

UNIVERSITI SAINS MALAYSIA

2021 REPORT



































SUSTAINABLE GCALS DEVELOPMENT GCALS 2021 REPORT

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FOREWORD

Assalamu'alaikum warahmatullah/Salam Sejahtera and warmest greetings.

In this day and age, amassing data can be swiftly and effectively done using a multitude of instruments and methods. From this data then, reports can be concluded and further actions, if needed, could be taken.

Data relating to climate change, however, can only serve the cause to a certain extent. Information that is misunderstood or not acted swiftly upon may lead to other issues, more so when it involves unpredictable weather patterns or unforeseen environmental shifts.

Incidences relating to climate change which occurred in the past few months, serve as testimonies to how nature can act and affect in ways that are still beyond man's control. Floods in Kampong Iboi in Baling, Kedah after a 4-hour rain; Pakistan receiving 190% more rainfall in addition to threats of glacial defrosting, and unprecedented rising temperatures leading to heatwaves in Death Valley, California are some of the examples that can lead to more serious consequences for the surrounding communities. What are we talking about now: climate change, climate crisis, climate disaster or climate catastrophe?

Many of those affected would be from countries or communities that have miniscule contributions, at less than 1% to the greenhouse gases which cause climate change. Those affected will be the ones with the smallest carbon footprints or living in mud homes with hardly any resources.

In all these occurrences, data is plentiful all around. Acting upon them is a different matter altogether.

The THE-GIR rankings are all data-based actions, gathered to gauge how much action has been driven and what impact have those actions achieved. The United Nations 17 Sustainable Development Goals will usually provide reference points in areas that require further action.

USM has been involved in this ranking exercise for a few years and hopes to continue leading the change in higher education and in other areas. As the only university in the country to be accorded the APEX status, championing the people and the planet remains a perennial responsibility of the university. There is no better way than this in the move to bring justice and fairness to the population and the environment.

Thank you.

PROFESSOR DATO' DR. FAISAL RAFIQ BIN MAHAMD ADIKAN, FASC

Vice-Chancellor Universiti Sains Malaysia



PREFACE

Assalamu'alaikum warahmatullah and warmest greetings.

In the previous ranking exercise, USM managed to score 100% for SDG 17 (Partnerships for the Goals) and ranked #4 in the world for Time Higher Education (THE) Impact Ranking. It was a pleasant surprise indeed. No mean feat in trying to achieve the best for all the 17 Sustainable Development Goals, as other institutions the world over will be pursuing such achievements too.

A more collective and extensive data-keeping and retrieving exercise has made such an achievement possible. Doing the work is not only harder, but smarter as well.

What is more important here though is the ability to sustain all the positive effort, whether it relates to the data-keeping processes or the sustainable routines practiced throughout. Simply put, it is all about habit-forming.

Sustainability is all about making compromises, to give and take, to make sacrifices. It prioritises on making 'healthier' choices for the planet and the people who live on it. Examples of sustainable choices would be in buying products made from recycled materials, avoiding fast fashion, and making sure that there is no wastage of water and energy use at home or at work. We live in a world with finite resources, after all.

Making it a habit of doing all the above-mentioned will be another challenge at the ground level. Everyone needs to be responsible for making all these sustainable efforts as part of their lives. The awareness needs to be inculcated internally. Campaigns alone will be short-lived or superficial at best.

Live your minimal best and avoid wastage whenever necessary. Full self-realisation and continued action will ensure that there will be a sustainable tomorrow for future generations.

PROFESSOR DR. MD ROSLAN BIN HASHIM

Deputy Vice-Chancellor

Sustainability and Institutional Development

About USM





1969

Established as Universiti Pulau Pinang

Moved to present site (416.6 hectares of land in Penang Island 9.7 km from Geogretown

Apart from the Main Campus, USM has other campuses— Engineering Campus in Nibong Tebal which is approximately 50km away. Health Campus in Kubang Kerian, Kelantan (300km away) and AMDI Campus at Bertam, approximately 38km away.

Courses

USM offers various courses ranging from Natural Sciences, Applied Sciences, Medical and Health Sciences, Pharmaceutical Sciences, Building Science and Technology, Social Sciences, Humanities, and Education for 30,000 students—undergraduates and postgraduates.

- Academic Schools at the main campus in Penang
- Academic Schools at the Nibona tebal
 - Academic Schools at the **Engineering Campus in** Health Campus in Kubang Kerian, Kelantan

SERVICE CENTRES

26 **RESEARCH CENTRES**

- 8 **UNITS**
- 1. USM adopted the **School system** rather than the traditional Faculty system to ensure that its students are multi-disciplined from their exposure to other areas of study by other Schools.
- 2. USM encourages students to be active in extracurricular activities given the myriad of clubs and societies available.
- 3. USM is recognised by the Ministry of Higher Education Malaysia (MOHE) as Research Intensive University in
- 4. In 2008, USM also became the first university in the country to be selected as the Accelerated Programme for Excellence (APEX), a fast-track programme that helps tertiary institutions achieve world-class status.
- 1. 17 dedicated research centres for a wide range of specialisations which include archaeology, medicine and dentistry, molecular medicine, science and technology, Islamic development and management studies, and policy research and international studies
- 2. USM also offers consultancy, testing, and advisory services to the industry under the ambit of USAINS Holdings Sdn. Bhd, the University's commercial arm

INTRODUCTION

Being the sole APEX (Accelerated Programme for Excellence) university in the country has finally vielded results at the global stage for Universiti Sains Malaysia (USM) when she has been positioned at #4 in the Times Higher Education Impact Rankings 2022 on sustainability (THE-GIR) released on 28 April 2022, from among 1,406 institutions across 110 countries and regions around the world taking part in the ranking exercise. USM has inched closer towards becoming a world's top sustainability-led university.

The THE-Impact Rankings measure the contributions made by an institution and its community in achieving the 17 Sustainable Development Goals (SDGs) set by the United Nations by 2030. This includes the initiatives taken by the institution together with its partners in fulfilling the requirements of the SDGs.

The position, which is the highest in the country and Asia presents a huge jump from previous year's rankings (#39 in 2021) and this latest achievement further cements USM's position as among the world's best institutions when it comes to solving humanity's greatest challenges.

In addition to being placed in the 4th position in the overall rankings, USM is also ranked at #1 in the world for SDG16 (score 96.4: Peace. Justice and Strong Institutions) and SDG17 (score 100.0: Partnership for the Goal). USM score for SDG 16 was obtained through efforts in research, management. linkages with authorities and students. The full mark for SDG 17 measured through strong connections that the university has with other partners at various levels, including the community and the industry hence encapsulates USM's moves toward instilling a culture of sustainability among the university community and its surroundings.

Besides, USM is also highly ranked in SDG 5 (Gender Equality) at #7, where it portrays USM's success in promoting research based on gender, the percentage of female academics as well as female graduates and in measuring the overall success of the fairer sex. USM is highly placed in SDG 7 (Affordable and Clean Energy) at #3, where it reflected the role of USM in taking measures related to energy efficiency and renewable energy, and its applications in the community.

The rankings present how the global higher education sector is working towards the United Nations' Sustainable Development Goals (SDGs). Indicators looked across four broad areas which are research, stewardship, outreach and teaching. It provides a showcase for the work being delivered by universities in communities, and opportunity to capture activities not covered in other rankings and hence demonstrating its own commitments, strengths and uniqueness pertaining to sustainability in the world we live in.

USM can become a world leader in sustainable initiatives, especially in raising the quality of life for all of mankind, more specifically for the communities in the country. The rankings highlight the social and economic impact created by universities around the world, based on the United Nation's Sustainable Development Goals (SDGs). It represents a forwardlooking view in analysing the achievements of a university beyond the teaching and research focus of conventional rankings. USM's achievement in this ranking exercise is a testament to the successful enculturation and practice of the University's APEX Agenda. USM's APEX agenda and core business have always centred on the values reflected in the SDGs.

The success is an all-round acknowledgment, befitting the aim of USM in becoming the institution that leads in global sustainability as part of the APEX aspiration. A culture of excellence and sustainability drives the entire university community. They play a pivotal role in the betterment of the University. These efforts prove that education, especially higher education in our country can make a significant contribution to global sustainability and achieve the SDGs and create a sustainable world. We have succeeded in showing that universities in Malaysia are able to balance between "hi-tech" and "hitouch" which is between the need to master technology and the need to develop the human soul. This is also in line with the efforts to make the Malaysian universities the best place to seek knowledge and build a life in accordance with the desire to "Transforming Higher Education for A Sustainable Tomorrow".

USM Support

In the early 2021, Universiti Sains Malaysia (USM) launched a DHA Milk (nutritional) Aid Programme that is hoped to ease the financial burden of the B10/B20/B40 staff in providing daily sustenance of DHA milk that is full of nutrition for their children. The programme is meant to instil the habit of drinking milk from an early age and to continue the habit among the children of the staff, which could assist in both their physical and mental development processes, simultaneously allowing them to grow strong and healthy according to Dr. Normala Abdul Wahid the Director of Pusat Sejahtera USM. The programme will benefit some 2,500 USM staff who qualify for the DHA milk nutritional aid.

Laptop Assistance to USM B40 Students Initiative

The Laptop Assistance to USM B40 Students Initiative was materialised from the desire to assist the USM B40 students joining the 2020/2021 Academic Session who face problems with online learning throughout the country due to the COVID-19 pandemic. This initiative has benefited more than 450 students from this group—352 students from USM contributions totalling RM1.13 millions and another 100 students received contribution from 'zakat' (tithe) managed by USM.

USM Mindful, Provides Special Assistance to Students

In line with the concerns of the Ministry of Higher Education Malaysia (MOHE) which understands the predicaments faced by parents and students throughout the COVID-19 pandemic, Universiti Sains Malaysia (USM) is heeding the call to provide assistance to its students. The assistance is in the form of fee reduction to students-20% for Semester One in the 2021/2022 Academic Session to all local undergraduates and postgraduates including students of Distance Education Programme as proposed by MOHE. USM is also giving retaining fees exemption for postponement cases—applies to students at all levels, beginning from Semester Two of 2020/2021 Academic Session and Semester One of 2021/2022 Academic Session. USM will also refrain from imposing a penalty for the study postponement period, aside from giving a 10% discount for the registration fees to new international students (Semester One intake. 2021/2022 Academic Session). Both initiatives will apply to undergraduates and postgraduates.

