

SUSTAINABLE DEVELOPMENT GOALS REPORT 2018





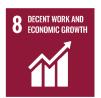






























USM In Achieving Sustainable Development Goals: Contributing To SDGs Through Impactful And Sustainable Solution

THE-GIR SDG17

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FOREWORD BY VICE-CHANCELLOR

Universiti Sains Malaysia (USM) recently celebrated its 50th year, being part of the education landscape as a research university in Malaysia. Within that period of time, the university has succeeded in pushing ahead its vision for a sustainable future and garnered the APEX institution status from the Malaysian government.

Sustainability is dynamic; it keeps on changing and shifting amidst all other surrounding factors. USM too has been realigning and positioning itself at the forefront of many sustainability-led initiatives. Such areas of study have been integrated and embedded to form part of the USM culture. The areas include establishing the campus grounds to become a 'Healthy Campus' (Kampus Sejahtera) in a holistic manner, the setting up of a Centre for Global Sustainability Studies (CGSS) and the South East Asian Sustainability Network (SEASN). The various entities and initiatives looked at a variety of aspects in life such as water, energy, health, agriculture, biodiversity, climate change & disaster risk management, consumption and production and population and poverty.

In pushing for a sustainable tomorrow, this means that USM cannot rest on its laurels. While fulfilling its role in upholding academics, research, community engagement and institutional arrangements, it needs to continue being dynamic, in breaking new grounds and treading new pathways. There is more that can be done for the 5Ps: People, Planet, Profit, Partnerships and Peace. Surely then, the university would qualify to stand up to its motto 'We Lead'.

Professor Dr. Faisal Rafiq Bin Mahamd Adikan Vice-Chancellor Universiti Sains Malaysia

PREFACE 1 BY PROFESSOR DR. ALDRIN BIN ABDULLAH

Universiti Sains Malaysia (USM) was ranked at #49 in the 2019 Times Higher Education University Impact Ranking (THE-GIR) that access universities against the United Nations' Sustainable Development Goals. It was another feather in the cap for the university which had been chosen a decade earlier in 2008, to be an APEX university based on its vision to transform higher education for a sustainable tomorrow.

USM was first established to assist in the process of nation-building. Since then it has become an integral part of the education system, as a research university, in growing talents and helping to mould future generations of leaders and thinkers. It has widened its role and reach, to lead and assist in building ideas and communities far and near.

This is where innovations from the thinkers and leaders would be needed more than ever to encounter the ever-present disruptions. Such innovations would surely allow the communities and the nation to grow and prosper. This is what sustainability is all about, in ensuring each generation would be able to continue to live and thrive in the best manner possible. This is where USM wants to continue to lead.

Professor Dr. Aldrin Bin Abdullah
Director
Institutional Planning and Strategic Center
Deputy Vice-Chancellor
Student Development & Alumni Affairs
Universiti Sains Malaysia

PREFACE 2 BY PROFESSOR DR. MD ROSLAN BIN HASHIM

The United Nations' Sustainable Development Goals (SDGs) were established to ensure that the planet and its precious resources, mankind including, would be able to continue to grow and prosper into the future. The challenge now would be to overcome practices that are detrimental to the harmonious growth.

It is also the challenge that Universiti Sains Malaysia (USM), as it turns 50, needs to take and uphold. From the spreading of awareness to the creation of new knowledge through its various departments and programmes, it is the responsibility of all at the university. It's also the responsibility of all mankind. The stewardship of the planet and its resources is more important than ever as the world population continues to increase and with it, man's ego and greed.

Industry 4.0 is already on the horizon. The growth of civilisation need to be spurred and initiated by new and different ideas. It would be our duty and responsibility to steer it in the direction that would bring prosperity and harmony to the planet and all its inhabitants. It's what the university should be striving for beyond turning 50. It's about taking the necessary steps beyond the norms, beyond the borders to do 'business unusual', instead of 'business as usual'. It's our lifelong duty.

Professor Dr. Md Roslan Bin Hashim
Deputy Vice-Chancellor,
Sustainability and Institutional Development
Universiti Sains Malaysia

USM IN ACHIEVING SUSTAINABLE DEVELOPMENT GOALS: CONTRIBUTING TO SDGS THROUGH IMPACTFUL AND SUSTAINABLE SOLUTION

INTRODUCTION

In September 2015, world leaders at the UN unanimously adopted Transforming Our World: The 2030 Agenda for Sustainable Development, one of the most ambitious and important global agreements in recent history. The agenda, which came into effect on 1 January 2016, aims to set the world on a path towards a better future for all by 2030. At the heart of the agenda are the 17 SDGs and their 169 targets. The SDGs are a set of priorities and aspirations to guide all countries in tackling the world's most pressing challenges, including ending poverty and hunger; protecting the planet from degradation and addressing climate change; ensuring that all people can enjoy prosperous, healthy and fulfilling lives; and fostering peaceful, just and inclusive societies free from fear and violence.

The SDGs cover a wide range of complex social, economic, and environmental challenges and addressing them will require transformations in how societies and economies function and how we interact with our planet. Education, research, innovation and leadership will be essential in helping society address these challenges. Universities, with their broad remit around the creation and dissemination of knowledge and their unique position within society, have a critical role to play in the achievement of the SDGs. Arguably none of the SDGs will be achieved without this sector. Engaging with the SDGs will also greatly benefit universities by helping them demonstrate university impact, capture demand for SDG-related education, build new partnerships, access new funding streams, and define a university that is responsible and globally aware. Education and research are explicitly recognised in a number of the SDGs and universities have a direct role in addressing these. However, the contribution of universities to the SDGs is much broader, as they can support the implementation of every one of the SDGs as well as the implementation of the SDG framework itself. The SDG agenda covers a wide range of interconnected social, economic, and environmental challenges and the unique functions of universities. The expertise of universities are critical for overcoming all of these. Arguably the SDGs will not be achieved without this sector.

Therefore, Universiti Sains Malaysia (USM) contributes to the manifestation of a sustainable future for the betterment and wellbeing of society that addresses all 17 goals of the Sustainable Development Goal. All area of the SDGs represent areas in which USM can provide maximum potential in addressing societal issues through impactful and defective initiatives.

Sustainability@USM

USM has started to embrace education for sustainable development (ESD) and "University as a Living Lab" approach since the year 2000 through the concept of *Kampus Sejahtera* (Healthy Campus) and University in a Garden. USM aims at promoting sustainability among the community within and outside the campus through education and research activities. In order to achieve APEX vision, USM has taken its initiative to establish a centre which would be able to help USM to mainstream sustainability across all levels within USM community. The Centre for Global Sustainability Studies has been established to act as a conduit to help USM in the mainstreaming of sustainability within the university. CGSS is designed to work with all relevant sections of the university, regional, and international sustainability organisations, national and regional governments, the private sector, civil society groups and NGOs to promote sustainable development, paying attention to the disempowered bottom billion.



The University in a Garden concept as conceptualised by USM in 2001 is designed to depict the close affinity between the role and function of the University as an institution of higher learning and nature as part of the global ecological setting. The flora, fauna, aquatic elements and other natural creations are dynamically linked in the exploration of knowledge into the nature of existence. The concept is an invitation to value, preserve and nurture the campus ambient as part of the efforts to create and sustain an intellectually conducive setting in order to kindle the spirit and practice of symbiotic co-existence. It is about touching the hearts and minds of each campus citizenry in the appreciative of the natural surroundings as a source of inspiration as bequeathed to us by the Creator.

So as to raise the awareness of all parties about these efforts, various elements were accorded specific attention. This includes the existing philosophy of development, taking into consideration the prevailing natural beauty such as the lakes and its tranquil surroundings as well as the inhabitants, the inter-relationship with design and architectural features, and lifestyles of the campus community. This noble effort has generated several discussions, participations and activities that are infused with humanistic values and empathy. USM has indeed created an exemplary and enviable new metaphor of a garden university. This is considering a harmonious blend of various vista in the search for answers to further

illuminate the questions of - who we are, how we attained insights, and how we should fashion our future survival.

The University



in a Garden





SDG 1 – No Poverty

Eradicating poverty in all its forms remains one of the greatest challenges facing humanity. While the number of people living in extreme poverty dropped by more than half between 1990 and 2015, too many still struggling for the most basic human needs.

USM is committed to achieve SDG 1 by having Yayasan USM and Pejabat Zakat Waqaf dan Infaq (ZAWAIN). In addition, high commitment from schools and centers in USM will ensure SDG 1 can be implemented in USM especially in providing support structures for students living in poverty, such as scholarships and assistance packages.



Yayasan USM

Yayasan USM was established under the Trustee Act (Incorporation) 1952 (Act 258) on 31 March 2014 as a corporate body to support and work in line with the mission of Universiti Sains Malaysia.

The objectives are:

- 1. Providing gifts for research and related purposes.
- 2. Providing help to the bottom billions and all Malaysians regardless of race, religion and descendant.
- 3. Providing help to natural disaster victims.

TABUNG AMANAH

CHAIR

Assists in managing the Chair fund, such as providing allowances and long term projects to academicians /professionals with specialized expertise.





RESEARCH

To assist research costs for academicians especially in building sustainability and ease the burden of students by compensating the cost of their research

ACADEMIC & INTERNATIONALISATION

To help fund the cost of Academic Programs / Forums / Competitions specifically international programmes for the underprivileged students.





COMMUNITY & INDUSTRY ENGAGEMENT

To help finance the project collaboration between the University and other industries and relieve the burden of poverty from identified families or help support non-profit organization foundations



To finance the programmes under Accelerated Programme for Excellence (APEX) in empowering future talents and enabling the bottom billions transform their socio-economic status.





TALENT (BAKAT)

Help fund the tuition fees, meal allowances as well as other necessities to the identified students.

BUILDING & MAINTENANCE

To help fund building/ house maintenance or upgrading. This fund is also used to purchase tools or equipments needed for the renovation or repair works.





GENERAL

The Fund will be used for general financing in addition to the seven (7) the stated Funds.

Contributors Yayasan USM

"No matter of how great or how small, you can make a difference"









































Activities



- 120 students were benefited from Yayasan USM fund.
- 11 students were recieved laptop
- 92 people from B40 benefited the donations



Scholarship Signing Ceremony between Micro Dimension Concrete Sdn Bhd (MDC) and two (2) students

Bil	Jenis Pinjaman	Bilangaı	Jumlah	
		Semester 1	Semester 2	Permohonan
1.	Pinjaman Jangka Pendek	46	38	84
2.	Pinjaman Jangka Panjang	10	5	15

Pinjaman Jangka Panjang

Terbuka untuk semua pelajar ljazah Pertama yang tiada bantuan kewangan atau tajaan.
 Keutamaan diberi kepada pelajar yang menghadapi masalah kewangan untuk membayar yuran akademik pada sidang pengajian semasa.

15

Jumlah **99**

Jumlah Peminjam dan Syarat Pinjaman Jangka Pendek dan Panjang USM 2018

Pinjaman Jangka Pendek

- Terbuka kepada semua pelajar aktif berpenaja dan membuat permohonan untuk tujuan sara hidup.
- 2) Maksimum pinjaman yang dibenarkan adalah sebanyak RM500.00 sahaja.
- Tempoh permohonan yang dibenarkan tiada had kecuali pada cuti semester.

PEJABAT ZAKAT WAQAF DAN INFAQ (ZAWAIN) UNIVERSITI SAINS MALAYSIA

Universiti Sains Malaysia (USM) through its 93rd Jawatankuasa Pengurusan Universiti (JKPU) meeting dated March 8, 2017, has agreed to establish Waqaf Office at Universiti Sains Malaysia. The main purpose of establishing the Waqaf Office at that time was to strengthen the role of the waqaf institution in USM, in line with the decision of the Public University Higher Education Waqaf on June 9, 2016, which had joint resolution for each public university to establish Zakat, Wakaf and Infaq Council (MAZWIN) as the highest body to formulate policies and regulations on matters of zakat, waqaf and infaq management at their respective universities. Creating financial sustainability and funding stream based on asset and Islamic fund is among the main purposes of ZAWAIN.

YEAR 2018				
PROGRAM	NO OF STUDENTS	VALUE (RM)		
a) Zakat Sara Hidup	1051	437,600.00		
b) Zakat Insentif Kecemerlangan Akademik	336	67,200.00		
c) Zakat Khas: Yuran Pengajian	3	5,760.70		
d) Zakat Keinsanan One-Off (Kebakaran)	1	5,000.00		
e) Zakat Khas: Peserta Tilawah Al-Quran	2	1,200.00		
Jumlah	1393	516,760.70		



UEM Foundation Assistance for USM Students in 2018

Jadual Statistik Pelajar yang Mendapat Bantuan Tabung Kebajikan Mengikut Kes bagi Tahun 2018

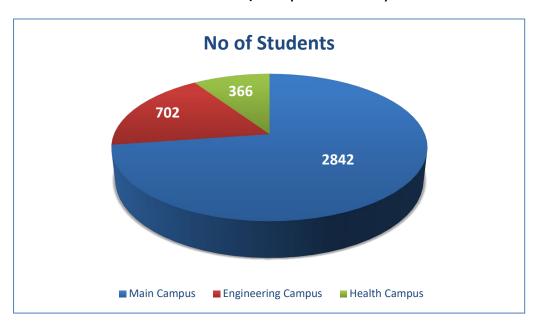
Jenis Tuntutan	Orang	Sumbangan (RM)	Tambang (RM)	JUMLAH (RM)
Pelajar Meninggal	8	40,000.00	-	40,000.00
Ahli Keluarga Meninggal	61	30,500.00	3,751.14	34,251.14
Bantuan Alat Sokongan	4	11,663.40	-	11,663.40
Wang Ehsan	7	3,500.00	-	3,500.00
Rawatan dan Perubatan	14	217,554.58	-	217,554.58
JUMLAH Keseluruhan	94	303,217.98	3,751.14	306,969.12

		Jumlah Penerima Mengikut Kampus			
Bil	Jenis / Kategori Penaja	Kampus Induk	Kampus Kejuruteraan	Kampus n Kesihatan	
1.	Perbadanan Tabung Pendidikan Tinggi Nasional (PTPTN)	5,681	1,118	693	
2.	Jabatan Perkhidmatan Awam (JPA)	760	117	610	
3.	Biasiswa KPM	53	0	0	
4.	Biasiswa Swasta / Korporat / Biasiswa dan Pinjaman Kerajaan Negeri / Yayasan Negeri / Badan Berkanun	128	28	9	
5.	Biasiswa Dari Tabung Yayasan USM	25	10	4	
Jumlah Pelajar Berpenaja		6,647 (59%)	1,273 (53%)	1,316 (52%)	
Jumlah Pelajar Aktif		11,224	2,391	2,524	
Jumlah Pelajar Tanpa Penaja		4,577 (41%)	1,118 (47%)	1,208 (48%)	

http://zawain.usm.my/index.php

https://www.facebook.com/Pejabat-Zakat-Waqaf-Infaq-USM-Zawain-247508592870446/

UNJURAN AMBILAN PERINGKAT PENGAJIAN IJAZAH SARJANA MUDA SALURAN PERDANA AKADEMIK 2018/2019 (B40 STUDENTS)



University provide assistance to the local community assisting the start-up of sustainable businesses

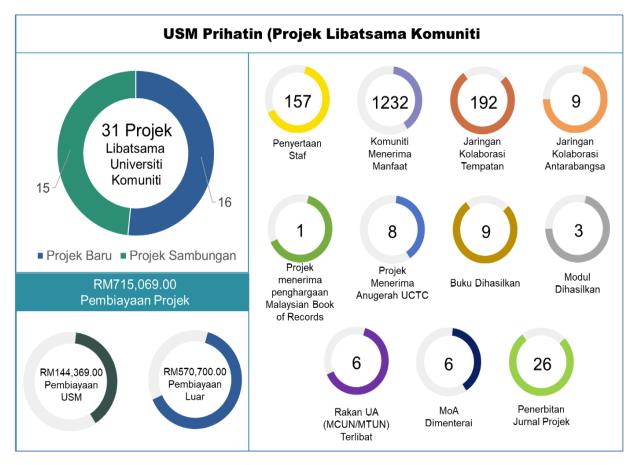
O1 APR

PENYELIDIKAN LEBAH KELULUT USM BANTU TINGKATKAN EKONOMI GOLONGAN TERKEBAWAH



BESUT, TERENGGANU, 31 Mac 2018 - Universiti Sains Malaysia (USM) meneruskan agenda pemindahan ilmu kepada komuniti melalui projek 'Reinventing Honey Quality' yang telah direka untuk merangsang transformasi luar bandar sebagai projek penyelidikan translasi.

Bengkel Pengenalan Asas Penternakan dan Potensi Lebah Kelulut Berasaskan Inovasi Mustafa Hive dan Hilda System yang dikendalikan oleh USM merupakan bengkel kepada 25 orang peserta perintis yang terpilih di bawah E-kasih dan keluarga kumpulan B40 di daerah Besut, Terengganu.





The Community Innovation Center (CIC) program is a government initiative in collaboration with the Northern Corridor Implementation Authority (NCIA) and the Universiti Sains Malaysia (USM) to encourage collaborative partnerships based on collaborative foundations to enable stakeholders (government, academia, industry and local communities) jointly leveraged Collective Impact through the Quadruple Helix approach to form a truly credible and transformative nation of par excellence. The impact of the program on USM and the community is as follows:

Community Innovation Centre (CIC)

Pembiayaan & Keberhasilan Program

Tempoh Program

27 Ogos 2015 hingga 27 Ogos 2018 (2 tahun + 1 tahun)





Nilai Program

RM2,000,000.00 melibatkan kos operasi dan pelaksanaan projek.

Mewujudkan Peluang Pekerjaan/Keusahawanan

126 Orang Kumpulan Isi Rumah B40 & eKasih menerima manfaat.



Inovasi Projek

29 elemen inovasi diketengahkan melalui kepakaran dan inovasi berpaten akademia USM.

Pembangunan Produk

28 elemen pembangunan produk telah dibangunkan melalui program CIC.



20 Rakan Kerjasama

Mewujudkan nilai yang tinggi pada kos yang rendah / Perkongsian KPI dalam program CIC.

Tambahan Pendapatan

RM600- RM900 purata tambahan pendapatan peserta projek.



4

Peningkatan Pendapatan

RM10,000-RM20,000 purata peningkatan pendapatan kepada pemilik perusahaan (peserta projek).





SDG 2 - Zero Hunger

The number of undernourished people has dropped by almost half in the past two decades because of rapid economic growth and increased agricultural activity. The SDG 2 aim to end all forms of hunger and malnutrition by 2030, making sure all people-especially children have enough and nutritious food all years. This involves promoting sustainable

agricultural, supporting small-scale farmers and equal access to land, technology and markets. It also requires international cooperation to ensure investment in infrastructure and technology to improve agricultural productivity. USM is committed to achieve SDG 2 by providing sustainable, nutritious and affordable food choices on campus, facilitating food production on campus and reduce food waste in campus.

Student food insecurity/ hunger initiatives

Universiti Sains Malaysia (USM) has various continuous programmes on food insecurity and hunger. These programmes were conducted not only at the University and School Levels, but also organized by *Majlis Perwakilan Pelajar* (Students' representative Council) and various student clubs. Most of the schools have *Almari Rezeki* (Food Cupboard) for all students needed.



In Engineering Campus, *Gerobok Syurga* (translated to "Paradise Shelf") is an annual program that provides food donations for the needy has been launch in 2017.







Program Saham Akhirat Pendidik was the initiatives taken by a student society from the School of Education to help the needy through providing food packages. About 200 packages of free food are distributed to the public and students every Friday through this program.

School-level food donation activities - School of Social Sciences. Social media was used to announce the availability of food at school. Example of message was showed below for references. The announcement showed that there were Nasi Lemak available in front of Deputy Dean Office to whom that needed.



Socsc Usm

Friend

4 Oct 2018 · 🎳 · Terdapat nasi lemak di hadapan Pejabat Timbalan Dekan (APA) hari ini. Mohon teruskan sikap berhemah saudara/saudari bagi membolehkan rezeki ini dapat dikongsi bersama pelajar yang lain. Terima kasih.



5 comments



@ Socsc Usm

Friend

2 Oct 2018 · 🎳 · Terdapat nasi lemak di hadapan Pejabat Timbalan Dekan (APA) hari ini. Mohon tanamkan sikap berhemah bagi membolehkan rezeki ini dikongsi dengan lebih ramai pelajar.



🕧 MaMu Tdh and 62 others

2 comments



Socsc Usm

Friend

19 Sep 2018 - 👫 - Terdapat nasi lemak untuk pelajar yang memerlukan di hadapan Pejabat Timbalan Dekan (APA).



17 comments

USM's Islamic Center was university level initiative. Food donation is given occasionally especially under a programme called *Maidatur Rahman* and *Program Infaq Ramadhan*. Under these programme, free breakfast, lunch, and dinner are provided for those who needed.

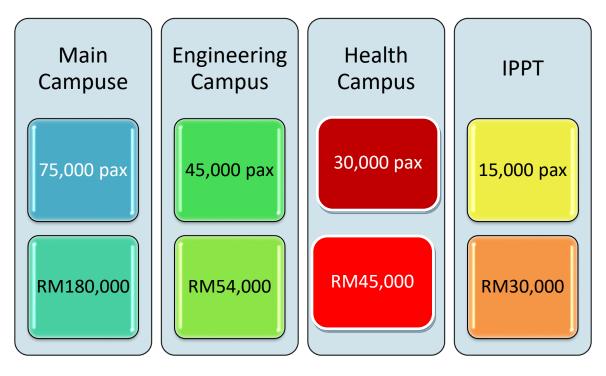




Free food programme initiative during Convocation Day celebration

Every year during month of Ramadhan, Islamic Centre, Masjid Al-Malik Khalid, *Koperasi* USM and volunteered USM staff will organise Iftar and Sahur programme for student, staff and local community. The programme was involved all USM campuses. They benefited more than 150,000 people for the whole month of Ramadhan.





Iftar Programme during month of Ramadhan in USM

In addition, there is also an annual activity by the Islamic Center of USM where the public is encouraged to give food donations for the low socioeconomic status at the mosque.





SDG 3 – Good Health and Well-Being

Good health is essential to sustainable development and the 2030 Agenda reflects the complexity and interconnectedness of the two. It considers widening economic and social inequalities, rapid urbanization, threats to the climate and the environment, the continuing burden of

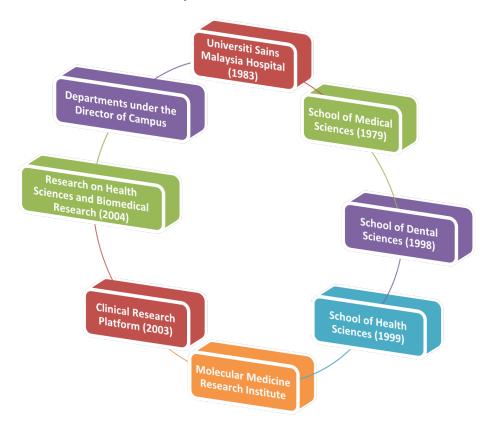
HIV and other infectious diseases, and emerging challenges such as noncommunicable diseases. Universal health coverage will be integral to achieving SDG 3, ending poverty and reducing inequalities.

USM is committed to achieve SDG 3 by having Health Campuses that consist of Hospital Universiti, School of Medical Sciences, School of Dental Sciences and School of Health Sciences. In addition, there are Molecular Medicine Research Institute, Clinical Research Platform and Research on Health Sciences and Biomedical Research that focus in health and medical research. USM is committed to achieve SDG 3 by providing access to affordable health and wellbeing services on campus, providing wellbeing programs for staff and students to reduce incidence of noncommunicable diseases and promote mental health, implementing 'no smoking' policies on campuses and ensuring appropriate practices are in place for dealing with hazardous substances.

USM Health Campus History

In February 1979, Prime Minister has announced the government's decision to set up the third Faculty of Medicine in USM after setting up the same faculty at UM and UKM. The campus began to function fully in June 1983 to house the School of Medical Sciences, Universiti Sains Malaysia Hospital and supporting departments such as libraries, student dormitories, nurse dormitories and hostel doctor dormitories. The Phase I Project involves the construction of lecture halls, laboratories, sports complexes, clinics, student dormitories and office space completed in May 1990. The Center for Medical Sciences moved to Kubang Kerian in June 1990. The Phase II Project was completed in 1996 includes ward, hall, laboratories and office space.

Main Components of USM Health Campus









CLIENT CHARTER



We are committed to achieving the mission and vision of USM by:



Strengthen the
University's
network of
cooperation in
various local &
global strategic
networks



Affordable health and wellbeing services on campus

UNIVERSITI SAINS MALAYSIA HOSPITAL

Hospital USM (HUSM) began with 36 beds in 1983. Over the past years, it has excelled in many fields, more so in the locality of the East Coast of Peninsular Malaysia. Over the course of the past Malaysia Plans, HUSM has managed to be both a service and clinical research centre of excellence with the establishment of new buildings, services and units throughout the various Malaysia Plans. When USM was selected as the APEX University on September 3, 2008, HUSM has been tasked with more responsibilities in catering for the USM Health Campus and USM, as it increases its impact and presence in the national and international fields of medical research and publication.

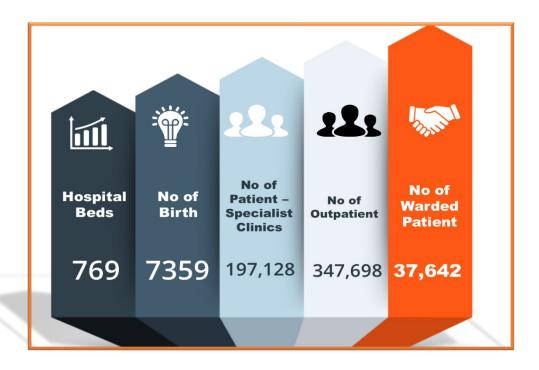
Nowadays, HUSM has more than 20 departments and units, 39 wards, 769 beds, 15 specialist clinics, day care centres and laboratories to ensure that the best services is given to students, staffs and communities.







2012 Statistics of HUSM



Pusat Sejahtera



Pusat Sejahtera was established in 1969 to provide medical and dental services to students. In 1974, its medical services were expanded to staff and in 1993, it was extended to dependents of staff and students and retirees of USM in main campus.



Health Unit, USM Engineering Campus was established in 2001, after the Engineering Campus branch in Tronoh was relocated to Nibong Tebal. The Health Unit is responsible for providing health services to students, staff, staff members and the entire University including the official visitors of the University. It provides outpatient services for mild cases as well as emergency treatment. For serious cases it will be referred to other nearby hospitals such as Parit Buntar Hospital, Sungai Bakap District Hospital, Bukit Mertajam Hospital, Seberang Jaya Hospital as well as USM Advanced Medical and Dental Institute. The Health Unit is also responsible for ensuring the cleanliness of the campus environment to prevent the breeding of aedes mosquitoes and infectious diseases and to maintain the hygiene level of the canteen so that the quality of food and its staff is satisfactory to ensure the health of students and the campus community.

Advanced Medical and Dental Institute (AMDI)



Advanced Medical and Dental Institute (AMDI) had a humble beginning in 2002, upon receiving the formally approved memorandum from the Ministry of Education to set up an institute. AMDI was established with novel and unconventional approaches that lead to the

development of cutting-edge advanced research, innovative postgraduate programmes in the areas of medicine, dentistry and health sciences and tertiary healthcare services. Clusters have been set up by AMDI to spearhead the academic and research activities in the area of Lifestyle Sciences, Oncological & Radiological Sciences, Regenerative Medicine, Infectomics, Integrative Medicine and Craniofacial & Biomaterial Sciences.

Clinical Services

AMDI offers a comprehensive range of clinical services. Oncology, General Surgery, Paediatrics, Otorhinolaryngology, Ophthalmology, Orthodontics and Prosthodontics are among the specialty services that are offered in order to cater to the needs of the community in the Northern Region of Peninsula of Malaysia. The Clinical Trial Complex is well-equipped with state-of-the art facilities and equipment's for Advanced Diagnostic Imaging and Laboratory Testing and intervention such as radiation therapy (EBRT, IMRT & Brachytherapy) and chemotherapy.



Research

AMDI is equipped with facilities to conduct research in the fields of medicine and dentistry. The core activities of AMDI focuses in on the elements of advanced translational research. In order to achieve this, AMDI has the latest and most advanced research facilities. These topnotch facilities include Laboratories, Animal Research Complex and Clinical Research Complex.

SCHOOL OF MEDICAL SCIENCES, UNIVERSITI SAINS MALAYSIA

The School of Medical Sciences, Universiti Sains Malaysia was first established in June 1979. In the early development of the school, the pre-clinical years were carried out in the Penang campus while the clinical years were conducted at the Kelantan campus. The school was fully operational at Kubang Kerian, Kelantan by June 1990. The Kubang Kerian, Kelantan Campus was established on 220 acres of land and it encompasses the School of Medical Sciences and the USM Teaching Hospital, which was established in October 1983. The move to the

Kelantan campus consolidated further the academic, service and research activities of the school.

