(T) Kinrara Students Excited To Learn Computer Science With ViRa Robot	https://www.apu.edu.my/media/news/2616
25	Jul-22	APU Data Analytics Technoids Emerged Big Winners Of The Data Mining Cup 2022	https://www.apu.edu.my/media/news/2612
26	Jul-22	Actuarial Professionals With Data Analytics And Fintech Specialisation Hold The Advantage	https://www.apu.edu.my/media/news/2610
27	Jul-22	Maybank Techies Internship Programme Launched At APU	https://www.apu.edu.my/media/news/2609
28	Jul-22	Understanding Human Behaviours With High-Tech Equipment	https://www.apu.edu.my/media/news/2607
29	Jul-22	Collaboration between Bank Islam & APU Constructing on Digital Talent Pipeline	https://www.apu.edu.my/media/news/2606
30	Jul-22	APU Professor Appointed As UNESCO Chair	https://www.apu.edu.my/media/news/2602
31	Jul-22	APU Collabs With The Department Of Statistics Malaysia For Driving Data Studies	https://www.apu.edu.my/media/news/2601
32	Aug-22	APUBCC 1st Anniversary Celebration: Nurturing Blockchain and Crypto Enthusiasts in Malaysia	https://www.apu.edu.my/media/news/2705
33	Aug-22	Wrisie Chatbot Wins Silver Awards At I-RIA 2022	https://www.apu.edu.my/media/news/2700
34	Aug-22	Autonomous Wheelchair Prototype Won First Place In IEM Competition	https://www.apu.edu.my/media/news/2694
35	Aug-22	"The Capables" from APU secured joint third place at the ASEAN Finals of Tata Consultancy Services (TCS) Sustainathon 2021 in Singapore	https://www.apu.edu.my/media/news/2690
36	Aug-22	Prof. Ts. Dr. Murali Raman, Deputy Vice-Chancellor (Academic Development & Strategy) at APU, and his team have been awarded the Fundamental Research Grant Scheme (FRGS) 2022	https://www.apu.edu.my/media/news/2687
37	Aug-22	FELDA and APU's strategic collaboration	https://www.apu.edu.my/media/news/2677
38	Aug-22	Strategic University-Industry Collab Between APU And ZEISS	https://www.apu.edu.my/media/news/2676
39	Sep-22	Team Horizon Finished 1st Runner-Up In The Sear PLC Design Competition 2022	https://www.apu.edu.my/media/news/2698
40	Sep-22	Microsoft Innovative Educator (MIE) Expert Programme 2021/2022	https://www.apu.edu.my/media/news/2492
41	Oct-22	APU's Battle of Hackers (BOH) 2022	https://www.apu.edu.my/media/news/2747
42	Oct-22	CSR Programme To Help Underprivileged Children Acquire Digital Skills	https://www.apu.edu.my/media/news/2706
43	Nov-22	APU QR IT SEEK 2022: Edutainment Out-of-Classroom	https://www.apu.edu.my/media/news/2746
44	Nov-22	Ethereum Developers Conference (Devcon) Bogotá	https://www.apu.edu.my/media/news/2732
45	Nov-22	Dr. Lau Chee Yong Certified as IEC Young Professional: Fostering Quality Education and Industry Innovation	https://www.apu.edu.my/media/news/2729
46	Nov-22	Entrepreneurs-In-The-Making Solving Real-World Problems	https://www.apu.edu.my/media/news/2722
47	Nov-22	Signing of an Industry-Academia Collaboration (IAC) between the School of Business at Asia Pacific University of Technology & Innovation (APU) and Tech Murah	https://www.apu.edu.my/media/news/2720
48	Dec-22	APU & DNB Sign MOU to Forge Development Of 5g Curriculum and Related Digital Services	https://www.apu.edu.my/media/news/2748

SJK(T) KINRARA STUDENTS EXCITED TO LEARN COMPUTER SCIENCE WITH VIRA ROBOT

One of SoC & SoT's initiatives to bring B40 students closer to cutting-edge technology

Information Technology (IT) is important in our lives because it helps us deal with the complexities of daily life. We can use technology to improve, develop and exchange information while simplifying tasks and solving many problems.

However, not everyone has the opportunity to learn about cutting-edge technology, especially children in the B40 group, whether in the city or in the countryside.

The **School of Computing (SoC)** took the initiative to visit **SJK (T) Kinrara, Puchong** to share expertise and improve the skills of B40 students in mastering the latest technology.

A total of 40 students from standard 4 to standard 6 participated in this special session which was held in the school hall. On average, they are very excited to learn with **ViRa Robot** with happy faces.

Ts. Dr. Vinothini and Ms Nur Amira, also known as Vino and Amira aka ViRa, created the ViRa Robot.

According to **Ts. Dr. Vinothini Kasinathan, School of Technology (SoT) Senior Lecturer Dr. Veerakumar Soundrapandian** gave them the opportunity to do a special session for primary school children from B40 families.

"The concept of teaching came to us during an invitation by our Student Services to do a one-hour session at Pavilion Bukit Jalil for Computer Science," she explained.

"That unplugged session with the concept of algorithms was well received, which inspired us (Ts Dr Vino and Ms Amira) to come up with this Learning Computer Science ViRa Robot, which makes the learning process easier, especially for primary school students."

Ms Nur Amira Abdul Majid stated that they use the Blokus board game and the paper planes concept to teach students how to use algorithms correctly.

They both hope that this effort will continue in order for technology to be shared from the ground up.

"Ts. Dr. Vinothini and I are hoping for more opportunities to teach underprivileged children as a way of giving back to society," she said.

EMBED SOCIAL CONSCIOUSNESS AND THE VALUES OF VOLUNTEERISM AMONG APU STUDENTS

While students are still pursuing a diploma or degree on campus, APU helps to shape their personality by aiming to mould them into tomorrow's leaders. Before entering the real world, these future graduates are also groomed to becoming social entrepreneurs and good corporate citizens, besides their professional training and academic studies.

To strengthen its commitments towards nurturing students to be self-sufficient, practising empathy, and leading by example, APU has joined hands with **The Giving Bank Foundation (TGB)** – a Malaysian NGO who engage with humanitarian causes and social-cultural efforts locally and internationally.

25 February 2022 was a watershed moment for both APU and TGB, as both parties celebrated their long-standing collaboration towards these goals by signing a Memorandum of Understanding (MoU).

Dr. Hari Narayanan, APU Vice-Chancellor exchange a signed MoU with Dr. Janson Ang, TGB Founder & President (Front row, L-R). Witnessing are (Back row, L-R) Assoc. Prof. Dr. Jason Turner, Mr. Ahmad Nazri Razali, Mr. Kennimrod Sariburaja, Ms. Ashley Mutanaugwa, Mr. Arnaud Morolleau, Prof. Dr. Andy Seddon.

Dr. Hari Narayanan, APU Vice-Chancellor (Left) is signing an MoU with Dr. Janson Ang, TGB Founder & President.

This MoU will embed the values of volunteerism and being a good corporate citizen amongst APU students and promote external engagement in areas such as education, health, humanity culture, sustainability, and the empowerment of women.

Initiated by the School of Business, this MoU highlighted opportunities for all APU students, regardless of the programmes they are studying on, to complete a 4 months internships with TGB.

"This could be achieved by instilling leadership qualities in APU students and developing them into social entrepreneurs who are capable of identifying problems and taking action against unjust social issues.

"They will be able to address social situations and uphold human dignity. Instead of being passive observers, TGB affords students the opportunity to engage with social issues, take the initiative and seek alternative solutions," said **Assoc. Prof. Dr. Jason Turner, APU's School of Business Head**, who attended the signing ceremony.

APU will also host a TGB speaker at the campus each year as part of the APU International Relations Speaker Series. Overall, the MoU strengthens and expands the network of collaboration between the two institutions.

"It's an honour to be partnered with APU with the same goal of nurturing students to be the best they can be," said D**r. Janson Ang, Founder & President, TGB**. "The youth are the future and need all the guidance they can get. Helping them to be in touch with the world and their humanity is our mission," added **Ms. Ashley Yemurai Mutanaugwa, Youth Division Director, TGB.**

"We are delighted to formalise the relationship we have with The Giving Bank Foundation and the opportunities it affords our students. Graduates from APU embody the values of the institution, professionalism, creative problem solving, a global and social mindset and high emotional intelligence.

"Engaging with TGB reinforces these values, providing internship and business-related opportunities and exposure. For universities to add further value to the student experience, such partnerships are important to create not only the graduates of tomorrow but the leaders of today," concluded **Dr. Hari Narayanan, APU's Vice-Chancellor.**

The signing ceremony was also attended by Mr. Arnaud Marolleau, Vice President, TGB; Prof. Dr. Andy Seddon, Senior Director, Partnerships & Standards, APU; Mr. Kennimrod Sariburaja, Programme Leader, International Relations, APU; and Mr. Ahmad Nazri, Academic Leader, Law, Economics & International Relations, APU.

KEY ENGAGEMENTS UNDER SDG 10 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Feb-22	Memorandum of Understanding (MoU) Signing Between Asia Pacific University of Technology & Innovation (APU) and The Giving Bank Foundation (TGB)	https://www.apu.edu.my/media/news/2497
2	Apr-22	Ihya' Ramadan 2022: Preparation of 'Bubur Lambuk' for Orphans and the Underprivileged	https://www.apu.edu.my/media/news/2539
3	May-22	Serving The Needy And Underprivileged For Aidilfitri 2022	https://www.apu.edu.my/media/news/2576
4	May-22	Raya Gathering with Special People - APU Clubs & Societies Visit to Raudhathul Al-Faeez Orphanage	https://www.apu.edu.my/media/news/2573
5	May-22	31st Hanoi 2021 SEA Games - Men's 3m Springboard Synchronised Diving	https://www.apu.edu.my/media/news/2541
6	Jun-22	Venture Day Carnival 2022: Fostering Entrepreneurship and Social Responsibility	https://www.apu.edu.my/media/news/2707
7	Jul-22	ERASMUS+ FRIENDS Project Malaysia National Conference On Internationalisation At Home (IaH)	https://www.apu.edu.my/media/news/2669
8	Jul-22	SJK(T) Kinrara Students Excited To Learn Computer Science With ViRa Robot	https://www.apu.edu.my/media/news/2616
9	Aug-22	APUBCC 1st Anniversary Celebration: Nurturing Blockchain and Crypto Enthusiasts in Malaysia	https://www.apu.edu.my/media/news/2705
10	Aug-22	Sohan Singh From APU Hits The Right Notes At The World Pipe Band Championship 2022	https://www.apu.edu.my/media/news/2699
11	Aug-22	"The Capables" from APU secured joint third place at the ASEAN Finals of Tata Consultancy Services (TCS) Sustainathon 2021 in Singapore	https://www.apu.edu.my/media/news/2690
12	Aug-22	Making Learning Fun At The Blockme@APU Competition	https://www.apu.edu.my/media/news/2598
13	Oct-22	Ethereum Developers Conference (Devcon) Bogotá	https://www.apu.edu.my/media/news/2732
14	Nov-22	Monstar Asia Young Talent Awards 2022 - "The Extroverted Introvert: A Transformation Story"	https://www.apu.edu.my/media/news/2744
15	Nov-22	ReGov & APU Sign an Agreement for Web3 Talent Development	https://www.apu.edu.my/media/news/2731
16	Dec-22	APU's International Cultural Night (ICN) 2022 - "Garden of Kingdoms"	https://www.apu.edu.my/media/news/2745
17	Dec-22	Celebrating Our Wins for Our Student-Athletes	https://www.apu.edu.my/media/news/2742
18	Oct 2022 - Dec 2022	CSR Programme To Help Underprivileged Children Acquire Digital Skills	https://www.apu.edu.my/media/news/2706

SAVING LIVES WITH FLOOD-ASSIST DRONE: A BRAINCHILD OF MULTIDISCIPLINE ENGINEERING STUDENTS AT APU

Fellow Malaysians are increasingly worried about the occurrence of floods, especially after the nation's worst floods struck at the end of 2021, which left dozens dead, displaced more than 61,000 people and caused an estimated RM6.1 billion in overall losses.