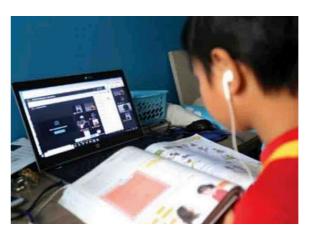
21
PUBLICATIONS
IN SCOPUS
2021

10

RM1.7M
Distribution and Financial
Aids (Zakat) to Students

USM Mobilising Experts to Enhance B40 Schools in Penang Towards Achieving Greater Success

USM was engaged by the Northern Corridor Economic Region (NCER) to undertake a premier educational programme to empower B40 kids in two districts in Penang in a programme call Empower NCER-Akademik Programme. The programme has achieved targets set by the NCER—100% of 300 pupils passed their Sijil Pelajaran Malaysia (SPM) examination. This initiative become a success with the help of the USM team comprising of Academic Advisors, Certified Counsellors, Student Buddies and Strategic Partners; the Penang Education Department, District Education Officers, 8 participating schools in Seberang Perai Utara and Seberang Perai Tengah, dedicated teachers and of course the diligent pupils. This significant success has led NCER to continue engaging USM with the second phase of the programme, which will benefit 25 schools in all 5 districts of Penang involving approximately 1,000 pupils.



Micro-Seed Funding Initiative 'From Staff To Staff' to Help Improve the Standard of Living of B40

With the concept of 'from staff to staff', Universiti Sains Malaysia (USM) has introduced a micro-seed funding initiative that uses the existing expertise of academic staff at the university and returns it to non-academic staff. This micro-seed funding is one of the noble efforts introduced in 2021 by the Vice Chancellor, and developed by the Registrar's Office under the Talent Management and Wellbeing category, in collaboration with the Knowledge Transfer Program (KTP), Community Networking and Industry Division (BJIM), as well as some certain academics. This initiative aims to help develop the economy as well as improve the standard of living of USM staff who belong to the B40 category who are also interested in starting a business in the field of entrepreneurship regardless of whether the individual has had a business before or not. The focus of the 'micro-seed' is to produce as many entrepreneurial mentors and mentees according to the areas of expertise available at USM. Regardless of whether the business is outside or on campus, the condition for starting a business is to have a mentor who is a lecturer at the university.

Alumni of Room 007 Donated Funds to Strengthen USM Accommodation Facilities

An alumni who used to stay in room number 007, Desasiswa Harapan, Universiti Sains Malaysia (USM) returned to his alma mater when he donated RM10,000 to the 'Adopt Your Hostel Room' (AYHR) program which was first introduced by the University last year. He is one of USM's distinguished alumni who is currently leading the country's leadership as Deputy Minister in the Ministry of Environment and Water, Senator Dato' Dr. Ahmad Masrizal Muhammad. Masrizal said, he was called to contribute to the program with a high sense of belonging to the University that has taught him a lot and shaped his life's journey up to this point. AYHR program is to upgrade hostel accommodation to be more exclusive and conducive, given the demand for more comfortable facilities from students. USM intends to introduce the Global Village concept through Distinguished Learning with Conducive Learning and Living Facilities. AYHR was introduced to create comfort and a conducive atmosphere, while at the same time being able to contribute to the development of infrastructure for student facilities through contributions from alumni and outside parties.

Micro-Seed Funding Initiative 'From Staff to Staff' Help Improve the Standard of Living B40

Through the HEBAT Development Center (HDC) which is managed by the Division of Student and Alumni Development Affairs (BHEPA), new entrepreneurs will be helped to undergo free entrepreneurship courses run by professionals at the university along with expertise obtained from lecturers at the School of Management USM. In addition, a capital injection will be given to new entrepreneurs individually or in groups. Among the successfully implemented projects include raising catfish and tilapia fish of Thai breed, sheep and rabbits in the campus. This initiative is carried out in all three USM campuses and in addition to being carried out within the campus area, it also helps staff open small businesses outside the campus such as vehicle repair workshops, night market businesses on Sundays, sales of fresh coconut milk products and cured meat products.

Donation Drives by KEKSOS for Student in Need

Kelab Kebajikan dan Sosial (KEKSOS), School of Humanities Studies (PPIK), Universiti Sains Malaysia (USM) distributed a total of RM4,715 to 41 USM students in need, through the collection of donations made by KEKSOS members themselves who consist of lecturers and PPIK staff. According to PPIK Dean and KEKSOS Advisor, Professor Dato' Dr. Narimah Samat, the students who receive this aid are students from PPIK themselves and they have been selected according to certain criteria.

USM Offers Incentive for Industrial Trainee

Universiti Sains Malaysia (USM) offers incentives for the Industrial training program in 2021 to students who do not receive any payment or allowance at the industrial training place. The 2021 Student Internship Programme allocated RM45,000 and was distributed to the targeted guota of 300 USM local and foreign students who undergo industrial training at government and private agencies for 15 working days at a rate of RM10 per day. Students who will undergo industrial/practical training programs in 2021 are called upon to do so by applying to study centers/centers of excellence in the three Main, Engineering and Health campuses. It aims to help them in facing the challenge of getting industrial training places outside the campus for example in private companies or factories following the widespread COVID-19 pandemic.

Islamic Center USM Established KOMALIK—Hands-out Laptops to Asnaf

Deputy Chief Minister 1, Penang, Dato' Ir. Mr. Ahmad Zakiyuddin Abdul Rahman, has completed the Inauguration Ceremony of the Al-Malik Khalid Masjid Cooperative USM Islamic Center Berhad (KOMALIK). As a business entity, KOMALIK will engage in business activities in various fields like other business organizations. The uniqueness of KOMALIK is that it will be developed by its members and not the investors. Members will gain numerous benefits and access to facilities provided by the cooperative. At the same event, Ahmad Zakiyuddin also handed over laptops to USM students who belongs to the asnaf group.

Misi Insani

USM's Islamic Centre *Misi Insani* (Humanitarian Mission) which was moved to Kampung Sungai Lui, Hulu Langat Selangor last December 21, 2021, was successfully implemented. The mission, which was attended by nearly 50 volunteers from USM staff and MyPusat Islam members, is one of USM's Community Activities and contribution to the local community facing the flood disaster. Donations in the form of food and necessities were also handed out to those involved in the flood.





IFTAR@USM

Troughout the entire month of Ramadan, the USM Islamic Centre, offered meals for 'iftar' (breaking of fast) every day to students, staffs and the surrounding communities in all 4 campuses. In USM Main Campus, approximately 2,000 peoples attended the *iftar* everyday which cost around RM6,000 per day, on the other hand in USM Health Campus around 1,000 packed food being prepared which cost around RM4,000 per day to be distributed to the community. Foods were prepared and packed by volunteers which comprises of students and staffs.



LE'MARI@Kejut, the Best Medium to Share Wealth

The waqf project, Le'mari@Kejut which is implemented at the Engineering Campus, Universiti Sains Malaysia (USM) is the best medium for campus residents to share sustenance with those in need, especially the students on campus. This welfare project is a suitable platform to instill love and empathy for students in need, especially those who are less able and who face financial constraints in managing their daily food needs. Donations, not limited to cash only, but also dry food supplies can be channeled to project manager at Desasiswa Jawa Lembaran Utama.



USM Extends Aid

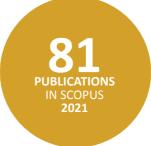
USM's Islamic Center through the Zakat, Service Excellence and Corporate Sector has handed over assistance to USM staff and garyah who are in need following the Movement Control Order (MCO) 3.0 The aid which comprised of daily necessity i.tems were meant to lessen the burden in their daily struggle—known as the Maidaturrahman Kit, were prepared by the USM Islamic Centre, and contained basic essentials such as rice, cooking oil, sugar, salt, soy sauce and ketchup among others is the continuation of programme launched in the previous year. 144 Maidaturrahman Kits were distributed to the needy among USM staffs and the surrounding community. It is hoped that this programme can best benefit the community who always give their best to USM and also the garyah members who always support the Center.

USM *Santuni* Campus Citizens & Community

Ramadan Charitable Pilgrimage to the Families of Staff who passed away, Staff who suffered misfortunes, Retirees Among B40, single parents B40 and the surrounding community in need HELWA Committee, JK Engineering Campus Ramadhan Activities and HELWANI PMIUSM delivered donations to USM staff and retirees through the Ramadhan Charity Pilgrimage Program on April 26, 2021. Thank you to everyone who contributed Kit Maidah Rahman. May God bless all efforts.

Food Bank Handover

The program was held on December 3, 2021 and took place at the Islamic Centre USM Engineering Campus. This Ready to Eat Kit includes Desasiswa Jaya dan Lembaran. The Islamic Centre of USM expresses its gratitude and appreciation to YaPEIM for the donation that benefits 100 staff and 300 B40 students at the USM Engineering Campus.





Ensure healthy lives and promote well-being for all at all ages

USM Geared Up to Deliver Covid-19 Vaccine to Penang Community

Universiti Sains Malaysia (USM) in response to proposal by the Ministry of Higher Education (KPT) to assist and facilitate the National COVID-19 Immunisation Programme (NIP) in its efforts to provide the people with more extensive access to the vaccination move has opened two PPVs (Pusat Pemberian Vaksin)—both in the main campus and the Bertam campus. Both PPVs were to serve as vaccine administration centres for the Penang local community. The centres received its first batch of vaccine recipients on 21 June 2021. The operation hours for both PPVs were from 9.00am to 5.00pm (Monday-Friday) and 9.00am to 1.00pm (Saturday). It is closed on Sunday. USM opened its drive-through Covid-19 Vaccination Centre (PPV)—the first PPV involving an institution of higher learning in the state. The drive-through PPV is the first involving an institution of higher learning in the state. A total 100 second dose vaccine recipients were the first group received their vaccine.