More recently, two new schools have been established. The School of Dental Sciences and Allied Health Sciences are now also fully operational. The Kelantan campus is now known as the Health Campus, USM and houses the Kelantan branch of INFORMM, a research institute for research in molecular medicine. Kubang Kerian is 6.6 km from Kota Bharu, the state capital of Kelantan. Kota Bharu has a population of around 420,000 while Kelantan state population is 1.2 million.

SCHOOL OF DENTAL SCIENCES

In the early 90s, USM had begun the planning of School of Dental Sciences, to complement the existing School of Medical Sciences and School of Health Sciences.







The establishment of the school was approved by the university Board of Directors in October 1998. Assoc Prof. Dr. Ab. Rani Samsudin was appointed the first Dean on 1st November 1998. The new school is in USM, Kelantan Branch (now known as Health Campus) situated in Kubang Kerian.





The School started operating on 1st December 1998 at Nursing Educational Unit. It was moved to a new location near the USM Hospital Accident & Emergency (A&E) Department on 26th January 1999. The initial small number of pioneer staff soon began to expand with the appointment of professional and support staff.









The degree offered is Doctor of Dental Surgery (DDS) and the first intake of 40 students was in May 1999 and they graduated in August 2004.



In early 2000, initial works on the development of the new building took place. By September 2001, the building was completed at an estimated cost of RM 12.5 million.





On a historic day of 22nd March 2003, the building was officially inaugurated by the then Education Minister, Tan Sri Musa bin Mohamad.



SCHOOL OF HEALTH SCIENCES

The School of Health Sciences was established on 1st November 1999. We are committed to producing graduates who are able to pursue their own goals and direction while contributing to the development of an industrialised and civilised nation. To fulfill the aspiration, the school offers diverse and comprehensive interdisciplinary wellness-based programmes for educational, scientific and human capital development. We are now offering ten bachelor programmes and one diploma programme as well as postgraduate degrees in various fields of health sciences.

http://www.ppsk.usm.my/index.php/en/about-us/corporate-video

Wellbeing programs to reduce incidence of noncommunicable diseases and promote mental health

Community and Family Case Studies (CFCS) is an ongoing community-oriented programme that provides training for the undergraduate medical and dental students of USM. Students stay with families in the community for a short period of time to profile the medical status of host families and conduct programmes to help improve the community's understanding on general healthcare and prevention of disease.









Diabetes Management Clinic

In view of the increasing percentage of diabetes in the Universiti Sains Malaysia, the Diabetes Counseling Clinic was established in August 2005 in collaboration with the School of Pharmaceutical Science (PPSF), the National Poison Center (PRN) and under one of the Pusat Sejahtera Programs and operates on Wednesdays (morning /evening). Counseling was provided by Pharmacies from the National Poison Center, School of Pharmacy Science and Medical Officers from the Pusat Sejahtera and assisted by Nurse Mrs. Jami'aton Halaliah Abd. Razak.

Objectives of the Clinic are:

- a. Provides awareness of diabetes and complications.
- b. Emphasizes aspects of nutrition and exercise to control blood sugar levels.
- c. Encourages preliminary and regular checkups to reduce complications of diabetes.
- d. Adopting a healthy lifestyle throughout the family because diabetes is a hereditary disease.
- e. Demonstrate steps to detect early signs of diabetes complications.

MENTARI@USM

Mentari@USM basically is a psychosocial rehabilitation unit, which is one of the support units in the Psychiatric department. The unit is inspired by the World Health Organisation (WHO) in the 1960s. WHO suggests that there is the need for decentralization and integration of psychiatric services into the health care system, however, recovery and community management of chronic mental patients are less effective. Thus, in March 1997, a national workshop on the development of community mental health programs was recommended in the National Mental Health Association. Psychosocial Rehabilitation Program for mental illness has improved with an emphasis set out in the Mental Health Act 2001. Each unit which provides mandatory psychiatric treatment services provides psychosocial rehabilitation treatment according to the Mental Health Act 2001. It aims to provide a comprehensive and thorough treatment of mentally ill patients.

Mental Health Community Center (MCMC) is a place where care and treatment related to mental health provided in a community that is it covers screening, diagnosis, treatment and rehabilitation for those who suffer from any type of mental illness (Mental Health Act 2001). Community Mental Health Center Mentari USM is a branch of psychiatry developed treatments aimed at developing and maintaining programs for mental health promotion, prevention and treatment of mental illness and rehabilitation to patients who have been discharged from hospital.

Department of Psychiatry in USM also provides psychosocial rehabilitation treatment. It was started in 2010 with a car wash workshop, bakery and a cafe run by a stable mental patients under the monitoring of the nurses. Since the emphasis on psychosocial rehabilitation in the

Mental Health Act, the psychosocial rehabilitation units become more efficient and expanded to Mentari USM.

USM Mentari operates at level 2, Trauma Building in USM. The center is under the management and monitoring of the Department of Psychiatry Hospital Universiti Sains Malaysia.

OBJECTIVES

- Promoting mental health, introducing preventive measures and screening for mental illness and offering medical assistance.
- To create awareness among the public in reducing stigma and discrimination against people with mental illness.
- To provide continuity of mental health care in environments that is accessible by the public.
- To provide rehabilitation and psychosocial interventions including counseling, psychotherapy, patient and family education.





Awareness and campaign on mental health care

Rawatan awal cegah gangguan kesihatan mental Oleh Siti Rohana Idris bhkb@bh.com.my



DEKAN Pusat Pengajian Sains Pergigian Kampus Kesihatan USM, Profesor Dr Adam Husein (dua kanan) diiringi Ketua Jabatan Psikiatri, Pusat Pengajian Sains Perubatan USM, Dr Asrenee Ab Razak (kanan) melawat pameran yang dihasilkan oleh pesakit psikiatri sempena Majlis Penutup Sambutan Hari Kesihatan Mental Sedunia Peringkat Kampus Kesihatan USM 2016 dan

31

KESIHATAN MENTAL PERLU DIBERI PERHATIAN SERIUS, KATA NC

PULAU PINANG, 31 Oktober 2018 – Kepentingan dalam menjaga aspek kesihatan mental perlu diberi perhatian serius bagi memastikan keseimbangan emosi, spiritual dan ketahanan menghadapi apa juga cabaran yang berlaku.

Naib Canselor Universiti Sains Malaysia (USM), Profesor Datuk Dr. Asma Ismail berkata, kebimbangan mengenai masalah mental yang semakin meningkat perlu diberi perhatian sewajarnya memandangkan telah banyak kes berlaku di negara ini melibatkan remaja seawal usia 16 tahun.

"Perkara ini cukup membimbangkan seperti yang kita lihat di akhbar dan medial sosial iaitu peratusan rakyat Malaysia yang mengalami tekanan mental semakin tinggi dan sanggup membunuh diri hanya kerana masalah kecil yang sebenarnya mampu dirawat mengikut panduan yang betul," katanya.

Jelas Asma, USM sentiasa mengambil serius berkenaan kesihatan mental yang dihadapi oleh warga kampus tidak mengira staf atau pelajar bagi mengelakkan perkara-perkara buruk terjadi.

"Oleh sebab itu peranan besar perlu dimainkan oleh Pusat Sejahtera, Pusat Islam, Institut Perubatan dan Pergigian Termaju (IPPT), Pusat Transformasi Insan dan Bahagian Hal Ehwal Pembangunan Pelajar dan Alumni (BHEPA).

"Pusat Tanggungjawab tersebut mempunyai khidmat pakar kaunseling dan psikiatri bagi mengenal pasti warga kampus yang berdepan masalah ini untuk ditangani sebaik mungkin agar mereka tidak terjerumus kepada perkara yang lebih buruk," katanya ketika merasmikan sambutan Bulan Kesejahteraan Minda 2018 di Dewan Pembangunan Siswa 1, Kompleks Cahaya Siswa, di sini hari ini.

Malaysia Mindfulness Association (MMA) collaborates with Dr. Yeoh Khar Kheng and the School of Chemical Sciences to promote self- awareness for enhancing physical, mental, and wellbeing of individuals in the Malaysian community. Mindfulness Association (MMA) is a non-profit organization with the main aim to initiate and promote Mindful Living – a brand new Lifestyle which is based on self- awareness for enhancing physical, mental, and spiritual wellbeing of individuals, thereby fostering a benevolent and caring society. MMA was established in 2015, inspired and led by its founding chairman, Yeoh Kar of the leading Dr. Kheng, one pioneers Mindfulness movement in Malaysia.



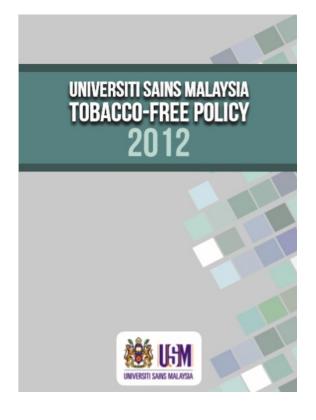


Implementing 'no smoking' policies on campuses

Stop Smoking Clinic

Nonsmoking awareness started long time ago in USM. Along the way to ensure the campus is free from any form of addiction, Pusat Sejahtera started the Stop Smoking Clinic on January 26, 2002 officiated by Honourable Professor Dato' Dzulkifli Abd. Razak, Vice-Chancellor of the Universiti Sains Malaysia. In 2012, Universiti Sans Malaysia Tobacco-Free Policy 2012 was launched.





UNIVERSITI SAINS MALAYSIA TOBACCO-FREE POLICY 2012

1. INTRODUCTION

This policy which shall be known as USM Tobacco-Free Policy (hereinafter referred to as "the Policy") is drawn up by USM as an initiative to protect the health of its students and staff by providing them a campus environment that is safe, healthy and tobacco-free. Scientific research has proven that the use of tobacco including smoking or inhaling second-hand cigarette smoke is dangerous and hazardous to health. With this awareness, USM intends to create, implement and enforce the USM Tobacco-Free Policy in campus in tandem with the provisions of the Control of Tobacco Product Regulations 2004 (Food Act 1983) which among others, has listed all higher educational institution as one of the twenty one (21) areas gazetted as non-smoking areas.

USM has opted to implement the Tobacco-Free Policy in lieu of the Smoke-Free Policy as it is more comprehensive and has a broader definition which will enable better control on smoke-free places and the enforcement of related policies such as the prohibition of sale of all types of tobacco products, tobacco use in any form, promotion, advertisement, acceptance of sponsorships and collaborations with the tobacco industry. The Policy is also in line with the Framework Convention on Tobacco Control (FCTC), an international agreement signed by the Malaysian Government on 16 September 2005.

2. DEFINITION

For the purpose of the Policy, the following words and expressions shall have the following meanings, unless stated otherwise:



Appropriate practices are in place for dealing with hazardous substances

Unit Keselamatan dan Kesihatan Pekerjaan Universiti (UKKP)

The University Occupational Safety and Health Unit (UKKP), including the Campus Engineering and Health Campus was formally established on October 2, 2002 (University Board of Directors Meeting, October 1, 2002). The UKKP is tasked with managing the aspects of occupational safety and health at the USM centrally in accordance with national legislative requirements, the Occupational Safety and Health Act 1994.

Toxic Waste Handled / Toxic collection in Universiti Sains Malaysia

Specific container according to the safety procedure has been used for chemical waste collection and how the hazardous materials and chemical handling is based on USM Safety standard operating procedure 20 February 2002 where the procedure is in line with the Malaysia Environmental Act 1972.



There is timetable for hazardous waste collection by the USM Safety Unit. This is important to make sure every school or department followed the USM Safety Unit timetable. The timetable is based on USM Safety procedure 20 February 2002 where the procedure is in line with the Malaysia Environmental Act 1972.

Pungutan Buangan Terjadual Di USM













Activities

Combating HIV/AIDS

The HIV/AIDS pandemic is now well recognised as a major social problem in Malaysia. The statistics reported over 90,000 cases of HIV infected persons in the country. USM committed in combating HIV/AIDS by establishing an AIDS Action and Research Group (AARG) since 1994 that has been performing HIV/AIDS related counseling services via telephone to different communities in Penang and throughout Malaysia. HIV/AIDS Hotline is scheduled Monday through Friday, from 10 a.m. until 4.30 p.m. This Hotline is operated by trained counselors that comprise of AARG members, USM students, and volunteers. The Hotline answers the questions regarding the issue of HIV/AIDS, provides counseling and referral services to individuals who are facing emotional, psychological, social, and financial issues related to disease. Through these services, it is hoped that the indifferent attitude as well as irrational fear of the communities towards HIV/AIDS can be minimized.

The objectives of the AARG are:

- 1. To provide counseling services related to HIV/AIDS.
- 2. To provide information related to HIV/AIDS.
- 3. To provide referral services for the individuals in need.



3R (Reduce, Reuse and Recycle) Awareness Programme

The School of Health Sciences (PPSK), Universiti Sains Malaysia (USM) had successfully organised a 3R (Reduce, Reuse and Recycle) Awareness Programme at Sekolah Kebangsaan Bendang Pa'yong, Tumpat, Kelantan. With the aim to integrate knowledge, attitude and practices on 3R among the school children, this programme was facilitated by 42 facilitators, including the third and fourth year undergraduate students from Environmental and Occupational Health Programme, postgraduate students and lecturers.

More than 400 school children from standard one to six had participated in the programme, comprised of informative and interactive talk on 3R, audio-visuals and quizzes, as well as various games to strengthen their knowledge and awareness on 3R. It was hoped that such exposure on 3R would educate the school children to practice good solid waste management in their daily life for a better and sustainable tomorrow.



Malaysia-Australia Educational, Safety & Intercultural Programme (MAESTIC 2018)

An educational visit to Melbourne, Australia was successfully organised by the Environmental & Occupational Health programme of the School of Health Sciences from 8 to 14 August 2018. This visit was participated by 15 students. The delegates visited RMIT University and had a good sharing session on the Environmental Sustainability and Remediation (EnSuRe) project by Associate Professor Graeme Allinson as well as a fruitful seminar discussion on biodiversity preservation using innovative collaborative approach at the Department of Environmental, Water, Land and Planning (DELWP), Victoria.













http://www.kck.usm.my/index.php/en/

USM Cerebral Palsy Research Cluster has collaborated with many local and national agencies to conduct a health screening camp in Sarawak State and a mini colloquium in Johor State in 2018, to present findings and discuss issues related to the care and management of children with cerebral palsy. National agencies involved included the Department of Social Welfare (with participation of teachers of community rehabilitation centres), the Health State Department (where specialist and medical officers voluntarily examined children with disability at the health camp site) and Malaysian Librarian Association (who provided educational space and facilities for the children attending the health screening camp) and many others

Mini Colloquium:

Feedback on Health Screening Camp for Children with Disability (Cerebral Palsy) Series 3, Johor 9 January 2018

Jeffrey Cheah School of Medicine & Health Sciences, Monash University Malaysia

The mini-colloquium was attended by various stakeholders consisting of government and non-government agencies in Johor, including Monash University Malaysia and Johor State Health Department. Findings related to medical and health issues obtained from the health screening camp conducted in Johor Bahru were presented and discussed for improvement of evidence-based practice for the care of this population.





Relay for Life Penang 2018 was organised as a fund-raising campaign to raise awareness about cancer. It was jointly organized by USM, National Cancer Society of Malaysia Penang Branch and Penang Hospice Society



USM collaborates with Yayasan Orang Kurang Upaya Kelantan (YOKUK-A Foundation for the Disabled and Underprivileged) to co-organize various activities related to health promotion involving the disable groups in Kelantan. As an example, YOKUK members participated in the music marathon organised by USM to raise funding for YOKUK.

#myyokuk #YOKUKtogether #YOKUKevents #charity #music #kelantan





USM Centre for Drug Research has organised International Drug Talk Series in collaboration with National Anti Drug Agency in 2018.



MAJLIS PENYERAHAN SUMBANGAN KERUSI RODA YANG DIMODIFIKASIKAN KHAS OLEH USM-RICD









Majlis Modifikasi Kerusi Roda di Narathiwat Thailand – 14 & 15 Ogos 2018







The Disabled Transformation Unit (Unit Transformasi OKU) has trained people with learning disabilities for suitable jobs in the market. Economic transformation would improve the overall wellbeing of the disabled community. A total of 35 related programs/activities have been conducted by this unit.



This community outreach project at Pulau Teluk Renjuna, Tumpat Kelantan was organised by the Otorhinolaryngology Department to impart knowledge that can help the local community improve their health status.





USM Health Campus has been collaborating with a local radio station, Kelantan FM, to promote good health and well-being to the local community. USM doctors and health professionals are regularly involved (two-weekly) in an interactive radio talk show, "Doktor di Radio – Sembang Sehat".

DOKTOR USM DI RADIO



Infomedic

OBESITI DALAM KALANGAN KANAK-KANAK MALAYSIA MERUNCING



KOTA BHARU, KELANTAN, 2 Januari 2020 - Malaysia dinamakan sebagai sebuah negara yang mempunyai kadar obesiti paling tinggi dalam kalangan kanak-kanak di Asia Tenggara dengan nisbah 1:5 kanak-kanak mempunyai berat...



PENYUSUAN SEMASA BENCANA KEPERLUAN YANG TIDAK HARUS DIKETEPIKAN



KOTA BHARU, KELANTAN, 2 Disember 2019 – Awal Disember 2019, pantai timur khususnya negeri Kelantan mula menerima taburan hujan yang tinggi, mengakibatkan banjir melanda di beberapa kawasan dan antara mangsa...

#Hits:339 Read More..

KEHILANGAN GIGI DAN KAEDAH RAWATAN



KOTA BHARU, KELANTAN, 21 November 2019 - Gigi merupakan satu komponen badan manusia yang penting bagi membolehkan kita menjalani kehidupan yang sempurna. Selain berfungsi untuk mengunyah makanan, gigi turut berperanan...

#Hits:631 @ Read More...

INTERAKSI IBU BAPA DENGAN ANAK ELAK MASALAH ANAK LEWAT BERTUTUR



KOTA BHARU, KELANTAN, 7 November 2019 – Bahasa dan pertuturan merupakan kemahiran asas untuk belajar tetapi anak – anak yang lewat bertutur 'Speech Delay' mempunyai risiko yang tinggi untuk ketinggalan...

#Hits:902 @ Read More...

UJIAN DNA BUKTIKAN HUBUNGAN KEKELUARGAAN



KOTA BHARU, KELANTAN, 28 Oktober 2019 - DNA (Deoxyribonucleic) merupakan molekul asas kepada kehidupan dan terkandung di dalam semua sel yang mengandungi nukleus kecuali sel darah merah. DNA mengkodkan maklumat...

#Hits:1255 @ Read More..

BERSENAM UNTUK TINGKATKAN KECERGASAN DAN KESIHATAN



SDG 4 - Quality Education

Since 2000, there has been enormous progress in achieving the target of universal primary education. The total enrolment rate in developing regions reach 91 percent in 2015, and the worldwide number of children out of school has dropped by almost half. There also been a dramatic

increase in literacy rates, and many more girls are in school than ever before. Achieving inclusive and quality education for all reaffirms the belief that education is one of the most powerful and proven vehicles or sustainable development. This goal ensures that all girls and boys complete free primary and secondary schooling by 2030. It also aims to provide equal access to affordable vocational training, to eliminate gender and wealth disparities and achieve universal access to a quality higher education.

USM is committed to achieve SDG 4 by having School of Education Studies, School of Distance Education, Institute of Postgraduate Studies and other related schools by supporting vulnerable and disadvantaged people to access and participate fully in the university, including persons with disabilities, indigenous peoples, and people experiencing financial difficulty. USM also committed to provide programs to enhance literacy and education in communities and schools in the university's local area and beyond and providing facilities that promote and encourage inclusivity in learning.

Established as the second university in the country in 1969, Universiti Sains Malaysia (USM) was first known as Universiti Pulau Pinang. In 1971, USM moved from its temporary premises at the Malayan Teachers' Training College, Bukit Gelugor to the present 416.6 hectare site at Minden, approximately 9.7 km from Georgetown.

USM offers courses ranging from Natural Sciences, Applied Sciences, Medical and Health Sciences, Pharmaceutical Sciences to Building Science and Technology, Social Sciences, Humanities, and Education. These are available at undergraduate and postgraduate levels to approximately 30,000 students at its 17 Academic Schools on the main campus in the island of Penang; 6 Schools at the Engineering Campus in Nibong Tebal (approximately 50km from the main campus); and 3 at the Health Campus in Kubang Kerian, Kelantan (approximately 300km from the main campus).

USM also has 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. It also provides consultancy, testing, and advisory services to the industry under the ambit of USAINS Holdings Sdn Bhd, the University's commercial arm.

Since the beginning, USM has 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. It also encourages students to be active in extra-curricular activities given the myriad of clubs and societies available.

As a Research Intensive University recognised by the Ministry of Higher Education Malaysia (MOHE) in 2007, USM offers educational and research opportunities to students and staff. In 2008, USM also became the first university in the country to be selected by the Malaysian government to participate in the Accelerated Programme for Excellence (APEX), a fast-track programme that helps tertiary institutions achieve world-class status.

School of Education Studies

The School of Education Studies (SESS) aims to develop and dispense knowledge through innovative teaching and research and to nurture exceptional educationist through international quality programmes. SESS offered undergraduate and postgraduate programme.



School of Distance Education

The distance education programme was initiated by Universiti Sains Malaysia USM in 1971 as an off-campus programme. It is the premier and pioneer programme offering university education via distance learning in Malaysia. Distance education at SDE-USM utilizes a blended learning approach that considers pedagogical and cost effectiveness as well as the current developments in information and communication technology (ICT). Teaching materials are distributed to students in diverse formats while the teaching and learning process is conducted via several approaches, either face to face or by means of ICT media. Undergraduate students are required to select a major and a minor package for the entire duration of study. Since the SDE-USM provides part-time university education opportunities for working adults, the duration of study is set between 5 to 12 years. SDE-USM offered undergraduate and postgraduate programme.



Undergraduate Programme

Undergraduate programme offered are Bachelor of Science (Honours) Programme (Biology Chemistry, Mathematics and Physics), Ijazah Sarjana Muda Sains Kemasyarakatan (Kepujian) (Antropologi/Sosiologi, Ekonomi and Sains Politik), Ijazah Sarjana Muda Sastera (Kepujian) (Geografi, Kesusasteraan and Sejarah) and Ijazah Sarjana Muda Pengurusan (Kepujian).

Double Degree Programme

Double Degree Programme is a programme offered by School of Distance Education (SDE) for full-time students of Universiti Sains Malaysia in second year and above. The degree offered is the same level as degree programme in SDE and full-time degree in other schools in USM. Double Degree Programme enables students to obtain two degrees while staying in USM campus. This will give the opportunity for the students to be more competitive, capable, and to have high level of marketability when entering the working field compared to the students who have only one degree. Double Degree Programme offered a unique learning experience with combination of face-to-face learning, online learning, and self-learning. Face-to-face learning includes lecture sessions, tutorial, and practical during the intensive courses while online learning is supported by video conferencing, WebEx (web conferencing), and various other digital materials which are uploaded in E-learn portal. Self-learning however uses a series of E-lectures/modules that are published by the lecturers.

Offshore Programme USM-UNPAB

Academic collaboration programme SDE-USM and UNPAB offered *Ijazah Sarjana Muda Sains Kemasyarakatan (Kepujian)* with 3 specialisation which are Anthropology/Sociology, Economy and Political Science.



Online Continuing Education



Institute of Postgraduate Studies (IPS)

Postgraduate education and research in Universiti Sains Malaysia are distinguished by the close working relationships that graduate students share with their educators. With an emphasis on close interaction and mentoring, candidates are assured of a stimulating intellectual environment conducive for learning and research at the highest level. The Institute of Postgraduate Studies (IPS) has introduced a comprehensive range of workshops under the Professional and Personal Development Programme (PPD) to ALL postgraduate students. The workshops are conducted systematically by offering courses such as Responsible Research Conduct, Research Environment, Research Development and Management Skills, Academic Writing and Publishing, Oral Communication, Personal Development, Research Skills and many more.

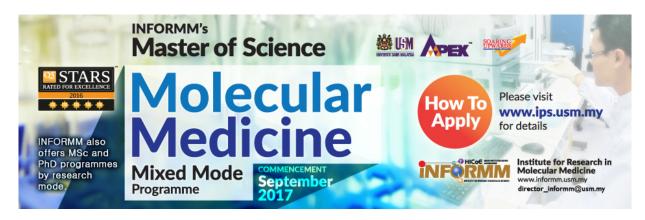
Programme Offered

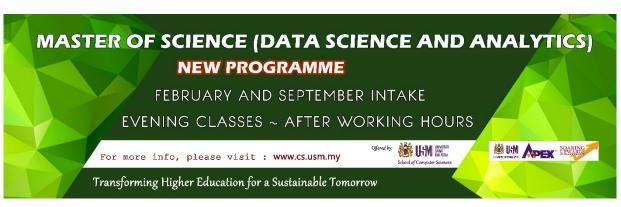
List of programmes offered can be accessed through the link below:

http://www.admissions.usm.my/index.php/postgraduate/postgraduate-programme#general-admission-requirements













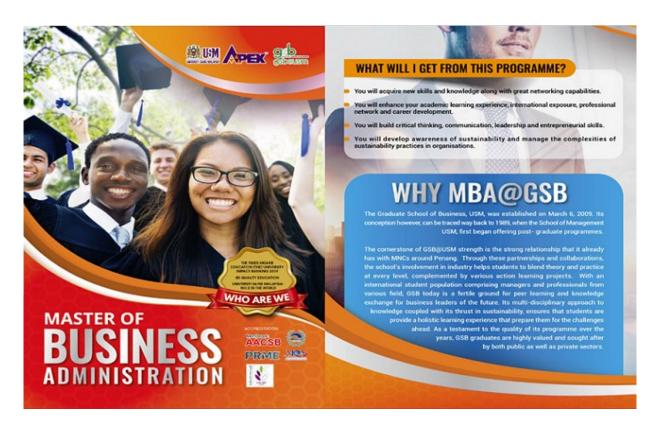


GRADUATE SCHOOL OF BUSINESS (GSB)

The Root of Graduate School of Business (GSB) can be traced back to 1998 when the School of Management (SOM) USM started offering the Bachelor of Management programme and subsequently the Bachelor of Accountancy and Doctorate in Philosophy (Ph.D.) programmes. The GSB was established to fulfill the needs of industry and to promote and nurture business sustainability in Malaysia specifically in the Mothers Region. GSB is also inspired to be as Top Business School in the neighbouring ASIA region. It is an international level Top Business School (TBS) that provides post-graduates business programme on par with those offered by World-renowned universities.

The development of GSB is also in line with USM's aim to emerge as a Sustainable University. The ability of GSB to combine business administration studies with various cluster disciplined researches will produce the change agents for academics specialists in business management field. This, in future will cater for the national education hub. On 8th March 2014, GSB has been granted the accreditation status of ABEST21 for its MBA programme which recognized GSB as a business school with excellence in practice of sustainable learning and interdisciplinary teaching.

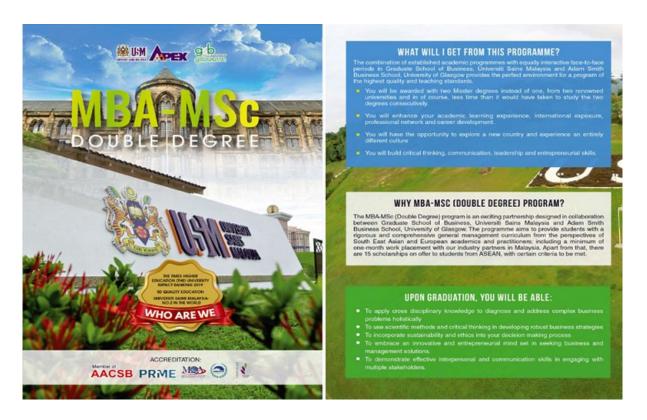
MBA



Dual Degree at GSB

This Dual Degree MBA by USM and Institut Teknologi Bandung (ITB) is specially designed for business executives who aims to enhance their knowledge and leadership skills in ASEAN Business.

EURO-ASIAN MBA-MSC Programme



Online MBA





GSB SUMMER PROGRAMME

The Graduate School of Business Summer Programme seeks to provide students the opportunities to study and live in a new country to enhance their international experience and to help develop their cross-cultural competencies. By participating in this programme, students will be able to:

- 1. Enhance their knowledge of the Malaysian cultural and entrepreneurship
- 2. Recognise and identify key aspects of business and entrepreneurship
- 3. Develop an interest in doing business in Malaysia
- 4. Embrace cultural diversity and recognise key similarities and differences in the business context

Highlights

- 1. Participating in Entrepreneurship Course Problem Based Learning approach by faculty members
- 2. Visiting Research Centres in USM: CHEST, Museum Tuanku Fauziah and Archaeology, School of the Arts
- 3. Visiting Multinational Companies and Small-Medium Enterprises in the Northern Region of Malaysia
- 4. Participating in cultural, teambuilding and adventure activities. Discovering the Heritage Trail and UNESCO's historic city, buildings and art.