To minimize the losses caused by floods, early reconnaissance and search & rescue (SAR) are of utmost import, rescue teams need to have the right technology to get aareas with limited access. However, there is a lack of intelligence and prediction solutions to analyze and recommend SAR action, let alone gather accurate information for decision-making.

Team Delta APU, Grand Prize winner of the Intel Industry-University Challenge 2022, posed with their supervisors. From left: Mr Krishna, Prof Vinesh – Chief Innovation & Enterprise Officer, Aaron Raj Bhatti, Ng Joo Kiat, Ryan Teo Han Ji, and Ir Narendran.

To save people who are trapped during a flood by providing critical information to the rescue teams such as the location, and depth of water, **Team Delta APU** formed by engineering students from the Asia Pacific University of Technology & Innovation (APU) came up with an integrated system which includes drones, the Smart Disaster Application and LoRa sensors.

Supervised by **Ir Narendran Ramasenderan,** Senior Lecturer at APU's School of Engineering (SoE) who is also a multiple award-winning drone creator, the team comprising computer engineering student **Ng Joo Kiat**, electrical & electronic engineering student **Ryan Teo Han Ji**, and mechatronic engineering student **Aaron Raj Bhatti**, created the **Flood-Assist Drone.**

This is a part of the structure of the Flood-Assist Drone constructed by Team Delta APU – a surveillance drone equipped with ultrasonic sensors, Intel Up-Board, and the Arduino mega companion computer for obstacle avoidance.

This project has made Team Delta APU the **Grand Prize** winner at the **Intel Industry-University Challenge 2022**, a national innovation challenge that focuses on innovating Smart Retail, City and Industrial Solutions using Internet of Things technology (IoT) and Artificial Intelligence (AI), organised by Intel in partnership with Collaborative Research in Engineering, Science & Technology (CREST), which provided a platform for participants to challenge themselves to generate innovative ideas and develop impactful solutions.

On its functionality, the Smart Disaster Application attached to Flood-Assist Drone could capture the location of the floods and send out SOS signals to the Fire and Rescue Department Malaysia. It could trigger a scout drone and a surveillance drone for further action. The App also has a Natural Language Processing (NLP) chatbot where it can detect mixed languages and convert them to English.

"When floods strike, usual routes that are used to travel to the affected areas may be flooded, hence the Road Segmentation system in our work could help people determine if the road is swamped. This is done by a flood model using YOLO – an algorithm that uses neural networks to provide real-time object detection, as this model is trained to detect people and also floods," explained Ng Joo Kiat, the team leader.

At the packed hall holding the semi-final judging session of the Intel Industry-University Challenge 2022, Team Delta APU's leader Ng Joo Kiat (centre) is pitching their ideas to the panel of judges.

Furthermore, LoRa sensors integrated into the solution are for the detection of flood parameters, therefore, they are placed in flood-prone zones before the flood occurs. The Integrated System is also complimented by real-time kinematics, or RTK Sensors, that are used for drone positioning with GPS to increase the accuracy of the drone delivery.

The team won the Smart Disaster category with prizes worth approximately RM10,000 consisting of five units of Microsoft Surface Laptop Go. Their victorious joy was also shared by **Mr Krishna Ravinchandra,** tutor of SoE, as well as supporters from the Centre of Research and Development of IoT, APU.

Commenting on his students' success in this competition which managed to attract the interest of many participants from universities and industries since it was launched in 2017, Ir Narendran Ramasenderan enthused, "I am very proud that my students are not only trained in a classroom but rather towards a pilot prototype deployment in the real industrial context!"

He said the trio had demonstrated their technical skills in developing autonomous drone systems that integrated with AI through a smart app. All of these were developed by them from scratch using the hardware they had at APU and integrated with the Intel Open VINO Solution, an open-source toolkit for optimizing and deploying AI inference.

"Their greatest strength was their teamwork in working together to solve the problem and troubleshoot the hardware-software integration issues. I saw they could act and think like an engineer, using the skillset and tools at their disposal, just like a multidisciplinary team in the industry, they are very much prepared for their future professions," cheered the proud supervisor.

Witnessing excellent outcomes which have been borne at the Centre of Research and Development of IoT, Prof Dr Vinesh Thiruchelvam, APU's Chief Innovation & Enterprise Officer applauded, "At APU, we engineer drones from a bottom-up methodology and most developments are via a multidisciplinary approach bringing in our talents from both the computing and engineering backgrounds to design, code, build, test and deliver our drones on a sustainable landscape for societal benefits."

SAFER COMMUNITY WITH A ONE-STOP MOBILE SECURITY SOLUTION

According to statistics, property offences accounted for 80% of 83,456 criminal cases recorded in 2019, with 16,497 incidents of house break-ins and theft in that year. Although the number of cases slightly dropped to 14, 040 in 2020 , home security issues still worry most Malaysians, including those living in gated high-rise residential buildings.

Break-ins remain one of the five common security issues in Malaysian condominiums and apartments, parallel with stalkers, home fires and lack of security features.

To build a safer environment, Data Analytics and Digital Transformation students at Asia Pacific University of Technology & Innovation (APU) developed a one-stop community management and safety mobile application, which was specially designed for Malaysian residents to bridge the security gap in the country.

Hoh Shen Yien and **Chong Rui Jun**, both Computer Science with a specialism in Data Analytics students, teamed up with **Nicole Ee Sze Mien**, an Information Technology with a specialism in Digital Transformation student, truly proved their ideas valid and convincing, as they clinched Champion with a cash prize of RM6,000 at the **Odyssey Hackfest 2022: Online Category** recently.

Odyssey Hackfest, a hackathon festival to provide students with the opportunity to sharpen their critical thinking and problem-solving skills, was organised by Odysseus, Universiti Malaya, and concluded on 30th October.

Hoh Shen Yien (from left), Chong Rui Jun and Nicole Ee Sze Mien give thumb-ups to the 'Kommunity' mobile application they developed with the main concept of allowing residents to access information from their mobile phones at any time of the day so that they are kept updated on what is going on around their township, street and home.

Competing with participants from all around the world, APU's team with Hoh Shen Yien as its leader had taken up this challenge of mobile application development, to promote a tech-savvy society in the country and around the region.

"The mobile app we developed named '**Kommunity**', is a one-stop housing community management and safety platform consisting of an IoT-driven visitor management system, one-tap emergency button, tailored emergency motion detection trigger, emergency incident audio and video recording; and all-in-one admin portal for resident management, event management and billing management," explained Shen Yien.

The main concept of the Kommunity app is to allow residents to access information from their mobile phones at any time of the day so that they are kept updated on what is going on around their township, street and home.

"This app was built using React Native, an open-source UI software framework created by Meta Platforms, as Shen Yien had some experience in it, and it is connected to our backend that was built with Django, a high-level Python web framework. The app is functional for both Android and IOS platforms, covering most mobile users," added Rui Jun, who worked closely with Shen Yien on the technical development, mainly on coding the application.

About the innovative side of this app, the trio indicated, the one-of-its-kind emergency motion-triggered system could record surrounding video and audio and then be uploaded to the cloud. Concurrently, the app could continue to provide live updates of its surroundings and transmit them to the security guards to take necessary actions.

Despite juggling their internship placements at one time, the trio admitted that the most challenging part was generating innovative ideas and incorporating additional business values that are truly impactful yet deliverable within the timeline of the hackathon.

"We spent one and a half months in ideation, building the application and also preparing the pitching deck. All three of us worked together and contributed equally to the process, from idea generation to the phase of building the wireframe. We have very much benefited from the module on Creativity and Innovation (CRI), as we used various techniques taught in the module in the process of ideation," added Shen Yien.

Finally, APU's team managed to demonstrate innovation and creativity in their business solution and technical skills by implementing all of them in this mobile application. Besides, Nicole who did most preparation work on the pitching deck had also proven her exquisite presentation skills in pitching to the judges.

Chong Rui Jun (from left), Nicole Ee Sze Mien and Hoh Shen Yien are APU's graduating students with impactful professionalism from respective training. Chong and Hoh study Computer Science with a specialism in Data Analytics, while Nicole studies Information Technology with a specialism in Digital Transformation.

As many residential areas lack a central management system that caters to both security and management, the team believes that the Kommunity app could potentially tie both market segments and connects its customers into one-stop community management and safety platform. Furthermore, the Kommunity app functionalities can also be catered to industrial and commercial office areas, for future expansion and sustainability of the business.

"Our vision is to foster safe communities where Malaysians can live effortlessly without worry. We hope that the Kommunity app could fully function as a one-stop community management platform that is security focus, hassle-free and easily accessible right within our fingertips as we believe safety is a priority for all Malaysians," concluded the team leader.

KEY ENGAGEMENTS UNDER SDG 11 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	May-22	APU Team Crowned Gold At ITEX 2022	https://www.apu.edu.my/media/news/2678
2	Oct-22	Safer Community with a One-Stop Mobile Security Solution	https://www.apu.edu.my/media/news/2734
3	Nov-22	Saving Lives with Flood-Assist Drone: A Brainchild of Multidiscipline Engineering Students at APU.	https://www.apu.edu.my/media/news/2735

BEACH CLEANING INITIATIVE: 40 APU STUDENTS JOIN HANDS AT BEACH CLEAN-UP

Instilling Environmental Conscious Mindset Through Beach Cleaning Initiative at Morib Beach, Banting

Morib Beach Banting, once a popular beach destination for both day-trippers and tourists, has seen a drop in visitors in the past years. However just recently, a different kind of visitor has descended on the idyllic beach.