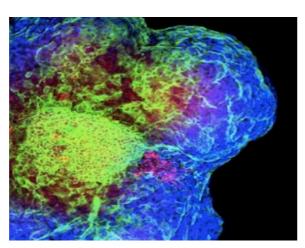


Smoke-free Policy

Green Lung is the first Youth Movement for Tobacco Control in Malaysia. Fighting for Smokefree Environment—Green Lung mobilize youth generation to sustain USM as a tobacco-free campus while at the same time bring USM students out to assist Penang State to transform Georgetown into a smoke-free city.

USM Scientist Created Important Cells that Help the Heart to Develop as Published in Nature Communications

It was an awesome achievement for Assoc. Professor Dr. Tan Jun Jie, a stem cell biologist from the Universiti Sains Malaysia (USM) Advanced Medical and Dental Institute (IPPT) when the research paper where he is the first and corresponding author was published in the Nature Communications, August 2021 issue.



Journey Back for Hari Raya

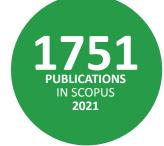
In line with the decision made by the Ministry of Higher Education (MoHE) to allow students from higher learning institutions (IPT) to go home to celebrate Hari Raya with their families, Universiti Sains Malaysia (USM) has started sending home more than 2,700 students from all its three campuses to several states starting today. However, the exodus of USM students which would take two days (May 8 and 9), would require the students and those involved to comply with the strict standard operating procedures (SOP) set by the National Security Council (MKN), Ministry of Health and MoHE. USM provided 14 buses to ferry students all over Malaysia.



PADU to Raise Funds to Purchase Medical Equipment, Breathing Machines for Covid-19 Patients

Persatuan Alumni Doktor Universiti Sains Malaysia or PADU recently initiated a fund-raising drive to purchase COVID-19 medical equipment and breathing machines in its effort to assist hospitals nationwide, especially those around the Klang Valley that are in need of such equipment in dealing with COVID-19 critical patients. According to its President, Professor Dato' Dr. Jafri Malin Abdullah, we hope to collect around RM268,000 to purchase such equipment and machines to meet the immediate needs of hospitals in the country, in view of the ever increasing number of COVID-19 patients at the hospitals, especially those who need emergency treatment.







Science Made Fun 2021

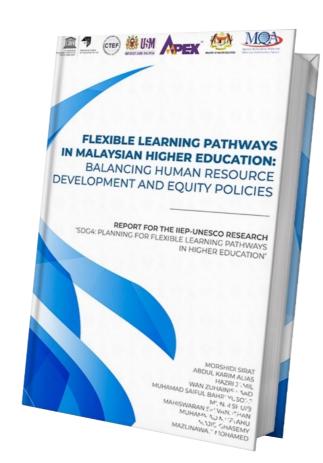
Science Made Fun is a collaboration program between the Institute for Research in Molecular Medicine (INFORMM), Universiti Sains Malaysia (USM) and Pejabat Pendidikan Daerah Kota Bharu aims to support the STEM initiatives by the Malaysian government among school children in Kelantan. However, this year, with the global COVID-19 pandemic situation, the program was designed and made online utilizing the benefit of social media in raising awareness of the dangers of infectious diseases and the preventive measures that need to be taken to break the COVID-19 chain. Specifically, this year's program aimed to instill awareness on the dangers of infectious diseases to the hearts and minds of primary and secondary school students not only in Kelantan but all over Malaysia with a special theme of 'Kesedaran Penyakit Berjangkit Di kalangan Pelajar'. The programme was held through the online platform Webex, INFORMM Facebook Live and USTP PPD Kota Bharu YouTube Live. An astounding 4,500 primary and secondary school students from 403 schools around Malaysia joined the program whilst the YouTube Live of Science Made Fun 2021 ended up with a staggering more than 12,000 total views.

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PUBLICATIONS
IN SCOPUS
2021

6,706 Number of Students Graduated in 2021

CTEF Launches its Publication on Flexible Learning Pathways in Malaysian Higher Education

Commonwealth Tertiary Education Facility (CTEF) has released its latest publication on Flexible Learning Pathways (FLPs) which is available as a free electronic version on CTEF's website. This publication is based on the case study report for the International Institute of Educational Planning— United Nations Educational, Scientific and Cultural Organization (IIEP-UNESCO) research on 'SDG4: Planning for Flexible Learning Pathways in Higher Education' involving eight countries' case studies in different regions that are developing or have developed initiatives for flexible learning pathways. IIEP-UNESCO supported the implementation and drafting of this case study report. The case study on Malaysia is a collaborative effort with National Higher Education Research Institute (IPPTN), Universiti Sains Malaysia (USM); Ministry of Higher Education (MOHE) Malaysia; and Malaysian Qualifications Agency (MQA). It focused on the linkages between national policies on lifelong learning, with ministry's strategies, instruments, and practices at the institution level in terms of the benefits of FLPs on non-traditional learners, disadvantaged and marginalised groups.



USM Student Chosen for Perdana Fellowship

A fourth-year student from the Universiti Sains Malaysia (USM) School of Languages, Literacies and Translation (PPBLT), Hee En Qi, 23, is currently undergoing the Perdana Fellows programme with the Malaysian Ministry of Communications and Multimedia under Tan Sri Annuar Musa's mentorship.



USM Architecture Student Wins SDGs Design International Award 2021

Universiti Sains Malaysia (USM) Architecture student. Chen Jia Yue from the School of Housing. Building and Planning took home 50,000 yen when he bagged the 'Kyushu Mirai Construction Group Award' recently, According to Jia Yue, his submission. "Bukit - Cafe & Boutique Hotel" won the SDGs Design International Awards 2021. The event was organised by the Faculty of Design. Kyushu University and supported by the UN-HABITAT Regional Office for Asia and Pacific-Fukuoka. The main objective of the SDGs Design International Awards was to recognize and encourage students around the world with great potential to create a better and a more sustainable society for the future. The theme for this year's award is "Let's Create a Carbon-Neutral Society -Think Big, Start Small, Move Fast" and the event has received a total of 83 applications from 11 different countries throughout various regions.

-九州のために みらいのために-



USM Engineering Students Do University and Country Proud, to Participate in Spaceport America Cup 2022

A team from the Universiti Sains Malaysia (USM) Engineering Campus were representing the university to take part in the Spaceport America Cup 2022, which is the world's largest Intercollegiate Rocket Engineering Conference (IREC) for the first time, organised by Experimental Sounding Rocket Association. The USM team comprising of twelve students, led by Vanmitha Athimoolam, with their advisors Dr. Norilmi Amilia Ismail and Dr. Chang Wei Shyang from the School of Aerospace Engineering, and mentored by Julian Chee Yie Jian and Ahmad Tamimi Ahmad Termizi, will participate in the competition in New Mexico, from 21-25 June 2022. With the help from the advisors and mentors, the team was selected as one of the 150 out of 190 teams that took part.



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USM Aerospace Engineering Students Bag Top Prize in Crest Design Challenge @IMDC2021

An affordable, palm-sized and automatic Micro Air Vehicle (MAV) to help farmers in Vehicle health conditions of tissue-cultured banana seedlings in greenhouses, designed and developed by a team from the Universiti Sains Malaysia (USM) School of Aerospace Engineering, had clinched the top prize for the Design Challenge Award under the CREST Design Challenge Category at the Innovate Malaysia Design Competition 2021 (IMDC2021). The project entitled 'Plant Health Monitoring and Indoor Positioning for Micro Air Vehicles Using Deep Convolutional Neural Network and Ultra-Wideband' received excellent reviews from the jury panel and was a worthy winner in the aforesaid category. Plantation of bananas is one of the most produced fruits in Malaysia, with tissue-cultured techniques in greenhouses are getting popular to meet high market demands. Instead of hiring labourers or distributing camera sensors throughout the greenhouse, we proposed an affordable, palmsized, and automatic Micro Air Vehicle (MAV) to help farmers in monitoring health conditions of the tissue-cultured banana seedlings.

USM & India Institutions to Conduct Virtual Roadshow Promoting Joint Fellowship Programmes

Universiti Sains Malaysia (USM) through the partnership with the Federation of Indian Chambers of Commerce and Industry (FICCI) and the Department of Science & Technology (DST), Government of India organised a Virtual Roadshow of two Fellowship programmes, namely the ASEAN-India Research Training Fellowship (AIRTF) and ASEAN-India Innovation Platform (AIIP). The virtual roadshow, to be held on 3 August 2021, was part of a series of roadshows across ASEAN countries that promote the fellowships with a special roadshow partner. The 2019 AIRTF winner, from the USM School of Biological Sciences, Associate Professor Ts. Dr. Wan Fatma Zuharah Wan Musthapa shared her experience during the roadshow. Wan Fatma, who specialises in Entomology, is also the Director of Commonwealth Tertiary Education Facility (CTEF), National Higher Education Research Institute, USM. The AIRTF scheme is a fellowship scheme that promotes mobility of scientists and researchers from the ASEAN-member countries to India and which will provide them the opportunity to work at Indian R&D/academic institutions to upgrade their research skills and expertise. It also facilitates the exchange of information and contacts between the scientists and researchers of India and ASEAN countries and to create a network for building research collaborations.



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Design Challenge @IMDC2021

An affordable, palm-sized and automatic Micro Air

Achieve gender equality and empower all women and girls

Harpswell ASEAN Leadership Training

An ongoing program since 2017, since its pandemic 2020 and 2021 program were conducted virtually which was lead by the KANITA Director Prf Dato' Dr Noraida Endut. The program select two leaders from the ASEAN country which fulfil the criteria and will be in USM for two weeks.

KANITA International Conference on Gender Studies (KICGS)

Organising the International Conference through research and intellectual discourse that bridge the gap between scholarly and civil society work. KANITA's biennial conference (KICGS) always includes Violence Against Women (VAW) as a subtheme where scholars and practitioners may share their research and advocacy work on the issue. Reimagining is a process that we need to constantly employ to tackle long standing issues that change in dynamics and complexities through time such as VAW/ GBV.