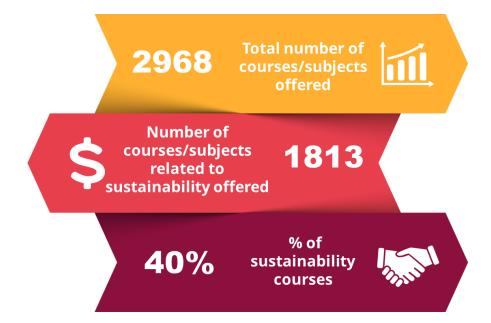
Spending time in a country as multicultural and multilingual as Malaysia, rich in cultural diversity can offer a unique and interesting educational experience to students. DISCOVER ALL OF ASIA IN MALAYSIA

OFFSHORE PHD

As the demand for professionals with a management and business-related Ph.D. is increasing worldwide, the Graduate School of Business (GSB), Universiti Sains Malaysia (USM) has taken the early step to offer the offshore Ph.D. programme out from the home country. GSB offered the first offshore Ph.D. programme in Indonesia with the signing of MoA with Telkom University in 2015. The Telkom University has funded a total of 17 academic staff to enroll in this programme. In August 2016, GSB has expanded its offshore Ph.D. programme to Hong Kong with the second MoA signing with The Hong Kong Management Associations. The intake for the first batch of Ph.D. candidates in Hong Kong will start from 2017.

The offshore programme involves the movement of faculty across Malaysia borders for the purpose of delivering the supervision to the students and also to increase the global presence of USM. To ensure the effectiveness of delivery, GSB has designed the offshore Ph.D. programme in a structured mode, and a close monitoring of the candidates' progress aims to assist the candidates in following through with their Ph.D. studies.

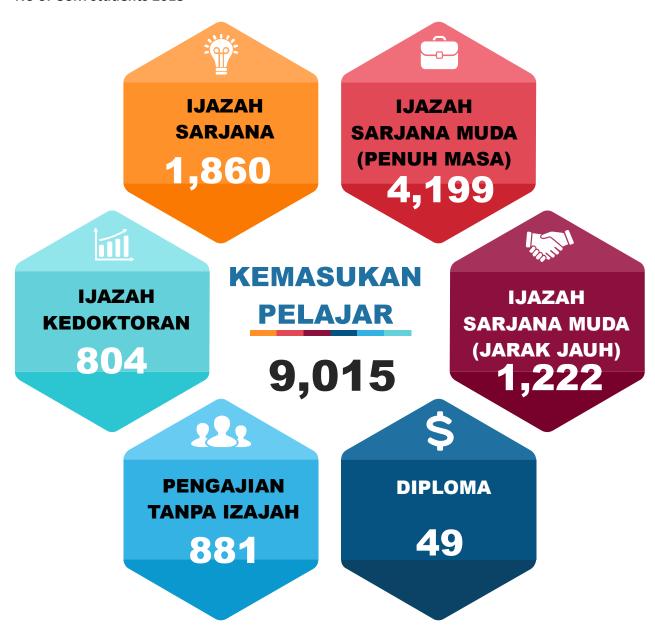
Sustainability courses in USM



Example of courses/modules related to sustainability

Courses/ Modules related to environment and sustainability	
COURSE CODE	COURSE NAME
WSU 101	Kelestarian: isu, cabaran & prospek
GTK303	Domestic, laboratory and industrial waste management
GTK310	Measurement and monitoring of contaminants
GTK402	Research project
RPK 238	Sustainable development planning
EKC 377	Renewable and alternative energies
GTF214	Pollutions and environmental chemistry
BST306	Soil science and environment
GTK202	Pollution and health
GTK201	Occupational safety
IEK315	Indoor environment
HGF 432	Alam sekitar lestari
EKC 378	Environmental engineering and management
GTK302	Environmental and occupational health from engineering perspective
PET 103	Effective writing for tesol
HGF 227	Iklim dan cuaca
BST405	Conservation ecology and natural resources
BST308	Tropical ecosystems and climate change
PET 102	Oral skills for tesol
PET 424	Project work in tesol
BBT404	Economic botany
ZCE 341	Energy studies

No of USM students 2018



Source: Laporan Tahunan & Penyata Kewangan 2018 USM

DEC

USM provide access to educational resources for those not studying at the university with free access and with charged.

13 MATHEMATICS EDUCATION BENEFICIAL TO EDUCATORS



PENANG, 12 December 2018 - Mathematics, as we all know, plays an important role in the development of other research areas as well

"The continuous growth of research in the field of mathematics has become essential for the advancement of other research areas such as Physics, Chemistry, Ecology and even Management and Financial Studies," said Universiti Sains Malaysia (USM) Vice-Chancellor, Professor Datuk Dr. Asma Ismail during the opening ceremony of the International Conference on Mathematical Sciences & Technology 2018 (MathTech 2018) here recently.

"It should be emphasized that, behind advancements in research, is the important role played by mathematics education at all levels and that is the reason that Mathematics education is an important component and would be beneficial and essential to educators, especially teachers, to develop their professional skills." she added.

USM COMMITTED TOWARDS PROVIDING EQUAL RIGHTS TO ALL

DEC



PENANG, 12 December 2018 – Universiti Sains Malaysia (USM) has appointed 79 new Heads of Department (HODs) as Deans and Directors for the term 2019-2021.

For this 2019-2021 term, 32 percent of the HODs are females compared to 26 percent in the previous appointment. The increase in 6% of female candidates filling in as HODs reflects the university's commitment towards providing equal opportunities to all, regardless of gender.

According to the Vice-Chancellor, Professor Datuk Dr. Asma Ismail, the selection for the appointment was done based on the Competency Framework which USM has developed.

"It is part of a detailed and systematic succession plan which USM has initiated since March 2018, making USM the first public university to implement such a plan.

USM host events at university that are open to the general public and provide access to educational resources for those not studying at the university

27 FFB

USM MAKING SCIENCE MORE ACCESSIBLE WITH HANDS-ON EXPOSURE



USM, 26 February 2018 – Enhancing the fields of Science, Technology, Engineering and Mathematics (STEM) in education is a major initiative in the Malaysian Education Development Plan (PPPM) 2013-2025.

However, currently less than 50 percent of students are undergoing studies in STEM-related fields in the country. Various efforts and initiatives have been implemented to spur the interest of students by providing them with early exposure and assisting them in discovering and understanding the subjects under STEM.

Universiti Sains Malaysia (USM), through the Centre for Neuroscience Services and Research (P3Neuro), has taken the initiative to conduct a programme for students to instil the interest in science and research into STEM-related areas, known as the Vacation Research Programme (VRP).



VRP is opened to school-leavers who have completed their Sijil Pelajaran Malaysia (SPM) examinations and are interested in pursuing careers as scientists. Students who join the programme will be provided the opportunity to explore, learn and be involved in hands-on research work.

"The objective of this programme is to encourage more pre-university students to choose careers involving scientific research especially in neuroscience, and at the same time learning the techniques of using on-site laboratory equipment," said the founder of VRP, who is also the Director of P3NeuroUSM, Professor Dato' Dr. Jafri Malin Abdullah.

"VRP which started in 2012, would require the students selected to undergo a few processes, and

would be finalised with an interview by representatives from the respective departments involved."



Strategies and Ethics in Research Paper Writing and Publishing has been held on 4 October 2018

Public Seminar: Soft Skills for Career Growth



Kubang Kerian – 24th February 2018, a public seminar - 'Soft Skills for Career Growth' was held at INFORMM, Health Campus Kelantan.

The seminar was officiated by the Deputy Director of INFORMM,

Associate Professor Dr Aziah Ismail. The honourable guest speaker was Mr. Stephen Fernando, a well-renowned public speaker and soft skills motivator in Malaysia and also internationally. The seminar provided a strong, crucial conceptual and practical framework to build, develop and manage career growth to effectively increase employment opportunities and compete in any professional environments. The seminar was attended by physicians, teachers, university students and the public.

Almost all participants were delighted and gave positive feedback, expressing the beneficial information shared allowing them to have better career vision, planning and social interaction. The seminar was conducted in an informal manner, providing ample opportunity for the participants to interact with the speaker. The speaker together with the participants discussed a wide variety of issues and situations that are likely to happen in the everyday work life.

Seminar on Parasitic Infections in East Coast 2018

1st October 2018, Kubang Kerian - Seminar on Parasitic Infections in East Coast Malaysia: current status on prevalence, diagnosis, management and related issues

In line with the efforts of the Malaysian Government to improve public health in the East Coast of Malaysia, a national *Seminar on Parasitic Infections in East Coast Malaysia: current status on prevalence, diagnosis, management and related issues* was successfully held at the Institute for Research in Molecular Medicine (INFORMM), Universiti Sains Malaysia (USM) Health Campus on 1st October 2018. It was an honour for INFORMM to collaborate with the Malaysian Society of Parasitology and Tropical Medicine (MSPTM) in organizing this event. We also received support from Ministry of Education Malaysia under the HICoE program.



The main objectives of this seminar were to foster mutually beneficial relationships and networking across institutions nationwide

as well as at the individual level, enable a wider outreach of knowledge and increase collaborative research for a more effective control of parasitic infections in East Coast of Malaysia.

Islamic Studies Certification Program (PPI)

The Islamic Center, USM officially launched its Program in 2010. Initially, an adult Quran study class was introduced and attended by staff, students and the public. Nonetheless, the response from campus residents and the public to the class was overwhelming. There is a huge increase in the number of students and classes. To create a culture of continuing education, the Islamic Center has established a program of Islamic Studies Certification (PPI) specifically for the graduates of the Adult Qur'an Studies Class. The scope of knowledge offered includes a combination of Usuluddin, Shariah, Quranic and Arabic studies.

In addition, elective courses such as Tahfiz al Quran, Philosophy and Islamic Philosophy was also created. Students also can periodically attend other scholarly activities organized by the Islamic Center such as corpse management, priestly and priestly courses, slaughtering and others to enhance their skills. PPI provides expert educators in their respective fields to ensure students fully master the knowledge presented in the lectures throughout the 4 semesters of study. To this end, the USM Islamic Center is pleased to extend this certification program to all HEIs based under JAHEIS and to provide ongoing knowledge to the community.



SIJIL PENGAJIAN ISLAM SEMESTER 1 SEMESTER 2 AL-HADITH AKHLAH & TASAWWUF Ustaz Iswandi Abdul Mokmin Prof. Madya Dr. Noor Shakirah binti Mat. Akhir METODOLOGI DAKWAH FIOH MUNAKAHAT Ustazah Rohayati binti Daud Ustaz Mohd Yusof bin Abdul Rahim. FIQH IBADAH ULUM AL-QURAN Ustaz A. Rhaffor bin Mahmood Ustaz Zayd bin Zhari ULUM AL-HADITH USUL FIOH Ustazah Nurul Aiman binti Abd. Wahab Ustaz Mohamad Shukri bin Osman AL-LUGHAH AL-ARABIAH 1 AL-LUGHAH AL-ARABIAH II Ustazah Nazirah binti Abdullah Ustazah Nazirah binti Abdullah SEMESTER 3 SEMESTER 4 METODOLOGI DAKWAH AQIDAH ISLAM Ustazah Nor Fadhilah binti Abdul Wahab Ustazah Rohayati binti Daud TAFSIR AYAT AL-AHKAM FIQH JINAYAT Ustaz Mohamd Shukri bin Osman Ustaz Sanusi bin Awang Hassan ALIRAN PEMIKIRAN SEMASA FIQH MU'ASIRAH Dr. Shaik Abdullah bin Hassan Mydin. Ustaz Mohd Zamrus bin Mohd Ali SIYASAH SYAR'IYYAH FIQH MUNAKAHAT Ustaz Sanusi bin Awang Hassan Dr. Jasni bin Sulong AL-LUGHAH AL-ARABIAH III. AL-LUGHAH AL-ARABIAH IV Ustaz Norhisyam bin Ibrahim Ustaz Norhisyam bin Ibrahim

4th World Symposium on Sustainable Development at Universities (WSSD-U-2018)

CGSS in collaboration with the Hamburg University of Applied Sciences Research and Transfer Centre "Sustainable Development and Climate Change Management" (FTZ-NK) have successfully organized the 4th World Symposium on Sustainable Development at Universities (WSSD-U-2018) on 28 - 30th August 2018 at University Conference Hall (DPU), USM. The symposium with the theme of "Universities as Living Labs for Sustainable Development: Supporting the Implementation of the Sustainable Development Goals", has gathered academician and students from different part of the world to share their experience and knowledge in promoting sustainability at their universities.



4th World Symposium on Sustainable Development at Universities 2018



USM FIRST UNIVERSITY IN ASIA TO HOST 4th EDITION OF SUSTAINABLE DEVELOPMENT SYMPOSIUM



PENANG, 31 August 2018 – Universiti Sains Malaysia (USM) has been honoured by being the first university in Asia to host the 4th World Symposium on Sustainable Development at Universities (WSSD-U-2018) recently.

The programme which was held on campus grounds from 28-30 August 2018 saw the participation of more than 100 experts from 18 countries, with backgrounds in various fields relating to sustainable development.

The USM Vice-Chancellor, Professor Datuk Dr. Asma Ismail said in her opening speech that, with USM being the venue for the programme, there is much that could be shared on issues relating to sustainability in the country and the region.

"USM has made a policy on maintaining the greenery and other sustainable practices on campus, in ensuring that the university continues to be referred to as the "University in a Garden," at the same time upholding the Sustainable Development Goals (SDGs), which forms the basis of USM as the sole APEX university in the country.

"USM was acknowledged to be the sole APEX University in Malaysia in 2008, with its focus on sustainable initiatives and catering to the bottom billion.

"Currently, the university is also giving emphasis on the feasibility of operations in low-resource settings. It continues to nurture individuals with talents through the promotion of knowledge, values and humanity in facing the disruptive changes of the future, at the same time supporting the Sustainable Development Goals (SDGs) set by the United Nations," said Asma.

Meanwhile, Professor Walter Leal, Head of Research and Transfer Centre, Hamburg University of Applied Sciences, Germany and Chairperson of Inter-University Sustainable Development Research Programme (IUSDRP) reminded all on the importance in achieving

https://news.usm.my/index.php/english-news/5910-usm-honoured-to-host-4th-edition-of-sustainable-development-symposium

Green Convex



Kampus Sejahtera are setting up our booth for Green ConvEx from 22 to 28 October 2018. There are located at BOOTH 69, at the entrance of Tapak Konvo USM. *LOTS OF ACTIVITIES ARE WAITING FOR YOU* such as:

- Mini Games: Magnetic dart, puzzle, etc.
- Video Show
- Exhibition 22 to 28 October 2018





GREEN CONVEX: STOP THE STRAW!

OMG! READ THIS! !! DID YOU KNOW THAT PLASTIC STRAWS RANKED AMONG THE MOST FOUND OCEAN TRASH !!

It is time to fix this! It is now or never! Say *NO TO STRAW!* Selaras dengan tema Green ConvEx USM pada tahun ini, pihak Kampus Sejahtera dan ConvEx18 ingin menyeru semua warga USM untuk *MENGHENTIKAN PENGGUNAAN STRAW PLASTIK* di dalam kawasan universiti. Bermula dari tahun ini hingga tahun-tahun yang seterusnya, straw plastik akan dihadkan penggunaannya. Ayuh sahut seruan ini dan katakan tidak XXX pada straw!

Together we make a better world! Let's reduce plastic usage and say Xno to strawX!

#greenconvex
#kampussejahtera
#kamisayangusm
#USMMemimpinPerubahan
#STOPTHESTRAW
#KILLTHEPLASTIC
#TAPAUMANIA
#WHITECOFFIN2.0
#GreenIsTheNewBlack



https://www.facebook.com/KampusSejahtera/posts/green-convex-stop-the-strawomg-read-thisdid-you-know-that-plastic-straws-ranked-/1175593182596758/

USM undertake educational outreach activities in local schools, in the community which include voluntary student-run schemes.



SCIENCE OUTREACH PROGRAMME SESSION 2

SMK Sultanah Asma, Alor Setar, Kedah - 1 November 2018





biosociety.usm [LIVE UPDATE]
We are currently at SMK SULTANAH ASMA for A SCIENCE
OUTREACH PROGRAMME in obligate in with the
Malaysian Scientific Association (Northern Branch).
"Science is Fun, Fun with Science!"

Objektif projek:

- Mendedahkan kepada para pelajar mengenai ilmu sains .
- Memberi peluang kepada pelajar untuk mengaplikasikan konsep Islam di dalam ilmu sains melalui aktiviti yang dirancang.
- 3. Membantu pelajar memahami konsep dalam ilmu sains yang telah dipelajari.
- Memupuk rasa minat akan ilmu sains.
- Melatih kepimpinan pelajar

Tema projek:

"Science is to be loved"

Youth Public Speaking Camp

Kubang Kerian – 23rd February 2018, a Youth Public Speaking Camp was held at INFORMM, Health Campus Kelantan. The event was officiated by the Deputy Director of INFORMM, Associate Professor Dr Aziah Ismail. The camp was led by Mr. Stephen Fernando, a well-renowned public speaker and soft skills motivator in Malaysia and also internationally.

Strong interpersonal and excellent public speaking skills are vital for our younger generation as they grow and develop their thoughts, views and opinions of the world and their future.

Therefore, the Youth Public Speaking Camp (YPSC)@INFORMM 2018 was designed and aimed to educate and train the young to become a more effective, confident and excellent public speaker. The intensive programme cultivated and promoted positive communication strategies for public speaking among the youth (13 - 17 years old) to boost their self-esteem and a confidence.

Altogether, nine secondary schools in Kelantan - MRSM Pengkalan Chepa, MRSM Pasir Tumboh, MRSM Kuala Krai, MRSM Tumpat, MRSM Jeli, MS Sains Tengku Muhammad Faris Petra, SMK Dato' Ahmad Maher, SMJK Chung Hwa and SMA Maarif, Terengganu were involved and 119 students participated.





Science Exploration Programme at MRSM

Kubang Kerian – February 26th 2018. For the fourth year consecutively, MRSM Kuala Krai had invited INFORMM Health Campus to organize a Science Exploration Programme at their grounds for their Activities Week. A total of 103 Form 4 and Form 5 students actively participated in the programme.

The main objective of the programme was to encourage students to explore science and make the learning process fun and exciting. Activities carried out were Acid vs Alkaline, Human Anatomy, Micropipette, an exhibition about food-borne diseases, and Breast Cancer Awareness. The activities were conducted to encourage students to think and learn actively.

Positive feedbacks were received from students and teachers and they expressed hope on having this programme again in the future with more interesting and exciting activities.



SEJAHTERA GREEN CARNIVAL & WALKING FOOTBALL COMPETITION 2018

This programme is organised by the Regional Centre of Expertise on Education for Sustainable Development (RCE ESD) Penang, Universiti Sains Malaysia (USM) through the Regional Sejahtera ESD Network (RSEN) and co-organized with SMK Permatang Tok Jaya, Penang.

The objectives of the programmes are:

1. To promote collaboration and mobilise the efforts of RSEN members to produce individuals who have the awareness and vision on sustainable through innovation.

- 2. To engage the various levels of society to rethink their innovation and build a vision for a more sustainable and prosperous future.
- 3. To provide an early and comprehensive exposure through education to the concept of sustainability (ESD) in the local ecosphere.







Sejahtera Green Carnival has been successfully held on 31 October 2018 at SMK Permatang Tok Jaya, Penang. The programme was organised by the Regional Centre of Expertise on Education for Sustainable Development (RCE ESD) Penang, Universiti Sains Malaysia (USM) through the Regional Sejahtera ESD Network

(RSEN) and co-organized with SMK Permatang Tok Jaya, Penang. The programme aimed at providing an early and comprehensive exposure through education to the concept of sustainability (ESD) in the local ecosphere. Prof. Emeritus Tan Sri Dato' Dzulkifli Abdul Razak, the former USM Vice Chancellor and a sustainability enthusiast was invited to deliver his keynote address. WSU101 students coordinated by Dr. Mohd Sayuti Hassan was also invited to showcase their sustainability related project to the local community.

MALAYSIA INTERNATIONAL YOUNG INVENTORS OLYMPIAD 2018 (MIYIO 2018)

MIYIO 2018 was held on 13 - 15 April 2018 at Swiss Inn Hotel, Sungai Petani, Kedah. MIYIO 2018 is a platform to share research findings and development of science and engineering students. This program has produced many talented students in the world and world-class science and engineering research projects. The event is organized by the Division of Residential School Management / Cluster, Ministry of Education, in collaboration with Sekolah



Menengah Sains Sultan Mohamad Jiwa. And coorganized with the Regional Centre **Expertise** of Education for Sustainable Development (RCE ESD) Penang, Universiti Sains Malaysia (USM), Intellectual Property Corporation Malaysia (MyIPO) and **Teachers-Parents Association** of Sekolah Menengah Sains Sultan Mohamad Jiwa.

MIYIO 2018: 30 innovative products pass first screening for patent filing



The Director General of Intellectual Property Corporation of Malaysia (MyIPO) Datuk Shamsiah Kamaruddin (3R) presents prizes to participants at the Malaysia international Young inventors Olympiad (MIVIO) 2018 Program in a hotel on April 15, 2018. — Bernama



SUNGAI PETANI: Some 30 innovative and creative products featured by students participating in the Malaysian International Young Inventors Olympiad (MIYIO) 2017 successfully passed the first screening for patent filing.

Intellectual Property Corporation of Malaysia (MyIPO) director-general, Datuk Shamsiah Kamaruddin said the 161 entries were under the Biomedical, Electronics, Environmental, Engineering and Chemical categories.

https://www.thesundaily.my/archive/miyio-2018-30-innovative-products-pass-first-screening-patent-filing-HUARCH540379



SDG 5 - Gender Equality

While the world has achieved progress towards gender equality and women's empowerment under the Millennium Development Goals (including equal access to primary education between girls and boys), women and girls continue to suffer discrimination and violence in every

part of the world.

USM is committed to achieve SDG 5 by having a Centre for Research on Women and Gender (KANITA). USM is committed to achieve SDG 5 by implementing workplace gender equity strategies, including those for improving the representation of women in university leadership positions and senior academic roles, working to close the gender pay gap, providing childcare on campus and promoting workplace flexibility and participating in national campaigns for preventing violence against women and committing to report on the number of sexual assaults that have taken place at the institution.

Centre for Research on Women and Gender (KANITA)

KANITA started as a research project by a group of committed female and male researchers in Universiti Sains Malaysia (USM) who understood the significance of making deeper exploration into the difference in experiences of poverty amongst and between women and men. Although poverty was something that had already been prioritised as a research area that had policy implications at the time, as with many traditional social researches, gender was not a category that was well analysed in these inquiries. This research by KANITA's pioneers spearheaded more serious efforts into establishing a unit and a centre that seeks to understand how gender play important roles in understanding and analysing social norms and practices especially those norms and practices that impact on effort to achieve social justice. KANITA's core business continues to be to understand the social world through gender lens so that both women's and men's experiences are investigated, documented and analysed for the purpose of creating a better society for Malaysia and the world. KANITA also works towards utilising data from its research for the purpose of academic publication and teaching, influencing policy (through a variety of modes and media), engaging with communities and advocating for a sustainable and just world.

Currently KANITA has a small but active team of academician-researchers who conduct studies of wide-ranging areas of interest while using gender analytical lens. We have a vibrant community of students and young research staff members who are engaged actively in KANITA's research, academic, advocacy and co-curriculum activities. KANITA promotes equality, non-discrimination and diversity-values in its work- and study- place environment. KANITA offers postgraduate studies by research and has plans to offer a Master's degree by mixed mode (taught courses and dissertation) in the near future. We have also commenced

our MOOC (Massive Online Open Learning Course) entitled "Introduction to Gender Studies in the ASEAN Context".



Referred to New Year message by Vice-Chancellor, USM committed to look into the welfare of working mothers in USM by establishment of lactation room in PTJ. Nowadays, most of PTJ's have their own corner for mothers to pump breast milk for storage.



In addition, USM also provide childcare facilities for staff and faculty which are nursery school and kindergarten

Hadanah

Hadanah is a nursery school under Islamic Center Management. They accept infants as young as one day up to 4 years old from USM staff and student's parents. It runs Monday to Friday from 7.00 am until 7.00 pm. Service time is 10 hours only.



Kindergarten Islamic Center (*Tadika Islam*)

Islamic Kindergarten, Universiti Sains Malaysia is under Islamic Center Management that was established in 1984. The purpose of the establishment is to meet the educational needs of the campus children as well as the children of Qaryah Mosque Al-Malik Khalid, Islamic Center of the Universiti Sains Malaysia.

Tadika Islam accepts only 4 to 6-year olds (according to birth year). Priority is given to the children of staff and USM students, but it's also opens to the children of Qaryah Mosque Al-Malik Khalid and the surrounding community in the event of any vacancy.

Objectives of the *Tadika Islam* are to guide and train children towards the appreciation of Islamic life through teaching and learning and guides through thematic methods for developing early reading, writing, drawing and counting skills through in classroom and outside classroom activities in order to their cognitive, effective and psychomotor potentials and skills. Tadika Islam provides two learning sessions - morning (8.00 am to 12 pm and evening sessions (2.00pm to 5.30pm).



Kelas al-Quran dan Fardu Ain (KAFA)

History of the establishment of the Quran and Fardhu Ain (KAFA) Classes of Darul Quran, the Islamic Center of the Universiti Sains Malaysia started in 1983. At that time the KAFA class was known as the Quran and Tajwid Classes. The purpose of the establishment is to meet the requirements of fardhu ain and al-quran education for the children of the campus and the children of Qaryah Mosque Al-Malik Khalid, USM Islamic Center. KAFA class accept standard 1 (7 years old) to standard 6 children (12 years old) from staff and USM students, and also opens to the children of Qaryah Mosque Al-Malik Khalid and the surrounding community in the event of any vacancy. KAFA class provides two learning sessions - morning (8.00 am to 11 am and evening sessions (2.30pm to 5.30pm).



Koperasi Tadika Minden USM, Pulau Pinang

This kindergarten is located in the Universiti Sains Malaysia, Penang. Many children have received their early education here since 1975. Most of the students here are children of USM lecturers and staffs. However, non-USM parents can also send their children to the Minden Kindergarten if there is a vacancy. The atmosphere of the peaceful and quiet kindergarten as well as the learning makes the children excited for this kindergarten. Every moment is filled with fun and exciting activities. Each class in Minden kindergarten is taught by a very experienced teacher (over 20 years) and very patient with the students. Surely this experience of Minden Kindergarten will be the best and most fun memory for any lucky child. The mission is to provide strong preparation for students to enter a more complex and challenging school environment.



POWERED BY WEEDLY

Women's' access schemes (e.g. mentoring, scholarship or targeted support)

Centre for Research on Women and Gender (KANITA) offers postgraduate studies programmes for those interested in pursuing women's or gender studies by research. Upon completion of the studies, students are awarded with Doctor of Philosophy (Gender Studies) or Master of Social Sciences (Gender Studies) degree. Programmes are designed to produce graduates who are gender-sensitive in various work cultures and organisations, equipping those from various basic disciplines with knowledge and analytical skills of looking at the social world through a more comprehensive and inclusive manner

USM through Centre for Research on Women and Gender (KANITA) provided mentoring and other targeted supports to women. Every year USM host Harpswell ASEAN Women's Leadership Programme in collaboration with Harpswell to create on-going network support among women participants. http://harpswell-asean-kanita.weebly.com/



The Harpswell ASEAN Program in Women's Leadership is based at the Universiti Sains Malaysia (USM) in Penang, Malaysia, and is organized by Harpswell in partnership with the Center for Research on Women and Gender (KANITA) at USM. One of the priorities of the Program is to create an ongoing network of support among participants and alumnae.

ased at the Universiti Sains Malaysia (USM) in Penang, Malaysia, and is organized by the Harpswell Foundation in

The Program is based on the Harpswell leadership curriculum, and includes lectures, workshops, site visits and group activities. Curriculum topics are critical thinking, debate, leadership skills, civic engagement, women's health, Southeast Asian government and society, gender studies, and communications and technology. Trainers come from the Harpswell Foundation, USM, and universities and organizations from around the ASEAN nations

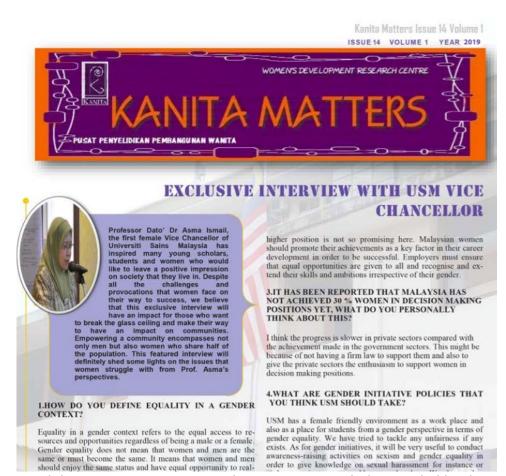
HARPSWELL FOUNDATION



HARPSWELL ASEAN PROGRAM IN WOMEN'S LEADERSHIP

The Harpswell ASEAN Program in Women's Leadership is an annual two week program in women's leadership for young professional women from the ten countries in the Association of Southeast Asian Nations (ASEAN): Singapore, Brunei, the Philippines, Indonesia, Malaysia, Cambodia, Thailand, Vietnam, Laos and Myanmar.

http://www.harpswellfoundation.org/asean-leadership-program/



USM encourage applications women in subjects where they are underrepresented through university outreach, through collaboration with other universities and/or community and/or groups government and/or NGOs in regional or national campaigns

At the moment, these are done informally or indirectly through knowledge creation

and dissemination activities and trainings, particularly provided by the Centre for Research on Women and Gender and through collaboration with other agencies or bodies.

http://kanita.usm.my/images/kanita_matters/kanita_matters_issue_14.pdf

USM committed to policy of non-discrimination against women. The university adheres to national laws and policies on non-discrimination including Article 8 of the Federal Constitution, relevant sections of Acts of Parliament relating to employment and relevant policies and circulars for the education civil service .