APU students were the partakers in the Beach Cleaning programme with one common goal – to get rid of the beach litter and spread the message that rubbish is the greatest threat to the ecosystem.

Initiated by the School of Foundation, accompanying the students were Mr. Muhammad Ma'wa Bin Abdul Aziz and Ms. Ruthira Nair.

By the end of the outing, they've cleared and collected bags of rubbish which

was mostly plastic-based trash such as grocery bags, water bottles, various food containers, polystyrene boxes, and countless unidentified items.

The fundamental goal of this excursion, as mentioned by Mr. Muhammad Ma'wa, is to encourage and instil more environmental conscious mindset to our students. This clean-up activity has definitely developed awareness on the importance of social responsibility towards the society and the environment, which is also consistent with the Sustainable Development Goals.

We have always prioritised environmental stewardship, environmental protection, and the preservation of mother nature. This time, the School of Foundation has undoubtedly made a difference to our environment through this programme.

Despite the physical exhaustion that followed, our students gained a lot from the experience and were able to form new connections like never before. It also enhances their communication skills while helping a good cause.

Most importantly, it is hoped that this endeavour would stimulate and create awareness on the importance of creating a sustainable environment among the younger generations and future generations to come.

SOB STUDENTS HELP CLEAN UP GASING HILL AREA

Devoted to the elderly while raising awareness and being a part of nature by collecting 25 bags of plastic waste for recycling.

Volunteers began their day by donating and dedicating themselves to the elderly before cleaning up the surrounding area.

They began the 6.2 KM morning walk around Gasing Hill to collect rubbish and waste left by irresponsible individuals via the main routes led by two experienced hikers.

In conjunction with World Environment Month, **School of Business (SoB)** students from **Asia Pacific University of Technology & Innovation (APU)** participated in the **'Gasing Hill Clean Up Walk'** in Petaling Jaya, Selangor on 28 June 2022.

SoB's corporate social responsibility (CSR) initiative, in collaboration with the **Soroptimist International Club of Shah Alam (SISA),** served as a platform to raise awareness and be a part of nature among the surrounding community in order to preserve the environment.

The event was also supported by the local community, particularly hikers, who, along with around 30 volunteers, including APU students and staff, began the event with breakfast with the elderly at **MultiCare Nursing Home** and donated some cleaning supplies.

Some students were kind enough to donate groceries to the homes, and SISA provided food for all volunteers.

Their goal is to collect as much plastic from the community's surroundings as possible. Plastic waste, polystyrene, and cigarette butts were among the most common types of rubbish collected.

"It was such a great day because it had been raining for the past few mornings, but on that day, it was a great sunny day and It was a morning of sheer pleasure of having a breeze walk while managing to collect about 25 bags of plastic materials, which were then sent for recycling," said **SoB Lecturer Ms Cynthia Mala Paul Dorairaj.**

After completing the entire process and returning to the home to have lunch with MultiCare's elderly, they were greeted cheerfully by a large number of walkers who were very impressed with the student's initiative and enthusiasm.

Overall, the 'Gasing Hill Clean Up Walk' is unique and enjoyable because APU values similar activities like this as adding value to teaching and learning on campus. Students can have fun while learning to improve their communication skills and community interaction.

As they bonded together as a group towards reaching a common goal which is to eliminate plastic materials along the way while staying in good health as well as admiring mother nature.

APU RECYCLING PROGRAM

APU is passionate in implement greater change towards better environment & clean earth which will eventually bring positive effect on the economy and larger awareness among its staff and students.

Recycled Content Material - Usage of recycled content as defined in accordance with the ISO 14021 in the building was established during the design phase. The recycle content of the materials used in the building makes up at least 10% of the total value of the project.

Storage and Collection of Recyclables - Recycle bins are provided throughout the building. These are then collected daily by the cleaners and store at the allocated recycle bins for collection on a weekly basis by the recycling company appointed by the local authority.

Other Initiatives & Campaigns Undertaken

- Use china cups/mugs and glasses rather than disposable cups for drinks where possible
- Re-use envelopes for internal mail
- Use the blank side of printed paper for scrap pads before recycling
- Set printers/copiers to print duplex or double sided and only print documents when absolutely necessary
- Send e-mails instead of letters or faxes where possible
- Use paperclips (that can be reused) instead of staples

KEY ENGAGEMENTS UNDER SDG 12 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Jun-22	Beach Cleaning Initiative: 40 APU Students Join Hands At Beach Clean-Up	https://www.apu.edu.my/media/news/2608
2	Jun-22	SoB Students Help Clean Up Gasing Hill Area	https://www.apu.edu.my/media/news/2611
3	Aug-22	Innovative Ecotourism & Green Ocean Invention Gains James Dyson Award	https://www.apu.edu.my/media/news/2691
4	Jan 2022 - Dec 2022	APU Recycling Program	https://www.apu.edu.my/apu-recycling-program

FUTURE DATA SCIENTISTS ARE NATIONAL CHAMPIONS

Malaysia Techlympics 2022, the country's largest-ever initiative to nurture young talents in science, technology and innovation, organised by the Ministry of Science, Technology and Innovation (MOSTI) saw **Team Three Musketeers** representing Asia Pacific University of Technology & Innovation (APU), emerged as Champion at its Data Science Challenge and walked away RM7,000 cash prize.

Chan See Mun and **Lai Mei Sim**, both 22, are Computer Science with a specialism in Data Analytics undergraduates, outmanoeuvred opponents from Universiti Teknologi Malaysia (UTM) and Monash University Malaysia with "Path to Net Zero", a solution formulated after a 24-hour 'datathon' that aimed to reduce global greenhouse gas emissions using the latest technology.

Supervised by **Mr Mafas Raheem**, Lecturer at APU's School of Computing, the team embarked on the challenge by taking up a data exploration task, studying the dataset provided by the organiser captured from the online platforms of collection of key metrics – Our World in Data and Climate Watch Data, to understand the relationships between the variables.

"As the dataset contains the societal information of each nation from 1990 to 2019, it set a narration to address the importance of modern industry's contribution to a country's economy and filling the needs of people's energy consumption. However, as modern industry causes a lot of greenhouse gas (GHG) emissions, therefore, optimal solutions should be proposed for sustainable economic development, " said Mafas Raheem.

As a result, Chan See Mun and Lai Mei Sim came out with an interactive and comprehensive dashboard, which allows a full understanding of the carbon emission situation. They identified obstacles to achieving the net-zero emission target by proposing target solutions for the identified problems.

"We emphasized the ways to reduce GHG emissions through afforestation, reforestation, negative emission technologies, and hydrogen energy," said See Mun who is in her second year of studies.

The finals were held on the 26th and 27th of November 2022 at Axiata Arena, Bukit Jalil, where 10 teams were competing intensely. According to Three Musketeers, the competition was fierce since there were many teams consisting of postgraduate students from public and private universities that provided impressive solutions.

Recalling how had they made it, Mei Sim, a final-year student said, "We spent the first two hours exploring and brainstorming to determine the general direction of the project and then start dividing the work to execute it. With the uncertainty of whether our solution met the requirements of the competition, the next 22 hours were bouncing between joy, struggle, diligence and self-doubt."

"During the most exhausting times, it wasn't about the prize anymore, but rather the conviction to complete the project 'Path to Net Zero' that kept us going. The keys to our win were the synergy of the team, the experiences, and the skillsets we have developed in the past," she elaborated.

Their supervisor agreed with her statement, by adding, "The girls relied on their experience participating in other competitions, especially ASEAN Data Science Explorers (ASEANDSE) 2022 where they were among the top 15 teams in that competition. Our students always reflect on every competition they went through to seek improvements. For this competition, they tried to use familiar tools such as Microsoft PowerBI and Python-Pandas to develop solutions."

To be more prepared, the duo communicated and discussed with Mr Mafas Raheem from time to time, especially on how to fully use PowerBI to deliver more meaningful solutions. "Initially, we prepared to build a Machine Learning model on the PowerBI platform, later it was decided to go with data storytelling using an interactive dashboard due to the type of dataset given in the competition," they explained.

Their strategy proved them right as the team defeated strong competitors and went all the way up to the tip-top. "It was a remarkable achievement, our students once again proved that they are capable of facing real-world Data Science needs," said Mafas Raheem, contentedly.

On a wider view, three musketeers admitted, Big Earth Data Analytics has become very critical due to the generation of Big Earth Data from satellite observations, Internet-of-Things, model simulations, and other sources. While gearing up for the competition, they realised that applying the right technique to solve a contemporary environmental problem is always vital to offering high-quality information to decision-makers.

"Data analysis is important in impact measurement to assess the effectiveness of a particular policy or technology. The hidden key insights and underlying indicators affecting specific world issues could be identified using data analytics. Hence, professionals could propose solutions to address the problems identified accordingly," elaborated See Mun and Mei Sim on the essence of their studies.

Furthermore, they pointed out assuredly, data analytics could provide a comprehensive understanding of the current situation, forecasting specific relevant factors which could help data analysts in understanding the possible consequences lying ahead.

Overall, data analysis allows professionals to get the full picture, thus enabling them to translate knowledge into action. With that being said, See Mun and Mei Sim believe that the knowledge they have gained on campus is promising to offer appropriate solutions to the current global challenges which will ultimately benefit the society in future.

APCORE TEAM EMERGES AMONGST TOP SIX FINALISTS IN KEYSIGHT INNOVATION CHALLENGE 2022

APCORE members Kong Jee Ann, Jamie Yong How Peng, Wong Hui Yee, and Bryce Cheah Wei Jing gained valuable experience in California even though they are all new to carbon monitoring, drone construction, and data logging; their Autonomous Carbon Monitoring Drone received some of the highest votes in the IoT challenge, allowing them to advance to the grand finals.

Middle from left: Bryce Cheah Wei Jing, Kong Jee Ann, Jamie Yong How Peng, Wong Hui Yee, and Ir. Kumaresan Magaswaran (mentor) pose with their appreciation plaque and Keysight Innovation Challenge 2022 jury.

Members of the **Asia Pacific Centre of Robotic Engineering (APCORE) Kong Jee Ann** (Computer Science in Intelligent System), **Jamie Yong How Peng** (Computer Engineering), **Wong Hui Yee** (Information Technology) and **Bryce Cheah Wei Jing**'s (Foundations in Engineering) life has changed dramatically since they emerged as the Top 6 teams in the **Keysight Innovation Challenge 2022** grand finale in Santa Rosa, California.