PUBLICATIONS
IN SCOPUS
2021

4,371

Number of
Female Students
Graduated in 2021

Forum RMK12: Ada apa untuk Wanita (What we have for Women)

One session with all the panels which comprises of Her Excellency Mrs Chong Eng, Exco Member on Social Development and Non Islamic Matters, Her Excellency Senator Mrs FadhlinaBinti Dato' Sidek, Senator Dewan Negara, Prof. Dr. Dato Noraida Endut, Professor at Women and Gneder Research Unit (KANITA), USM and Prof. Emerita Tan Sri Dato' Seri Dr. Sharifah Hapsah Syed Hassan Shahabudin, President NCWO discussion on 12th Malaysian Plan on Women. All the panellists reviewed the empowerment and development programs provided for women in RMK12 critically.

Gender Advocacy Program

The Penang State Women's Development Office organized a series of talks in collaboration with the Women and Gender Research Unit (KANITA). Among the titles of the series are:

- Discrimination against Women and Jobs by Prof.
 Dato Dr. Noraida Endut
- Gender and Leadership: Women's Dominance in Politics by Dr. Zaireeni Azmi.
- Women and Lifelong Learning by Dr. Magdelene Ang Chooi Hwa
- 4. Women and Property Ownership by Prof. Dato Dr. Noraida Endut
- 5. Women and Poverty by Prof. Associate Dr. Nor Hafizah Selamat

Virtual Friend Support Group —Family Friendly Workplace Project (FFW)

KANITA USM initiated this. We hope to empower staff and students to replicate this as part of creating better wellbeing for all, especially in this challenging time

KANITA Celebration: Gender Equality 2021—The Icelandic Experience

The honorable Madam Eliza Reid, the FIRST LADY OF ICELAND shared her Icelandic experience on gender equality. The Universiti Science Malaysia's Vice-Chancellor, Professor Dr. Faisal Rafiq Mahamd Adikan officiated the event.

FLEX Industry Training

KANITA also collaborates with the industry in an effort to empower the vulnerable. In 2021, KANITA has provided workplace wellness training to female employees and employees with disabilities for FLEX Industry. For the group of female workers, training is done online while the group with disabilities is conducted at The Light Hotel and is led by Prof. Dato Dr. Noraida Endut.

Female PWD Staff Praises USM for Opportunities and Support for Womenfolk and PWD

Chin Chin has worked with USM at the Institutional Planning and Strategic Centre (IPSC) as a Social Research Officer. Being born with Cerebral Palsy, she had undergone therapy a few months after birth to assist in the development of her motor and speech capabilities. Chin Chin's best achievement was her convocation at USM. She was awarded the Chancellor's Gold Medal Award and the USM Gold Medal Award that was presented by the USM Women's Association. She is happy and truly grateful for what USM has provided and done for people with disabilities (PWD), for instance in readying the needed infrastructure. She felt that the availability of such infrastructure and support from various parties have played an important role in providing her the opportunity to study and undergo campus life throughout her studies. She noticed that the facilities for PWDs have been upgraded and updated to fulfil the needs of people with different types of disabilities, which is essential towards creating more conducive surroundings for them to move and function.





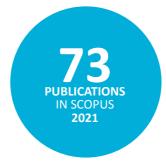
Investigation of Discharged Wastewater Impact from Plants to the Local River

An investigation work has been carried out on the impact of the discharged wastewater from two car assembly factories, one in Shah Alam and another one in Bukit Raja to the nearest river. The work was lead by Dr. Nurul Hana Mokhtar Kamal from the School of Civil Engineering, USM and it was sponsored by Kurita-GK Chemical Co., Ltd (Thailand) for their car assembly factory in Selangor. The wastewater was discharged into the nearest river that eventually flow into Klang River in the downstream.



Feasibility Study of Wetland Construction as an Alternative to Sewerage Systems in Rural Areas

National Water Research Institute (NAHRIM) and Jabatan Perkhidmatan Pembetungan (JPP) appointed the School of Civil Engineering, Universiti Sains Malaysia (USM) to conduct a feasibility study for the potential application of constructed wetland system (CWS) as an alternative sewage treatment system in a rural area. The study lead by Dr Nurul Hana Mokhtar Kamal was focused on the rural area, Kampung Machap Baru, Melaka, and the duration of the study is from September 2020 until September 2022. Currently, the residential in the area are only occupied with septic tanks, where all the septage is discharged into storm water drains. Thus, the main objective of this study is to see the feasibility of having a constructed wetland instead of a mechanized treatment plant to treat sewage of the area.



Feasibility Study of Wetland Construction as an Alternative to the Sewerage System

National Water Research Institute of Malaysia (NAHRIM) and Jabatan Perkhidmatan Pembetungan (JPP) has appointed River Engineering and Urban Drainage Research Centre (REDAC), Universiti Sains Malaysia (USM), to conduct a feasibility study for the potential application of constructed wetland system (CWS) as an alternative to a sewage treatment system in island area. Kg Salang in Tioman Island is chosen as the site for the study due to the suitability of the gazetted JPP land.



UNESCO—'Denai Sungai Kebangsaan'

In October 2021, a collaboration was initiated between School of Civil Engineering, Universiti Sains Malaysia (USM) lead by Dr Fatehah Omar from the Engineering Campus with the community of Kampung Sungai Chena'am to conduct a national program entitled 'Denai Sungai Kebangsaan' (National River Trail) under UNESCO activity. The mission of the collaboration was to conserve and rehabilitate Sungai Mati which flows through the village as the main source of water supply that sustains all local activities within the community especially capturing fish as the main source of income. The program was to ensure that the water resources were protected from pollution and managed in a manner that would preserve the sustainability of available water supply not only for the current consumers but also taking into account for the future generation. Below are a few photos that presents the flow of activities held between USM, Kampung Sungai Chena'am community and the support of local government agencies.

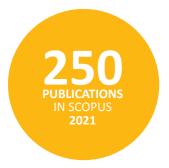


Campaign Off the Light

The Team Energy from Kampus Sejahtera Society had organized a meaningful and useful program. The theme of the program is called "CONSERVING ENERGY: WHERE TO START?" This program was held with the online platforms which are Google Meet and Facebook Live. The purpose of this program is to provide opportunities to the USM students to improve their knowledge about the energy, energy saving and the importance of conserving the use of energy in their daily life and the environment.

Nuclear Energy Talk

A talk on nuclear energy was held on May 18 2021. The programme was orgasized by Kampus Sejahtera Society. The programme esposed student to the secret of nuclear energy. Dr Foong Swee Yeok explained on the safety of nuclear and the potential of it being the alternative power source of the future.



CETREE Collaborate with Malaysia Green Foudation (YHM) for Green and Natural Resources Agenda

Post-Covid-19, CETREE moved forward with the agenda to re-plan Green Technology awareness activities to all target communities in Malaysia. A delegation from the USM Renewable Energy, Energy Efficiency and Green Technology Education and Training Center (CETREE) led by the Director, Associate Professor Dr. Mohd Wira bin Mohd Shafiei held a meeting for the continuation of the cooperation network in the field of Green Technology (TH) with the Chief Executive Officer, Yayasan Hijau Malaysia, Mr. Amin bin Abdullah. Main objective of the visit is to reconnect and collaborate in making the Green Technology-related program that has been planned a success, including finding out about the latest developments and the direction of the Ministry of Energy and Natural Resources (KeTSA). The meeting also discussed about activities related to Green Technology that YHM intends to implement at the end of 2021 until 2022. In addition, the visit can enrich experience, knowledge about management, administration, exchanging ideas, creativity and innovation in various fields between YHM and CETREE for the coming period.

Solar@USM

Universiti Sains Malaysia (USM) has entered into a 20-year solar Power Purchase Agreement (PPA) with Ditrolic Energy Solutions Sdn. Bhd., a Malaysian clean energy solutions company for corporate and institutional customers in Southeast Asia, to set up a 10.6MWp on-site rooftop solar system in the varsity. By end of the year, with the completion of 22,374 pieces of solar modules being installed across 90 buildings, solar carports and groundmounted systems within the campus grounds, USM expects most of the energy supplied to its campuses to be clean and renewable. The solar system will be able to generate power for 63.73% of its peak power demand. Over its lifetime, approximately 278,683MWh of clean energy will be generated, enabling USM to eliminate 217,705 tonnes of CO. emissions in total. With the installation of the solar modules in the main campus, USM will be among the first public university in the country to have up to 75% of its maximum demand and about 40% of the total usage for electricity to be generated by solar energy. This will in turn help the university to potentially save up to 30% on its utility bills.





Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

USM VC Pays Courtesy Visit to EU Ambassador

The Universiti Sains Malaysia (USM) Vice-Chancellor, Professor Dato' Dr. Faisal Rafiq Mahamd Adikan paid a courtesy visit to the EU (European Union) Ambassador, His Excellency Michalis Rokas at the Eastern and Oriental (E&O) Hotel here this morning. The aim of the courtesy visit was for EU to provide insights into the collaboration with USM in areas of research, academic (Erasmus grant), webinars and conferences, sustainability, and the increasing enrollment of students from EU at USM.





USM to Collaborate on Digital Marketing Programme with KAKITANGAN.com and openlearning.com

USM via the Centre for Innovation and Consultation (CIC) has entered into a collaboration with strategic partners, Kakitangan.com and OpenLearning.com, in obtaining support services that can be offered and accessible to USM start-up companies. This partnership would see the three concerned parties embarking on and implementing the Graduate Recruitment Programme (Digital Marketing), a pilot project that serves as one of the USM Start-Up Residency initiatives, which aims to expand on the USM graduate employability effort.

USM, Hong Seng Collaborates for Student Upskilling Exercise *via* Work Placements

USM has entered an agreement with Hong Seng Consolidated Bhd, a healthcare industry supply chain management specialist, that will offer work placements for USM biomedical science students to acquire workplace experience in the industry. The three-year collaboration agreement will see the USM School of Health Sciences working closely with Neogenix Laboratoire Sdn Bhd (Neogenix Lab), a 60%-owned indirect subsidiary of Hong Seng, in providing training and education to the students from the former's biomedicine programme. Students from the school will undergo a three-year and one-year study mode—three years at USM and one year of industrial placement at Neogenix Lab—where the students' performance would be monitored.