Policy created: 1971 (USM Constitution)Policy reviewed: 2011 (USM Constitution)



PERLEMBAGAAN PERSEKUTUAN

CETAKAN SEMULA

Sebagaimana pada 1 November 2010

Teks ini HANYALAH TERJEMAHAN oleh Jabatan Peguam Negara bagi Federal Constitution. Melainkan jika dan sehingga ditetapkan sahih di bawah Perkara 160s Perlembagaan Persekutuan, teks ini bukan perundangan.

> Yang Di-Pertuan Agong Menurut Perkara 160a Perlembagaan Persekutuan



WARTA KERAJAAN PERSEKUTUAN

FEDERAL GOVERNMENT GAZETTE

PERLEMBAGAAN UNIVERSITI SAINS MALAYSIA

THE CONSTITUTION OF THE UNIVERSITI SAINS MALAYSIA



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[PERKARA 8]

Perlembagaan Persekutuan

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Vacamarataar

- (1) Semua orang adalah sama rata di sisi undang-undang dan berhak mendapat perlindungan yang sama rata di sisi undangundang.
- (2) Kecuali sebagaimana yang dibenarkan dengan nyata oleh Perlembagaan ini, tidak boleh ada diskriminasi terhadap warganegara semata-mata atas alasan agama, ras, keturunan, tempat lahir atau jantina dalam mana-mana undang-undang atau dalam pelantikan kepada apa-apa jawatan atau pekerjaan di bawah sesuatu pihak berkuasa awam atau dalam pentadbiran mana-mana undang-undang yang berhubungan dengan pemerolehan, pemegangan atau pelupusan harta atau berhubungan dengan penubuhan atau penjalanan apa-apa perdagangan, perniagaan, profesion, kerjaya atau pekerjaan.
- (3) Tidak boleh ada diskriminasi yang memihak kepada manamana orang atas alasan bahawa dia seorang rakyat Raja bagi mana-mana Negeri.
- (4) Tiada pihak berkuasa awam boleh mendiskriminasikan mana-mana orang atas alasan bahawa dia bermastautin atau menjalankan perniagaan di mana-mana bahagian Persekutuan di luar bidang kuasa pihak berkuasa itu.
 - (5) Perkara ini tidak menidaksahkan atau melarang-
 - (a) apa-apa peruntukan yang mengawal selia undang-undang diri;
 - (b) apa-apa peruntukan atau amalan yang mengehadkan jawatan atau pekerjaan yang berkaitan dengan hal ehwal manamana agama, atau sesuatu institusi yang diuruskan oleh sekumpulan orang yang menganuti mana-mana agama, kepada orang yang menganuti agama itu;
 - (c) apa-apa peruntukan bagi perlindungan, kesentosaan atau pemajuan orang asli Semenanjung Tanah Melayu (termasuk perizaban tanah) atau perizaban bagi orang asli suatu perkadaran yang munasabah daripada jawatan-jawatan yang sesuai dalam perkhidmatan awam;
 - (d) apa-apa peruntukan yang menetapkan kemastautinan di sesuatu Negeri atau di sebahagian sesuatu Negeri sebagai suatu kelayakan bagi pemilihan atau pelantikan kepada mana-mana pihak berkuasa yang mempunyai bidang kuasa hanya di Negeri atau di bahagian itu sahaja, atau bagi pengundian dalam pemilihan itu;

Distinction of race and creed prohibited

8. Subject to Article 153 of the Federal Constitution, membership of the University, whether as an employee, officer or student, shall be open to all persons irrespective of gender, race, religion, nationality or class; and no test of religious belief or profession shall be adopted or imposed in order to entitle any persons to be admitted to such membership or to be awarded any degree or diploma of the University, nor shall any fellowship, scholarships, exhibition, bursary, medal, prize or other distinction or award be limited to persons of any particular gender, race, religion, nationality or class if the cost of the same is met from the general funds of the University.

The seal of the University

9. (1) The common seal of the University shall be such seal as may be approved by the Chancellor on the recommendation of the Board and such seal may in like manner from time to time be broken, changed, altered and made anew.

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USM statute contains a general non-discrimination provision. Article 8 of the Federal Constitution also covers all forms of gender discrimination. There is also grievance procedures for complaints in cases of discrimination particularly through the Office of Ombudsman. USM also comply with maternity and paternity policies that support women's participation based on Federal Constitution.

6 Laws of Malaysia ACT 265 PART IX MATERNITY PROTECTION Section 37. Length of eligible period and entitlement to maternity allowance 38. Payment of maternity allowance 39. Payment of allowance to nominee on death of female employee 40. Loss of maternity allowance for failure to notify employer 41. Payment of allowance to nominee 42. Restriction on dismissal of female employee after eligible period 43. Conditions contrary to Part void 44. Register of allowances paid Application of this Part irrespective of wages of female employee 44A. PART X EMPLOYMENT OF CHILDREN AND YOUNG PERSONS 45-56. (Deleted) PART XI DOMESTIC SERVANTS 57. Termination of contract 57A. Employment of foreign domestic servant 57B. Duty to inform Director General of termination of service of foreign domestic servant Part XII

REST DAYS, HOURS OF WORK, HOLIDAYS AND OTHER CONDITIONS

USM committed to have a policy that protects those reporting discrimination from educational or employment disadvantage especially for Sexual Harassment Policy. USM has Ombudsman and Legal Office that observes and enforces principles of natural justice and due process. Sexual Harassment Policy provides for the no prejudicial treatment of complainants or persons reporting cases.

Policy created: 2009 (Sexual Harassment Policy)

Policy reviewed: 2013



DASAR UNIVERSITI TENTANG GANGGUAN SEKSUAL

Pernyataan Dasar

Universiti Sains Malaysia mempunyai komitmen tinggi terhadap menyediakan dan menggalakkan persekitaran kerja dan belajar yang selamat dan sejahtera untuk warga kampus. Gangguan seksual merupakan perbuatan yang boleh mengancam keselamatan dan kesejahteraan individu dan masyarakat di kampus. Oleh yang demikian, pihak universiti tidak boleh bertoleransi dengan perbuatan gangguan seksual dan seluruh warga kampus mestilah mematuhi dan menghayati dasar universiti berkaitan gangguan seksual.

Maksud gangguan seksual

Gangguan seksual bermaksud:

Sebarang tingkah laku berunsur seksual yang tidak diingini dan memberi kesan sebagai satu gangguan sama ada secara lisan, bukan lisan, visual, psikologi atau fizikal:

- yang, atas sebab yang munasabah, boleh dianggap oleh penerima (mangsa) sebagai mengenakan syarat berbentuk seksual ke atas pekerjaan atau pembelajarannya; atau
- yang, atas sebab yang munasabah, boleh dianggap oleh penerima (mangsa) sebagai satu pencabulan maruah, atau penghinaan atau ancaman terhadap dirinya tetapi tiada hubungan terus dengan pekerjaan atau pembelajarannya.

Gangguan seksual boleh berlaku sekali sahaja atau berulang kali.

Berdasarkan definisi di atas, gangguan seksual juga boleh dibahagikan kepada:

Gangguan seksual berbentuk balasan atau quid pro quo

Gangguan seksual *quid pro quo* merujuk kepada gangguan berbentuk seksual, permintaan memberikan bantuan seksual *(sexual favours)* atau perbuatan verbal atau fizikal atau komunikasi bertulis yang berbentuk seksual yang memberi kesan secara langsung kepada status pekerjaan seseorang. Gangguan seperti ini mempunyai kesan mengenakan syarat berbentuk seksual ke atas kedudukan pekerjaan atau pembelajaran mangsa. Sebagai contoh, seseorang pegawai atasan yang mempunyai kuasa menentukan gaji dan pangkat, cuba mengugut pekerja bawahan memberi layanan seksual kepadanya. Jika pekerja bawahan tersebut tunduk kepada kehendak seksual pegawai atasan tersebut, faedah yang berkaitan dengan pekerjaan akan diperolehi. Sebaliknya pula jika pekerja bawahan berkenaan menolaknya, faedah itu akan dinafikan.

https://pendaftar.usm.my/index.php/berita/artikel/400-dasar-universiti-tentang-gangguan-seksual



IIVERSITI TENTANG INGGUAN

Gangguan seksual (GS) ialah sebarang tingkah laku berunsur seksual yang tidak diingini yang boleh dianggap oleh penerima (mangsa) sebagai mengenakan syarat berbentuk seksual ke atas pekerjaan atau pembelajarannya atau sebagai satu pencabulan maruah, penghinaan atau ancaman terhadap dirinya.

BENTUK-BENTUK GANGGUAN SEKSUAL

n yang titak dingini, merupati sesamang sehingga dia barasa titak selesa abit, mengusap, menggeser badan, memetuk, mencam, melakukan serangar

LARANGAN DAN PERATURAN TENTANG GANGGUAN

TINDAKAN YANG BOLEH DIAMBIL OLEH SESEORANG YANG MENGALAMI GANGGUAN SEKSUAL: -

MENGAKSES PROSEDUR PENYELESAIAN
GANGGUAN SEKSUAL
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Certa Nitran Proved Penyelingaban Kar Gangguan Solaturi.

S.O.P MENERIMA ADUAN GANGGUAN SEKSUAL



Achievements

15 USM SCIENTIST RECEIVES WOMEN IN SCIENCE AWARD IN VIETNAM



PENANG, February 2018 – A Universiti Sains Malaysia (USM) scientist from the School of Chemical Engineering, Associate Professor Ir.

Dr. Leo Choe Peng, has been honoured at the Ton Duc Thang University Scientific Prize 2017 award ceremony held at Ho Chi Minh City, Vietnam last month.

Choe Peng was awarded the Women in Science Award for her research work on membrane technology and wastewater treatment that has contributed significantly to society. The award was presented by the Principal of Ton Duc Thang University, Professor Le Vinh Danh.

OF WOMEN & GIRLS IN SCIENCE

INTERNATIONAL DAY OF WOMEN & GIRLS IN SCIENCE
IN SCIENCE
II February 2018

"Women have strong inclination for affection and nurturing. We are grounded, practical with good intuitions, and we work through our vulnerabilities and come out stronger than before. These are the strength of women and the characters of a good scientist.

We need to connect our soul and conscience so that science remains closely intertwined with the essence of nature, human and basic instinct.

To all women in science: Let us continue shaping our world towards a Harmonious, Prosperous, and Sustainable society.

To the girls in science: Keep believing that you are meant to do something great. Always Think Science to search knowledge, Celebrate Technology as our practices, and inspire Innovation to improve our quality of life.

27

USM VICE-CHANCELLOR RECEIVES 'TOKOH SRIKANDI NEGARA' 2018 AWARD



KUALA LUMPUR, 22 July 2018 – The Vice-Chancellor of Universiti Sains Malaysia (USM), Professor Datuk Dr. Asma Ismail was selected recently as the recipient of the 'Anugerah Tokoh Srikandi Negara' for her outstanding contributions and as an exemplary figure in the field of education.

Asma, being an expert in the field of Medical and Clinical Microbiologyand Medical Biotechnology, and with a wide knowledge and extensive experience in research has been previously given various recognitions locally as well as abroad.

The 'Anugerah Tokoh Srikandi Negara' recognises the efforts and contributions of women in the development of various fields in Malaysia, regardless of whether it was achieved locally or abroad.

The award ceremony is organised by 'Gabungan Pelajar Melayu Semenanjung Malaysia' (GPMS), a non-governmental body representing the Malay students of Peninsular Malaysia. This is the second time it is organised, following the first one held in 2014.

The prestigious ceremony was themed 'Malam Semarak Perjuangan', in celebrating 70 years of GPMS and was graced with the attendance of His Royal Highness the Sultan of Perak, Sultan Nazrin Muizzuddin Shah, accompanied by Raja Permaisuri Perak, Tuanku Zara Salim.



SDG 6 - Clean Water and Sanitation

Water scarcity affects more than 40 percent of people, an alarming figure that is projected to rise as temperatures do. Although 2.1 million people have improved water sanitation since 1990, dwindling drinking water supplies are affecting every continent. Safe and affordable

drinking water for all by 2030 requires invested in adequate infrastructure, provide sanitation facilities, and encourage hygiene. Protecting and restoring water-related ecosystems is essential. Ensuring universal safe and affordable drinking water involves reaching over 800 million people who lack basic services and improving accessibility and safety of services for over two billion.

USM is committed to achieve SDG 6 by having School of Humanities, River Engineering and Urban Drainage Research Centre (REDAC) and Development Department. USM is committed to achieve SDG 6 by providing free drinking water for students, staff and visitors, Installing appropriate drainage traps to minimise pollution, engaging staff and students in all sustainable campus activities and installing water harvesting, storage and reuse systems.

School of Humanities

The School of Humanities was one of the earliest schools to be established at Universiti Sains Malaysia and one of the largest to offer arts-based courses. Since its inception in 1970, the school has built up a reputation as one of the leading Humanities faculties in the country.



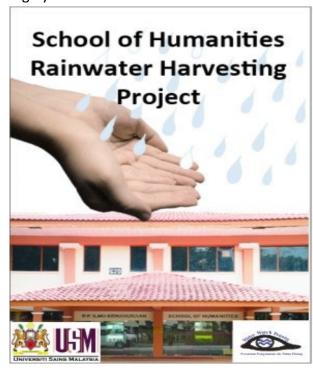
https://humanities.usm.my/

The School of Humanities, Universiti Sains Malaysia Water Saving Project: A Water Saving Best Management Practice for Universities

Water is a serious current problem that occurs world-wide that cannot be solved by the governments alone. Engagement of all stakeholders is vital in addressing water problems. Universities are like small towns with dense populations and are large water consumers. The role of universities has also evolved from solely academic to a more holistic one encompassing social, economic and environmental responsibilities to help achieve Sustainable Development Goals (SDGs). The School of Humanities (SOH) in USM is taking the lead to reduce water consumption via its demonstration project on water saving with the support from all stakeholders in the campus. The main objective of the project is to control and reduce water usage. The methodology includes addressing the hardware (water fittings) and software (humans) parts. Addressing the hardware includes installing a rainfall harvesting system as an alternative water source, changing conventional/outdated water fittings that use a lot of water are to water-friendly fittings, and plugging all the leaks in the water system. The harvested rainwater is used for general washing, toilet flushing, gardening and car washing. Addressing the software includes creating water awareness and providing water education, changing human behaviour in water use practices and sensitizing staff, students and visitors on water use. Results of the project showed that water use can be reduced by half resulting in significant water saving. This also contributed to USM's aim of being a sustainability-led university. The project also enhanced water awareness and increased commitment of staff, students and visitors on water conservation. Overall, the project showed that the water consumption amount in USM can be controlled to a level that can benchmark USM as a "Water Responsible" and Sustainability-led university.

In conclusion, there is no doubt that the School of Humanities USM Water Saving Project has shown remarkable success in terms of water demand reduction and water saved as the water consumption was reduced by about 50%. When the rainwater harvested is used in buildings C20 and C24, it is expected to generate even greater amounts of water saved. The rainwater harvesting system, though initially problematic, showed great promise as more water was harvested which then could be used. Water saving devices/fittings also showed tremendous potentials. Controlling the water pressure by installation of water balance regulators was very successful, although some members of the staff were initially unhappy about the reduced flow rate caused by lower water pressures. Overall, water savings were significant, and the toilet fittings were also aesthetically beautiful. For the staff, students and visitors who were exposed to the water saving campaign, they became more aware of the importance of water and were enlightened on the many advantages of Water Demand Management, Rainwater Harvesting, and Water Saving Devices available in the market. Other benefits of the project include closer cooperation amongst colleagues, staff and students, and staff and visitors. Significantly, this project can be easily replicated in other universities and institutions of higher learning across the country as the methodology is simple and effective. This project

has shown that water demand management is "workable". The success story of this project needs to be publicized and this BMP should be properly documented and replicated not only in universities but in all large buildings throughout the country. This project also proves that smart partnerships between the government, private sector, NGO and local communities are indeed workable. Universities are like small townships and as such have great potentials to save water, given the large amounts of water they use. This project has not only generated water savings but also changed the mindset of water consumers, which is more difficult to do. Participants in this project showed greater awareness on water and environmental issues after being exposed to the project, proving that the project had a profound effect on them. However, some of the problems encountered include the inaccuracy of old building plans (many pipes and their connections could not be identified), underground leaking and the lack of vendors in rainfall harvesting systems. The university's rigid tendering procedures for water works was also a hindrance that caused the project much delay. At present, the rainwater harvesting system is only functioning in buildings C11 and C12. Unless new budget be given to construct extra piping to the tanks (Building C24 and Building C20), this project will not be 100% successful. Nevertheless, this rainwater harvesting project can be considered a pioneer project in Malaysia and as an institution of learning, we are duty bound to welcome visits, give talks and attend conferences to publicize this sustainable project in line with USM's status as a sustainability-led university. An off-shoot of this project is that of a university-wide water saving project funded by water savings acquired from a reduction of water tariffs in three hostels given by the water service provider. It is envisaged that this project will run for seven years and by the end of that period, hopefully all buildings in USM main campus will be fitted with rainfall harvesting systems and water saving fittings, and their staff and students highly sensitized towards water conservation.



*The Rainwater Harvesting and Water Saving Project in School of Humanities, Universiti Sains Malaysia is a Best Management Practice (SMP) Project under the Delivering Excellence APEX 2011 agenda. This project is an initiative of the School of Humanities, Universiti Sains Malaysia. Under this project, a total of 6 rainwater harvesting tanks with the volume of 10000 liters each are installed in all four buildings of the school (Building C11, C12, C20 and C24).

The main objective of this project is to reduce the water consumption of the School of Humanities to show that it is very feasible to reduce water demands. The 6 tanks are connected to down pipes that harvest rainfall from rooftops of the buildings. The harvested rainfall in the tanks are then pumped up to existing water tanks in the rooftop of the four buildings which are specifically used for flushing toilets. On the ground, water from the 6 rainfall harvesting tanks will also be used for gardening, toilet cleaning and washing, car washing and other non-consumptive uses. Hence, the treated piped water from PBA will only be channelled to the sinks for washing and for consumptive use. Existing PBA taps used for gardening are turned off to encourage the gardeners to use the harvested rainwater.

To monitor the volume of water consumed from rainwater harvesting tank, six meters have been installed at the outlet. The objective of this pilot project is to reduce treated water usage by 20%-30% annually.

When this project is successful the rainwater harvesting system can be replicated in all other schools, centres, canteens, hostels and buildings in Universiti Sains Malaysia. When this happens and water consumption comes down to respectable levels recommended by the United Nations, then USM will become a BMP example as well as an exemplary icon in water management in the near future.



The location signage for one of the rainwaters harvesting system



The locations of a few the rainwater harvesting systems in the campus

Tanks used for rainwater harvesting. Each tank has 2000 gallons storage capacity



The water harvested from this system was used for toilet flushing, drainage system clean-up and plant watering

Acknowledgement to the Water Watch Penang project 304/PHUMANITI/650906/W109 for funding the writing and publication of this paper. Data used in the writing of this paper is from the completed Delivering APEX Excellence Grant 1002/PHUMANITI/910301.

Reference

Ngai Weng Chan, SEASN Compendium of Selected Best Practices on Sustainable Development Goals, Vol 1, 2019

River Engineering and Urban Drainage Research Centre (REDAC)

REDAC is the first research centre at the USM Engineering Campus which was accorded the Higher Institution Centre of Excellence (HICoE) for service on 9th October 2014 with a niche area on Sustainable Urban Stormwater Management. REDAC has been active in research and consultancy projects on Sustainable Urban Stormwater Management since 1997. Among the project sponsors are Ministry of Science, Technology and Innovation (MOSTI), Ministry of Education (MoE), Ministry of Natural Resources and Environment (NRE), Ministry of Agriculture and Agro-Based Industry (MoA), Department of Irrigation and Drainage (JPS), Prime Minister's Economic Planning Unit (EPU), Seberang Perai Municipal Council (MPSP) and Public Works Department (JKR). REDAC has received more than RM 20 million for the last ten years to conduct research and innovation.

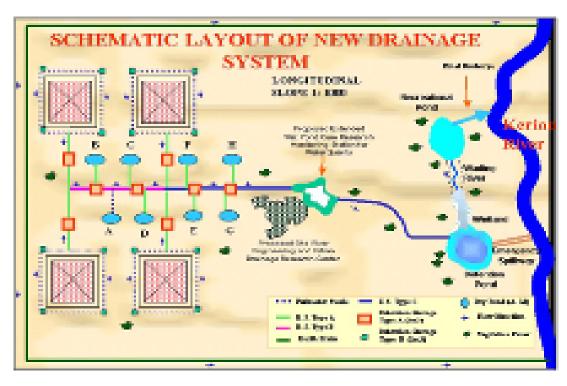
A green sustainable urban stormwater management system known as Bio-Ecological Drainage Systems (BIOECODS) was designed by REDAC and subsequently constructed at the USM Engineering Campus, Penang in 2002. BIOECODS attempts to solve three major problems commonly encountered in Malaysia namely flash floods, river pollution and water scarcity. By implementing BIOECODS, it will help preserve the natural characteristics of the existing river ecosystem. The national pilot project on sustainable urban drainage system (SUDS) namely Bio-Ecological Drainage System (BIOECODS) has continuously received visitors from national and international.

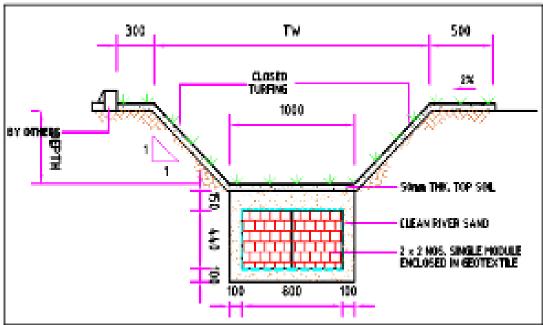


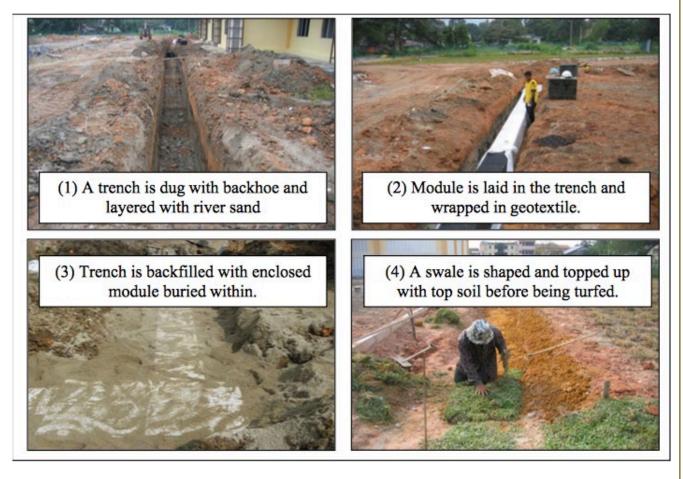
http://redac.eng.usm.my/

The implementation of Bio-Ecological Drainage Systems (BIOECODS)

BIOECODS is made up of several important components that ultimately form an effective stormwater treatment train that control runoff quantity and preserve runoff quality. The BIOECODS is designed to provide time for natural processes of sedimentation, filtration and biodegradation to occur, which reduce the pollutant loads in stormwater runoff.









The diagram and photo show the design and processes involved during the installation and setup of BIOECODS. The last photo shows the current condition of the system which is running and doing well in helping to conserve surface flows and helps to conserve water mimicking the natural systems in nature. All area in Engineering Campus are equip with BIOECODS.





These photos show the current condition of water run-off in the end part of the BIOECODS and at the man-made pond used to store the water filtered by the system

Adapted from:

Nor Azazi, Z. et. al. (2011) Securing water for future generations through sustainable urban drainage designs: A peek into the Bio-ecological drainage system (BIOECODS). 3rd International Conference on Managing Rivers in the 21st Century: Sustainable Solutions for Global Crisis of Flooding, Pollution and Water Scarcity.

Water Conservation Program Implementation in USM

Rain water harvesting



2 x 4000 gallon = 32,000 litres rain water was harvest in health campus



Due to the gradualaddition or bioaccumulation of emerging contaminants into freshwater bodies, and the awareness of their possible implications, the practice of wastewater irrigation has received aesthetic concern among the scientific community. USM committed to this fundamental research to examine toxic the pollutants uptake of

plants grown from polluted water. The effects of wastewater reuse on the growth and yield of food crops, and the health risks associated with the bioaccumulation of pollutants in food crops will be evaluated. The findings would generate the water quality guidelines and food safety blueprint in the water irrigation practice.

Lake and Stream





Two large lakes provide water element in the garden of nature inside the campus. Aman Lake is 0.58 hectare and Harapan Lake is 0.8 hectare in size. The lakes showcase harmony, beauty and tranquility created by both man and nature. Other than its beautiful scenic view, these lakes are a spot for the campus community and outsiders to relax and exercise. The lake also served as a unique habitat for animals and further enriches the biodiversity of the campus.

Source:

Meng, L.L. et. Al. (2004) The University in a Garden: Special Edition. Penerbit Universiti Sains Malaysia, Pulau Pinang.

15 USM'S TASIK AMAN AND TASIK HARAPAN TO PLAY IMPORTANT ROLE IN FLOOD MITIGATION MEASURES



PENANG, 15 November 2017 - Tasik Aman and Tasik Harapan, two adjoining lakes located in Universiti Sains Malaysia (USM) could serve as key catchment areas in flood prevention and mitigation efforts for the surrounding areas.

According to the Director of the USM River Engineering and Urban Drainage Research Centre (REDAC), Professor Dr. Nor Azazi Zakaria, Sungai Gambir was created when USM was established close to 50 years ago to serve as a transit or catchment point before it flows out to the sea. The existence of the two lakes would bring a high impact in relation to flood mitigation efforts, whether on-campus or in nearby areas, including Sungai Dua and Batu Uban.

"The lakes could serve as a solution in dealing with various issues in areas surrounding USM if they are upgraded and the source, which comes from Sungai Gambir could be flowing out water of better quality," added Nor Azazi who is also the USM Engineering Campus Director.

https://news.usm.my/index.php/english-news/5361-usm-s-tasik-aman-and-tasik-harapan-to-playimportant-role-in-flood-mitigation-measures

Water tank



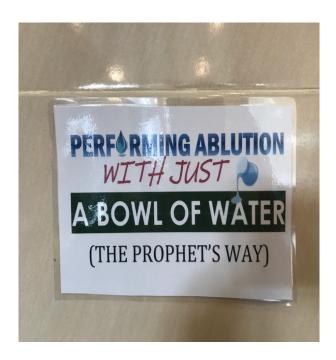
Mostly each of the large building in USM was equipped with its own water tank.



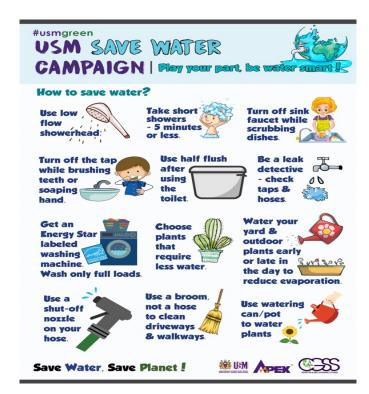
In certain areas, it has a centralized water tank such as water tower as above.