The challenge was organised by Keysight Technologies Inc., a leading technology company that provides advanced design and validation solutions to help accelerate innovation to connect and secure the world.Through this competition, the 'Four Musketeers' discovered many new things and admitted that taking part in the international challenge taught them many new values and was the most valuable experience they had since studying at **Asia Pacific University of Technology & Innovation (APU).**

"We entered this competition without high expectations. We simply wanted to give our best effort and had no idea that we would gain new and valuable experience.

"Meeting new friends and participants from various backgrounds opened our eyes to many things. The friendship, laughter, and bond that we formed is extremely valuable. It is no longer a competition but a learning camp programme," said **Kong Jee Ann.**

APU team was chosen as one of the top six teams from 52 entries and 2,100 registrants from 106 countries.

She spoke on behalf of the team and expresses gratitude to the entire APU community, especially Lee En Hao, Ng Khang Yian, and Lam Ca Ven who helped with the drone hardware and Loo Yew Sen who helped with image processing, as well as other members of the APCORE, for allowing them to advance to the grand finale of the innovation challenge.

In this year's challenge, all teams must submit details of an IoT innovation that provides carbon neutrality corporate site monitoring, multi-site monitoring, or community monitoring.

The device must communicate wirelessly, be easy to deploy by a non-expert in a secure manner and handle sensitive data via a detailed written plan and a short video showcasing their innovation.

Sensor effectiveness, AI capabilities, and cybersecurity resilience will be evaluated, with device prototypes evaluated by Keysight's IoT Security Assessment software.

Furthermore, the challenge in preparing the Autonomous Carbon Monitoring Drone is not easy because they are unfamiliar with carbon monitoring, building drones, and data logging. In fact, they admit that what they have learned while competing in this challenge is only the tip of the iceberg.

From left: Kong Jee Ann, Wong Hui Yee, Jamie Yong How Peng, Ir. Kumaresan Magaswaran, and Bryce Cheah Wei Jing pose with the Autonomous Carbon Monitoring Drone they co-created.

Despite their lack of knowledge and experience, they are still confident with their drone because they received a lot of help from APCORE members, who sometimes pointed them in the right direction, especially their mentor **Ir. Kumaresan Magaswaran** and other lecturers.

They realised that, in addition to good design, they needed to work on their persuasive and presentation skills.

"Because the competition is also streamed live and there are many professional judges present, we initially feel nervous and anxious, which affects our presentation.

"Basically, our drone is ready and before flying to Santa Rosa, we have already improved and upgraded it with all of the necessary elements," she said.

"So, in the future, we will overcome our anxieties and continue to work on improving and expanding our drone project, as well as competing in any future competitions."

APU students and APCORE members designed the Autonomous Carbon Monitoring Drone, which has the intelligence to analyse carbon footprint, flood areas, and other factors.

According to **Ir. Kumaresan**, he was proud of his student's achievements especially when they managed to complete the additional futures such as a carbon dioxide detection system, autonomous flight, and other smart futures.

"This competition allowed them and other students who assisted them to gain valuable experience with autonomous drones.

"If things line up in the future, they may be able to launch their own drone start-up in Malaysia, as it is currently one of the emerging sectors," he explained.

The Illinois Institute of Technology (USA) took first place with Tree of Life: Carbon Capture, followed by the State University of New York at Buffalo (USA) with Piezo-cantilever Sensor for Real-time Monitoring of 8 Greenhouse Gasses with LoRa Communication and Vanderbilt University (USA) with EcoBuddy: IoT OBD2 Monitoring Device for Fuel Efficiency and Emission Consciousness.The first-place winner receives USD$30,000 (RM135,240) in cash, followed by USD$25,000 (RM112,700) for second place and USD$20,000 (RM90,160) for third place, with all Top 3 winners also receiving USD$10,000 (RM45,080) in Keysight solutions for their university. Warsaw University of Technology (Poland) with its Cloud-Integrated Pollution Analyzer, **APU (Malaysia) with its Autonomous Carbon Monitoring Drone,** and KCG College of Technology (India) with its Carbon Neutrality were named as the finalist teams.

University Malaysia Sabah (UMS), UOW Malaysia KDU Penang University College (UOW Malaysia KDU), and Universiti Tunku Abdul Rahman (UTAR) also submitted entries, but APU is the only Malaysian/ South East Asian university to advance to the final round of this competition, which had 52 entries and 2,100 registrants from 106 countries.

SAF SENIOR LECTURER DR LEOW HON WEI'S RESEARCH PAPER PUBLISHED IN AN ESTEEMED JOURNAL

We are pleased to announce that a research article related to Green Finance by Dr Leow Hon Wei, Senior Lecturer from the School of Accounting and Finance (SAF) was recently published in one of the esteemed journals, **Resources Policy, Volume 76, Elsevier Publication, indexed from Web of Science (WoS) and SCOPUS Q1.**

The research paper on **Natural Resources Commodity Prices Volatility and Economic Performance: Evaluating the Role of Green Finance,** aims to evaluate the importance of natural resources volatility, investment in energy resources, and innovation on the economic performance of the provincial data of China.

COVID-19 is one of the biggest sources of economic downfall around the globe with many global economic activities badly affected. Therefore, during this period, the role of natural resources commodity prices is equally important to determine the economic performance of a country.

This study uses novel panel data approaches, i.e., Pesaran unit root test, Westerlund cointegration approach, augmented mean group, and Dumitrescu-Hurlin causality test.

The study found a positive impact on natural resources as well as green finance, investment in energy resources, and innovation towards uplifting economic performance.

Dr Leow's study recommends stability in natural resources prices volatility, promotion of green financing, and more investment towards energy resources. The empirical outcomes from this study provide a novel path for achieving high economic performance.

KEY ENGAGEMENTS UNDER SDG 13 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Feb-22	SAF Senior Lecturer Dr Leow Hon Wei's Research Paper Published In An Esteemed Journal	https://www.apu.edu.my/media/news/2491
2	Apr-22	Earth Day Celebration by ISUC Student Chapter at APU	https://www.apu.edu.my/media/news/2560
3	May-22	APU Team Crowned Gold At ITEX 2022	https://www.apu.edu.my/media/news/2678
4	Oct-22	APCORE Team Emerges Amongst Top Six Finalists in Keysight Innovation Challenge 2022	https://www.apu.edu.my/media/news/2739
5	Nov-22	Malaysia Techlympics 2022 - Data Science Challenge	https://www.apu.edu.my/media/news/2743

GOAL 14: LIFE BELOW WATER
Conserve And Sustainably Use The Oceans, Seas And Marine Resources

Research Publication	7
SDG 14 Related Activities	2

INNOVATIVE ECOTOURISM & GREEN OCEAN INVENTION GAINS JAMES DYSON AWARD

The Synergy of APU Industrial Design and Engineering Students to address the global issue won them a ticket to the James Dyson Award International 2022 Competition

A recent study by scientists reveals that micro and nano plastics are in every human tissue they sampled . Aware of the global issue of plastic pollution, especially in the world's oceans, Industrial Design and Engineering students at Asia Pacific University of Technology and Innovation (APU) joined hands and try to solve this problem with design thinking. This initiative won them a runner-up at this year's Malaysia James Dyson Award competition.

Team Techgasus, comprising of Industrial Design degree student **Mostafa Marzouk**; and four Bachelor of Engineering in Mechatronic Engineering with Honours final-year students – **Chan Jing Hung, Lim Cher Khai, Lim Joon Yi and Tan Jia-Hao,** invented "Whalecro", an underwater propulsion vehicle with an all-new micro debris filtering system.

"Inspired by the filtered feeding system of the whale shark, we designed a whale-like structure with a filtering system in it that made up of Velcro straps, a commonly used material with a hook-like surface that can efficiently capture micro debris in the ocean," explained Chan Jing Hung, the team leader.

Chan and the engineering branch kicked off the project with numerous experiments, concept-proofing and prototyping. To maximise the efficiency of the micro debris capturing mechanism, they tested it with different designs and shapes on one of the beaches along the Straits of Malacca. Upon identifying the best design, the team continued with prototype building, refining and enhancing by using a motor to enable automation.

"Mostafa's role as an industrial designer is the cornerstone of our project as he transformed our technical idea into an attractive and visually appealing product without forgoing the ergonomics concept," said Chan.

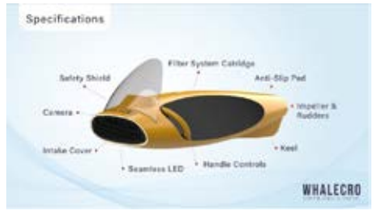
According to him, the team members of different disciplines worked toward understanding each other's mindsets and how one approached a problem. Ultimately, this made the most valuable takeaway of the entire journey which took them months of hard work.

Their Lead Mentor, **Mr Eekang Ooi,** concurred and lauded the synergy between both disciplines. "While the engineering students focused on the technical side, the industrial design student looked into the User Experience (UX), consumer market and transforming intangible ideas aesthetically to attract the end users. The combination of both sides' efforts brings an attractive and fully functional product to the market."

Ooi is a lecturer at the School of Media, Arts and Design (SOMAD). He mentored Team Techgasus for this competition together with Associate Professor of the School of Engineering (SoE), **Dr. Sathish Kumar Selva Perumal.**

Soon after Team Techgasus clinched runner status at the national level, they will be moving on to the James Dyson Award International 2022 competition which will be held in October with the top three winners. This is the third consecutive year APU won the National James Dyson Award.

In the more challenging international arena, Team Techgasus will showcase how Whalecro works – As the vehicle accelerates forward underwater, the water current will flow in the opposite direction of the vehicle. As a result, it pulled in the surrounding micro debris with the aid of current and passes through a series of motor-powered filters.



The rotating filters will then capture the micro debris as the water current flows through. The filtered ocean water will then flow out of the vehicle. Finally, a specially designed device is used to extract micro debris trapped on the filters where it can be easily brushed off and disposed of accordingly.

"In the future, the team could enhance the efficiency of the product by experimenting with different sizes or surface designs of Velcro straps. Furthermore, we would like to raise awareness of ocean pollution through eco-tourism. With a lineup of various products, raising more awareness of the manifestation of plastic pollution in our ocean is possible with hopes of one-day achieving ocean sustainability," concluded Ooi.

BEACH CLEANING INITIATIVE: 40 APU STUDENTS JOIN HANDS AT BEACH CLEAN-UP

Instilling Environmental Conscious Mindset Through Beach Cleaning Initiative at Morib Beach, Banting

Morib Beach Banting, once a popular beach destination for both day-trippers and tourists, has seen a drop in visitors in the past years. However just recently, a different kind of visitor has descended on the idyllic beach.