DVC R&I Awarded 2021 JASTIP-NET Award for R&D Work in Functional Materials

The Deputy Vice-Chancellor (Research and Innovation) of Universiti Sains Malaysia (USM), Professor Dato' Ir. Dr. Abdul Rahman Mohamed has been awarded the 2021 JASTIP-net Award in Functional Materials recently by the Japan-ASEAN Science, Technology and Innovation Platform (JASTIP). The award was given for the Research and Development project on Nanocatalysts for Dry Reforming of Methane, a collaborative project between USM and Osaka University. He was among the 5 recipients from Malaysia who received such award from JASTIP-net. The award consists of Collaborative Research and its obligations between the two parties and will benefit both institutions in the future. This project promotes research that can be used to resolve shared local issues to ultimately build a sustainable society in Japan and in ASEAN partner countries.

USM Laser Programme: How to Effectively Complete a Knowledge Transfer Plan

Universiti Sains Malaysia (USM) has once again been entrusted by the Academy of Higher Education Leadership (AKEPT) to hold a sharing session as part of the 'Leadership in Academic-Society Experiential Relationship (LASER) 2021' Programme.

USM Receives MOSTI Minister, Holds Briefing on Latest Development

A discussion between USM and the Institute of Pharmaceutical and Nutraceutical Malaysia (IPHARM) under the Ministry of Science, Technology and Innovation (MOSTI) was held at the University Innovative Incubator (I2U) building at Bukit Jambul. The discussion was aimed at increasing collaborations in the field of pharmaceuticals between IPHARM and the USM School of Pharmaceutical Sciences to produce products and also pharmaceutical and medical services that can be commercialised. According to the Minister of Science, Technology and Innovation Malaysia, Khairy Jamaluddin, this collaboration will be extended further into researches and commercialisation.

USM Signs MoU in UAE, Making its Presence Felt in the Middle East and Europe

USM signed two memorandum of understanding (MoUs) with two universities in Dubai, UAE as part of its regional academic and research expansion plan. The first MoU involved a collaboration with the European Global School University (EGS), to facilitate the setting up of a postgraduate centre in Istanbul, Turkey to run offshore postgraduate programmes in Besiktas and Istanbul, catering specifically for the Middle East and European market. The second MoU was signed with the UAE University (UAEU), which focused on collaboration pertaining to student and staff exchanges, academic programmes, research, publications, training and workshops. The academic syllabus shall be fully provided by USM.

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USM and UM to Collaborate on Strategic Credits Programme with ICAEW

USM and Universiti Malaya (UM) has entered into a strategic collaboration initiative that will offer accounting students a coordinated route to a degree from USM and UM respectively and the professional qualification of the Institute of Chartered Accountants in England and Wales (ICAEW). This strategic credit partnership provides unique options to accounting students in both universities in pursuit of a premier professional qualification, paving the way for a greater variety of opportunities, rewards and influences in their future career in accounting and finance, both locally and globally. It will also be beneficial to employers in the accountancy sphere and more broadly in the corporate sector, as well as to the regulatory community. Through this partnership, USM Accounting degree graduates will now be only required to take the last 3 modules at the Advanced Level.

USM and Xi'an University Ink MoU on Exploring Opportunities for Future Collaboration

In a historic first, USM and Xi'an University, China have signed a Memorandum of Understanding (MoU) to focus on the objective of exploring opportunities to develop, support and enrich research activities, educational programmes and training in the fields that will benefit both parties. The MoU was signed by both universities through a virtual ceremony conducted using the Webex video conferencing application on 10 December 2021, in part due to restrictions on international travel brought about by the COVID-19 pandemic. USM Deputy Vice-Chancellor Academic and International, Professor Dato' Gs. Dr. Narimah Samat signed the MoU on behalf of the university, while Xi'an was represented by its Vice-President, Professor Wang Xiaoping.



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USM Conquered AYDA 2020— Takes Home 4 Awards and Recognised as Best University

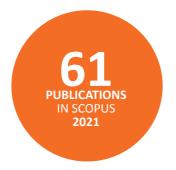
USM students and staffs have proven their capabilities time and again when they 'conquered' a majority of categories at the Asia Young Designer Awards (AYDA 2020) for architecture at the national level. For AYDA 2020, 'Human-Centred Design' was chosen as the main theme. Dayana Aripin. A postgraduate Architecture LAM Part II student from USM School of Housing, Building and Planning (HBP) managed to secure two major Architectural Awards with her work titled 'Microhousing within Heritage Context'. Meanwhile her main supervisor, Ar. Zalena Abdul Aziz also won the best mentor category. Automatically with the three winnings, the Best University Award went to USM.

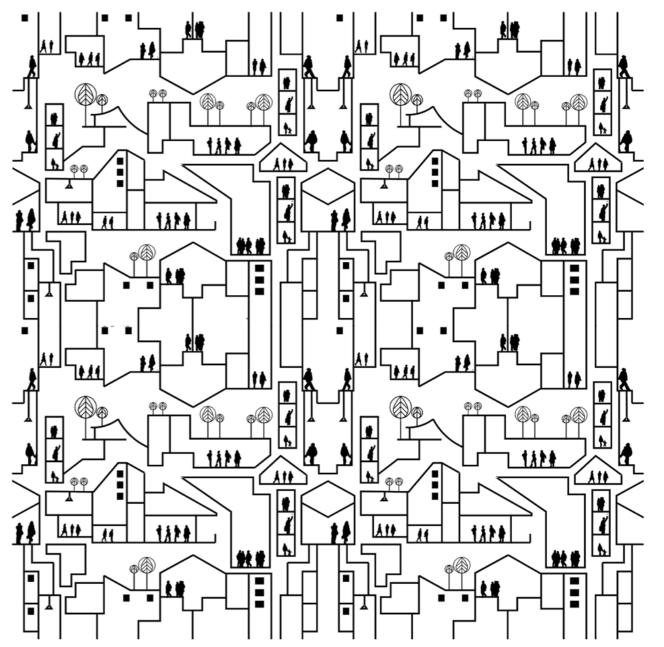
USM Lecturer Chosen as Recipient of ACS Volunteer Award

Dr. Lee Hooi Ling, a USM academician, has been chosen to receive the American Chemical Society (ACS) 2021 Outreach Volunteer of the Year (VOTY) award. She helped secure the 2020 Chemistry Festival Grant and the Global Innovation Grant (GIG). She was among the 36 winners acknowledged for their immeasurable voluntary contributions at the various ACS local sections and international chapters in conducting outreach programmes and teaching the public about chemistry.

USM HBP Postgraduates Chosen as Winners at KL Architecture Fest 'Malaysian House' Category

Two (2) USM HBP Master in Architecture (M.Arch) students, Chong Wei Hao and Chan Lek Heng have been chosen as winners for their proposals. Competing in the Student Category along with participants from other local public and private institution, Wei Hao's excellent proposal was selected as the 1st Prize Winner, earning him a prize of RM10,000.00 and certificate. Meanwhile, Lek Heng earned an Honourable Mention with a prize of RM1,000.00 and a certificate for his proposal. The competition is part of the KUALA LUMPUR ARCHITECTURE FESTIVAL 2020 (KLAF2020: BEYOND) programme organized by the Pertubuhan Arkitek Malaysia (PAM). The winning scheme by Wei Hao, titled Plant-A-House, offered a refreshing outlook by providing flexible and "future-proof" living solution which are suited for Malaysian farming community. Its unique modular house concept seamlessly blends with the natural environment, with the capability for expansion based on the owner's needs and financial standing.





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USM Engineereing Schools Shine at IMDC 2021

USM proved their mettle at the Innovate Malaysia Design Competition 2021 (IMDC 2021) by winning an Award and the top three spots, in addition to two Consolation prizes. The best achievement by USM was in winning the top prize for the Design Challenge Awards under the Crest Design Challenge Category for the Project titled 'Plant Health Monitoring and Indoor Positioning for Micro Air Vehicles Using Deep Convolutional Neural Network and Ultra-Wideband' conducted by School of Aerospace Engineering team members, Tan Shu Chuan, Ching Poh Ling with their advisor, Dr. Ho Hann Woei. The project received excellent reviews from the jury panel and was a worthy winner in the aforesaid category. The project was rewarded with a prize money of RM3,000.00 and also earned them another award—The Institution of Engineers, Malaysia (IEM) Best Paper Award. Meanwhile, the 2nd prize was also won by USM under the Intel Track Category for Technology Tracks for project titled 'Implementation of Car Plate Detection on Soc Platform' conducted by team members Yap June Young, Teng Siew Min, Pang Yu Xuen with their advisor, Associate Professor Dr. Zaini Abdul Halim from School of Electrical and Electronic Engineering.

USM Academician Honoured with Prestigious Georg Forster Research Award 2021

USM academician Dr. Zurina Hassan, an Associate Professor of Neuroscience at the Centre for Drug Research (CDR) has been awarded the prestigious Georg Forster Research Award 2021 for her outstanding work on neurological and psychiatric disorders, such as addiction and Alzheimer's disease as part of the search for new treatments on these disorders. She will receive a prize money of €60,000 that will be used to fund her research work, in which she will collaborate with researchers from the Psychiatric and Psychotherapeutic Clinic at the University Hospital Erlangen in Germany.

W-E-Y TO GO—Inspiring Others Through Performing Arts

A student from the Universiti Sains Malaysia (USM) School of the Arts (SOTA) was chosen for the 'Most Inspiring Award' at the Grand Finale Top 10 MonStar Awards 2020 held on 11 December 2020. Chow Khey Wey, who studied Acting and Directing at the Drama and Theatre Department, was chosen in the 3rd edition of Malaysia's largest young talent award competition, that was created to discover and recognise young talents in Malaysia.