Water Conservation Program/Campaign



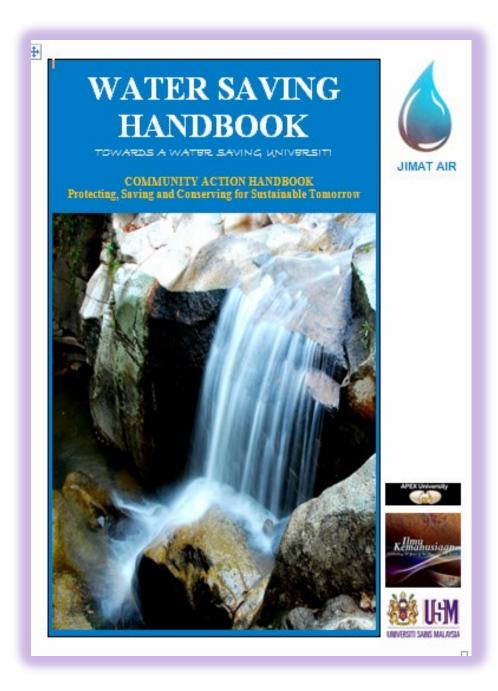


Some of the campaign labels at the ablution area of the Al-Malik Khalid Mosque, USM. This campaign aimed to reduce water usage during ablution by the Muslims as promoted by the Prophet Muhammad S.A.W.



Save water campaign poster done by Centre for Global Sustainability Studies, USM. This poster was distributed throughout the campus, aimed to create awareness regarding water savings effort.





Water Recycling Program Implementation

Waste water in USM are treated before disposal.











Sewerage Disposal treatment conventionally in main campus (Universiti Sains Malaysia). Link to in-house sewerage treatment plant (STP).

1. Desa Gemilang STP - 2500 PE

2. Sg Dua STP - 10000PE
 3. Desa Aman STP - 3500 PE
 4. Block J STP - 800 PE
 5. Padang A - 400 PE

Well Underground Tube

Produces 45 m^3 /hr (1MLD), capable of operating 24 hours. Depth of tube well = 30 metres







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USM committed to use of water efficient appliances such as water tap toilet flush and push shower.







Installation of flow regulators for taps



Tap flow regulators were installed to the School of Humanities pipe. These accessories help to regulate and reduce the flow of each tap to help reduce the flow rate and saves water.

USM committed to provide free drinking water for students, staff and visitors in schools, research centres, cafeteria, hostels, sports centre, and management offices. Even though 100 percent of water source installed inside USM is clean treated water supplied by government, but student and staff were not encouraged to drink direct from tap water. So that water filter and water cooler have been installed in USM.



RULE'S AND REGULATIONS

- •Postgraduate Room is to be kept clean and tidy ALL the time.
- Eating is prohibited! Drinks are allowed but please clean up any spillage afterwards.
- •Keep the water dispenser and the sink clean and DO NOT litter.
- •Do not leave your personal items when leaving the Postgraduate Room. Unattended items will be discarded.
- •Usage of Postgraduate Room is strictly for academic-related activities. Other activities such as playing any kind of games, chit-chatting is strictly prohibited.
- •Keep your voice down when in a group discussion.



SDG 7 - AFFORDABLE AND CLEAN ENERGY

Between 2000 and 2016, the number of people with electricity increased from 78 to 87 percent, and the numbers without electricity dipped to just below one billion. Yet, as the population continues to grow, so will the demand for cheap energy and an economy reliant on fossils fuels is

creating drastic changes to our climate. Investing in solar, wind and thermal power, improving energy productivity and ensuring energy for all is vital if we are to achieve SDG 7 by 2030. Expanding infrastructure and upgrading technology to provide clean and more efficient energy in all countries will encourage growth and help the environment.

USM is committed to achieve SDG 7 by having Centre for Education and Training in Renewable Energy, Energy Efficiency & Green Technology (CETREE). USM is committed to achieve SDG 7 by incorporating aspirational environmentally sustainable design aspects into capital works and Instituting zero-net emission policies and investing in on-campus renewable energy production.

USM INITATIVES

BENGKEL TRAINING OF TRAINER (TOT) JURULATIH UTAMA (JU) MODUL TEKNOLOGI HIJAU (TH) SEKOLAH MENENGAH PERINGKAT NEGERI PULAU PINANG, KELANTAN, TERENGGANU, PAHANG, PERAK, KUALA LUMPUR, SELANGOR, PUTRAJAYA



The purpose of the workshop was to train 110 secondary school teachers (JUs) in Penang and transfer their knowledge to students in implementing Green Technology (TH) across the curriculum in line with the importance of creating awareness and fostering TH applications in daily life. The workshop was initiated at the NRD briefing by Mrs Hamidah Binti Jailani as the Chief Assistant Director of Science, Academic Management Sector, Penang State Education Department.

KARNIVAL AKADEMIK, KOKURIKULUM DAN SAHSIAH TAHUN 2018



The Center for Renewable Energy Education and Training, Green Energy and Technology (CETREE) has been invited also participate in the carnival. Among those brought was the CETREE Green Technology Mobile Exhibition Unit, which uses the Solar Energy concept as main source for generating electricity

electric equipment in the truck and the use of used cooking oil as an alternative fuel source to power the vehicle. CETREE also showcased several hand's-on kits including radiometers, aimed at exposing visitors to the use of bright colors better than dark colors in the building sector. In addition, other hand's-on kits such as windmills have also been showcased to give visitors an insight into the functions and processes of energy conversion from wind to electricity.

MINGGU SAINS SMK TAT BENG, TRONG, PERAK

CETREE was also invited to enliven the program by holding an exhibition on Green Technology on March 14, 2018 at SMK Tat Beng Square from 9.00 am to 2.00 pm. The excitement of the program was felt and reflected through the reaction of all SMK Tat Beng residents as it was a rural school and had never experienced exposure to Green Technology knowledge and information.



Various hands-on activities and science demonstrations were conducted by the parties. CETREE to provide exposure and understanding to SMK Tat Beng residents on the importance

of using Green Technology, Energy Efficiency and Renewable Energy in achieving sustainable living in line with one of the National Green Technology Policy objectives.

KARNIVAL INOVASI STEM SMK SERI BINTANG UTARA, SEKOLAH KLUSTER KECEMERLANGAN





The Center for Renewable Energy Education and Training, Green Energy and Technology (CETREE) has also been invited to participate in the carnival. Among those brought was the CETREE Green Technology Mobile Exhibition Unit, which uses the Solar Energy concept as the main source for generating electricity to electric equipment in the truck and the use of used cooking oil as an alternative fuel source to power the vehicle. CETREE also showcased several hands-on kits, including the efficiency of light selection in energy use, aimed at exposing visitors to the different types of light, power and durability of its power. This exhibition by CETREE has received a great response from the visitors. Indirectly, exhibits through mobile exhibition units and hand-held kits have successfully brought awareness and importance to Green Technology, Energy Efficiency and Renewable Energy in the daily life of the community.

KARNIVAL HIJAU 2018 PERINGKAT NEGERI PULAU PINANG (POLITEKNIK ZON UTARA DAN SEKOLAH-SEKOLAH NEGERI PULAU PINANG)







A total of 7 competitions have been contested by category namely primary schools, secondary schools and polytechnics of the northern zone. Among the competitions held throughout the carnival are the Sustainable Home Design Competition, Green Innovation Competition, Solar Car Contest, Green Explorace and Solar Cooker Competition. The carnival was also filled with entrepreneurial sales activities, myAgrosis briefings and live performances

from the CETREE Green Technology Exhibition Unit. Visitors are also given the opportunity to delve deeper into Green Technology through an online quiz.

KARNIVAL KOKURIKULUM DAN HARI ANUGERAH CEMERLANG 2018, SMK TUNKU PUTERA, BALING, KEDAH





The exhibition from CETREE is intended to provide information and exposure on the Green and Renewable Technology sectors to the students and the entire school community. The CETREE Mobile Exhibition Unit (UPB) showcases several hands-on kits that also attract students such as windmills and the difference between Light-Emitting Diode (LED) and incandescent lamps. This Windmill explains how the process of converting wind energy into electricity is to determine which windmill is most efficient for generating energy. Whereas for the LED light kit and incandescent lamps, it shows the process of converting kinetic energy into electrical energy. Here students can see the difference that LED lamps save energy consumption compared to incandescent lamps.

KARNIVAL EKSPLORASI SAINS, TEKNOLOGI, KEJURUTERAAN DAN MATEMATIK (STEM) DAN LARIAN PIDA PERINGKAT NEGERI KEDAH





The objective of the carnival is to raise awareness and to educate teachers, students and the public about the importance of STEM and Green Technology. The CETREE exhibition held at the SMK Megat Dewa field was held from 9.00 am to 3.00 pm. The exhibition aims to provide information and exposure on Green and Renewable Technology and Energy Efficiency to students and all residents involved in the carnival. A variety of hands-on kits are on display in the Mobile Exhibition Unit (UPB), CETREE include energy efficiency and home energy use

kiosks, wave energy kiosks, solar kiosks and clean water usage kiosks. The CETREE exhibition has received overwhelming response from the visitors.

KARNIVAL SAINS, TEKNOLOGI, KEJURUTERAAN DAN MATEMATIK PERINGKAT NEGERI PULAU PINANG



Among the objectives of the carnival are to apply and integrate knowledge, skills and values of science, technology, engineering and mathematics correctly and deeply in life that also involves society and the environment. This is based on inquiry or problem-solving activities and promotes teamwork as well as enhances communication skills between students. The CETREE exhibition, which runs from 9.00am to 4.30pm, is intended to attract students and students of Tuanku Bainun's IPGM students and students on Green and Renewable Technology and its importance. A range of handmade kits have been exhibited by the Mobile Exhibition Unit (UPB), CETREE aimed to foster students' interest in learning more about Green Technology, Renewable Energy and Energy Efficiency and its applications. Among the hand's kits on display are the Smart Home, Hydro Car, Wave Power, Wind Power, Clean Water and Biomass. In conclusion, the exhibition has increased students' knowledge of Green Technology and Renewable Energy and has attracted their interest in furthering science

KARNIVAL SAINS PERINGKAT KOLEJ MATRIKULASI PULAU PINANG





The carnival also gives the Green Technology (TH) exposure and awareness among students, teachers and the public about the importance of energy efficient and renewable energy sources as an essential element of daily life. CETREE was once again invited by the Penang Matriculation Group to host the exhibition during the carnival. The CETREE Exhibition with the presentation of the TH and New Energy (TBB) Hand's On kit kits housed in the CETREE. Mobile Exhibition Unit aims to enhance science and technology related knowledge. Among the Hand's on kits on display are the Smart Home, Hydro Car, Wave Power, Wind Power, Clean Water and Biomass. As such, the exhibition aims to enhance students' knowledge of TH and TBB and to inspire them to learn more about science.

KYOTO UNIVERSITY SUMMER PROGRAM 2018





CETREE, USM held a Green Technology bus and truck showcase on August 14, 2018 at the School of Mechanics, USM Engineering Campus, Nibong Tebal, Penang. The exhibition was held in conjunction with the Kyoto University Summer Program 2018 which took place for 10 days involving University students Kyoto has 30 people including lecturers from the university. The objective of the workshop was to give students exposure to the University of Kyoto on Green Technology (TH) and to share information on TH applications in Malaysia. The sustainability of the exhibition was assisted by a number of technical staff and CETREE secretariat, USM.

KARNIVAL 3K1S- KEUSAHAWANAN, KOPERASI, KEMERDEKAAN DAN STEM SMK SULTAN BADLISHAH 2018





CETREE also did not miss the opportunity to hold a Mobile Exhibition Unit (UPB) at SMK Sultan Badlishah School from 9.00 am until 2.00 pm. It aims to provide awareness and knowledge of Green Technology (TH) and Renewable Energy (TBB) to students and students. Students and schoolchildren were also briefed on the sectors involved in Green Technology (TH) and its applications.

KARNIVAL TENAGA, SAINS, TEKNOLOGI, ALAM SEKITAR DAN PERUBAHAN IKLIM 2018 (ESTECC 2018)





The carnival was also joined by CETREE through the participation of the 3-Day Mobile Exhibition Unit (UPB) at the grounds of Chepir National Assembly Square, Sik, Kedah. The exhibition aims to provide information and exposure on Green Technology, Renewable Energy and Energy Efficiency to students and all visitors present at the carnival. Various hands-on kits are on display within the Mobile Exhibition Unit, CETREE including demonstrations on Solar Energy-related kiosks, energy efficiency and energy-use gaming kiosks and windmill kiosks. This CETREE exhibition has received overwhelming response from the visitors.

PROGRAM PENJIMATAN TENAGA DAN 3R DI HOSPITAL YAN, KEDAH





The main objectives of the program are to gain a better understanding and understanding of energy management activities; bringing Yan Hospital staff closer to the activities of the Sustainability Program; and exposes hospital staff to the importance of energy management and recycling activities, especially to hospitals in particular and the environment in general.

SEJAHTERA GREEN CARNIVAL & WALKING FOOTBALL COMPETITION 2018





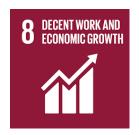
The CETREE Exhibition was held to provide information and exposure on Green and Renewable Energy Technology and Energy Efficiency to students and all residents involved in the carnival. Various hands-on kits are on display in the Mobile Exhibition Unit (UPB), CETREE including energy efficiency kiosks, windmill kiosks and solar energy related kiosks. This CETREE exhibition has received overwhelming response from well-wishers.

KARNIVAL INOVASI TEKNOLOGI HIJAU PERINGKAT KEBANGSAAN TAHUN 2018



The event is targeted at high school students across Malaysia through participation of 7 Green Technology-themed contests. The National Green Technology Innovation Carnival 2018 is one of the activities for the 'Science Development, **Implementation** and Awareness Activities

High School Green Technology across Curriculum & Curriculum for Lestari Education Improvement. The program also invited the participation of 19 judges for 7 competitions and 40 employees comprising secretariats and facilitators. Among the events that have been contested are the Green Cooker Challenge, Green Energy Innovation, Green Technology Show, Green Technology Innovation, Green Technology Urban Design, Solar Vehicle Challenge, Xplorace and Green Technology Quiz.



SDG 8 - Decent Work & Economic Growth

Over the past 25 years the number of workers living in extreme poverty has decline dramatically, despite the lasting impact of the 2008 economic crisis and global recession. The SDGs promote sustained economic growth, higher level of productivity and technological innovation.

Encouraging entrepreneurship and job creation are key to this. With these targets in mind, the goal is to achieve full and productive employment and decent work, for all women and men by 2030.

USM is committed to achieve SDG 8 by having Bursary, Ombudsman and Legal Office. SDG 8 can be achieved in USM by aligning employment, training and regulation policies to be consistent with commitments to equity and access strategies and targets. Providing appropriately positioned and supported scholarship and financial assistance schemes for students in need and supporting creativity and innovation through a culture of acceptable risk-taking, providing the appropriate space and process for ideas to flourish are among the support from USM.

USM pay all staff and faculty at least the living wage. Universiti Sains Malaysia follows the federal law on determination of salary. Minimum salary Act 2016 P.U. (A) 116, effective July 1st, 2016, stipulates that Monthly Minimum salary in Peninsular Malaysia (Penang is part of Peninsular Malaysia) is MYR1,000 per month, which is equivalent to RM4.81 per hour.

P.U. (A) 116

NATIONAL WAGES CONSULTATIVE COUNCIL ACT 2011 MINIMUM WAGES ORDER 2016

IN exercise of the powers conferred by section 23 of the National Wages Consultative Council Act 2011 [Act 732], the Minister makes the following order:

Citation and commencement

- This order may be cited as the Minimum Wages Order 2016.
 - (2) This Order comes into operation on 1 July 2016.

Non-application

2. This Order shall not apply to a domestic servant as defined under section 2 of the Employment Act 1955 [Act 265], section 2 of the Sabah Labour Ordinance [Cap. 67] and section 2 of the Sarawak Labour Ordinance [Cap. 76].

Minimum wages rates

3. The minimum wages rates payable to an employee shall be as follows:

Regional areas	Minimum wages rates				
Regional areas	Monthly	Daily		Hourly	
			f working days a week		
Peninsular Malaysia	RM1,000	6	RM38.46	RM4.81	
		5	RM46.15		
		4	RM57.69		
Sabah, Sarawak and		6	RM35.38		
Federal Territory of	RM920	5	RM42.46	RM4.42	
Labuan		4	RM53.08		

USM has a union called 'Persatuan Kakitangan dan Pentadbiran' — Academic and Administrative Staff Association, Universiti Sains Malaysia. This association is open to all academic and administrators as normal member and other staff as associate member. Programs and activities of the association is as shown in its webpage. Application forms to be a member could be downloaded from the website. USM also has a special union for USM supporting staff called 'Kesatuan Kakitangan Am Universiti Sains Malaysia (KKA USM)' — USM Supporting Staff Association. Application form to be a member could be downloaded from the website. Application is open to all supporting staff in USM.





http://pkap.usm.my/index.php/ms/



http://www.kka.usm.my/index.php

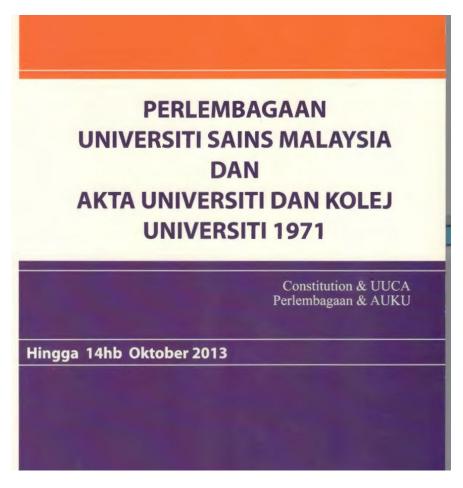
Policy on discrimination in the workplace in USM constitution states that, under

Distinction of race and creed prohibited

8. Subject to Article 153 of the Federal Constitution, membership of the University, whether as an employee, officer or student, shall be open to all persons, irrespective of gender, race, religion, nationality or class; and no test of religious belief or profession shall be adopted or imposed in order to entitle any persons to be admitted to such membership or to be awarded or imposed in order to entitle any persons to be admitted to such membership or to be awarded any degree or diploma of the University, nor shall any fellowship, scholarship, exhibition, bursary, medal, prize or other distinction or award be limited to persons of any particular gender, race, religion, nationality or class if the cost of the same is met from the general funds of the university.

Protection to officers, etc., who make disclosures

81 (3). The officer or agent who makes any disclosure under subsection (2) shall not be subject to any dismissal, termination, suspension, demotion, disciplinary action or discrimination or suffer any loss of employment or livelihood.



Website https://eperundangan.usm.my/e-perundangan/perlembagaan

Questions as to election, etc.

80. If any question arises whether any person has been duly elected, appointed or nominated to membership, or is entitled to be or to remain a member of any Authority or other body in the University, the question shall be referred to the Authority or person responsible for the election, appointment or nomination and the decision of the Authority or person shall be final.

Protection to officers, etc., who make disclosures

- 81. (1) Except as required by any written law or an order of the court, a member of the Board, the Vice-Chancellor, an employee, agent or student of the University shall not disclose any information in respect of the University which is not published in pursuance of this Act.
- (2) Subsection (1) shall not apply to an employee, agent or student of the University who—
 - (a) discloses or threatens to disclose to a public authority, an

 Authority of the University or a superior, any activity, policy or
 practice of the University or an employee of the University, that
 the employee, agent or student reasonably and in good faith
 believes is in violation of any law or arouses reasonable suspicion
 of misconduct, fraud or corruption; or
 - (b) in good faith provides information to or testifies before any public authority conducting an investigation, hearing or inquiry.

Section 81 of USM Constitution

Distinction of race and creed prohibited

8. Subject to Article 153 of the Federal Constitution, membership of the University, whether as an employee, officer or student, shall be open to all persons irrespective of gender, race, religion, nationality or class; and no test of religious belief or profession shall be adopted or imposed in order to entitle any persons to be admitted to such membership or to be awarded any degree or diploma of the University, nor shall any fellowship, scholarships, exhibition, bursary, medal, prize or other distinction or award be limited to persons of any particular gender, race, religion, nationality or class if the cost of the same is met from the general funds of the University.

The seal of the University

9. (1) The common seal of the University shall be such seal as may be approved by the Chancellor on the recommendation of the Board and such seal may in like manner from time to time be broken, changed, altered and made anew.

Section 8 of USM Constitution

USM has general policy on all those issues on forced labour, no modern slavery and no human trafficking and no child labour. Notwithstanding, USM applies the prevalent Laws of Malaysia against all those misdeeds. The relevant Malaysian Laws, among others are:

- 1) Children and Young Persons (Employment) Act 1966
- 2) Anti-Trafficking in Persons and Anti-Smuggling of Migrants Act 2007
- Child Act 2001



LAWS OF MALAYSIA

ONLINE VERSION OF UPDATED TEXT OF REPRINT

Act 350

CHILDREN AND YOUNG PERSONS (EMPLOYMENT) ACT 1966

As at 1 December 2011



LAWS OF MALAYSIA

ONLINE VERSION OF UPDATED TEXT OF REPRINT

Act 670

ANTI-TRAFFICKING IN PERSONS AND ANTI-SMUGGLING OF MIGRANTS ACT 2007

As at 15 August 2016



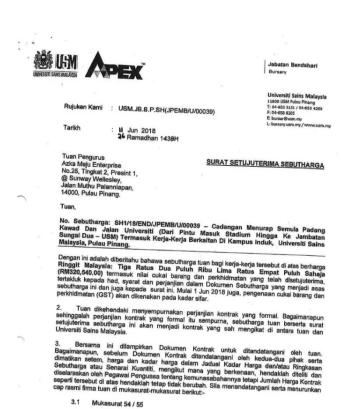
LAWS OF MALAYSIA

ONLINE VERSION OF UPDATED TEXT OF REPRINT

Act 611

CHILD ACT 2001

As at 1 February 2018



USM has provided clear guidelines in its Quotation Acceptance Letter (Surat Setuju terima Sebutharga) for any outsourcing activities (infrastructure project and maintenance work) of any contract work that clearly indicate that contractors need to adhere to the following term about the rights of the workers:

1. Purchase of Workers Compensation Insurance Policy (Polisi Insurans Pampasan Pekerja) for amount equivalent to contract workers estimated income by contractor prior period. appointment of contract Notwithstanding, USM applies the prevalent Laws of Malaysia to protect

The relevant Malaysian Acts under Ministry of Works, among others are:

- Government of Malaysia Standard form of Contract to be used where drawings and specifications form part of the contract PWD Form 203 (Rev 1/2010)
- Clause 9.0 representations, warranties and undertakings of the contractor a.
- Clause 14.0 Indemnity in respect of personal injuries and damage to property b.
- Clause 15.0 Insurance against personal injuries and damage to property c.
- Clause 18.0 Insurance of works d.

3.1 Mukasurat 54 / 55

- Clause 23.0 Employment of Workmen e.
- f. Clause 45.0 – Investigation by the government and other persons in case of accident, failure or another event
- Government of Malaysia Standard form of Contract to be used where bills of 2. quantities form part of the contract PWD Form 203A (Rev. 1/2010)
- Clause 15.0 Insurance against personal injuries and damage to property a.
- Government of Malaysia Standard form of contract PWD Form 203N (Revised 3. 1/2010) For Nominated Sub-Contractor Where the Main Contract is Based Upon PWD Form 203 or 203A
- Clause 15.0 Employment of Workmen a.
- Clause 18.0 Default in Payment of Wages b.
- Clause 19.0 Discharge of Workmen c.
- d. Clause 24.0 – Insurance against personal injuries and damage to property
- Clause 25.0 Workmen's compensation e.



SDG 9 - Industry, innovation and infrastructure

Investment in infrastructure and innovation are crucial drivers of economic growth and development. With over half world population now living in cities, mass transport and renewable energy are becoming ever more important, as are the growth of new industries and

information and communication technologies. Technological progress is also key to finding lasting solutions to both economic and environmental challenges, such as providing new jobs and promoting energy efficiency. Promoting sustainable industries, and investing in scientific research and innovation, are all important ways to facilitate sustainable development.

USM is committed to achieve SDG 9 by having Innovation & Commercialisation Centre and Sains@USM. USM is committed to achieve SDG 9 by testing and piloting innovative solutions to improving operations on campus, committing to building sustainable and resilient infrastructure that supports wellbeing and minimises environmental impact and committing to sustainable and reliable Information and communications technology processes and services.

Innovation & Commercialisation Centre @ USM



Spearheading USM's commercialisation drive is the Innovations Office (ICO). The ICO is given the responsibility of assisting USM's researchers to channel their scientific discoveries efficiently to relevant markets.

In line with USM's slogan - Ensuring A Sustainable Tomorrow - the ICO is determined to position USM's research as inventions with practical applications and social relevance and offering solutions for global issues. These objectives are carried out while partnerships are forged with pertinent industries who commercialise new discoveries.

SAINS@USM

This 31-acre campus located in Bukit Jambul, Pulau Pinang is targeted to support and bring together start-up companies, innovators, industries and researchers with projects or products that are close to commercialization. The campus also provides support services and access to various research and technical expertise that USM has available.

The proposed development will comprise mainly of incubator buildings to accommodate research laboratories, studio facilities as well as commercial office spaces.

Our Partners

- Institute of Nano Optoelectronics Research and Technology (INOR)
- Centre for Chemical Biology (CCB)
- 7 Centre for Herbal Standardization (CHEST)
- National Higher Education Research Institute (IPPTN)
- Collaborative Microelectronic Design Excellence Centre (CEDEC)
- Usains Holding Sdn. Bhd.
- Sentinext Therapeutics
- Collaborative Research in Engineering, Science and Technology (CREST)
- 7 Talent Corporation

Facilities & Amenities

sains@usm offers a wide range of meeting spaces and facilities listed below making it an ideal venue to accommodate meetings, coferences, trainings as well as social and corporate events.

- Auditorium Murad Mohd Noor 197 pax
- Auditorium Ishak Pateh Akhir 108 pax
- Auditorium A & B 50 pax
- Seminar Room 1, 2 & 3 30 pax
- Board Meeting Room 30 pax
- Discussion Rooms and VIP Holding Room
- Sports facilities playing field, basketball & futsal courts
- 7 Cafeteria

Industry Collaboration Projects

CREST-NCIA-USM Incubator Centre

A tripartite initiative and collaboration between CREST, NICA and USM to provide incubation for start-ups and medium sized Malaysian companies in the Electrical and Electronics (E&E) sector. Offering support from ideation, proof-of-concepts and commercialization, industry guidance and mentoring in emerging technologies such as Internet of Things (IoT), rapid prototyping and advanced materials.

Internet of Things (IoT) Cloud Data Centre and Research Lab

CREST, USM along with industry partners Intel, IBM, Kontron, Cisco and Dell where it focuses on the design, development and commercialization of IoT related solutions and products. This lab would also allow industry, academia, SMEs and entrepreneurs to collaborate and access IoT related knowledge and know-how through research and development activities.

Industry Talent Development Programs

sains@usm also partners with key agencies such as Talent Corporation, CREST as well as industries to run industry based talent development programs aimed at nurturing industry ready graduates and enculturating STEM education at various secondary schools. These programs are conducted together with key industry players and are listed below:

- Industry Academia Collaboration
- Industry in the Class Room
- Industry Youth Boot camp
- 7 The Great Lab
- Industry Analytical Challenge
- 7 Future Scientist Program

Latest Development

The latest development at sains@usm is the Inkubator Inovasi Universiti or I2U, a 9 storey incubation space and program focusing on the development of life-sciences and biotechnology. It will offer lab space, shared work space and shared lab facilities for academia and industry.

Contact Details:

Director sains@usm Universiti Sains Malaysia Lower Ground Floor, Block C 10, Persiaran Bukit Jambul 11900 Bayan Lepas, Pulau Pinang Tel: 04.653 5700

Tel: 04-653 5700 Fax: 04-653 5705





SHIFT 7: INNOVATION ECOSYSTEM

Makers@USM and the development of Makerpreneurs

- ✓ We cannot talk about innovation economy if we do not make innovation as part of our life.
- Makers is a platform where students/staff are exposed to problem-solving challenges, build communication skills, learn to work with others, understand and innovate based on opportunities and display adaptive thinking when showcasing/pitching their projects especially to members from the industry or Venture capitalists.
- ✓ Concept of innovation that can lead to spin-off companies

Bring the problem to the classroom

www.usm.my





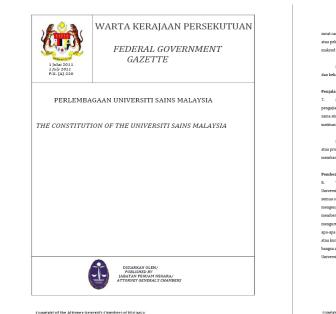
SDG 10 – Reduced Inequalities

Income inequality is on the rise – the richest 10 percent have up to 40 percent of global income whereas the poorest 10 percent earn only between 2 to 7 percent. Income equality requires global solution. This involves improving the regulation and monitoring of financial markets

and institutions, encouraging development assistance and foreign direct investment to regions where the need is greatest.