Armed with rubble gloves and rubbish bags, 40 APU students were the partakers in the Beach Cleaning programme with one common goal – to get rid of the beach litter and spread the message that rubbish is the greatest threat to the ecosystem.

Initiated by the School of Foundation, accompanying the students were Mr. Muhammad Ma'wa Bin Abdul Aziz and Ms. Ruthira Nair.

By the end of the outing, they've cleared and collected bags of rubbish which was mostly plastic-based trash such as grocery bags, water bottles, various food containers, polystyrene boxes, and countless unidentified items.

The fundamental goal of this excursion, as mentioned by Mr. Muhammad Ma'wa, is to encourage and instil more environmental conscious mindset to our students. This clean-up activity has definitely developed awareness on the importance of social responsibility towards the society and the environment, which is also consistent with the Sustainable Development Goals.

We have always prioritised environmental stewardship, environmental protection, and the preservation of mother nature. This time, the School of Foundation has undoubtedly made a difference to our environment through this programme.

Despite the physical exhaustion that followed, our students gained a lot from the experience and were able to form new connections like never before. It also enhances their communication skills while helping a good cause.

Most importantly, it is hoped that this endeavour would stimulate and create awareness on the importance of creating a sustainable environment among the younger generations and future generations to come.

KEY ENGAGEMENTS UNDER SDG 14 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Jun-22	Beach Cleaning Initiative: 40 APU Students Join Hands At Beach Clean-Up	https://www.apu.edu.my/media/news/2608
2	Aug-22	Innovative Ecotourism & Green Ocean Invention Gains James Dyson Award	https://www.apu.edu.my/media/news/2691

GOAL 15: LIFE ON LAND
Goal 15 LIFE ON LAND - Sustainably Manage Forests, Combat Desertification, Halt And Reverse Land Degradation, Halt Biodiversity Loss

Research Publication	0
SDG 15 Related Activities	9

SAVING WILDLIFE BY ROAR & RUN – KNOWING THE PLIGHT OF THE TIGER

The extinction of the wild tiger will affect the environment and its sustainability with the collapse of biodiversity. To save the critically endangered Malaysia's national animal – "Panthera Tigris Jackson", the scientific name for the Malayan Tiger from disappearing, you can do something!

Yes, you can participate in 5 kilometres of "**Roar Run with Obstacles**", to feel and experience the plight of the wild tigers, and at the same time raise funds for the Malayan Tigers' conservational works.

Collaborating with the Malaysian Conservation Alliance for Tigers (MYCAT), and De Montfort University (DMU), UK, the Integrated Sustainability & Urban Creativity Centre (ISUC) Student Chapter at APU is organising the run in hybrid mode on **18th December 2022 (Sunday)** – with a physical run at APU and a virtual run at DMU.

"The physical run with obstacles will be at APU's campus at MRANTI Park, Bukit Jalil **from 7.30 a.m. to 10.30 a.m**., whereas the virtual run at DMU can be anytime and anywhere on the same date. Participants in the UK could run upload the map of completion and picture of them running to the organiser," said **Ms Abbhirami Sivarajan**, ISUC Student Chapter advisor.

According to **Rajveen Kaur**, the appointed Malayan Tiger conservationist based at APU, this event was an outcome of the project that she pitched to the MYCAT office, besides raising funds, it is intending to bring awareness to the importance of protecting the Malayan Tigers, to promote the 'CAT Walk' held by MYCAT.

The 'CAT Walk' is a flagship programme organised by Citizen Action for Tigers (CAT) under MYCAT. It calls upon citizen volunteers to patrol a critical wildlife corridor, identify signs of wildlife, and report poaching, illegal mining, and forest clearing.

Participating fees of those who are in Malaysia will be RM 30 for early birds, and RM 35 for a normal run; the virtual run participating fees in the UK is £5 per person. All proceeds will be channelled to MYCAT for saving the tigers.

The organiser is targeting 200 participants without an age limit, and the closing date for registration will be on **15th December**. APU's community and the general public can click on the registration link: https://forms.gle/LhDQsXsY4cqbLUts5 to register themselves and stay connected with the organizer for more updates at https://linktr.ee/isuc_apustudentchapter

FLUFFY CHARITY MOVES BY APU STUDENT-VOLUNTEERS

Nurturing a love for animals and instilling a sense of respect for every living creature among the young generation, will ultimately lay a foundation for them to become better human beings.

Besides pursuing a degree for professional growth, APU students also enhance their personal development as caring individuals through co-curricular involvements such as that linked to animal protection.

In conjunction with World Animal Day 2022, animal-care volunteers from APU raised RM1,500 from the pets event day, which they organised on the campus earlier, and subsequently channelled it to the Society for the Prevention of Cruelty to Animals (SPCA).

World Animal Day is celebrated on Oct 4 every year.

Their good charity moves earned them high recognition from the Royal Patron of the "Stray Free Selangor" programme, **Tengku Permaisuri of Selangor Tengku Permaisuri Norashikin,** at a ceremony held on 29th October 2022, at the SPCA centre located at Ampang, Selangor.

Fourteen student volunteers from APU happily met up with Tengku Permaisuri Norashikin, who graced the programme at the venue, and from whom their mentor **Ms Abbhirami Sivarajan** received a certificate of appreciation. APU community enjoyed a group photo opportunity with Her Royal Highness while she took a tour of the SPCA cat care centre.

At the same time, they also made the acquaintance of SPCA patron **Tan Sri Lee Lam Thye,** Chairman **Christine Chin,** as well as former Veterinary Services Department director-general **Datuk Dr Quaza Nizamuddin Hassan Nizam.**

Since 2016, there were about 700 APU students have been volunteering at SPCA where they are trained to work at the animal shelter, walk the dogs, do cleaning jobs, and participate in events for raising public awareness on rescuing stray animals organised by the said society.

"APU students through different fundraising movements had so far raised and donated cash and animal food worth RM50,000 to SPCA since 2016. They also contributed to regular voluntary works up to today," said Abbhirami.

Public donations have allowed SPCA to provide up to an 80% discount to rescuers who bring stray cats and dogs to SPCA to get them spayed and neutered.

Keep up with the good charity, APU-ian!

APU'S CSR EFFORTS OF CREATING A MURAL FOR THE FURRYKIDS SAFEHAVEN

Universities as centres of knowledge generation and sharing play an important role in helping to solve social, environmental and sustainable challenges by inculcating social responsibility and sustainability mindsets amongst students.

Being socially conscious, and also grounded in the strong bond that had been formalised through an MoU signed with FurryKids Safehaven in October 2021, Asia Pacific University of Technology & Innovation (APU) initiated a monthly CSR programme within its community to provide a safer environment for stray and abandoned animals.

Following on from earlier fundraising efforts to reconstruct the animal shelter that had once been destroyed by flash floods, coupled with a series of voluntary works like bathing and vaccinating puppies for adoption drive, APU lecturers and students culminated their good works by painting a beautiful mural for the furry kids.

On 20th and 21st January 2022, supported by the School of Media, Arts and Design (SoMAD), members of APU's Student Affairs Department created a cuddlesome mural on all walls of Furrykids Safehaven, an animal shelter situated in Seremban, that would surely bring smiles to the passer-by.

Sacrificing their leisure time during off days, students and their lecturers worked hand-in-hand under the hot sun, to complete their masterpiece. The mural art depicted a group of entertaining cartoon-look animals, occupying a large area of the wall of about 2 metres by 8 metres.

Before they started working on the mural, members of Student Affairs raised RM 1,350 to purchase the paints needed for the artwork as well as food for the animals.

"It's truly amazing to have staffs and students work together again to contribute their design skills for the community. It

builds the spirit of togetherness, bringing us closer to one another through a shared passion for art," commented **Ms Debbie Liew,** the Associate Head of School of Media, Art & Design.

Cherishing this CSR initiative by students and staff, **Mr Gurpardeep Singh,** Chief Operating Officer of APU remarked, "I am very impressed with the creativity and inventiveness showed by APU's students in putting together this very impactful mural for Furrykids Safehaven. Congratulations also go to the team for raising the funds for this as well as the donation of much-needed food for our furry friends."

Academicians who were involved in this good work included – Ms Abbhirami Sivarajan, a lecturer from the School of Business; and lecturers from SoMAD Mr Wong Chee Meng, Mr Fitri Anas Muhiddin, Mr Jack Lai Yong Geat, Mr Ooi Aik Khong, Mr Saifullizan Abdul Wahab, Mr Shazwan Halamy, Mr Teay Siew Yen and Ms Christine Lim Pei Shin.

KEY ENGAGEMENTS UNDER SDG 15 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Jan-22	APU's CSR Efforts Of Creating A Mural For The FurryKids Safehaven	https://www.apu.edu.my/media/news/2476
2	Apr-22	International Mother Earth Day Was Commemorated By APU Students In A Fun And Creative Way	https://www.apu.edu.my/media/news/2560
3	Jun-22	Emerged 5th In ACP Championship Malaysia 2022	https://www.apu.edu.my/media/news/2615
4	Jun-22	SoB Students Help Clean Up Gasing Hill Area	https://www.apu.edu.my/media/news/2611
5	Jun-22	Beach Cleaning Initiative: 40 APU Students Join Hands At Beach Clean-Up	https://www.apu.edu.my/media/news/2608
6	Oct-22	Fluffy Charity Moves By APU Student-Volunteers	https://www.apu.edu.my/media/news/2726
7	Oct-22	The Birth Of Malayan Tigers' Conservationist From APU	https://www.apu.edu.my/media/news/2701
8	Nov-22	Future Data Scientists Are National Champions	https://www.apu.edu.my/media/news/2743
9	Dec-22	Saving Wildlife by Roar & Run – Knowing the Plight of the Tiger	https://www.apu.edu.my/media/news/2738

EDUCATION TOOL ON ONLINE ABUSE AEXPLOITATION BAGS AWARD AT ASEAN MAKEITSAFE HACKATHON 2022

Using gamification features as a support tool to teach, prevent online sexual abuse, and improve parent-child interaction, as well as address OCSEA from a new angle

Despite their busy schedule, over Childhood experiences influence who we become. However, sexual abuse has harmed some young lives, and for some, this has resulted in significant problems later in life.

Right now, on average, a study estimates up to 100,000 kids in Malaysia may be victims of Online Child Sexual Exploitation and Abuse (OCSEA) based on Disrupting Harm in Malaysia: Evidence on Online Child Sexual Exploitation and Abuse report published in September 2022.

Victims were mostly girls between the ages of 13 and 15, with some being blackmailed to engage in sexual activities, having their sexual images shared without permission, or being coerced to engage in sexual activities with promises of money or gifts.

In fact, this is a global issue that children face, not just in Malaysia!