MYHALAL (MH) Mobile Phone Application

USM students continue to shine in international invention and innovation competition they took part in. This shown from the outstanding achievement through Wong Xin Ying, a 4th year undergraduate majoring in software engineering from the School of Computer Science, who takes home a Gold Medal and Special Award at the 6th International Invention Innovation Competition in Canada (iCAN) 2021. She received these awards for her final-year project invention entitled MyHalal (MH) at the competition. This mobile phone application is capable to verify the halal status of food products, food additives and food premises. This apps also allows users to report in real time any misconduct when they come across any Halal related issues in their everyday life (i.e. doubt about halal logo, doubt about halal status etc).

USM, Western Digital Collaborate to Establish Centre of Innovation and Automation (CiA)

Universiti Sains Malaysia (USM) and Western Digital (WD) announced a long-term collaboration to establish the Centre of Innovation and Automation (CiA), an exclusive technology hub that is focused on driving Industry 4.0 (IR4.0) design and development, prototype build-up and intellectual property (IP) generation. The collaboration was officiated at a Memorandum of Agreement (MoA) signing ceremony today at USM's main campus here. USM-WD CiA Lab is established within the Western Digital premise at Batu Kawan, Penang – the first of its kind in Malaysia This USM-WD partnership aims to bridge and foster closer ties between leading industry players and the academic community, bringing together the brightest minds and talents to drive breakthrough technology advancements in manufacturing technology. Under this initiative, both organisations will work together on industry-driven research projects and promote research outputs. Selected PhD students will also enjoy the attachment opportunities.

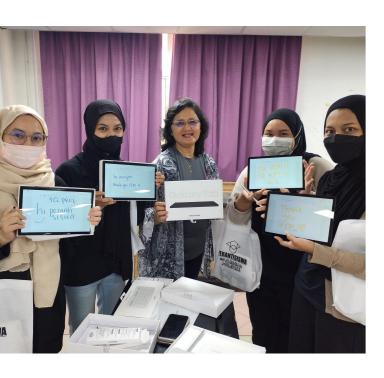




Reduce inequality within and among countries

Tablet Donation for B40 Staff

A total of 1,260 tablets were donated to B40 staffs who have children that attend the primary school (aged 7 to 12 years old) in hope to help and ease their financial burden to buy the device for PdPR (online class learning) process and also ensuring that their children will continue learning despite the pandemic. USM will continue to care for the wellbeing of the students in the best way possible. In order to ensure that is through these programmes and initiatives:



JORAN (Job Opportunities, Requirement and Networking)

Fully developed by group of USM students, the JORaN mobile app is a platform that brings together USM students, student entrepreneurs and all departments in USM in an employer-employee environment. JORaN offers over 30 different parttime job categories within the campus for students to earn extra income. More than 400 students have benefitted from this effort since its inception. This app has won the Digital – Education Award at the Malaysia Technology Excellence (MTE) Awards 2021 presented by Singapore Business Review.

USM Sponsored Touch-N-Go Cards for Students' Hometown Travels

USM has sponsored all Touch N Go cards used by USM buses for students' return journey across the country for Eid celebration. 2700 students from all campuses were benefitted from this initiative.

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PUBLICATIONS
IN SCOPUS
2021

1,701

Number of International Students from Developing Countries





At USM, the Grass is Always Greener... and with Plenty of Space for a World-Class Ballpark

Named KOPA ARENA@USM, the two fields, each one measuring 105m x 68m, are made to FIFA (the highest governing body for international football) standards and are decked with state-of-the-art facilities. 2 full size football pitches & 7-a-side pitch. All are FIFA Grade and includes a Synthetic turf Technology which plays like grass and never get washed out. Kopa Arena is a RM5 Million SATE-OF-ART Facility that has an elevated clubhouse which includes showers, changing rooms, modern lounge area and free parking Though located at USM. it did not cost the university a single cent, and even the maintenance will not be borne by USM. It has been made possible by being fully-funded via a build-operate-transfer (BOT) deal. Though USM did not pay for it, students and staff will still have access to the fields (3 artificial grass, 2 natural grass) and a rugby field free of charge until 7.00 p.m. on weekdays.



Smart Room (USM Hostels)

Comfort is always a priority from us. We want to welcome students to USM with our new "hostels and accommodation transformation agenda". The rooms also will be managed by a smart system that will provide greater satisfaction for the tenant/s. The execution of this agenda has been shared across the nation and it has already opened the eyes of many parties, as they take comfort in the idea that the achievement and success of students may also come from this side of university life.

THE BRICKS

Located at the Siswaniaga@USM building, this newly-established attraction area is one-of-a-kind in enhancing the USM brand and identity. It is also one of the 'warzones' for students and USM communities alike to further strengthen their entrepreneurship skills. It also serves as a place for events and meetings, in addition to having the most important outlet called 'Oleole' which sells USM merchandise by the plentiful. This building was built after USM became the Ministry of Higher Education Entrepreneurial Awards (MEA) Champion in Malaysia in 2018. The Bricks@USM is entirely administered by students, from managers to crew, and includes all aspects of sustaining, enhancing, and managing this merchandise store. Every process will be supervised by the Entrepreneurial Sector HEBAT Development Centre (HDC) for any decision-making, with a weekly meeting to address everything from scratch. The students will learn about entrepreneurship, such as how to create and develop new products, how to perform a financial transaction, particularly how to start and close daily operations using IRS Pos System, and so much more.

Pocket Park@USM: CGSS Moves the Green Space Agenda Ahead with Tree-Planting Project

USM launched the Pocket Park@USM project, which is an initiative to develop a park filled with specified trees in an effort to continue to preserve the greeneries around the campus. The project was launched by the USM Deputy Vice-Chancellor (Sustainability and Institutional Development), Professor Dr. Md. Roslan Hashim in conjunction with the USM Sustainability Month organised by the USM Centre for Global Sustainability Studies (CGSS) themed "Sustainability Practices, Shared Responsibility" with the slogan "I Love USM". The project will bring many benefits to the environment, including lowering the ambient temperature and helping to improve the quality of life on campus, as well as in absorbing carbon dioxide (CO_a) in the surrounding area, according to Roslan.

USM One of Malaysia's Seven Most Beautiful Campuses, Says High Society Lifestyle Magazine

USM main campus here has achieved another milestone, when it was named as one of seven most beautiful university campuses in the country by Tatler Malaysia, a prestigious high society, lifestyle magazine. The other university campuses listed are Universiti Teknologi Malaysia; International Islamic University Malaysia; Universiti Teknologi Petronas; University of Nottingham Malaysia: University College of Technology Sarawak and Universiti Malaya. Tatler Malaysia provides independent reports on various topics for the interest of the elite society that demands the best and has the highest standard of expectation. The report on the seven most beautiful campuses in Malaysia is another recognition for USM which prides itself in having a unique garden campus rich with tropical flora and fauna, and forest habitats.





UTM Green DNA: COVID-19's Impact on Local Waste Production and Management*

Kampus Sejahtera USM in collaboration with Universiti Teknologi Malaysia (UTM) has organized a joint programme called "COVID-19's Impact on Local Waste Production and Management". The main objective of the programme is to create awareness about the consequences of waste production due to COVID-19 that affects the environment and society while at the same time educate the students on waste management.

Nature Hunt

The program that uses the iNaturalist application successfully gives students exposure to the species of flora and fauna found in their environment. In addition, the students become more sensitive and able to identify species of flora and fauna through the community of researchers who also help in identifying plant species uploaded by the participants. This program gets a lot of participation from students from various fields because of the uniqueness of the application. Throughout this program, a total of 73 students have been involved and the highest observation record is 4,610 observations within a month.

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PUBLICATIONS
IN SCOPUS
2021

7 Days Zero Waste Lifestyle

Zero waste lifestyle is an act of reducing the amount of rubbish in the environment to ensure a sustainable lifestyle. Practicing a zero-waste lifestyle is extremely essential in order to reduce the impact of climate change Participants can increase their knowledge about the importance of a sustainable lifestyle and apply it in everyday life. In addition, participants can also improve self-awareness and the surrounding community about effective waste management, in addition, able to highlight the talent of creativity and innovation through the production of new goods from wasted goods. The 7 Days Zero Waste Lifestyle program held on 29 March 2021 until 4 April 2021 through online platform Telegram & Instagram.

USM to Instill Understanding of Sustainable Practices to its Community and Society at Large

USM community and the society at large should be given the opportunity to understand and appreciate the concept of sustainability, which should be nurtured together and later becoming the responsibility of all in their daily lives. This was said by the USM Vice-Chancellor, in his speech when officiating the USM Sustainability Month programme. The USM Sustainability Month programme is organised by the USM Centre for Global Sustainability Studies (CGSS) in emphasising the need to continue with the sustainability agenda as part of the university's main focus. "Sustainability is not just about the environment. The COVID-19 pandemic has resulted in various aspects of human life being halted and disrupted. However, indirectly this situation has brought positive changes to the state of our environment" he said.

Turning Citrus Peel Waste into Bio-Leather as Packaging Material

USM is honoured when, Menlin Ng Aniathul Fitria Ismail Ng Abdullah from the Product Design Department, School of The Arts, was chosen as the recipient of the James Dyson Award 2021—National Runner-Up. Menlin's innovative product, known as Citra The Bio-Leather (CBL) has brought pride, joy and excitement to the university and its communities with the success. CBL is a new biodegradable material created from citrus peel waste and is designed to be used as a packaging material for beauty products.



USM Food Tech Students Make Winning Entries a 'Piece of Cake'

Students from the USM School of Industrial Technology have scored yet another sweet victory in the 12th MIFT National Food Science and Technology Competition 2021. Loong Ye Heng—won first Prize in the Undergraduate Impromptu Oratory Competition. His winning entry titled: "Advancement of E-commerce is a Platform for Food Fraud: Agree or Disagree?" Next, a group of seven undergraduate students who won 3rd Prize in the Food Product Development Competition. Led by Suhaila Mohamed, they presented their innovative product: 'Papaya Chip Cookies'. Other members of the team were Nor Fazliaton, Muhammad Lutfilhadi, Syamilah Nordin, Mardhiah, Nurul Syafira Nabila, and Siti Rafeegah Shroslee. Another winning entry came from a PhD student, Hariyaindaran K. Veeriah who won 3rd Place in the Postgraduate Research Oral Competition. His winning presentation was titled: "A novel use of torrefacto roasting with superheated steam on black seeds (Nigella sativa)". The final winning submission, which also won 3rd Place. came from another PhD student, Siti Rashima Romli. Her entry for the Postgraduate Research Poster - Food Science Category was titled: "Effects of pineapple intakeon human taste threshold".