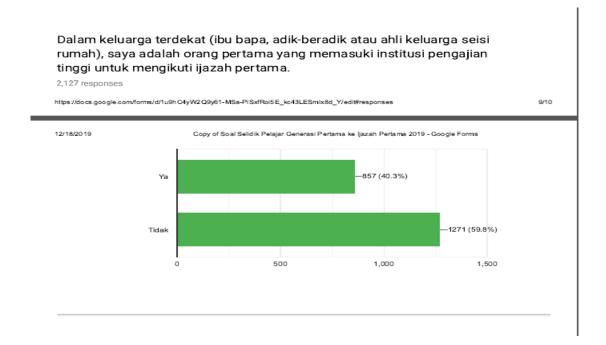
USM is committed to achieve SDG 10 by managing the pay gap between lowest and highest paid staff, committing to the elimination of discrimination across the university by ensuring the diversity of the population has the opportunity to be represented and have a voice in the decision-making process and providing a supportive, inclusive and safe working and learning environment for people from financially and socially disadvantaged, backgrounds, people from rural and regional areas, people with disabilities, women in the workplace, people of diverse genders and sexualities and people from diverse cultural and faith communities.

USM is governed by the Universities and University Colleges Act 1971 - The Constitution of the Universiti Sains Malaysia: Distinction of race and creed prohibited: Subject to Article 153 of the Federal Constitution, membership of the University, whether as an employee, officer or student, shall be open to all persons irrespective of gender, race, religion, nationality or class. The policy last created was on 1st of July 2011 by Federal Governemnet Gazette & The Constitution of the Universiti Sains Malaysia.

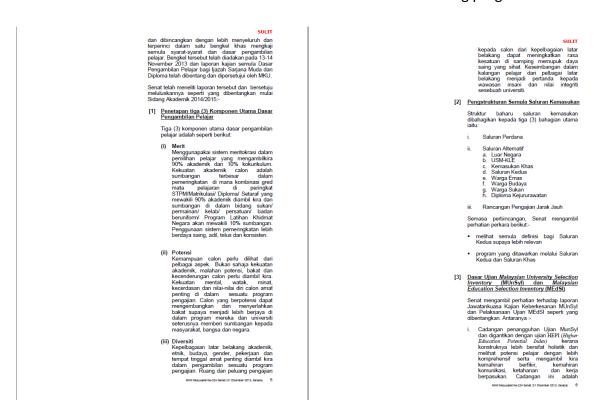




Based on the survey conducted to the new student intake 2018 and 2019, 857 (40.3%) students are first generation students starting a first degree. A total of 2,127 were participated in the survey.



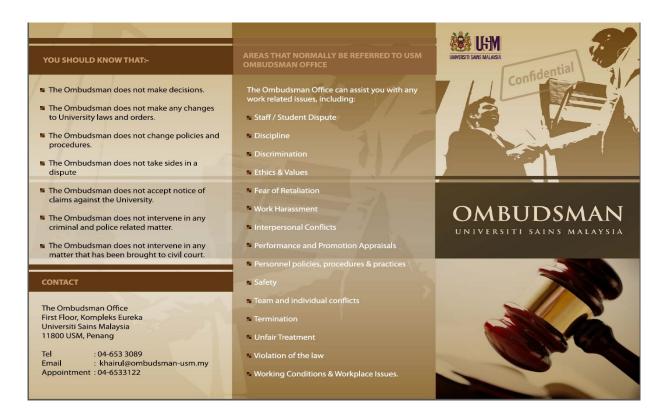
USM has a policy regarding student intake for both undergraduate and postgarduate programmes. This policy includes intakes of special cases / intake including intake for the elderly students, students who excels in sports, and students who excels in cultural activities. USM also caters candidates who are unable to enter the university via mainstream channel or who are unable to enrol as a fulltime students into the distance learning programme.



USM deliver programmes to recruit students/staff/faculty from under-represented group. USM follows the Universities and University Colleges Act 1971 - The Constitution of the Universiti Sains Malaysia: Distinction of race and creed prohibited: Subject to Article 153 of

the Federal Constitution, membership of the University, whether as an employee, officer or student, shall be open to all persons irrespective of gender, race, religion, nationality or class.

USM also has anti-discrimination and anti-harassment policies. USM have established the Ombudsman Office that handles anti-discrimination and Sexual Harrassment Committee (that was set up in 2013) to handle anti harrassment issues / cases.



USM has a diversity and equality committee, office and/or officer (or the equivalent) tasked by the administration or governing body to advise on and implement policies, programmes, and trainings related to diversity, equity, inclusion and human rights on campus. USM has created various body including the Legal Office which addresses policies with regards to integrity; Pusat Transformasi Insan for development and implementation of related trainings to diversity, equity, incusion and human rights on campus.

USM also provide mentoring/counselling/peer support programmes to support all university community through the Counselling Unit of the Students Development and Alumni Section, USM.



https://hepa.usm.my/

https://www.facebook.com/UnitKaunseling.USM/



Support group is a group of people who have gone through similar experiences. A support group will provide opportunities for people to share the experiences and felings, coping strategies. The members will realize that tey are not going through it alone. Each of members will be given opportunities to share and through sharing, members will be receiving an emotional and social supports in order to improve their condition. Beside sharing and supporting, there are some interesting activities that members agree to participate. This support group is open for all. Join us.

Activities





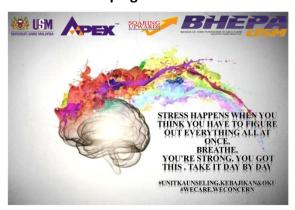








Awareness Campaign





Simptom Stres

- ✓ Sakit kepala berterusan
- ✓ Mudah letih
- ✓ Berdebar
- √ Gelisah dan resah
- √ Sakit dan lenguh-lenguh
- √ Rasa 'panas' dalam badan
- ✓ Susah bernafas
- ✓ Mudah panik
- ✓ Mudah gelabah
- ✓ Susah untuk tidur atau terlalu banyak tidur
- ✓ Tidak lalu makan atau makan terlalu banyak
- ✓ Mudah marah dan naik angin
- √ Mudah tersinggung
- ✓ Rasa semua perkara sebagai beban
- ✓ Tak ceria mudah menangis
- ✓ Mudah lupa
- ✓ Hilang tumpuan
- ✓ Sukar buat keputusan
- ✓ Mudah was-was
- ✓ Merokok berlebihan
- ✓ Beralih kepada dadah atau arak untuk tenangkan fikiran







KEMURUNGAN

Antara punca:

fizikal, masalah sosial, masalah kewangan, pengambilan ubat-ubatan tertentu

- Keinginan/ kecenderungan untuk membunuh diri
- Kesengsaraan yang kronik
- Hilang ingatan

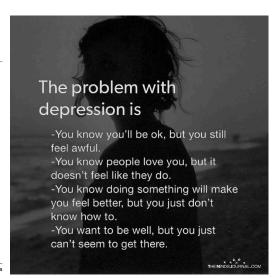
RAWATAN

- Kaunseling & terapi psikologikal
- Pendekatan kerohanian
- Penggunaan ubat khusus anti kemurungan

TANDA & **GEJALA**

- Berasa sedih melebihi 2 minggu
- Mudah tersinggung
- Hilang keyakinan diri
- Sering mengalami perasaan bersalah
- Kerap memikirkan tidak mahu meneruskan lagi kehidupan harian
- Mengalami kesukaran untuk memberi tumpuan terhadap kerja atau perbualan
- Susut berat badan akibat kurang selera makan

Infografik Bernama



USM has provided accessible facilities for people with disabilities. USM has also provided access schemes for people with disabilities. The University follows Federal Government Gazette & The Constitution of the Universiti Sains Malaysia and USM follows the *Garis Panduan Pelaksanaan Dasar Inklusif Orang Kurang Upaya di Institusi Pendidikan Tinggi*.











Wheelchair path in USM

USM SUSTAINABLE DEVELOPMENT GOALS REPORT 2018





Blind pedestrian path

USM welcomes 4,615 new students

USM Vice Chancellor Professor Datuk Dr Asma Ismail said of the 4,615 students accepted, 3,221 students were in the main campus here, 768 students in the engineering campus and 626 students in the health campus. Pix by Ramdzan Massiam

By Shamsul Munir Safini - September 2, 2018 @ 6:09pm

GEORGE TOWN: Some 24 national athletes registered themselves into Universiti Sains Malaysia (USM) for the 2018/2019 academic session here today.

Among them were swimmer Hollymax Bell, 20, who represented the country in the Asian School Games Under 18 and footballer, Muhammad Nukman Deresi, 19.

They were among 4.615 students who were offered places in all three USM campuses for full time undergraduate courses.

RECOMMENDED

S Student Attacks Teacher After He Scolded Him For Riding A Motorcycle Without A License

S KL Housewife Who Made RM18K Playing PUBG Gets Frequently Told ? "Go Back To The Kitchen"

USM welcomes 4,615 new students



USM Vice Chancellor Professor Datuk Dr Asma Ismail said the increase in international student intake was also in line with the university's internationalisation agenda with USM as an agex university. Pix by Ramdzan Masiam

"This year, some 283 international students from 36 countries have been offered places to study here compared to 141 students from 24 countries last year.

"The highest number of students is from China at 83, Yaman (25), Indonesia (23) and Saudi Arabia (19)," she told newsmen here today.

The other international students hailed from Mesir, Maldives, Canada, Brunei, Pakistan, Bangladesh, Bahrain, Thailand, Nigeria, Tanzania, Jepun, Syria, Jordan and the United Arab Emirates (UAE).

Asma said the increase in international student intake was also in line with the university's internationalisation agenda with USM as an apex university.

Asma also said that USM paid attention to its university social responsibility (USR) agenda whereby the university retained the concept of Bottom Billion intake to provide an avenue to the less fortunate to continue their studies in the university.

"A total of 106 candidates fulfiled the academic and socioeconomy criteria to enable them to further their studies.

"In the current academic session USM also provided opportunity to 10 disabled students to realise their dream for a degree," she added.

https://www.nst.com.my/news/nation/2018/09/407446/usm-welcomes-4615-new-students



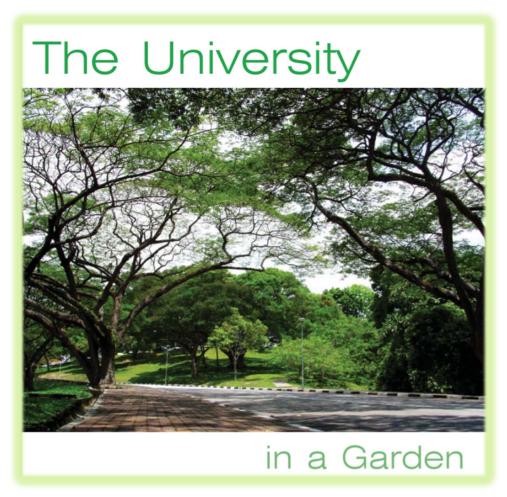
SDG 11 – Sustainable Cities and Communities

Sustainable development cannot be achieved without significantly transforming the way we build and manage our urban spaces. Making cities sustainable means creating career and business opportunities, safe and affordable housing and building resilient societies and economies. It

involves investment in public transport, creating green public spaces, and improving urban planning and management in participatory and inclusive ways.

USM is committed to achieve SDG 11 by having School of Housing, Building and Planning (HBP) and School of The Art. USM is committed to achieve SDG 11 by incorporating sustainability and ethical considerations into purchasing policies, procedures and activities, increasing use of sustainable transport and engaging staff and students in all sustainable campus activities.

University in a Garden



Coffee Book University in a Garden

The University in a Garden conceptualises the vision of a garden campus first expressed by the Universiti Sains Malaysia Vice Chancellor, Professor Dato' Dzulkifli Abdul Razak in 2001. The vision encapsulates the interrelationships between the roles and functions of an

institution of higher learning located within a gardenlike environment. It is not merely an expression of the physical elements of the beauty of nature but also includes a touch of human sensitivity which would enhance the enjoyment of beauty and the creation of a healthy community within and outside the campus. It is hoped that this publication would inspire a deep appreciation of nature and instill awareness through the conservation of assets within the university campus. A team of researchers had worked together to portray the captivating beauty of the campus grounds. The team comprised academics from various backgrounds, thus providing a rich multi-disciplinary perspective to the concept of the garden. The University in a Garden illuminates the essence of various elements in the USM campus captured entirely through a modest digital camera. The product is presented as the Garden of Nature, Garden of Heritage, Garden of Knowledge, Garden and the People, Garden of Vista and The Garden Tomorrow.

https://www.usm.my/images/pdf/theuniversityinagarden.pdf

Schools of Housing, Building and Planning (HBP)

Established in 1972, the School of Housing, Building and Planning (HBP), Universiti Sains Malaysia, is one of the nation's oldest built environment school. For over four decades, HBP is home to seven undergraduate programs: architecture, interior design, building surveying, building technology, construction management, urban and regional planning, and quantity surveying. The academic programs in the HBP have an accreditation process from the professional bodies of each discipline such as Malaysian Institute of Architects, Boards of Architects Malaysia, Royal Institutes of Surveyor Malaysia, Royal Institute of Planners.





Schools of Arts

School of The Arts was a constituent of the School of Humanities (Pusat Pengajian Kemanusiaan). In 1999, the winds of change had taken place, we gained the full-fledged status as an independent entity within the whole set up of Universiti Sains Malaysia. This mandate, on its own accord, posed a challenge in charting our own direction. As the result, to date, we have been conducting our own courses and awarded graduate and post-graduate degrees. We do focus on imparting knowledge, nurturing talent and developing skill about arts, design, media, music and performance with cross-disciplinary approach.





ADIKARMA USM



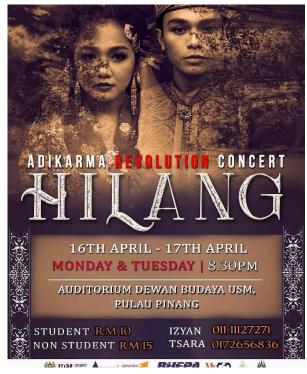
ADIKARMA is the USM cultural group. The arts group is under the Culture & Arts Unit of the Student Affairs & Development Division (BHEPP) of the Universiti Sains Malaysia. The group was re-established after undergoing rebranding on May 15, 2010 and was given new breath in all aspects of the group's movement & principles including key organizations. ADIKARMA is divided into 3 key sectors namely dance, acting and event management as well as several other unit divisions to ensure the group remains active, productive and successful.



On April 30, 2018, the Adikarma under the supervision of Student Development and Alumni Affairs Division of Universiti Sains Malaysia (BHEPA, USM) has sent two groups, Nilakarma and Adikarma to the Festival Akar Kita Zapin 2018 (AKZ). Adikarma took home the consolation prize while Nilakarma won the Silver Award (second place) in the Tingkah Geruh Competition AKZ 2018. The

competition was held at the Dewan Bahasa dan Pustaka, Kuala Lumpur.

https://news.usm.my/index.php/berita-mutakhir/5760-adikarma-dan-nilakarma-usm-cemerlang-di-akz-2018





https://www.facebook.com/adikarmausm/

ADIKARMA DAN NILAKARMA USM CEMERLANG DI AKZ 2018





USM, PULAU PINANG, 30 April 2018 - Kumpulan Kesenian Adikarma di bawah seliaan Bahagian Hal Ehwal Pembangunan Pelajar dan Alumni (BHEPA) Universiti Sains Malaysia (USM) telah menghantar wakil ke Festival Akar Kita Zapin 2018 (AKZ) baru-baru ini.

AKZ merupakan program di bawah kerjasama Persatuan Tatihseni Malaysia, Persatuan Belia Kota Gagasan, dan Noraniza Idris Production Ventures Sdn. Bhd.

Penganjuran AKZ kali keempat ini merupakan usaha pemasyhuran budaya untuk membina landasan keyakinan pertumbuhan

A lot of heritage building were found in USM and USM committed to preserved all the heritage building in USM.

1) Muzium & Galeri Tuanku Fauziah





The establishment of Muzium & Galeri Tuanku Fauziah (MGTF) at the Universiti Sains Malaysia (USM) was initiated by the forward-looking vision of the first Vice-Chancellor of USM, the late Tan Sri Prof. Hamzah Sendut. The plan to establish a museum in USM was initially proposed after the establishment of the School of Humanities and the introduction of the Fine Art Programme in 1971 and 1972 respectively. USM was the first public university in Malaysia to pioneer the offering of fine art at a higher education level. The campus site and area around the Muzium & Galeri Tuanku Fauziah is a rich repository of history and heritage. The USM Museum and Art Gallery was officially opened on 21 January 1982. It was inaugurated as the Muzium & Galeri Tuanku Fauziah (MGTF) on 19 March 2007. Opening hours: Mon-Saturday 9.00 am-5.00 pm with entrance RM2.00 (7 years above), RM 4.00 (non-local). Free admission for USM Student and Staff (With staff Pass & matric card). Free for retirees, senior citizens and OKU.

2) Masjid Al-Malik Khalid





Masjid Al-Malik Khalid is the mosque located on the southwest part of the USM campus facing Jalan Sungai Dua. Masjid Al-Malik Khalid was built in 1981. The opening ceremony was officiated by DYMM Seri Paduka Baginda Yang di-Pertuan Agong Sultan Ahmad Shah on 2 September 1983. The mosque is sited on a 53,614 square feet piece of land. It originally

accommodates 1,500 worshippers, but with the expansion work carried out in 1999, the mosque can now take 3,000 worshippers.

3) Pusat Perumahan Penginapan Universiti

Pusat Perumahan dan Penginapan Universiti (P3U) was formerly known as Unit Perumahan dan Penginapan Universiti (UPPU) which was established on October 1, 1998. The establishment of UPPU is after the merging of several hostels and serves to coordinate matters related to accommodation and housing. UPPU is placed under the management of the Deputy Vice Chancellor of Student Affairs and Development (HEPP). In June 2009, the Student Affairs and Development Division (BHEPP) underwent a transformation and UPPU was placed under the BHEPP Service Sector. UPPU offices are also open at each BHEPP Engineering Campus and Health Campus. In 2015 and 2016, there was another merging of hostels. After being reviewed and discussed, the University has agreed that UPPU is transformed into the Pusat Perumahan Penginapan Universiti (P3U) in accordance with the latest developments and roles.



USM guesthouse



Pada tahun 2018, seramai 16,095 orang pelajar menginap di Desasiswa seperti jadual di bawah:

Statistik Kapasiti Penginapan Pelajar Mengikut Jantina 2018

Kampus	Lelaki	Perempuan	Jumlah 10,645	
Induk	3,375	7,270		
Kejuruteraan	1,672	987	2,659	
Kesihatan	835	1,956	2,791	
Jumlah	5,882	10,213	16,095	

4) Centre for Global Archeological Research, USM



The Centre for Archaeological Research Malaysia, established in 1995, was officially launched by the Honorable Minister of Higher Education Malaysia in 2009 as the Centre for Global Archaeological Research (CGAR) in recognition of its global contribution. CGAR is the only one in the country which offers a minor package in archaeology

at Universiti Sains Malaysia. CGAR is actively training new students from the field of arts and

pure sciences, and staff from other universities, the Department of National Heritage, Museum Departments and other relevant institutions in various aspects of archaeological research and work. CGAR has a multi-disciplinary team of archaeologists who are actively involved in archaeological research throughout the country. CGAR provide archaeotourism services with full packages consist of Laman Arkeologi USM, Sungai Batu Complex and Lenggong Valley.



Archaeology Gallery

Archaeology Gallery exhibits research conducted by PPAG USM starting from Malaysia Prehistory, in terms of distribution of archaeological sites and the cultural sequence in Malaysia until the early civilization at Sungai Batu Archaeology Complex.

Do not miss the chance to join various interesting activities in Archaeology Callery!





Galeri Orang Asli

Galeri Orang Asli exhibits research about ethnography and Orang Asli, conducted by Centre For Global Archaeological research USM. This gallery also showcase collection of handicrafts, jewelleries, weapons and hunting tools of Orang Asli.

Archaeobiology Gallery

Archaeobiology Gallery exhibits collection of prehistoric human skeletons and fauna remains from archaeological research conducted by Centre for Global Archaeological Research USM since 1987 until today. There are two sctions in this gallery which are Antropology and Archaeozoology.



Activities @ Laman Arkeologi USM



Sungai Batu Complex has been recognised as The Earliest Civilization in Southeast Asia. This complex covers approximately 4km square, with total of 97 excavated sites so far. There are four main functions which are ritual site, ancient jetty, administrative buildings and iron smelting sites. Sungai Batu Complex Archaeotourism packages offers guided tour around the site and many activities the will gives you an experience as An Archaeologist for a day.

Monument Site



Jetty Site

Iron Smelting Site





Administrative Site

Activities @ Sungai Batu







Lenggong Valley is located in Hulu Perak, approximately 80 km from Ipoh. Lenggong Valley was declared one of the World Heritage Sites by UNESCO on June 30th, 2012. Research for almost 30 years has found many prehistoric evidences. From palm oil plantations into limestones caves, tourist could explore a world class prehistoric national treasure. USM Archaeological research tours promise an exciting adventure. Tourists will be guided by our expert archaeologist on your tours on archaeological sites.

















Stone tool (hand axe)

Embedded in suevite rock (which was formed as a result of meteorite impact) which dates to 1.83 million years ago.



Cave Drawing
At the wall of Gua Badak in Lenggong, Perak.



The skeleton of Perak Man
Found in Gua Gunung Runtuh, Lenggong, Perak in 1991.



Footed vessel with food remains (shells) Found in Gua Harimau Lenggong, Perak.









http://arkeologi.usm.my/archaeotourism/en/

USM has set targets for more sustainable commuting (walking, cycling or other non-motorized transport, vanpools, carpools, shuttlebus or public transportation, motorcycle, scooter or moped, or electric vehicles). USM initiatives were discussing with rapid Penang and CAT Penang to ensure the busses enter both USM campuses. Penang CAT free feeder bus that give free services to USM staffs and students was launched on 26 July 2018.

RAPID PENANG SERVICE MAKES ITS WAY INTO USM



PENANG, 11 Dec. 2017 - The Universiti Sains Malaysia (USM) Engineering Campus community could now have better access to the public bus services with Rapid Penang launching its Route 804 service that would ply the campus grounds and onwards to Parit Buntar - Nibong Tebal starting today.

The Director of the USM Engineering Campus, Professor Dr Nor Azazi Zakaria said, this effort would provide another form of convenience to the campus community to commute to areas beyond the campus grounds.



// Penang CAT is Available in USM Now

Penang CAT (Congestion Alleviation Transport) is launched today at USM Main Campus! Students of USM can go to your destination by this bus now, the route is shown in the photo. It's FREE!

Operating hours: 5:30am - 11:30pm
Share this good new to your friends!
#USMinfo #BeWithYou #PenangCAT

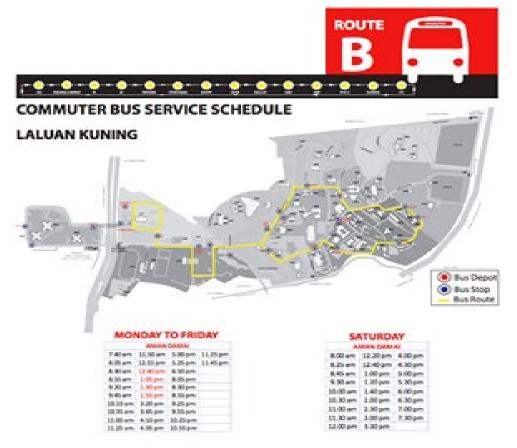




One of route for Penang CAT free feeder bus

Shuttle services (commuter buses operated inside campus)





Commuter bus service schedule and route within the campus

USM promote and allow telecommuting or remote working for employees. USM have 77 locations (3 campuses) for teleconference in order to promote/allow remote working and reduce employee commuting. USM also have 1800 account of Webex (web conferencing for teaching & learning purpose).

Teaching and Learning facilities at IPS USM@KL

a) Computer Lab with Video Conference Facility





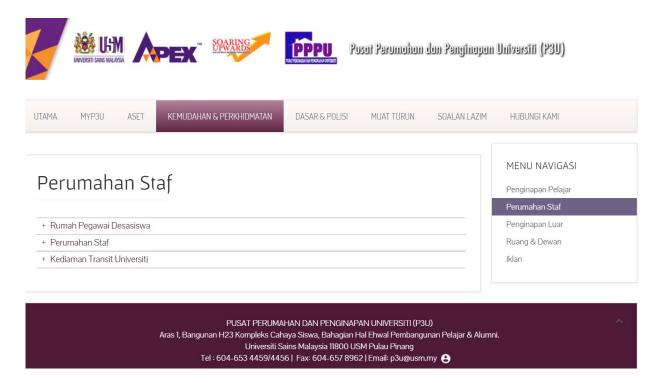
Chancellery Conference Room (CCR) is located on Level 6, Vice-Chancellor's Office, Chancellery Building, USM Penang. The CCR is equipped with an AV system, teleconferencing facilities for maximum capacity of 35 people.

http://pnc.usm.my/index.php/services/facilities/chancellory-conference-room-ccr



https://ppkt.eng.usm.my/index.php/ms/perkhidmatan/telesidang

USM provide affordable houses and rooms to staff and students under University Housing and Accommodation Centre.



https://p3u.usm.my/index.php/kemudahan-perkhidmatan/perumahan-staf

On-Campus Accommodation is equipped with a single room or a twin-sharing room, common bathroom, cafeteria, laundry room, sport facility, study room, pantry and groceries store. Rental for on-campus accommodation is from USD30 - USD75 per month (not inclusive of meals). For more information regarding our hostels, please click on this link: https://www.myusminfo.com/usm-info/facilities/hostels/intro/

Off-Campus Accommodation is the rental of private accommodation within walking distance and available within 3km in radius. Most of the condominium/apartments are equipped with 3 bedrooms, air-conditioned, groceries store, gymnasium, swimming pool, tennis/badminton court and laundry shop. Rental for off-campus accommodation is from USD200 - USD400 per month (not including utility bills).

http://www.admissions.usm.my/index.php/undergraduate-internationalstudent/accommodation



https://www.myusminfo.com/usm_info/facilities/hostels/intro/

USM provide pedestrian access in campus with covered walkway, tree lined walkway and others and flyover to access campus and student hostel. The tree-covered path are equiped with path light for pedestrian and with street lamp. There also have zebra crossing at pedestrian path

















USM build on brownfield sites. USM brownfield developments included:

1. Pusat Sejahtera (Medical & Dental) - previously was Student Hostel, Café & Basket Ball court.





2. Azman Hashim Sport Arena - previously was tennis court.







SDG 12 – Responsible Production and Consumption

Achieving economic growth and sustainable development requires that we urgently reduce ecological footprint by changing the way we produce and consume goods and resources. The efficient management of shared natural resources and the way we dispose of toxic waste and pollutants are important targets to achieve this goal. Encouraging

industries, businesses and consumers to recycle and reduce waste is equally important in achieving SDG 2030.

USM is committed in achieving SDG 12 by reducing all waste (including hazardous waste) and increasing recycling, ensuring safe practice expectations for hazardous waste handling and disposal and engaging staff and students in all sustainable campus activities.

A few programmes have been introduced to reduce the use of paper and plastic in campus included awareness programme, practical/hands on programme, Sustainability Talk, Exhibition and Competition and Sustainability Policy.

AWARENESS PROGRAM

Universiti Sains Malaysia is strictly engaged to reduce paper and plastic program. Campaign over e-mails, posters and social media approved that USM was seriously into it. USM was banned polystyrene since 2008. USM has envisioned "sustainability" as a core development theme of the university in light of global sustainability issues. In becoming a world-renowned university for sustainability, USM facilitates sustainability attainment through i) innovations and technology, and ii) changes in lifestyles. Subsequently, CGSS has launched a project that engages its surrounding communities via the dissemination of USM "sustainability lifestyle practices – focusing on the areas of recycling and composting involving awareness campaigns at stakeholders" venues.



Campaign and Awareness Programmes in 2018



My 30 Days without Straw is an awareness to reduce the plastic straw waste which was started on June 2018 to every University community in Universiti Sains Malaysia.

A meaningful July to be fulfilled! Hereby we would like to launch a small awareness drive to all online (

How to join the challenge? Here are the steps to be followed:

- 1. Fill in your challenge form @ https://goo.gl/forms/BaBUaOARkWXTc77E3
- 2. Drink without using straw
- 3. Selfie or take a photo with the drink
- 4. Post on your wall and use the hashtags #LoveEarth #NoSTRAW30
- 5* Feel free to invite your friends and family to join us!

Let's challenge ourselves to have a straw-free July, and together we spread the awareness to people around us. Invite your friends and family to join this challenge too!

#USMinfo #BeWithYou #LoveEarth #NoSTRAW30 #ItStartsWithUS

PAPER AND PLASTIC WASTE REDUCING HANDS ON/ ACTIVITIES







Plogging (jogging & waste collecting) activities by USM staff to reduce plastic waste in University area starting August 2018 and will be continued every month. Plogging forces you to pay attention to your surroundings and discover new areas to explore because your usual route will already be clean after running it once or twice.

Centre of Marine and Coastal Studies (CEMACS), Universiti Sains Malaysia and Cosmopolitant Homes Sdn Bhd has organized World Clean Up Day on 15 September 2018. Along 4.5 km from Queensbay Mall beach to the Sultan Mu'adzam Shah Bridge has been cleaned and more than 1000 kg of waste have been collected.