To address this issue, the **ASEAN MakeITSafe Project** challenges youth across ASEAN to create 'gamified-projects' that address social problems related to OCSEA issues through the power of design and which have a societal impact.

Child Pro Tech prototype and design solutions by Team C.A.R.E.

Stepping up to this challenge, **Team C.A.R.E: Ang Zi Yang** (Information Technology with a specialism in Business Information Systems), **Yudhishthra Sugumaran** (Information & Communication Technology with a specialism in Software Engineering), **Chai Waii Yuan** (Computer Science), **Chua E Heng** (Computer Science), **Casey Tan Wai Kaey** (Computer Science, Cyber Security) and **Cheryl Lim Wye Yee** (Computer Science with a specialism in Data Analytics) from APU bagged 1st Runner Up in the virtual ASEAN MakeITSafe Hackathon 2022.

They were pleasantly surprised when the Child Pro Tech prototype and design solutions they developed, which included games and AR interactivity, drew the attention of judges from world-leading professionals and industry-leading companies.

"When children use the internet, they are never alone. Online predators use kid-friendly apps and games to meet children, gain their trust, and trick them into sharing sexual images of themselves or meeting up in person, and it happens more frequently than you might think," said Zi Yang, representing Team C.A.R.E.

"There are actions we can all take, when combined, can make all children safer and help prevent it from happening, but first we need to understand how this abuse can happen."

While constructing Child Pro Tech, they discovered that children who interact less with their parents are more likely to be exposed to OCSEA.

For this reason, they decided to use gamification features such as mini-games, quizzes, semi-open world games and AR interactivity with mascots and rewards (such as badges and reward points) as a support tool to teach, prevent online sexual abuse, and improve parent-child interaction.

"We chose to target parents because we want to approach OCSEA from a different angle or perspective," he clarified, while thanking their mentor, **Ms Abbhirami Sivarajan** for her assistance throughout the prototype's design process by providing solid feedback and potential improvements.

"We will not stop competing and will most likely participate in more competitions in the future as we strive to deliver more sustainable solutions through innovation, and together, we can all play a part in making every childhood free from sexual abuse."

At the same time, they received USD400 (RM1,873) in cash, and the organisers have stated that when the **United Nations International Children's Emergency Fund (UNICEF)** holds their annual conference, an invitation will be extended for them to participate.

OVERCOMING MALAYSIA'S ACUTE SHORTAGE OF CYBERSECURITY PROFESSIONALS

Career opportunities at high as online fraud looms larger across various industries, says APU's Dr Julia Juremi

Dr Julia Juremi (left) cautions that phishing attacks are on the rise, creating a high demand for skilled professionals to counter the rising incidences of cyber-related crimes.

KUALA LUMPUR – Many people in Malaysia are falling prey to scams and other forms of virtual robberies daily.

The perpetrators often trap victims using fake identities and posing as some sort of authority, threatening the gullible with prosecution over supposed illicit activities such as money laundering or transactions of prohibited items.

There are also depositors in financial institutions who claim their money went missing from their savings and current accounts, after their passwords were taken through the hacking of their phones or other devices.

In many cases, banks deny any wrongdoing on their part and depositors are left with few remedies, including seeking expensive and time-consuming legal recourse.

The rising incidences and the ease with which money is being pilfered from the accounts of Malaysians has raised alarm bells, with banks and other financial institutions warning their customers of scams.

The warnings alert Malaysians not to fall for fake stories by scammers, and not to release bank account passwords and confidential information related to their identity cards.

The rising numbers of victims is testimony to the sophisticated systems used to scam the victims.

Dr Julia Juremi, head of the Forensic and Cyber Security Research Centre (FSEC) at Asia Pacific University of Technology and Innovation (APU) here, has cautioned that phishing attacks are on the rise.

"This type of online criminal activity is specialised, a form of social engineering where the attacker sends a fraudulent message designed to trick a person into revealing sensitive information or deploys malicious software known as ransomware on the victim's infrastructure," she said.

Social engineering refers to manipulating humans into giving personal information or credentials. Phishing and scamming are examples of social engineering, she explained.

"The need to protect financial data, health information, intellectual property, and countless forms of other sensitive data is paramount," she said.

In this light, there is a high demand for skilled professionals to counter the rising incidences of cyber-related crimes, paving the way for career opportunities for those pursuing a qualification in cybersecurity.

Vulnerability due to lack of preparedness, qualified professionals

Raymon Ram, managing principal of Graymatter Forensic Advisory, which offers consultancy services in cybercrime, said that the level of preparedness of institutions to prevent and withstand the threat of modern cyberattacks must be high.

"The human factor is one aspect. The second is the level of preparedness of financial institutions to prevent and withstand the threat of modern cyberattacks.

"Both human and system-based factors must be evaluated, as one cannot work without the other," he said.

Dr Julia feels that the current needs of the market are not being adequately met by the available supply of cybersecurity professionals, leading to financial institutions and banks being left in vulnerable positions.

"At APU, our cybersecurity courses are designed to cover all aspects, including defensive and offensive tactics in cybersecurity warfare.

"We have a team of 17 academicians with various specialities such as in ethical hacking, digital forensics, network security, and cloud security who teach and guide students on how best to detect and neutralise the threats," she said.

"The top facilities, which include a fully functional Security Operational Centre (SOC) and a cyber range, allow APU to create a hyper-realistic environment so students can study the various methods to neutralise a cyberattack on systems," she said.

Dr Julia stressed that the issue of cyberattacks has become global. If it is not addressed at national level, it could threaten national security with the possibility of hackers breaching the country's government agencies and defence systems.

Talents in cybersecurity urgently needed

Chaatish Rajandain, 26, currently works as a cyberthreat engineer with a cybersecurity solutions network company, focusing on what he terms as "threat hunting" and malware tactics.

With a Bachelors (Hons) degree in Information Technology from APU, specialising in information systems, Chaatish feels that this type of a career is a career of the future, with high salaries and good prospects of employment.

"Being exposed to the working environment, it was an eye-opener to face the growing number of cyberthreats and how Malaysians are an easy target. Most Malaysians are trusting and honest, releasing confidential information.

"This means new talents in the form of highly trained professionals are badly needed to expose the threats and protect the organisations and the people at risk," he said.

Dr Julia Juremi says Asia Pacific University of Technology and Innovation's top facilities, which includes a cyber range, allow APU to create a hyper-realistic environment so students can study the various methods to neutralise a cyberattack on systems.

Teng Chee Yuen, 26, who leads a local bank's forensic and incident response unit, shared how his undergraduate degree at APU stirred his interest in forensics and hacking in general.

"My undergraduate degree in Forensic Computing from APU was challenging but satisfying, as the exposure to data breaches and how to deal with them opened new work opportunities in financial institutions," he said.

On whether there is a shortage of cyber professionals in Malaysia, he said the shortage is visible not just in Malaysia but also globally. "There is a need for such specialists, trained and ready to face cyber-manipulation," he said.

Teng said students need to experience real-life case studies to prepare for future scenarios so they are able to deal with these occurrences of security breaches and cyberattacks in different environments.

"With top facilities at APU equipped with research labs and a cyber range which simulates cyberattacks, students have the opportunity to experience first-hand what a real attack would take and how long is needed to neutralise it," he said.

Highlighting the urgency of the matter, the Anti-Phishing Working Group (APWG) had reported in September 2021 the existence of as many as 214,345 unique phishing sites targeting social media, financial e-commerce, logistics/shipping, and cryptocurrency sectors.

HANNA MOOSA'S XAI TECHNIQUES WIN RIPC 2022 GOLD AWARD

Explainable Artificial Intelligence (XAI) technique provides transparency and explainability required from complex AI models to identify fraud in the healthcare sector in line with the European Union (EU) General Data Protection Regulation (GDPR) and ISO 26262 safety standards.

Billing for services, procedures, and/or supplies that were never rendered, charging for more expensive services than those actually provided, performing unnecessary services for financial gain, misrepresenting non-covered treatments as a medical necessity, and falsifying a patient's diagnosis to justify tests, surgeries, or other procedures are some of the most commonly reported health care frauds.

As Artificial Intelligence (AI) advances, it may be able to help analyse the massive frauds cases in healthcare system and effectively move forward with improved International Organization for Standardization (ISO) guidelines and safety requirements.

Hanna Moosa, Asia Pacific University of Technology & Innovation (APU) Master student in Data Science and Business Analytics, recently received a **Gold Award** for her final year project titled "**Application and Evaluation of eXplainable AI (XAI) Techniques in AI Models Used for Health Insurance Fraud Detection**" in the Research & Innovation Poster Competition (RIPC), Series 1/2022, under Master Science, Technology, Engineering, and Mathematics category.

RIPC organised by MNNF Network, Malaysia is one of the platforms for highlighting, recognising, and sharing students' final year projects, theses, or dissertations from various Malaysian universities, as well as to encourage a culture of research and innovation among students.

Hanna stated that she chose this study due to an increase in fraudulent activities and the deployment of complex AI models to detect fraud in the healthcare domain, as well as regulations such as the European Union's (EU) General Data Protection Regulation (GDPR) and domain-specific standards such as ISO 26262 Safety Standard.

She used a complex Explainable Artificial Intelligence (XAI) model (model agnostic methods) such as boosting models and deep learning models to detect fraud, and the XAI techniques are used on top of the AI models to provide the necessary explanations and increase the model's transparency.

However apart from the model global explanation provided by Shapley Additive

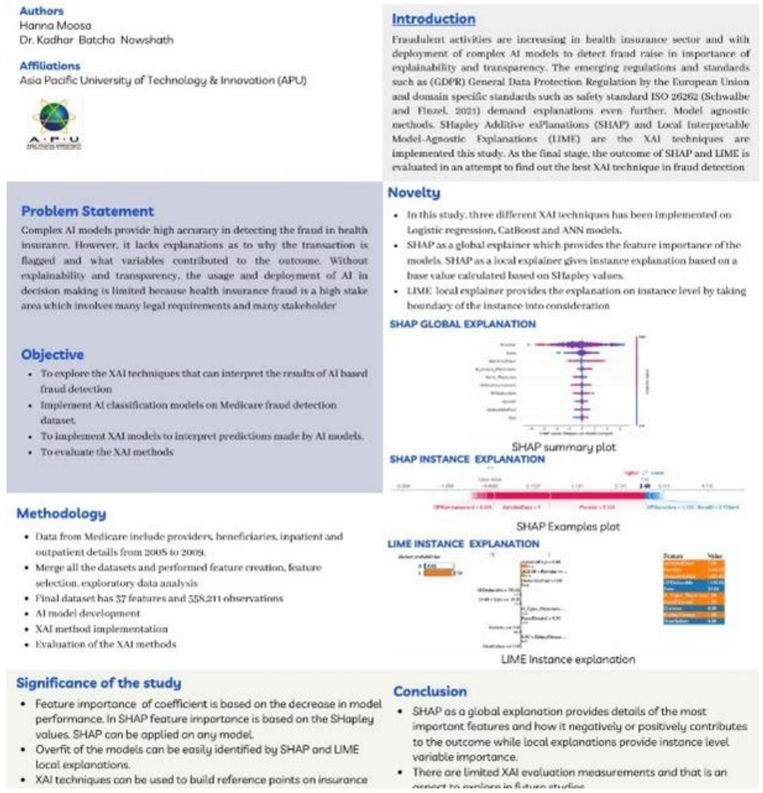
Explanations (SHAP), her study also provides local instance-level explanation provided by SHAP as well as Local Interpretable Model-Agnostic Explanations (LIME), and finally, the outcomes of SHAP and LIME are evaluated to find the best XAI techniques in fraud detection.