Take urgent action to combat climate change and its impacts

Carbon Footprint

Carbon Footprint is the total greenhouse gas emissions caused by an individual, event, organization, service, place or product, expressed as carbon dioxide equivalent. Measurement of carbon footprint is an effort to ensure that USM is listed as a Carbon Neutral University by achieving the target of reducing carbon emissions of 45% by 2030 as recommended by the Ministry of Environment and Water (KASA).

IFLA2021 International Student Charrette Tackles Climate Change Issues

School of Housing, Building and Planning (HBP), and the Centre for Marine and Coastal Studies (CEMACS) at Universiti Sains Malaysia (USM) successfully hosted the IFLA2021 International Student Charrette held virtually from 18-21 August 2021. IFLA play a leading role in formulating and creating landscape architecture-based solutions, for a brighter future. IFLA2021 stand as a platform where regional delegates can share issues, ideas, and inspiration, to ensure the landscape architecture profession is ready to face the requirements of society, the environment, and urban living, for the next 10 years. Plunge into an era of extreme climate change marked by rising sea levels, resource depletion and species extinction it is apt that the International Student Charrette focuses on the issue of climate change. USM applaud the efforts in instilling the awareness and highlighting the current and future crisis in climate change that is impacting the life of millions around the world. In tackling climate change issues the whole world needs to link up their efforts to help deliver the UN 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change.

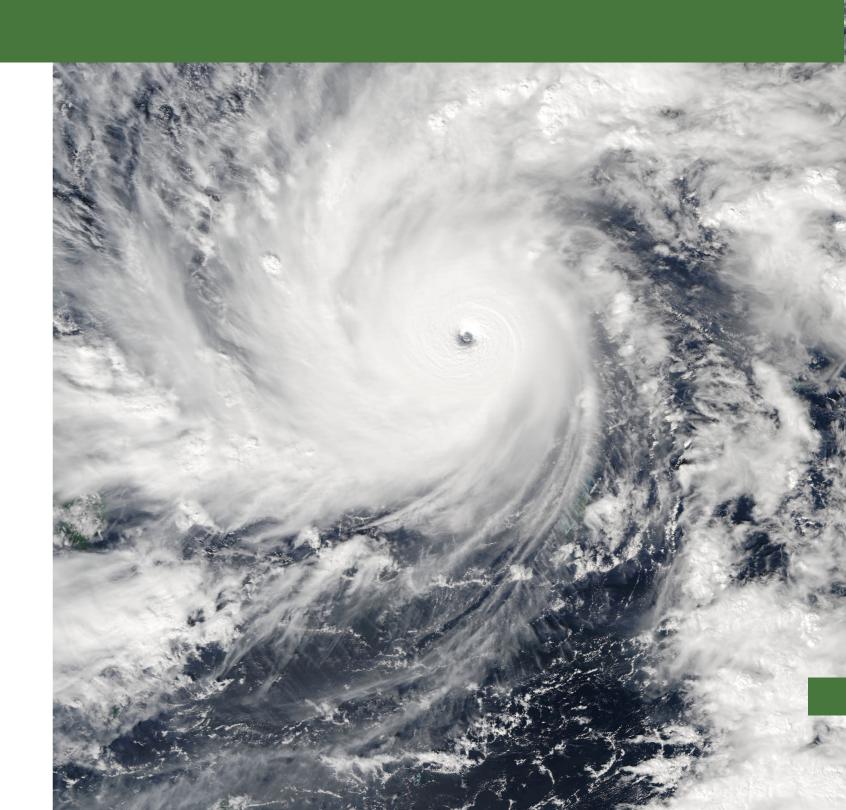
Danger, Climate Crisis Ahead the Importance of Mainstreaming Climate Resilience in Policy Making

Centre for Global Sustainability Studies (CGSS) held a webinar on Danger, Climate Crisis Ahead: The Importance of Mainstreaming Climate Resilience in Policy Making on 20 March 2021 through an online platform. This program discussed and reviewed climate resilience is the ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate. Improving climate resilience involves assessing how climate change will create new, or alter current, climate-related risks, and taking steps to better cope with these risks. The speaker is Mrs. Vishanthini a/p Kanasan, a PhD student from CGSS.

A Bright Future Awaits Oyster Farming in Penang

The Center for Ocean and Coastal Studies (CEMACS, USM) has introduced and improved aquaculture systems by replacing capture fisheries in accommodating population growth in mitigating climate change, especially the oyster industry. Described as low cost, oyster farming is appreciated for its green and clean aquaculture approach and uses adaptable technology. This research is under the direction of Prof. Datuk Dr. Aileen Tan.

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5th International Congress on Fisheries and Aquatic Research (ICFAR 2021)

Centre for Marine and Coastal Studies (CEMACS), Universiti Sains Malaysia, Penang, is organizing 5th International Congress on Fisheries and Aquatic Research (ICFAR 2021) which held virtually on 10-12 Nov 2021. This event is an opportunity to bring together researchers to present their research innovations, to share ideas and knowledge and discuss future perspectives of Fisheries, Aquaculture and Aquatic Research. The three-day congress selected topic more on Environmental Impacts & Sustainable Aquaculture and Marine Biology, Oceanography and Conservation.

The UN Decade of Ocean Science for Sustainable Development (2021-2030)

Centre for Marine and Coastal Studies (CEMACS), Universiti Sains Malaysia in collaboration with the Kementerian Alam Sekitar Dan Air (KASA) organized a webinar entitled A Healthy Ocean in conjunction with the national launch of United Nations Decade of Ocean Science for Sustainable Development (2021-2030). The United Nations has proclaimed a Decade of Ocean Science for Sustainable Development (2021-2030) to support efforts to reverse the cycle of decline in ocean health and gather ocean stakeholders worldwide behind a common framework that will ensure ocean science can fully support countries in creating improved conditions for sustainable development of the Ocean.

International Coastal Cleanup Day 2021

In conjunction with International Coastal Cleanup 2021, Centre for Marine and Coastal Studies (CEMACS), Universiti Sains Malaysia, encourages solo or small groups beach/river cleanup activities. Coastal Studies (CEMACS) decided to commemorate from September 18 to October 18 2021. CEMACS kicked off the month-long cleanup along Medan Selera Queensbay (Pantai Seagate). This campaign involved 27 groups, comprising of 143 people. The trash that picked up from beaches amounted to 12,256 items collectively. The team also audited the weight and type of trash collected. Participants were likewise urged to do their own trash audit and to submit their data on CEMACS' online form. The results were most encouraging. Data was received from the 27 groups that were formed in response seven in Penang, seven in Kelantan, three in Terengganu, three in Selangor, two in Kedah and one each in Perak, Pahang, Negeri Sembilan, Sarawak and Philippines. Of the items gathered, plastic bottle numbered the most, followed by food wrappers and bottle caps.







Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss

Pocket Park@USM project

Universiti Sains Malaysia (USM) recently launched the Pocket Park@USM project, which is an initiative to develop a park filled with specified trees in an effort to continue to preserve the greeneries around the campus. The project was launched on 2 April 2021 by the USM Deputy Vice-Chancellor (Sustainability and Institutional Development), Professor Dr. Md. Roslan Hashim in conjunction with the USM Sustainability Month organised by the USM Centre for Global Sustainability Studies (CGSS) themed "Sustainability Practices, Shared Responsibility" with the slogan "I Love USM". This project is very meaningful and brings about a high impact in preserving the natural surroundings, especially in the USM campus.

Get to Know more about Our Malaysian Primates, Now 'Primed' at USM MGTF

Primates are intriguing and unique species that often resemble humans, including macaques, orangutans, loris, and gorillas. The Tuanku Fauziah Museum and Gallery (MGTF) at Universiti Sains Malaysia (USM) recently hosted a programme called "Projek Monyet," a hybrid exhibition that highlights Peter Ong's photographic journey in documenting and portraying Malaysia's primates. This program was organized in collaboration with the Malaysian Primatological Society (MPS), Roots & Shoot Malaysia, and Projek Monyet. In addition to Peter's portraits of primates, the exhibition includes works of art and photography submitted by public members that highlight the variety and awe of our arboreal cousins, also known as (PRI-) MATES.



USM-THPH to Collaborate and Formulate a Strategic Plan to Preserve Penang Hill's Natural Treasures

The Habitat Penang Hill (THPH) and Universiti Sains Malaysia (USM) are working together to create a strategic plan for research and sustainability to preserve the ecosystem and variety of natural resources on Penang Hill (Bukit Bendera). Since THPH was launched in 2017, the two organizations have worked together and developed an understanding. This relationship guarantees that USM will continue to support THPH in its efforts to protect the variety of natural resources on Penang Hill. Following a recent visit to THPH, USM Vice-Chancellor Professor Dr. Faisal Rafiq Mahamd Adikan stated that USM welcomes any future partnership with THPH that focuses on safeguarding and conserving the area's natural resources and ecosystem. Harry A. Cockrell, the creator of THPH, the dean of the Institute of Postgraduate Studies (IPS), Professor Dr. Azlan Abdul Aziz, the dean of the School of Biological Sciences, Professor Dr. Amirul Al-Ashraf Abdullah, the managing director of THPH, Allen Tan, and the managing director of The Habitat Foundation, Justine Vaz, were also present during the visit.

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USM is One Of Malaysia's Seven Most Beautiful Campuses—High Society Lifestyle Magazine

The main campus of Universiti Sains Malaysia (USM) has reached another milestone after Tatler Malaysia, a prominent high society lifestyle magazine, named it one of the top seven most attractive university campuses in the nation. For the benefit of the affluent society that expects nothing less than the best and has the highest standards, Tatler Malaysia offers unbiased reports on various subjects. The list of the top seven campuses in Malaysia is yet another accolade for USM, which takes pleasure in having a distinctive garden campus abundant in tropical flora, fauna, and rest ecosystems.