USM SUSTAINABLE DEVELOPMENT GOALS REPORT 2018





Universiti Sains Malaysia Library encourage students or communities to reuse and recycling their book using the donation box as the picture. 2018 is the year of zero book/magazine waste for the Library based on their data. About 1309 books & magazines has been repaired for reuse from January 2018 to September 2018, no disposal has been recorded.

SUSTAINABILITY TALK



Sustainable Talk series conducted monthly by Kampus Sejahtera Group in various topic including Zero waste Talk in Universiti Sains Malaysia. This talk also teach students about Earth Day goals where plastic should be avoided. The talked is to share knowledge with Postgrad Student Club to run 3R project in School of Biological science on 21 September 2018. This talk also encourage students to reduce paper and plastic waste around the campus.



Sustainability Talk about waste management to USM community. This talk encouraged staff and student to reduce waste especially paper and to avoid plastic material in university.

WSU101 Programme



Center for Global Sustainability Studies (CGSS) at USM has taken its initiative to promote and integrate sustainability subject across USM curriculum for undergraduates studies. Formal curriculum development by CGSS is the introduction of an elective sustainability course for undergraduates called WSU 101 (Sustainability: Issues, Challenges and Prospects). Our course emphasized the implementation of sustainable development through the study of global case studies and examples drawn from sustainability programme from around the world. Additionally, this course aims to expose students to latest developments in the sustainability studies agenda while nurturing the skills needed toward developing sustainability-oriented programmes.

WSU101 as a course to transfer sustainability knowledge to students. The course also teaches students about benefit to reduce paper and plastic waste. In its vision to become a sustainability-led university of world class standing, Universiti Sains Malaysia (USM) has embraced a whole-system sustainability transition which means that we will mainstream sustainability at all levels integrating social, economic and environmental aspects into our core activities such as teaching, research, community engagement and institutional arrangements. Center for Global Sustainability Studies (CGSS) at USM has taken its initiative to promote and integrate sustainability subject across USM curriculum for undergraduate studies. Formal curriculum development by CGSS is the introduction of an elective sustainability course for undergraduates called WSU 101 (Sustainability: Issues, Challenges and Prospects). Our course emphasized the implementation of sustainable development

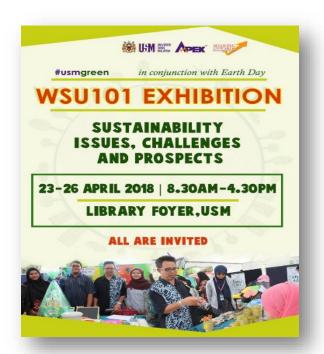
through the study of global case studies and examples drawn from sustainability programme from around the world. Additionally, this course aims to expose students to latest developments in the sustainability studies agenda while nurturing the skills needed toward developing sustainability-oriented programmes.

Sustainable development involves effort to maintain the balance among these three important aspects: competitive economy, balance ecosystem and social integration. Other aspects include CGSS focus on "WEHAB+3"- Water, Energy, Health, Agriculture and Biodiversity as the sectorial priorities; climate change/disaster risk management; production and consumption; population/poverty as a cross-sectorial fields. These are areas where concrete results can and must be obtained. Since WSU 101 is offered in academic session, there has been encouraging response from undergraduates' students in USM. An average of 500 students enrolled every semester indicates that this sustainability subject among USM students is well received. In 2012, the course was introduced and offered in two other USM campuses- The Health Campus (in Kelantan) and Engineering Campus (in Nibong Tebal). The number of enrolments in these two campuses is still growing with an average of 90 students. At the end of the course, students are expected to demonstrate their level of sustainability understanding through group projects, presentations and mini project related to the subject. Students are divided into a group of ten and are encouraged to be attached with any sustainability related Departments, Schools or Centers within USM to do their sustainability projects. Opportunities to work closely with relevant stakeholders in public and private sectors are wide open. Projects such as energy saving, food waste management, recycling and carbon foot prints are among the famous topics.

3R EXHIBITION AND COMPETITION







Student participation in sustainability exhibition WSU101 Exhibition every year including 2018. In WSU101 course, each is required to carry sustainability-related projects within USM exhibition allowed campus. The the WSU101 student to showcase their mini projects to other students as well as spreading awareness about sustainability among USM community.





Students from WSU101 class are encourage by the lecturer to recycle inorganic hostel waste and above pictures are creative recycle materials from WSU101 class exhibition. This course emphasizes



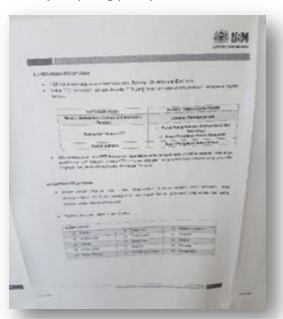
the implementation of sustainable development through the study of global case studies and examples drawn from sustainability programme from around the world. At the end of the course, students are expected to demonstrate their level of sustainability understanding through group projects. Additionally, this course aims to expose students to latest developments in the sustainability studies agenda while nurturing the skills needed toward developing sustainability-oriented programmes.

A competition by Kampus Sejahtera were encouraged students to give their 3R waste and gifts was been given to students who followed 3R procedure correctly. Reducing paper and plastic programmes and activities for students were conducted student's organisations besides WSU101 and 'Kampus Sejahtera' students.

POLICY ON REDUCING PAPER AND PLASTIC WASTE



University recycling policy that need to be follow by USM community in 2018.





Standard operation procedure by University in disposal management. This disposal is strictly to asset that may be have values to University such as books from library, metals or plastic materials such as water tank from plastic materials.

Universiti Sains Malaysia has its own policy and regulation in waste disposal including material for paper and plastic. Any asset above MYR 3000 including paper and plastic materials that

want to dispose need to go through Disposal Committee before it can be disposed and the disposal type can be reused or recycled.

ORGANIC WASTE TREATMENT



Organic Waste Treatment using dry leaves, unwanted twigs and barks from trees around university to use as organic fertilizer (mulching and compost heap) for trees at Main campus and for research purpose at School of Industrial Technology (Universiti Sains Malaysia).





Organic Waste Treatment (from University cafeteria food waste and trees around university) by mixing food waste and dry leaves/twigs to produce organic fertilizer for trees at main campus and for research purpose at School of Industrial Technology (Universiti Sains Malaysia).

USM SUSTAINABLE DEVELOPMENT GOALS REPORT 2018



Another method of Organic Waste Treatment was mixing dry leaves from trees with rabbit feces to produce organic fertilizer. This fertilizer used for trees/ garden around university and for research purpose at School of Industrial Technology (Universiti Sains Malaysia).



Organic Waste Treatment at Engineering Campus using food waste to produce charcoal (Universiti Sains Malaysia). Food waste from university cafeteria were used to produce charcoal using machine as in the picture above.

INORGANIC WASTE TREATMENT









Inorganic Waste Treatment in Universiti Sains Malaysia where any asset such as furniture, computers, electronic devices, library books etc must follow the disposal procedures by University. Pictures above are the procedure that every department need to follow. https://bursary.usm.my/perkhidmatan.php?cat=10&md=main

The procedure to dispose inorganic waste such as furniture, computers, electronic devices, cars, books and etc. is as procedure above. Those assets need to be evaluated before disposed. The disposal can be reused, recycled or disposed using university dispose methodology. Several form need to be fill in and send to bursary such as KEW.PA-16 and KEW.PA-17 (2018 rule and regulation). A committee will decide either the waste need to be disposed and follow several disposal method; reuse, recycle, selling waste, burn, buried or use as gift.



Inorganic waste treatment from office by Center for Global Sustainability Studies of USM (picture taken in April 2018). 80 kg of waste was collected and recycled in Center for Global Sustainable Studies under recycled program.







Inorganic waste treatment from their hostel by students in Kampus Sejahtera Program. About 50kg recycled waste produced in a day program on March 2018. The Feed the Bin program was initiated by the *Kampus Sejahtera* students where they encouraged all students in university to participate and asked them to make waste donation for the their 3R bin and at the same time to educate other students about waste management.

TOXIC WASTE HANDLED





Toxic Waste Handled / Toxic collection in Universiti Sains Malaysia, Malaysia Specific container according to the safety procedure has been used for chemical waste collection and how the hazardous materials and chemical handling is based on USM Safety standard operating procedure 20 February 2002 where the procedure is in line with the Malaysia Environmental Act 1972. There is timetable for hazardous waste collection by the USM Safety Unit. This is important to make sure every school or department followed the USM Safety Unit timetable.



SDG 13: Climate Action

There is no country that is not experiencing the drastic effects of climate change. Greenhouse gas emissions are more than 50 percent higher than in 1990. Global warming is causing long-lasting changes to our climate system. Which threatens irreversible consequences if we do not act. Supporting vulnerable regions will contribute to Goal 13

and other SDGs. These action need to in hand with efforts to integrate disaster risk measures, sustainable natural resource management, and human security into national development strategies.

USM is committed to achieve SDG 13 by having Centre for Global Sustainability Studies (CGSS), Centre for Education and Training in Renewable Energy, Energy Efficiency & Green Technology (CETREE) and Regional Centre of Expertise (RCE). USM is committed to achieve SDG 13 by engaging staff and students in all sustainable campus activities and monitoring and reporting on sustainability performance of university.

Centre for Global Sustainability Studies (CGSS)

The decision to establish a Centre for Global Sustainability Studies (CGSS) is to mainstream sustainability into the entire fabric and rubric of the university. This Centre is designed to work with all other relevant sections of the University, regional and international sustainability organizations, national and regional governments, private sector, civil society groups and NGOs to promote sustainable development, paying particular attention to the disempowered bottom billion. The mission of CGSS is to promote education and research based capacity building for the implementation of sustainable development (SD) with a 'bottom billion' focus. Our teaching involves a first year SD course and a Masters level sustainability practitioner's programme (MDP). CGSS research is geared to reducing the risk of



communities and stakeholder groups towards achieving their SD goals by enhancing resilience through targeted projects and processes. Our projects have a direct impact on low income communities, business and schools. Knowledge based interactions with government and the policy community forms an integral part of our work.

Centre for Education and Training in Renewable Energy, Energy Efficiency & Green Technology (CETREE)



CETREE) began operating on October 2, 2000 and was launched by former Minister of Energy, Communications Multimedia, the late Tan Sri Leo Moggie on July 29, 2002. The proposal for the establishment of CETREE was based on discussions and collaborations and projects between the Malaysian the Danish government and government in the field of

renewable energy that began as early as the 90's. As a result of this cooperation, it was agreed by both governments that a center should be able to provide education and training and research as well as play a leading role in raising the knowledge and awareness of the role of Renewable Energy and Energy Efficiency to professionals, schools, institutions of higher learning and the public in Malaysia.

RCE Penang



RCE Penang is a United Nations recognised Regional Centre of Expertise (RCE) on Education for Sustainable Development (ESD) that works in partnership with key stakeholders to bring about change for sustainability at the community level. RCE Penang is a network of individuals, organisations and groups who are committed to building a more sustainable future through education and learning. Our network includes partners from the

voluntary, public, education and business sectors, who work together to develop and implement innovative ESD projects and programmes in Penang. Hosted by the Universiti Sains Malaysia, RCE Penang is part of a growing global network of over a hundred RCE's. The Global RCE Secretariat is based at the United Nations University Institute for the Advancement of Sustainability (UNU IAS) in Tokyo, Japan. Local knowledge, expertise and best practices are shared globally through this large network and are able to be adapted and applied successfully in other regions.

Renewable energy produced in Universiti Sains Malaysia including:

- a) Solar power
- b) Biodiesel
- c) Biomass
- d) Wind turbine power
 - a) Solar Power



CETREE@USM Green Technology Bus (2.5 Kwh)- Solar Power Main fuel: Diesel



CETREE@USM GREEN TECHNOLOGY LORRY
(1.0 Kwh)- Solar Power
Main fuel: Diesel



SOLAR PARKING LOT (2.0 Kwh)- -Solar Power

Solar Panel Farm



The solar farm installed by the School of Electrical and Electronic Engineering, USM, can generate electricity up to 3kW/hr.

b) Biodiesel



CETREE GREEN TECHNOLOGY LORRY (VEGETABLE OIL BASED GENSET – 8 Kwh)- Biodiesel

Main fuel: Diesel

Optional: Used cooking oil that has been processed as biofuel. The lorry uses 1 Kg cooking oil for every 10-15 KM. If the cooking oil is used repeatedly, the viscosity will increase thus better to be used as fuel.



CETREE@USM GREEN BUS (VEGETABLE OIL BASED GENSET - 8 Kwh)- Biodiesel

Main fuel: Diesel

Optional: Used cooking oil that has been processed as biofuel. The bus uses 1 Kg cooking oil for every 10-15 KM. If the cooking oil is used repeatedly, the viscosity will increase thus better to be used as fuel.

c) Biomass

Mini Biogas Plant



In 2013, Universiti Sains Malaysia (USM) through a joint strategic collaboration with its industry partner, Enerbon Sdn. Bhd., launched a mini biogas plant capable of generating electricity supply of up to 600 kilowatt per day with estimation of a minimum of 400 kg food waste collected daily in USM, it can generate of up to 100 kwh of electricity which is equivalent to the electricity used in 30 homes or 150

individuals per day. It works based on the concept of zero waste in which cut grass and food waste generated from all cafeterias and eateries on campus are sent to the tank for processing. The food waste will be broken down by biological processes to produce methane gas which is capable of generating electricity and biogas which are channeled back into the USM power supply grid.

Biomass Power Plant

This biomass power plant starts its operation in 2017. Located at the School of Mechanical Engineering, USM- The plant will be able to generate 200kWh of electricity generated from solid waste and agriculture and will be channeled to the USM Engineering Campus. The 30,000kWh energy generated through this process will also help USM in terms of saving electrical services amounting to RM8000 a month. This Biomass power plants use three



compressors which in turn will be a reactor to the formation of existing solid waste into gas and capable of energizing Diesel and Petrol energies. This MYR 1.5 million plant is hope to be the centre for research, learning and training of students from Malaysian educational institutions. The plant was an initiative collaboration between USM and Visdamax (M) Sdn. Bhd. (VISDAMAX).

Bioenergy Generator Set



This bioenergy generator set in School of Mechanical Engineering, USM can generate electricity by using biomass waste as fuel. In the range of 5kW- 100kW in various size.

Biomass Cooking Stove



This biomass cooking stove uses food waste, coconut shells, and brunch as fuel. This product is portable and produce no smoke. The stove consumes 1kg of biomass for cooking time of 60 minutes with stove power of 2-3kW

d) Wind Turbine Power



The wind turbine developed by the Electrical School of and Electronic Engineering, USM, can generate electricity up to 2kW/hr. USM only have one wind turbine in its campus. The wind turbine is not widely used in Malaysia due to its low windy climate. It is seasonal so the power only generates when strong winds are available.

e) Generator Set





2 sets of mobile Kubota Vegetable Based Oil generator with capacity 8kVA each. Both generator was running using cooking oil that has been processed as biofuel. If the cooking oil is used repeatedly, the viscosity will increase thus better to be used as fuel.

Summary of Renewal Energy in USM	
Solar Power	9.02 kWh
Wind Power	2 kWh
Bio Diesel	32 kWh
Clean Biomass	30503 kWh
TOTAL	30546.02 kWh

Local education programmes or campaigns on climate change risks, impacts, mitigation, adaptation, impact reduction and early warning









Awareness education programme on climate change (poster)





The Mobile Exhibition Unit is one of the units in the CETREE, USM organization. This unit plays an important role in raising awareness and knowledge on Renewable Energy (TD) and Energy Efficiency (KT). Through this unit, CETREE will be able to directly contribute knowledge and skills of Green Technology professionals, to

schools, tertiary institutions and the general public throughout Malaysia. The unit also acts directly as the ambassador of CETREE and USM in promoting the Green Technology research findings to the community. Through this unit, learning, training and understanding approaches can be applied through "hands-on" exposure using Green Technology related tools and kits and equipment.

In an effort to provide a clearer exposure to the community, the Mobile Exhibition Unit uses Green Technology Mini Vans and Buses, vehicles that apply green technology in everyday life. The vehicle is concept of a mini house and uses 100% of cooking oil used as fuel as well as 100% of electricity generated from solar power.



Image C1 CETREE's Lorry (Side View)

CETREE has two mobile exhibition units. The first unit is the lorry as shown in **Image C1**. The exterior of the lorry is painted in purple as it is one of Universiti Sains Malaysia (USM)'s official colours. The logo of the Ministry of Science, Energy, Technology, Environment and Climate Change, MESTECC (previously known as Ministry of Energy, Green Technology and Water, KETTHA) is featured near the bottom corner of the lorry together with the logo of collaborating ministry which is the Ministry of Education (MOE) and other agencies and institutions such as Tenaga Nasional Berhad (TNB), Sustainable Energy Development Authority Malaysia (SEDA Malaysia), USM and CETREE.



Image C2 CETREE's Lorry (Back View)

During exhibition, the left side of the lorry is opened to reveal extended platform. The display items (including portable learning kits) are set up and will be placed here throughout the exhibition. The door at back of the lorry (refer Image C2) will be opened and a staircase will installed there temporarily. During the day of exhibition, it will serve as the entrance to the exhibition unit for the visitors.



Image C3 Solar Panel of CETREE's Lorry

The lorry is equipped with a set of solar panel mounted on the roof (refer Image C3). While being under the sun; the solar panel will absorb solar energy as a source of renewable energy.



Image C4 Inverter (yellow, rectangular box shown in figure; bottom corner, right) converts the direct current (DC) into alternating current (AC).

The electricity generated by solar panel is in the form of direct current. The direct current will first enter the battery pack of the lorry. From there, the electric current will be directed to the inverter. Inverter installed by the side of the lorry (refer Image C4) will convert the energy into alternating current to run the electrical appliances.



Image C5 Some electrical appliances installed in the lorry for demonstration.

The generated electricity will then provide the power to operate the electrical appliances installed in the lorry (*refer Image C5*).



Image C6 Display items for exhibition [From top-left, clockwise: (i) Pictorial frames of Sectors in Green Technology, (ii) Demonstration units of solar boat, solar car and a cap equipped with mini solar panel and mini fan, (iii) Different windmill prototype models to demonstrate the effect of windmill design towards its efficiency in power generation using wind energy, (iv) Different types of light bulb that demonstrate energy efficiency concept towards saving electricity].

There are several learning kits or components that are shown during demonstration (refer Image C6). Visitors (for examples teachers and students) can refer to the info graphic on the wall for related facts about Green Technology. Usually, secretariats or facilitators that are involved in the exhibition will brief the visitors about the mobile exhibition unit and its components. Visitors are even encouraged to try and carry out several learning kits themselves so that they are able to simple hands-on experience activities while visiting the exhibit.

USM SUSTAINABLE DEVELOPMENT GOALS REPORT 2018



The second unit is the bus as shown in Image C8. The bus is also painted purple in colour. The logo of the Ministry of Science, Energy, Technology, Environment and Climate Change, MESTECC (previously known as Ministry of Energy, Green Technology and Water, KETTHA) is featured near the bottom corner of the lorry together with the logo of collaborating ministry which is the Ministry of Higher Education (MOHE). It also includes logos of other agencies and institutions such as Danish International Development Agency (DANIDA), Tenaga Nasional Berhad (TNB), Sime Darby Plantations, USM and CETREE. The entrance of the bus is located at the side (refer Image C8).



The back door acts as emergency door (refer Image C9). In contrast to the lorry, the bus has no extended platform. All the display items are kept inside the bus. Unlike the lorry, the learning kits inside the bus are not portable. The set of learning kits for each mobile exhibition unit is also different. However, both the lorry and the bus's learning kits are promoting about Energy Efficiency and Green Practices.

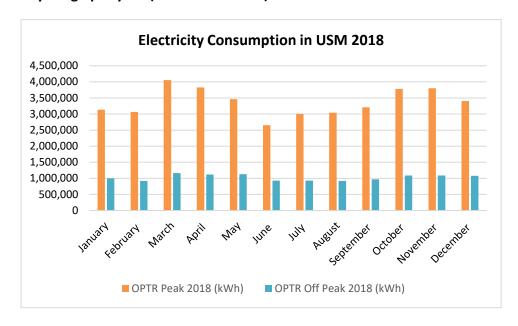


Image C10 Solar Panel of CETREE's Bus

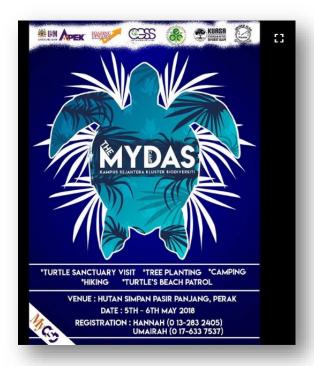
Solar panels or photovoltaic cells (PV cells) are also installed on the roof of the bus for electricity generation using solar energy (*refer Image C10*). It uses the same method and system as the lorry for power generation using PV cells. The PV cells will generate electricity with the help of generator inside the bus. Thus, it will supply power for the use of electrical appliances inside the bus.

The bus has the same generator installed to aid in power supply for the bus. Apart from the PV cells, the generator will act as a backup to charge the battery pack during operation. In case the PV cells are unable to charge the battery due to rainy and cloudy weather, absence of sunlight or unable to supply enough power to the battery; the system will switch to generator to support the operation of the electrical system inside the bus.

Electricity usage per year (in kilo watt hour)



Graph shows Universiti Sains Malaysia monthly electric usage for 2018. The overall electricity consumption 2018 is 40,440,278 kWh for OPTR Peak and 12,344,731 kWh for OPTR off Peak.



USM support local and regional government in local climate change disaster/risk early warning and monitoringKUASA Biodiversity education camp with Kampus Sejahtera USM students for tree planting, beach cleaning and turtle ecological awareness in Segari, Perak with YNH Property Berhad Company and volunteers.

PENANG Hill Corporation (PHC), being environmentally conscious body, organised the "Trash Free Hill" programme on Sept 29, 2018. The event saw the participation of some 550 volunteers joining hands to clear up rubbish at eight different hiking trails Penang Hill where a total of 449.5kg of rubbish were collected. Exco for Environment, Welfare and



Caring Society Phee Boon Poh and PHC general manager Cheok Lay Leng were seen joining the zestful volunteers on the vibrant Saturday morning. The programme was supported by the state government alongside Penang Island City Council (MBPP) and the Centre for Global Sustainability Studies of Universiti Sains Malaysia. It was aimed at creating awareness on the importance of maintaining the cleanliness of the hill as it is the responsibility of everyone to safeguard the environment.



REDAC TERIMA KUNJUNGAN JABATAN PENGAIRAN DAN SALIRAN MALAYSIA

NIBONG TEBAL, February 22, 2018 - The University of Science Malaysia (USM) River and Urban Engineering Research Center (REDAC) receives a visit from the Department of Irrigation and Drainage Malaysia (DID) here today. Deputy Director General of DID for Expert Sector, Ir. Hj. Abdullah bin Monday said the visit was expected to further strengthen and enhance the smart cooperation between USM through REDAC and DID since October 1, 1999. Abdullah also expects more solutions through new expertise and ideas that will be generated through this kind of visitation session that can be studied together in the future.

The Director of the Campus who is also the Director of REDAC, Professor Dr. Nor Azazi Zakaria said he was very pleased to receive the DID visit to REDAC and USM Engineering Campus. In addition to addressing drainage and drainage issues, DID's visit to REDAC this time also discusses the Eco-Friendly Drainage Manual (MSMA) and Bio-Ecological Drainage System (BIOECOD)

http://www.eng.usm.my/index.php/ms/more-articles/459-redac-terima-kunjungan-jabatan-pengairan-dan-saliran-malaysia





KELANTAN, March 25, 2018 - The Universiti Sains Malaysia (USM) College of Health Students (APM) team is planting trees along the Demit River in conjunction with the USM Health Campus High Level 2018 Summer Camp Program. Associate Captain (PA) Hussin Mohd Dris said 100 trees were planted for the first phase in the area in collaboration with the villagers.



USM collaborated with NGOs on climate adaptation.

USM is invited to participate in Penang Disaster Management Workshop



Collaboration with shrimp breeding industry to assess the impact of climate change



USM SHOWCASES SMART HOME TECHNOLOGY TO DESIGN A BETTER LIVING ENVIRONMENT IN THE FUTURE



Universiti Sains Malaysia (USM) and Japan Advanced Institute of Sciences and Technology (JAIST) collaborated recently in organising a two-day Workshop on Dependable Network Operations Management (D-NOM) in Smart Home Technology. This workshop is initiated by the USM School of Computer Sciences and headed by the Dean, Professor Dr. Ahamad Tajudin Khader and managed by Dr. Manmeet Mahinderjit Singh together with her committee members. Others who collaborated include Associate Professor Dr. Asrulnizam from the Collaborative Microelectronic Design Excellence Centre (CEDEC), USM and Professor Yasuo Tan and Associate Professor Yuto Lim, from JAIST Japan.

The workshop successfully highlighted the use of ECHONET-Lite technology from JAIST, Japan in a newly-designed Smart Home lab known as SAHOMASI (Smart Home with Ambient Intelligence using MEMS Sensors) Lab; an Internet of Things (IoT)-based Smart Home platform infrastructure with ECHONET-Lite middleware that interconnects home appliances, devices, people, systems and information resources together to improve the well-being of the elderly and disabled community

MOVING FURTHER WITH FREE PUBLIC TRANSPORT



PENANG, 30 March 2018 – At the end of 2017, Rapid Penang had introduced a public bus service that goes into the Universiti Sains Malaysia (USM) Engineering Campus in Nibong Tebal on mainland Penang. During the launch of the Route 804 bus service then, the Director of the USM Engineering Campus, Professor Dr. Nor Azazi Zakaria had said that this effort would provide greater convenience and mobility to the campus community. They would be able to travel beyond the campus grounds and along the Parit Buntar - Nibong Tebal

locations. USM has always supported initiatives to create a more sustainable future for the nation and society, in line with its APEX agenda of 'Transforming Higher Education for a Sustainable Tomorrow'. The move towards greater use of public transport is also in line with the Sustainable Development Goals (SDGs) set by the United Nations 2030 Agenda for Sustainable Development, now also known as the 17#GlobalGoals.





SDG 14 - Life Below Water

Over three billion people depend on marine and coastal biodiversity for their livelihoods. Oceans absorb about 30 percent of the carbon dioxide produced by human and 26 percent rise in ocean acidification since the beginning of the industrial revolution. Marine pollution majority comes from land-based source with an average of 13,000

pieces of plastic litter to be found on every square kilometre of ocean. The SDG aims to sustainably manage and protect marine and coastal ecosystems from pollution, as well as address the impacts of ocean acidification. Enhancing conservation and the sustainable use of ocean-based resources through international law will also help mitigate some of the challenges facing our oceans.

USM is committed to achieve SDG 14 by having Centre for Marine and Coastal studies (CEMACS) and School of Biology. USM is committed to achieve SDG 14 by engaging staff and students in all sustainable campus activities.

Centre for Marine and Coastal Studies (CEMACS)

The Centre for Marine and Coastal studies (CEMACS) was established in August 1991 to undertake research and postgraduate training in Marine Science and Coastal Ecosystems. It provides the institutional mechanism for mobilising and integrating the University's considerable expertise and resources in marine science. The main objective of CEMACS is to enhance the capability of conducting integrated inter-and multi-disciplinary studies leading towards solving problems related to marine and coastal ecosystems.



CEMACS is located at Teluk Aling the northwest coast of Penang Island in the Penang National Park. The centre is served by a number of core academics working in collaboration with research associates identified from other teaching schools as well as from outside the University. The centre's international associates include those from Canada, Australia, USA, UK, Japan,

Cambodia, Indonesia, India, Iran, Australia, China, Singapore, Vietnam and Denmark. Associates of CEMACS are provided with the direct access to the Centre's considerable research and training facilities. Presently, research and training conducted at the centre is focused on biodiversity and conservation of marine ecosystems, coastal forest ecosystems, marine culture and marine mammal ecology (dugong and dolphin).

Educational programmes on underwater ecosystems



EAD514 RIVER ECOSYSTEM

The course objectives are:

- To introduce students to the concept of rivers as a natural system that is intricately connected (via 3 levels of Connectivity: Longitudinal; Lateral; and Vertical);
- To equip students with strong fundamentals in the physical and hydrological functions of river ecosystems, and ecological processes at the river/watershed scale (focusing on aquatic systems);
- To study human-induced changes to ecological systems at local to global scales that are responsible for changes in the river and examine viable solutions;
- To learn about natural and ecological approaches to improve river/watershed management;
- To learn about river restoration;
- To study specific topics such as linkages between terrestrial and aquatic ecosystems, pervasive human alterations and their consequences;
- To study the types of riverine flora and how they interact with the river system;
- To study about the role of wetlands in water regulation (e.g. flood control), ecotourism, research, etc.; and to mould engineering students into well-rounded individuals capable of thinking outside the "Engineering Box".