"With the guidance of my mentor, **Dr Nowshath Kadhar Batcha** (Senior Lecturer of School of Computing), I was able to finish this project in around seven months, from research through implementation and documentation.

"He has been a tremendous help to me throughout the capstone project, and the poster was made based on the project's outcome, which is to establish trust between users and providers by utilising transparent technology while sticking to laws on data availability and interpretability," she said.

With growing health care fraud cases, Hanna was keen to shake things up with her XAI technique designed to stand out from the masses of AI models, taking users into easy-to-use tools that can be implemented on any predictive model and offer the required explanations.

"I am glad to be able to successfully provide local and global explanations of the AI models using these two methods (SHAP and LIME)," she explained, adding, "I will continue to expand my knowledge in Data Science toolkits, explore XAI concepts, and contribute to reducing knowledge gap in this field."



KEY ENGAGEMENTS UNDER SDG 16 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Jan-22	Hanna Moosa's XAI Techniques Win RIPC 2022 Gold Award	https://www.apu.edu.my/media/news/2490
2	Jun-22	Education Tool on Online Abuse and Exploitation Bags Award at ASEAN MakeITSafe Hackathon 2022	https://www.apu.edu.my/media/news/2733
3	Jun-22	Overcoming Malaysia's Acute Shortage Of Cybersecurity Professionals	https://www.apu.edu.my/media/news/2586

PAVING THE WAY FOR FELDA'S NEW GENERATION DIGITAL EDUCATION PROGRAMME

FELDA and APU's strategic collaboration allows 13 outstanding students, including grandchildren of settlers and children of FELDA Group employees, including FGV, to pursue academic studies up to the bachelor's degree level.

KUALA LUMPUR, 30 AUGUST 2022 – The Federal Land Development Authority (FELDA) through **Yayasan FELDA** signed a Memorandum of Understanding (MoU) with the Asia Pacific University of Technology & Innovation (APU) to deliver a 'Global Digital Leadership (GDL)' education programme covering a broad range of technology specialisations for FELDA's new-generation human capital development.

YB Tan Sri Idris Jusoh, Chairman of FELDA (from centre to right); Datuk Parmjit Singh, Chief Executive Officer of APU; Dato' Mohd. Banuri Aris, General Manager of Yayasan FELDA; Mr Mohd. Helmy Norman, Executive Director of APU; Prof. Dr. Ho Chin Kuan, Vice Chancellor of APU in a group picture with 13 outstanding FELDA offspring for the 'Global Digital Leadership (GDL)' education programme.

This initiative inspired by **YB Tan Sri Idris Jusoh, Chairman of FELDA** aims to increase digital preparedness in line with Industrial Revolution 4.0 (IR4.0) by exposing reality and practicality in order to produce excellent human capital ready to embrace the challenges in the digitalization era.

This memorandum was signed by **Dato' Mohd. Banuri Aris, General Manager of Yayasan FELDA, and Mr Mohd. Helmy Norman, Executive Director of APU, witnessed by YB Tan Sri Idris Jusoh and Datuk Parmjit Singh, Chief Executive Officer of APU.**

The public-private strategic collaboration between these two organisations will enable an initial group of 13 outstanding students consisting of grandchildren of settlers and children of FELDA Group employees, including FGV, to pursue study programmes up to the Bachelor's Degree level. These 13 students are among 239 applicants who applied for this scholarship since it opened on 16 June 2022.

(From left) Dato' Mohd. Banuri Aris, General Manager of Yayasan FELDA; YB Tan Sri Idris Jusoh, Chairman of FELDA, open up signed documents with Datuk Parmjit Singh, Chief Executive Officer of APU; and Mr Mohd. Helmy Norman, Executive Director of APU.

This programme valued at RM1.5 million in total, includes Academic Studies Program, Intensive English Program (IEP), Neuro Linguistic Programming (NLP), foreign language classes (Korean language), accommodation fees, and student allowance for 4 years and 6 months.

Through this strategic collaboration, YB Tan Sri Idris Jusoh reinforces FELDA's commitment to raising educational standards and developing the new generation of FELDA in order to enhance the social mobility of FELDA's community as a whole.

"With the signing of this MoU, I am confident that the educational aspirations of the new generation of FELDA will be empowered, as will digital mastery, which will be the driver of a more advanced future."

He also added, "We are delighted to be able to collaborate with a leading higher education institution like APU to lead a joint programme in the field of technology. This move will serve as inspiration and motivation for the new generation of FELDA to continue to innovate and achieve world class success after they graduate and become the force to achieve FELDA's aspiration to propel itself in the Fortune 500 league," he explained.

At the same time, Datuk Parmjit Singh thanked FELDA, FGV, and Yayasan FELDA for their confidence and foresight in establishing collaboration in education and digital technology.

"We look forward to the opportunity of transforming their bright future, highly motivated young students selected to join this programme, into highly competent, employable and future-proof graduates in their chosen technology specialization.

"We are confident that through this collaboration, these students will not only be competitive locally but will also develop high levels of global awareness and competitiveness by studying in APU with a highly multicultural learning environment, which includes more than 130 countries on campus," he concluded.

This GDL programme offers 18 technology-based courses such as Information Technology (IT), System Security, Cloud Engineering, Network Computing, Mobile Technology, Internet of Things (IoT), Digital Transformation, Financial Technology (FinTech), Business Information Systems, Software Engineering, Computer Science, Data Analytics, Digital Forensics, Cyber Security, Intelligent Systems, Multimedia Technology, VR/AR, and Computer Games Development.

CMT ASSOCIATION PARTNERS WITH ASIA PACIFIC UNIVERSITY OF TECHNOLOGY & INNOVATION TO ADVANCE THE DISCIPLINE OF TECHNICAL ANALYSIS

CMT Association is proud to announce its new partnership with **Asia Pacific University of Technology & Innovation (APU) through the School of Accounting & Finance and School of Mathematics, Actuarial & Quantitative Studies.**

Selection for the **CMT Association's Academic Partner Program** signifies a strong commitment to students' career readiness and applied learning. Institutions in the Academic Partner Program demonstrate academic rigour in financial courses ranging from quantitative methodologies to behavioural finance, as well as portfolio management, trade risk, and other key aspects of technical analysis.

This partnership aims to meet the growing demand for student career preparedness while advocating for the advancement of technical analysis.

Brett Villaume, President of the CMT Association said, "I am thrilled that the CMT Association has partnered with APU, a leading institution of higher learning in the Asia-Pacific Region, and that Laurensia will be interning with us this summer. By enabling students and their professors to learn the value of technical analysis, we help to ensure future generations of investment management professionals are more successful, rewarding them in their careers as well as benefiting society at large."

Technical analysis, which is a crucial part of investment and trading decisions, has evolved over hundreds of years. While modern technical analysis retains its roots in classical observations of market behaviour, it extends beyond pattern recognition to employ groundbreaking quantitative methodologies and rules-based trading-system design and testing.

APU Head of the School of Finance, Assoc. Prof. Dr. Rajasegeran Ramasamy believes that technical analysis is one of the critical skills required by the investment industry.

"CMT Association is the leading programme provider for credentialing in technical analysis, and the inclusion of APU's Banking and Finance degree programme in the CMT Association's Academic Partner Programme demonstrates that APU's Banking and Finance degree is preparing students toward a global standard.

"The collaboration is consistent with the University's goal of developing students' ability to use rules-based trading algorithms and quantitative methods in investment valuation," he said.

Explaining further on this new partnership, Assoc. Prof. Dr. Rajasegeran said, "CMT Association's Academic Programme will also enable students to learn the best investment analytical skills from industry experts around the world, broadening their employment opportunities in the financial services sector."

Since the CMT Program emphasizes data visualization, risk management, and intermarket analysis, this new partnership will benefit APU students in analysing market trends, according to **Laurensia Clara Himawan,** a student from Jakarta, Indonesia who is enrolled in the APU Bachelor Degree programme in **Banking and Finance (Hons) with a specialisation in FinTech.**

Laurensia will begin her remote internship with the CMT Association (headquartered in lower Manhattan) in early April and believes that this opportunity will improve her learning and career readiness.

"I believe this programme will add value to existing APU programmes because the investment landscape has changed dramatically, and the CMT credential connotes mastery of technical analysis knowledge.

"Do not hesitate to participate in this programme because it is quite beneficial. Even for students who are new to investing and trading, they may begin to learn through this programme," she concluded.

CROSS-BORDER UNIVERSITY COLLABORATIONS ENHANCE ENTREPRENEURSHIP SKILLS

Datuk Parmjit Singh, CEO of APU (left) signs a Memorandum of Agreement with representatives from the nine universities in a virtual signing ceremony, witnessed by Prof. Ir. Ts. Dr. Vinesh Thiruchelvam, the Chief Innovation & Enterprise Officer of APU.

In line with the National Entrepreneurship Policy (NEP), a long-term strategy for Malaysia to become an outstanding entrepreneurial nation by 2030, Asia Pacific University of Technology & Innovation (APU) further expanded its Experiential Entrepreneurship Education by collaborating with nine universities in ASEAN and Africa, to build capacity in supporting start-up and spin-out companies, as well as to exchange knowledge and skills among faculty.

The collaboration was formalised through a Memorandum of Agreement signed by **Datuk Parmjit Singh**, CEO of APU, and representatives from the nine universities in a virtual ceremony held 10 March, witnessed by **Prof. Ir. Ts. Dr. Vinesh Thiruchelvam**, the Chief Innovation & Enterprise Officer of APU.

The nine universities are Tra Vinh University and Can Tho University, Vietnam; Universitas Trisakti, Universitas Indonesia, and Telkom University, Bandung from Indonesia; Palawan State University, Philippines; the Chea Sim University of Kamchaymear, Cambodia; National University of Laos; and the University of Mpumalanga, South Africa.