Ecosystem Services Provided by Bats in Ricefields

Dr. Nurul 'Ain of the School of Biological Sciences at USM will conduct a study that focuses on the insectivorous bats of the Gunung Keriang region of Kedah. It intends to determine whether the insectivorous bats that sleep in the neighboring limestone caverns consume species known to be a problem in rice fields. The research methodology includes keeping track of seasonal pest availability and insect population at various stages of paddy growth. To study resource partitioning among the bats of Gunung Keriang, feces samples from bats will be examined (Source: The Habitat Foundation web)





Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Public Lecture on "Freedom of Religion, Belief, and Expression in Malaysia: Where Are We Headed?"

Dato. Dr. Madeline Berma, an Academy of Sciences Malaysia Fellow and Commissioner of the Human Rights Commission of Malaysia (SUHAKAM), will give the public lecture and discuss the 2019 SUHAKAM annual report on freedom of religion, belief, and expression (FoRB & FoE) in Malaysia, which was not discussed in Parliament last year. The public lecture will emphasise the most recent FoRB & FoE developments, particularly those related to the post-2018 general election, as well as suggestions for improvement. Dr. Azmil Tayeb, a lecturer in political science at Universiti Sains Malaysia (USM), will then discuss it and take questions from the audience.

'Leaders are People Who Do the Right Things'

Professor Emeritus Tan Sri Dato' Dzulkifli Abdul Razak, who has been serving as the 6th Rector of the International Islamic University Malaysia (IIUM) since 1 August 2018, was one of the invited speakers who delivered a keynote address during the virtual LASER programme. At USM, Dzulkifli began his academic career before rising to the position of vice chancellor from 2000 to 2011. In order to assure the progress of the nation, he stated, "strong leadership is required, while community participation plays an essential role in developing future leaders." The LASER programme has the potential to continue directing and guiding the younger generation into "doing the right things" within a practical framework that are able to have a significant impact on society and the country, according to Dzulkifli, who gave a keynote speech titled "Leadership in Community Engagement."

The 5th Annual Lecturer Workshop on Teaching Human Rights & Peace: Developing Skills and Knowledge on Peace and Transformative Peacebuilding

The Norwegian Centre for Human Rights at the University of Oslo is supporting the Fifth Annual Lecturer Workshop on Teaching Human Rights/Peace: Developing Skills and Knowledge, organised by SHAPE-SEA through the ASEAN University Network-Human Rights Education (AUN-HRE), in collaboration with the Institute of Human Rights and Peace Studies (IHRP), Mahidol University, and the Research and Education for Peace (REPUSM), Universiti Sains Malaysia. This online training seeks to develop lecturers' abilities and knowledge for teaching transformative peacebuilding and peace at the undergraduate and graduate levels (which link to human rights)







Strengthen the means of implementation and revitalise the global partnership for sustainable development

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USM Working with Serba Dinamik to Develop Space Industry in the Country

Universiti Sains Malaysia (USM) via the School of Aerospace Engineering (USM Space System Laboratory) has entered into a strategic partnership with Serba Dinamik Group Berhad (SDGB) to help develop the space industry in the country. The partnership was forged after USM and SDGB signed a Memorandum of Cooperation held virtually recently, following the establishment of the New Space Economy Nexus (NSEN), a strategic partnership between industry and university. Serba Dinamik Group also signed a similar Memorandum of Cooperation with six other institutions of higher learning. USM Vice-Chancellor, Professor Dr. Faisal Rafig Mahamd Adikan said, the collaboration will enable USM to explore the space system deeper and contribute its expertise to the industry.

USM, DELL Technologies Embark on MoU to Produce Industry-Ready Graduates

Universiti Sains Malaysia (USM) and Dell Technologies Malaysia (Dell) have signed a two-year Memorandum of Understanding (MoU) in a milestone industry-academia move to produce more industry-ready graduates. The MoU provides a platform for USM and Dell to work hand-in-hand to groom and equip USM undergraduates to be highly employable graduates under the USM LIFE Programme, a new academic initiative that advocates creative and experiential learning.

USM and Batangas State University Ink MoU on Staff and Student Exchange

In a historic first, Universiti Sains Malaysia (USM) and Batangas State University (BatStateU), Philippines have signed a Memorandum of Understanding (MoU) to facilitate student mobility and staff exchange programmes. The MoU was signed by both universities through a virtual ceremony conducted using the Webex video conferencing application, in part due to restrictions on international travel brought about by the COVID-19 pandemic. The MoU would allow both institutions to encourage academic exchange among faculty members and student exchange via mobility programmes; implement beneficial activities and conduct collaborative projects such as research exchange on mutually identified subject matters.

USM, Angkasa-X Inked MoU to Further Develop Space Industry

Universiti Sains Malaysia (USM) through the School of AerospaceEngineering recently signed a Memorandum of Understanding (MoU) with Angkasa-X Innovation Sdn Bhd.This collaboration is part of an initiative meant to build up the ecosystem in the nation's space industry.

USM-THPH to Collaborate and Formulate Strategic Plan to Preserve Penang Hill's Natural Treasures

Universiti Sains Malaysia (USM) and The Habitat Penang Hill (THPH) are collaborating to develop a strategic plan for research and sustainability to maintain the ecosystem and diversity of natural resources in Penang Hill (Bukit Bendera). USM and THPH have cooperated and established an understanding since THPH was founded in 2017 and such an engagement provides the assurance that USM would continue to assist in the efforts carried out by THPH in preserving the diverse natural resources found in Penang Hill. According to USM Vice-Chancellor, Professor Dr. Faisal Rafig Mahamd Adikan who recently went on a working visit to THPH, USM welcomes any form of collaboration in the future with THPH, which will be focusing at protecting and preserving the natural habitat and resources there. Collaboration between several researchers from the USM School of Biological Sciences, led by senior lecturer Dr. Nadine Ruppert, had resulted in various research being conducted at THPH, and it is hoped that it can be continued so that this 'treasure' can be maintained and continue to provide the outside community with the awareness on the importance of nature in our life.

USM and Moscow State University Established a Collaboration to Expand the use of Malay Language

In an effort to further expand the use of Malay at the global level, Universiti Sains Malaysia (USM) has signed a Memorandum of Understanding (MoU) with Moscow State University (MSU), Russia. The MoU paves the way as a platform for both institutions to establish close cooperation in the teaching and learning of Malay. According to the Deputy Dean (Research, Innovation and Industry-Community Engagement), USM School of Humanities, Associate Professor Dr. Goh Sang Seong, the collaboration enables the transfer of knowledge, especially related to the Malay world, to the responsible institute at MSU, the Institute of Asian and African Studies. In addition, he explained, this effort also coincides with the desire to strengthen bilateral relations between Malaysia and Russia, especially in pioneering the way to dignify and internationalize the Malay language in Russia. The agreed scope of cooperation focuses on the teaching and learning of the Malay language, especially the Malay language credit transfer program, research and publication in the field of the Malay language and translation and the organization of seminars.

USM-PUP Philippines Seals International Cooperation in Education and Research Development

Universiti Sains Malaysia (USM) and Polytechnic University of the Philippines (PUP), Philippines signed an international collaboration for the purpose of collaboration in the development of higher education and research between the two universities. Through the signing of the MoU, both parties agreed to increase bilateral relations of sharing expertise for the purpose of research development and student marketability through student exchange aimed at revealing the pattern and culture of cross-national education. It is hoped that this cooperation will be able to be used by both universities in the field of research, joint publication of scientific books, joint organization of international seminars as well as exchange of students for industrial training and so on. Through this collaboration, the opportunity for the exchange of staff expertise can be implemented on a short-term and long-term basis for different categories based on a mutually agreed assessment of the quality of the specialization offered.

USM-BPPBPP ICU Signed an Understanding to Strengthen Penang State's Bumiputra Agenda

Universiti Sains Malaysia (USM) and the Penang *Bumiputera* Participation Coordination Division, Implementation Coordination Unit, Prime Minister's Department (BPPBPP ICU) have signed a Memorandum of Understanding (MoU) in a joint effort to empower the *bumiputera* agenda in Penang. The collaboration involves several studies and data research that will be undertaken together with USM as a database provider, aiming to find the best approach to develop the *bumiputera* community in Penang in particular.

USM Among 20 Public University to Form Strategic Cooperation with Higher Education Ministry to Develop a Consortium of National Higher Education Electronic Resource

Universiti Sains Malaysia (USM) has signed a Memorandum of Understanding (MoU) involving 20 Public Universities (UA) with the Ministry of Higher Education (KPT) to develop a consortium of electronic resources for higher education in the country. The signing of the MoU will see a strategic collaboration involving the entire UA library with the KPT to provide scholarly digital market facilities and become the main digital reference for students, researchers and employees as well as a reference for Malaysians and the global community. The ceremony was completed by the Minister of Higher Education, YB Datuk Seri Dr. Noraini Ahmad who was also present and witnessed the simultaneous signing of the MoU of 20 UA by the university leadership consisting of the Vice Chancellor and the Chief Librarian as witnesses to the agreement. The establishment of this consortium is a good initiative by KPT which greatly benefits not only the campus residents but also the local and global community for the benefit of the scientific digital resource.

USM, KPN Work Together to Develop Two National Unity Plan

In its efforts to become an institution that develops national unity, Universiti Sains Malaysia (USM) today signed two memorandums of understanding (MoU) with the Ministry of National Unity (KPN). The two MoUs spearheaded by the Center for Social Science Studies (PPSK) are based on the main objectives of the Development of the Plan to Promote Unity -Close Accessibility, Multiplicity of Inclusion (KAMI) and the Empowerment of the Indian Community Development Action Plan. It is hoped that this MoU can form closer cooperation between the Ministry of Unity and USM in drawing up a national unity plan in support of the three main aspirations of national unity—building a patriotic and democratic people, forming a national identity and strengthening the ecosystem of unity.