This collaboration includes mutual visits, access to facilities in the incubation centres, advisory to start-up/spin-off companies on regulatory requirements, understanding of the market in each parties' countries and joint research relating to entrepreneurship.

"The collaboration with the nine universities will give all partners access to support and facilities in an incubation centre, along with mentor sharing and training sessions for start-up companies and the sharing of curriculum and teaching materials related to entrepreneurship programmes. Students can also participate in the ideation boot camps, entrepreneur competition, and accelerator programmes," elaborated Parmjit.

Collaboration in entrepreneurship initiatives plays a crucial role in the upcoming ASEAN Economic Community, as ASEAN has a workforce of more than 400 million, with a combined GDP of 2.4 trillion dollars while also being rich in natural resources. It would allow ASEAN, to be among the top 10 economic powers in the world.

As the ASEAN market size is so massive, regional entrepreneurship allows the startups to collaborate with firms from other countries making the process easier and smoother which would bring more benefit to both the parties involved and create the opportunity to catalyze creative solutions to long-standing problems, promote research, and energize social change.

Regional entrepreneurship collaborations are also important to create market opportunities for start-ups, where governments of Malaysia and Indonesia saw a Memorandum of Understanding on the cooperation in the field of entrepreneurship education signed on 20 November 2021.

Through this cross-border enterprise programme, APU students, as well as students from the above nine universities, could apply their talent and technical expertise and venture into entrepreneurship while they are still studying in institutions of higher learning.

In his speech, Datuk Parmjit noted that APU's Enterprise @ APU programme "Better equips student-entrepreneurs by providing a holistic entrepreneurial ecosystem. It brings together the best content for entrepreneurship education and is based on elements that foster entrepreneurial culture and mindset. This network will foster a thriving entrepreneurial community both on and off-campus".

His Excellency Dr. Touch Visalsok, Secretary of State, Ministry of Education, Youth and Sport of Cambodia stated, "The MoA will help strengthen the collaboration on entrepreneurial skills of CSUK students and staff with those of APU and other consortium universities, and contribute towards the development of SME in Cambodia".

Prof. Dr. Ha Thanh Toan, Rector of Can Tho University, Vietnam remarked, "We are very happy to join this network where students can not only join incubator activities but also exchange their cultures. We will do our best to support the network activities successfully."

Assoc. Prof. Dr. Pham Tiet Khanh, Rector of Tra Vinh University, Vietnam added, "I hope that we will undertake many collaborative activities in the coming time."

"The signing of the MoA will provide a platform for strategic international cooperation among the participating institutions. This will contribute towards the realisation of our strategic goal of sustainable development through innovation," said **Prof. Thoko Mayekiso, Vice-Chancellor of the University of Mpumalanga, South Africa.**

Dr. Ramon M. Docto, President of Palawan State University, Philippines stated "PSU together with Palawan International Technology Business Incubator, Department of Science and Technology MIMAROPA (DOST-MIMAROPA) and APU will strive to provide relevant and innovative education and research in entrepreneurship".

Assoc. Prof. Dr. Somchanh Bounphanhmy of the National University of Laos said, "This collaboration will provide more opportunity for NUOL staffs and students to enhance entrepreneurship knowledge and skills".

Dr. Nurtami, Vice-Rector for Research and Innovation, Universitas Indonesia (UI) opined, "Through the establishment of this multinational and multicultural collaboration, UI wants to escalate the incubation programme to the next level, by involving more diverse perspectives. Cross borders research collaborations are critical and strategic in driving greater impacts for the community, particularly in academics, society, and the economy.

"Universitas Trisakti is honoured to partner with the Asia Pacific University of Technology and Innovation. This partnership allows students and academic staff to increase their innovative and entrepreneurial capacity and to conduct cross-cultural interactions among the young generation coming from both and other universities," said **Prof. Dr. Ir. Kadarsah Suryadi DEA, Rector of Universitas Trisakti, Indonesia.**

Dr. Koredianto Usman, Director of Bandung Techno Park, Telkom University, Indonesia chimed in with agreement, "Yes, together we are stronger!"

ACADEMIA-INDUSTRY PARTNERSHIP DRIVING SDG AND ESG GOALS IN SUPPLY CHAIN & LOGISTICS

Asia Pacific University of Technology & Innovation (APU), with its Integrated Sustainability & Urban Creativity Centre (ISUC), has been driving research in areas of United Nations' Sustainability Development Goals (SDGs), coupled with its practices across the board inculcating ESG.

Putting research into practice, APU has collaborated with **CILT Ventures Malaysia Sdn Bhd, a fully subsidiary of Chartered Institute of Logistics and Transport Malaysia (CILTM)** aimed at addressing the sustainability and environmental goals and concerns of the logistics and transportation industries.

The Green Supply Chain and Logistic Excellent Centre (GEC) will drive innovation and research in multiple technology areas for this sector. APU's Post Graduate School, especially PhD students will benefit greatly through research areas related to SDGs and ESG. PhD research will be funded. In addition, student internships in key areas will be offered by members of CILTM to APU's undergraduates.

CILTM IS the professional body representing the logistics and transportation industries in Malaysia and is affiliated with CILT International based in the United Kingdom. International members of CILT affiliations are active in 44 countries worldwide.

Dato Ts. Abd Radzak Abd Malek (2nd from left), Chairman of CILT Ventures Malaysia; and Dr. Hari Narayanan (2nd from right), Vice-Chancellor, APU, exchanging the signed documents. Dr. Mohammad Nizam Baharom (left), CEO, CILT Ventures Malaysia; and Datuk Parmjit Singh (right), CEO of APU, witnessed this significant moment.

APU and CILT Ventures Sdn Bhd formalized their collaboration on 17 March 2022 by **Dato Ts. Abd Radzak Abd Malek**, Chairman of CILT Ventures Malaysia; and Dr. Hari Narayanan, Vice-Chancellor, APU. **Dr. Mohammad Nizam Baharom**, CEO, CILT Ventures Malaysia, and Datuk Parmjit Singh, CEO of APU, witnessed this significant moment.

A group picture of both signatories of CILT Ventures Malaysia and APU with their representatives to celebrate the formalisation of collaboration on Green Supply Chain & Logistics Excellent Centre.

"The logistics industry plays a crucial part in helping protect our environment. We need to enlist experienced experts who understand the science behind our environment to be part of our team. Let's not forget the value of an independent voice and the importance of universities, researchers and professional bodies in providing professional advice," said Dato Ts. Abd Radzak Abd Malek.

Datuk Parmjit Singh highlighted innovation as a driver in this collaboration "Let us constantly challenge ourselves to be at the forefront through innovative ideas and solutions that create value to industry, environment and society."

KEY ENGAGEMENTS UNDER SDG 17 FOR 2022

NO	MONTH	TITLE / DESCRIPTION OF EVENT/ACTIVITY	URL OF EVENT REPORT / PUBLICISED ARTICLE
1	Jan-22	'Pandemic Leadership Award 2021' For APU Volunteer Leader	https://www.apu.edu.my/media/news/2513
2	Jan-22	APU's CSR Efforts Of Creating A Mural For The FurryKids Safehaven	https://www.apu.edu.my/media/news/2476
3	Mar-22	Academia-Industry Partnership Driving SDG And ESG Goals In Supply Chain & Logistics	https://www.apu.edu.my/media/news/2501
4	Mar-22	CMT Association Partners With Asia Pacific University Of Technology & Innovation To Advance The Discipline Of Technical Analysis	https://www.apu.edu.my/media/news/2500
5	Mar-22	Cross-Border University Collaborations Enhance Entrepreneurship Skills	https://www.apu.edu.my/media/news/2499
6	Apr-22	Raudhathul Al-Faeez Orphans Get Aidilfitri Aid From APU Clubs & Societies	https://www.apu.edu.my/media/news/2573
7	May-22	Serving The Needy And Underprivileged For Aidilfitri 2022	https://www.apu.edu.my/media/news/2576
8	May-22	Bronze Medal In The Hanoi SEA Games	https://www.apu.edu.my/media/news/2562
9	May-22	MPA And APU Sign Landmark MoA To Boost Technological Solutions For Property And Construction Sector	https://www.apu.edu.my/media/news/2542
10	Jul-22	ERASMUS+ FRIENDS Project Malaysia National Conference On Internationalisation At Home (IaH)	https://www.apu.edu.my/media/news/2669
11	Jul-22	SJK(T) Kinrara Students Excited To Learn Computer Science With ViRa Robot	https://www.apu.edu.my/media/news/2616
12	Jul-22	APU Collabs With The Department Of Statistics Malaysia For Driving Data Studies	https://www.apu.edu.my/media/news/2601
13	Aug-22	APUBCC Contributing To Malaysia's Blockchain And Crypto Ecosystem	https://www.apu.edu.my/media/news/2705
14	Aug-22	Research Grant Award For Prof. Dr Murali And Team	https://www.apu.edu.my/media/news/2687
15	Aug-22	Paving The Way For Felda's New Generation Digital Education Programme	https://www.apu.edu.my/media/news/2677
16	Aug-22	Power Electronics Research In Denmark For Merdeka Grant Award Recipient	https://www.apu.edu.my/media/news/2667
17	Oct-22	Embed Entrepreneurial DNA Into Graduates Says Apu Director Of Research	https://www.apu.edu.my/media/news/2728
18	Oct-22	Fluffy Charity Moves By APU Student-Volunteers	https://www.apu.edu.my/media/news/2726
19	Oct-22	Entrepreneurs-In-The-Making Solving Real-World Problems	https://www.apu.edu.my/media/news/2722
20	Oct-22	The Birth Of Malayan Tigers' Conservationist From APU	https://www.apu.edu.my/media/news/2701
21	Oct 22 - Dec 22	CSR Programme To Help Underprivileged Children Acquire Digital Skills	https://www.apu.edu.my/media/news/2706
22	Nov-22	APU Students Among Asia's Top 100 Young Talents	https://www.apu.edu.my/media/news/2744
23	Dec-22	APU & DNB Sign MOU to Forge Development Of 5g Curriculum and Related Digital Services	https://www.apu.edu.my/media/news/2748
24	Dec-22	"Kingdoms of Diversity" Showcases a Harmonious Flourishing Multicultural Community at APU	https://www.apu.edu.my/media/news/2745
25	Dec-22	Saving Wildlife by Roar & Run – Knowing the Plight of the Tiger	https://www.apu.edu.my/media/news/2738

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(A Member of the APIIT Education Group)

Technology Park Malaysia, Bukit Jalil, 57000 Kuala Lumpur.
Tel : +603-8996 1000
Email : info@apu.edu.my | info@apiit.edu.my

DU030(W) | DK121(W)

www.apu.edu.my | www.apiit.edu.my

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