EAH 416 River Conservation and Rehabilitation

Student should be able to:

- Write and understand the governing equations for steady flow
- Predict water surface profile
- Understand the required boundary conditions to solve for water surface profile
- Solve numerically for water surface profile by using:
- Spreadsheets
- Programming language: Fortran/matlab (or other languages)
- Commercial software: HEC-RAS (or others)

School of Biology



The School of Biological Sciences had undergone rapid development very since it was established in 1969. The School is able to offer up-to-date courses two undergraduate degrees, Bachelor of Science (Hons.) (Zoology, Microbiology and Botany) and Bachelor of Applied Science (Hons.) (Agrobiology, aquatic biology, environmental biology, entomology and

parasitology and biotechnology).

The School is offering MSc and Ph.D. graduate degrees by research. Post-graduate training will provide students with research skills in the most relevant and current technologies (Please refer to post-graduate research programme of the School as well as staff research profiles for more information). In order to support its research and development activities as well as teaching, the School has well-equipped laboratories which are used to give basic and advanced training in the various biological techniques. Apart from these laboratories, the School is supported by other facilities such as Electron Microscope Unit, Herbarium, Plant House and Fish House.

For research and development activities, the School has collaborations with various international and local universities and research institutes. These collaborations are of primary importance as it can provide new ideas and awareness of emerging technologies for both the academic staff and graduate students. Research areas includes Biomaterials, Fermentation & Enzyme technology, In Vitro Plant Culture Technology, Aquaculture, Wetlands, Antarctica Biology, Wildlife, Soil Science, Plant Pathology, Molecular Ecology & Population Genetics, Vector & Urban Pest Control, Coral Reef and Primates.

There are five main research laboratories, namely, Plant Pathology Laboratory, Phytochemistry Laboratory, Biotechnology and Molecular Biology Laboratory, Microbiology Laboratory, and Fish Biology Laboratory. The G09 building also houses teaching laboratories for Plant Pathology, Microbiology and Biotechnology. Academic staff offices are located within the two buildings.

Educational programme / outreach for local or national communities on sustainable management of fisheries, aquaculture and tourism

Community understanding and management of dugong and seagrass resources in Johor, Malaysia



Educating communities about their natural resources in order for them to use them more sustainably is an important step to conserving much of Earth's key resources. In this case, dugong and seagrass are the focus and they are vulnerable to threats which are mostly anthropogenic. In this project entitled "Community Understanding and Management of Dugong and Seagrass Resources in Johor, Malaysia", we attempted to fulfill the project objective "to

assist local communities in understanding the ecological and economic importance of conserving dugong and seagrass resources and improve local capacity to manage these resources more effectively bearing in mind social, cultural, and economic needs".

The most important topic that this project addressed included:

- 1) Involving communities in conservation projects'. It is not actively done in the study area and communities previously were involved in education program at a participatory level only. Communities play significant roles in maintaining these resources as human activities can be detrimental to the survival of dugongs.
- 2) education of dugong and seagrass Although the communities knew about the dugongs and seagrasses they are not aware of the basic ecology, habits, threats and what they could do to help them. Some knew about the economic benefits of seagrasses but not all.
- 3) Management initiatives for local communities to lead- Introducing management initiatives which communities could make decisions about how they would manage dugong and seagrass. This is important as they are empowered with knowledge and would be in a position to pass on this knowledge to future generations.

Enhance the Capacity for Species Identification and Genetic Analysis on Marine Organisms in the Coral Reef Ecosystems in Western Pacific



The marine fisheries sector plays an important role in the Malaysian economy, contributing to the national Gross Domestic Product (GDP), employment, foreign exports and is the main source of protein for most Malaysians. Malaysia and other neighbouring countries that is located within the "coral triangle" are home to an estimated of more than 1,000 species of marine fishes (Allen, 2008). Approximately 200 - 300 species of marine fishes are landed in the major Malaysian landing sites, with an average of 50 - 100 species being displayed for sale daily in fish markets (DoF, 2014). Additional species may appear seasonally, with certain species dominating market landings during the monsoons, while other permanent resident species of estuaries, bays and reef areas are landed throughout the year (DoF, 2014). Due to the plasticity of the morphological characteristics in marine fishes, corals and molluscs, precise identification can be problematical. Furthermore, many species of these are sold under local vernacular names making the real estimation of exploitation rates impossible and therefore complicating fisheries management and regulatory control. To facilitate the management of fisheries and conservation, the DNA barcoding approach is an important tool to identify commercial marine ichthyofaunal of Malaysia. Therefore, implementation of DNA barcoding would be a robust, standardized approach to facilitate identification and therefore the management and conservation of the Malaysian fisheries sector. This project is aimed at molecularly characterising Malaysian commercial marine species through the DNA barcode which would assist not only in the management of the fisheries sectors but also permits seafood forensics for assessing seafood frauds and substitutions in the Malaysian market.



SDG 15 - Life on Land

Human life depends on the earth as much as the ocean for our sustenance and livelihoods. Every year, 13 million hectares of forest are lost, while the persistent degradation of drylands has led to the desertification of 3.6 million hectares. Urgent action need to be taken to reduce the loss of natural habitats and biodiversity which are part of

our common heritage and support global food and water security, climate change mitigation and adaptation. And peace and security.

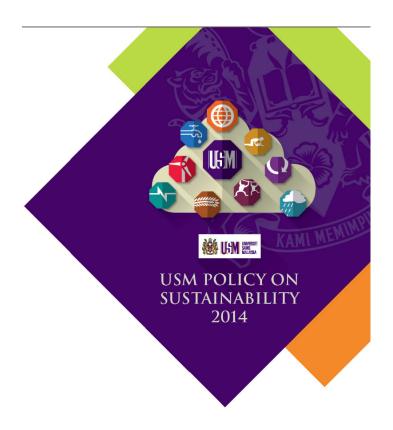
USM is committed to achieve SDG 15 by School of Biology. USM is committed to achieve SDG 15 by engaging staff and students in all sustainable campus activities.

USM support the events for the conservation and sustainable utilisation of the land. This can be proved by USM Sustainability Path document was openly shared to the public reader and this can be access at: https://cgss.usm.my/images/pdf-file/sustainability-path-kamarul.pdf



USM Policy on Sustainability document (Page 6) also mentioned clearly that the university will protect forest and land as well as all the endanger species. The policies also try to reduce the vulnerability of environmentally sensitive areas.

https://cgss.usm.my/images/pdf-file/usm-policy-on-sustainability.pdf



HUGELCULTURE





USM has a research centre called the **Ecoprocess** Research Technology Group (ECOPRO@USM). They have started the Kompos to Kelulut (K2K) project in 2014 through Knowledge Transfer Programme, research grant awarded by the Ministry of Higher Education for University engagement with Industry and Local Community. The K2K project was led by

Professor Dr. Mahamad Hakimi Bin Ibrahim from Ecoprocess Research Technology Group (ECOPRO@USM), the School of Industrial Technology. The project is a continuation of an existing research on Composting and Vermicomposting which started in 2010. The K2K project grew into Rooftop Wild Garden as ECOPRO searches for a space to grow plants using compost produced during the composting and vermicomposting research. ECOPRO identified the Rooftop as a suitable space to start a wild garden based on the concept of zero waste, zero space and zero time. This centre is actively conducting their research and constantly update in their official Facebook. Project in USM was done by recycling all the wastes using composting techniques and led to the growth of plants. The planted plants then attracted the stingless bee (using the patented beehive by USM), thus increased the honey production in USM. The project begun from 2014 until now.

Langur Project Penang



Langur Project Penang is an innovative citizen science project led by Jo Leen Yap, a promising young primatologist from Penang. The project is helping to educate the public to understand the challenges facing Penang's captivating dusky langurs. Langur Project Penang has been studying the ecology and behaviour of dusky langurs in Penang since 2016. Dusky langurs spend most of their time feeding and sheltering on tall trees, but they need to cross the road from the forest to the coast to forage

for plants that are important to their diet. In order to help langurs adapt to living in humanimpacted landscapes, LPP is spearheading a project to install canopy bridges in strategic locations to enable arboreal wildlife to cross safely. This pilot project will provide valuable information to advocate for sustainable road development not just in Penang but elsewhere in Malaysia. The education and awareness campaign supported by The Habitat Foundation is a way to help the public understand the challenges faced by wildlife in urban settings and promote empathy and support for these species.

Night Spotting Project – Priscillia Miard

Night Spotting Project is a research and conservation outreach initiative led by Priscillia Miard who has been studying nocturnal mammals for the past six years, a journey that has taken her from her native France, to the jungles of Brunei and Sabah. She is now based in Penang and has been documenting the distribution of nocturnal species in the forests of Penang and other locations in the Peninsula and on the island of Langkawi. Priscillia's research is making an



important contribution by providing important data on the distribution and density of populations of nocturnal mammals including species that are considered to be vulnerable and endangered such as the Sunda slow loris (Nycticebus coucang) and the Sunda pangolin (Manis javanica). Many nocturnal species play important ecological roles as seed dispersers and assisting in pollination. This work will enhance our understanding of the challenges facing these species and help guide effective strategies to ensure their conservation and their continued role in maintaining healthy forest habitats.

It is now clear that the development models of the past have so stretched the tolerance margins of nature that they are seen to be depleting scarce resources and degrading the global environment. With the full realisation that environmental problems are closely linked to economic and socio-cultural problems, a great change is required in the stewardship of



the earth and the life on it to move away from paradigms that rely exclusively on concepts of continuous economic growth, corporate profit, and consumer avarice. We have to redirect our intellectual enterprise to develop capacity to understand, anticipate and act on the basis of global challenges. Convinced that building capacity for making decisions that consider the long-term future of economy, ecology, and equity is a key task of education Universiti Sains Malaysia (USM) has embraced the vision of becoming a sustainability-led university of world-class standing as part of its APEX initiative. While the APEX award is a fitting recognition for the university's wide—ranging and remarkable accomplishments of the past, it is also a call to excel in addressing the sustainability challenges of the future.



In order to achieve the broad APEX vision, USM has embarked on a range of missions which through their specific objectives and activities are expected to contribute to the achievement of the overall sustainability vision. One such mission of great

significance is the decision to establish a Centre for Global Sustainability Studies (the Centre, CGSS) to mainstream sustainability into the entire fabric and rubric of the university. This Centre is designed to work with all other relevant sections of the University, regional and international sustainability organizations, national and regional governments, private sector, civil society groups and NGOs to promote sustainable development, paying particular attention to the disempowered bottom billion. CGSS team possesses the expertise in teaching, research and other aspects related to sustainable development practice focusing on WEHAB+3 elements. The team is often called upon to provide individuals, departments or institutions with consultations aimed at developing, evaluating or improving the client's departments or institutions towards sustainability.



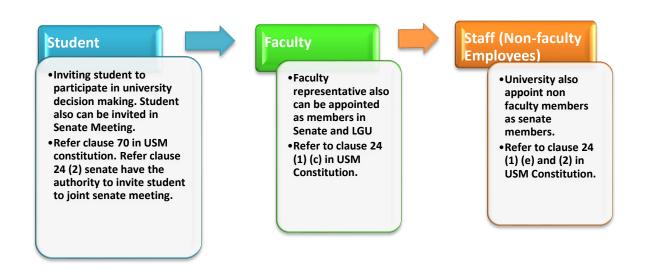
SDG 16: Peace, Justice and Strong Institutions

We cannot hope for sustainable development without peace, stability, human rights and effective governance based on the rule of law. Yet our world is increasingly divided. Some regions enjoy peace, security and prosperity, while others fall into seemingly endless cycles of conflict and violence. The SDGs aim to significantly reduce all forms of violence, and

work with governments and communities to end conflict and insecurity. Promoting the rule of law and human rights are key to this process, as is reducing the flow of illicit arms and strengthening the participation of developing countries in the institutions of global governance.

USM is committed to achieve SDG 16 by developing policies, procedures and plans to ensure the campus is safe for all staff, students and visitors; ensuring that procurement policies and procedures clearly indicate an intolerance to working with any companies known or found to be involved in exploitation of people; ensuring that the policies and culture of the institution clearly indicate that bribery, corruption, violence, crime and acts of terrorism is unacceptable; ensuring that all staff and students have access to justice and information about their rights and involving staff, students and key stakeholders in university governance decisions.

Universiti Sains Malaysia have elected representation on the university's highest governing body



https://eperundangan.usm.my/



Student Unions

- Universiti Sains Malaysia University absolutely recognise student unions.
- Refer to clause 71 (1) in USM Constitution.



Policies and Procedure to Identify Local Stakehlders

- University have written policy and procedure related to local stakeholders and always involved with them and university activities.
- •https://icn.usm.my/index.php/community-engagement/policy-sop



Participatory bodies to recognize and engage Local Stakeholders

University through industry community networking division (ICN),
 USM foundation and ZAWAIN have an existence of participatory
 bodies to recognise and engage local stakeholders including local
 residents, local government, local private, local civil society
 representative.

Participatory bodies to recognize and engage Local Stakeholders

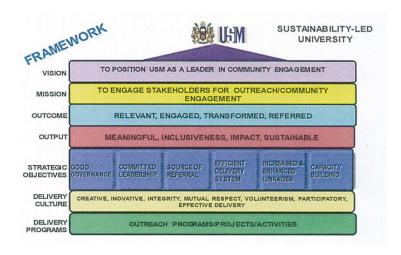
Industry and Community Network



The University-Industry Engagement concept at USM involves a strategic scholarly partnership between USM and industry. By this strategy, partners commit to contribute and collaborate with one another in the fields of research, professional development and such other scholarly activities as are relevant and mutually beneficial to the university and industry. The partnership implements ground-breaking projects and programs which apply research ideas and concepts to meet the social, economic, knowledge and skill needs of communities. The expected outcome from this partnership will be

reflected in the refinement and enhancement of the sustainability of both industry and the university, and their contributions to national development and enrichment.

"To be the Leader in Industry Engagement"



Yayasan USM

Yayasan USM was established under the Trustee Act (Incorporation) 1952 (Act 258) on 31 March 2014 as a corporate body to support and work in line with the mission of Universiti Sains Malaysia.

http://yayasan.usm.my/index.php

Pejabat Zakat Waqaf dan Infaq (ZAWAIN)

Universiti Sains Malaysia (USM) through its 93rd University Management Committee (JKPU) meeting dated March 8, 2017, has agreed to establish Waqaf Office at Universiti Sains Malaysia. The main purpose of establishing the waqaf office at that time was to strengthen the role of the waqaf institution in USM, in line with the decision of the Public University of Higher Education Waqaf on June 9, 2016, which had joint resolution for each public university to establish Zakat, Wakaf and Infaq Council (MAZWIN) as the highest body to formulate

policies and regulations on matters of zakat, waqaf and infaq management at their respective universities. On March 21, 2018, the JKPU Meeting of 129 Bn.9 / 2018 approved the change of name of Waqaf Office to USM Zakat, Waqaf and Infaq Offices as a one stop center for managing Islamic funds including zakat, waqaf, infaq and others. Now the Zakat, Waqaf & Infaq Office or the abbreviation ZAWAIN (ذَوَيْن) means the 'owner' responsible



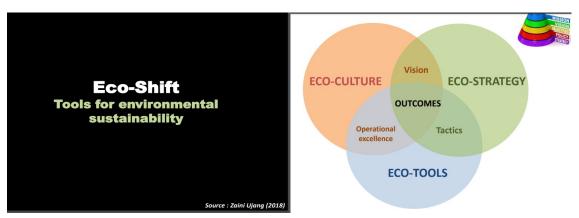
for coordinating all matters related to zakat, waqaf and infaq systematically and professionally. In line with the national waqaf agenda, USM's ZAWAIN Office appears to be a backbone for the University's vision and mission through the waqaf, zakat and / or science fund and research that is expected to make a significant impact on the development of knowledge and research in this famous Tower of Science. The USM Waqaf Office is committed to implementing a strategic plan and a sustainable direction towards realizing its ambitions and goals in its role as the only Center of Responsibility (PTJ) entrusted to manage the affairs of waqaf, charity and infaq in USM.

http://zawain.usm.my/index.php/tentang-kami/maklumat-korporat/sejarah-penubuhan

Universiti Sains Malaysia provides outreach, general education, upskilling and capacity-building to policy- and law-makers on relevant topics e.g. economics, law, technology, climate change

USM active in provide outreach, general education upscaling and capacity building to policyand law makers on relevant topic e.g. economic, law, technology, and climate change.

(a) General Education on Green Technology



http://cetree.usm.my/index.php/en/muat-turun/modulsekmen/modul-teknologi-hijau/410-persekitaran-kelestarian

(b) Policy and Law Makers

Universiti Sains Malaysia (USM) has recognized sustainability integration as the main pathway for its transformation. This research prioritizes on the level of sustainable development (SD) and education for sustainable development (ESD) that are thematically bound but different. Centre for Global Sustainable Studies (CGSS) has been developing 'Sustainability Assessment Methodology' (SAM). It is used as sustainable index to assess the sustainability content of existing academic, research activities and community engagement in USM. This audit involved 43 PTJs consisting of 26 schools and 17 Centers of Excellence. The result showed 83% of academic, research activities and community engagement in USM is sustain. This index will envisage as reference for local Higher Education Institute (HEIs) in Malaysia. A comprehensive system should be developed to inculcate fast and accurate result for the entire HEIs.

http://cgss.usm.my/index.php/en/research/sustainability-assessment

(c) Capacity Building



http://www.rce-penang.usm.my/index.php/projects-initiatives/teachers-capacity-building/57-sustainability-issues-challenges-and-prospects

USM has expertise in criminology and forensic science - Bachelor Forensic Science Program (571 students), Master in Criminology (1 student) (research and mix mode courses) and 6 PhD students (Criminology). USM was the first university in offering this programme since 2000. The programme introduces students to the knowledge and technologies in various forensic science discipline via different courses. Students from this programme also carried out their training and practicum through the support from the Royal Malaysia Police, Department of Chemistry Malaysia and the Fire and Rescue Department. This programme was offered to both local and international students. Bachelor of Science (Forensic Science).



Master of Science (Forensic Science) was offered in two different modes, namely mixed mode (since 2015) and research mode (since 2000). To date, 51 students were successfully graduated from mixed programme and 34 were graduated from research mode programme. USM is equipped with lecturers from different background and expertise, including criminology, forensic drug analysis, forensic anthropology, forensic document examination, forensic fire investigation, DNA profiling, forensic toxicology, and physical evidence. Both programmes are offered to local and international candidates, and one international student was successfully graduated with another 2 active candidates to date.



SDG 17 - Partnership for the Goals

The SDG can only be realized with strong global partnerships and cooperation. The world is more interconnected than ever. Improving access to technology and knowledge is an important way to share ideas and foster innovation. The goals aim to enhance North-South and

South-South cooperation by supporting national plans to achieve all the targets.

USM is committed to achieve SDG 17 by establishing Global Network. USM is committed to achieve SDG 17 by building strategies and culture that openly supports developing, maintaining and enhancing partnerships both internally and externally.

USM Global Network will house global network secretariats that facilitate, coordinate and provide services to the members of their network. USM currently has FOUR global network secretariats which are:

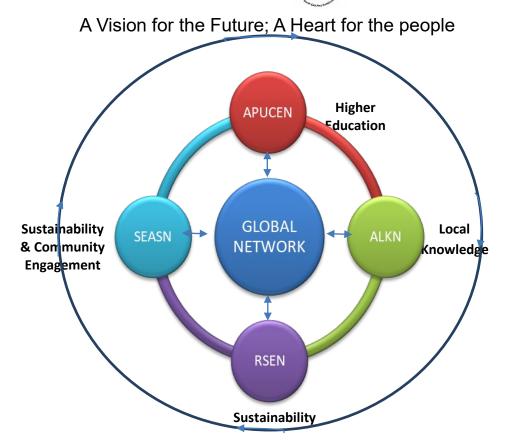
- 1. Asia-Pacific University-Community Engagement Network (APUCEN)
- 2. ASEAN Local Knowledge Network (ALKN)



3. Regional Sejahtera Education for Sustainable Development Network (RSEN)



4. South East Asian Sustainability Network (SEASN)



Asia-Pacific University-Community Engagement Network (APUCEN)



Background

Asia-Pacific University - Community Engagement Network (APUCEN) is a regional network of academic institutions of higher learning concerned with promoting the culture of university-community engagement in a proactive, inclusive, holistic and participatory way APUCEN is motivated by the belief that institution of higher learning and the community can unite to co-create knowledge to enhance the social, economic and environment of



the community in the region of Asia-Pacific. Community engagement, from the viewpoint of APUCEN goes beyond outreach and extension or service. Instead, APUCEN is committed to idea that universities should seek mutually beneficial relationships and partnerships with communities to address communities' issues and needs; with a commitment to sharing and reciprocity that is guided by mutual respect among the partners.

Objectives

The objectives of the regional network are as follows: -

- ➤ To promote and instill the community-engagement concept and values to staff and students of institutions of higher learning.
- To create capacity building for university-community partnerships.
- > To disseminate and share information, knowledge, resources and good practices.
- To provide a platform for joint flagship projects.





Source: https://apucen.usm.my/index.php/en/

			Member
No.	University	Country	Since
1	Royal University of Law and Economics	Cambodia	2010
2	University of Brawijaya	Indonesia	2010
3	Thammasat University	Thailand	2010
4	Suratthani Rajabhat University	Thailand	2010
5	Walailak University	Thailand	2010
6	Mae Fah Luang University	Thailand	2010
7	Chiang Mai University	Thailand	2010
8	Mahidol University	Thailand	2010
9	Universiti Putra Malaysia	Malaysia	2010
10	Universiti Malaysia Pahang	Malaysia	2010
11	Universiti Sultan Zainal Abidin	Malaysia	2010
12	Universiti Malaysia Kelantan	Malaysia	2010
13	Universiti Pendidikan Sultan Idris	Malaysia	2010
14	Universiti Malaysia Terengganu	Malaysia	2010
15	Universiti Teknologi Malaysia	Malaysia	2010
16	Universiti Malaysia Perlis	Malaysia	2010
17	Universiti Utara Malaysia	Malaysia	2010
18	Universiti Sains Islam Malaysia	Malaysia	2010
19	Universiti Tun Hussein Onn Malaysia	Malaysia	2010
20	Universiti Malaysia Sabah	Malaysia	2010
21	Universiti Malaysia Sarawak	Malaysia	2010
22	Universiti Teknologi MARA	Malaysia	2010
23	Universiti Teknikal Malaysia Melaka	Malaysia	2010
24	Universiti Tenaga Nasional	Malaysia	2010
25	Universiti Sains Malaysia	Malaysia	2010
26	Australian College of Applied Psychology	Australia	2011
27	The University of Queensland	Australia	2011
28	Hong Kong Institute of Education	Hong Kong	2011
29	The Hong Kong University of Science and	Hong Kong	2011
	Technology		
30	Universitas Pendidikan Indonesia	Indonesia	2011
31	State University of Malang	Indonesia	2011
32	Lambung Mangkurat University	Indonesia	2011
33	Universitas Negeri Medan	Indonesia	2011
34	Universitas Negeri Surabaya	Indonesia	2011
35	Universitas Islam Negeri Sultan Syarif Kasim Riau	Indonesia	2011
36	Universitas Islam Negeri Riau	Indonesia	2011
37	Ateneo De manila University	Philippines	2011
38	San Pedro College	Philippines	2011
39	Abdus Salam School of Mathematical Sciences Lahore	Pakistan	2011
40	University of The Punjab	Pakistan	2011

41	National University of Sciences & Technology	Pakistan	2011
42	St. Ann's College of Education (Autonomous)	India	2011
	Mangalore South India		
43	Salesian College Sonada/Siliguri, Bengal India	India	2011
44	The University of the South Pacific	Fiji	2011
45	Universiti Pertahanan Nasional Malaysia	Malaysia	2011
46	Deakin University	Australia	2012
47	University of Southern Queensland	Australia	2012
48	Universiti Perguruan Ugama Seri Begawan	Brunei	2012
49	Universitas Andalas	Indonesia	2012
50	Kyoto University of Foreign Studies	Japan	2012
51	Universiti Islam Antarabangsa Malaysia	Malaysia	2012
52	Griffith University	Australia	2013
53	University of Battambang	Cambodia	2013
54	Ming Dao University	Taiwan	2013
55	Chulalongkorn University	Thailand	2013
56	Universiti Tunku Abdul Rahman	Malaysia	2013
57	The University of Nottingham, Malaysia Campus	Malaysia	2013
58	AIMST University	Malaysia	2013
59	Asia e-University	Malaysia	2013
60	Universitas Trilogi	Indonesia	2013
61	Toyohashi University of Technology	Japan	2014
62	Kadambari Memorial College of Science and	Nepal	2014
	Management	1.00	
63	KDU college Penang Campus	Malaysia	2014
64	I-Shou University	Taiwan	2014
65	J. F. Oberlin University	Japan	2014
66	Daffodil International University	Bangladesh	2014
67	University of Surabaya	Indonesia	2015
68	Universiti Islam Sultan Sharif Ali	Brunei	2015
69	Universiti Malaya	Malaysia	2015
70	Universitas Malikussaleh	Indonesia	2015
71	Bangladesh Agricultural University	Bangladesh	2015
72	Naresuan University	Thailand	2015
73	Prince of Songkhla University	Thailand	2016
74	International Medical University	Malaysia	2016
75	Taylor's University-Lakeside Campus	Malaysia	2016
76	Rhodes University	South Africa	2016
77	Universitas Islam Negeri Alauddin Makassar	Indonesia	2016
	ATE MEMBERS		
1	Living Knowledge - International Science Shop	Germany	2012
-	Network		-
2	DVV-International	Laos	2014
3	Global Knowledge Initiative	United	2014
	Clobal Michigan miliative	State of	201.
		America	
ASSOC	CIATE MEMBERS	7	
1	Rajanagarindra Institute of Child Development	Thailand	2012
2	Yayasan Sukarelawan Siswa	Malaysia	2013
3	Engage	Nepal	2014
4	MMICare Association	Malaysia	2015
5	Saar Nepal	Nepal	2016
	DRATE MEMBERS	, tepai	
1	Toray Industries (Malaysia) Sdn. Bhd.	Malaysia	2015
2	MyWAVE Sdn. Bhd.	Malaysia	
	IVIY VVAVE JUII. DIIU.	iviaidySid	

ASEAN Local Knowledge Network (ALKN)

Background

Arising from the enthusiastic response of local and regional academics to the Local Knowledge group's research activities since 2010, an Asian Local Knowledge Network (ALKN) is being developed under the auspices of the Local Knowledge secretariat. The ALKN is a network of local and regional institutions, organisations and individuals that aims to share and apply relevant local





knowledge, values, ethics and cultural practices into the contemporary lifestyle with the ultimate goal of sustaining the positive, impactful and inclusive past practices for future generations. The main function of the ALKN will therefore be to co-ordinate and organise community activities, collaboration and networking premised upon Local Knowledge under one roof among its members hailing from the Asian region. To date, ALKN has established preliminary links with Indonesian and Vietnamese universities. Plans for expansion are underway, to include other countries in the Asian region including Thailand, the Philippines, Japan, South Korea, India, Indo-China and so on. Networking and co-operation will hopefully later also extend to the Asia-Pacific region and beyond in due time.

Objectives

- Establish networks with local and regional institutions, organisations and individuals involved in local knowledge practices
- Co-ordinate collaboration between partners in conducting local and regional activities related to local knowledge
- Promote local knowledge



Source: https://iclk.usm.my/index.php

Regional Sejahtera Education for Sustainable Development Network (RSEN)



Background

The Regional Sejahtera Education Sustainable Development Network (RSEN) is a dynamic network of local and regional stakeholders in Penang engaged collaborative undertakings such as research and development in key thematic areas of ESD. RSEN was launched in May 2014 and currently counts with more than (educational institutions, local government non-governmental agencies and



organisations). RSEN has a Council of Members that meet at least once a year to discuss strategic priorities and activities.

Objectives

- Share information and best practices via education for ESD;
- Exchange ideas and activities in ESD;
- Joint collaborations in activities and programmes on ESD;
- Promote sustainable development training opportunities for educators;
- Coordinate and compile Sejahtera of current ESD practices across the region in order to share and generate regional ESD good practices

To achieve these objectives, RSEN need support from RSEN's members. Currently, three members UNESCO IHP, UNESCO HTC and Japan Malaysia Association (JMA) provide some financial commitment to support the planned activities. All activities will be in the schools and selected communities.





Source: http://www.rce-penang.usm.my/index.php

No	Organisation	State	Country
INO	Organisation Association of Science and Mathematics Education Penang	State	Country
1	(ASMEP)	Penang	Malaysia
2	Eco- HUB	Penang	Malaysia
3	HTC Kuala Lumpur, Jabatan Pengairan dan Saliran, Malaysia	Kuala Lumpu	Malaysia
4	Jabatan Alam Sekitar Negeri Pulau Pinang	Penang	Malaysia
5	Jabatan Bekalan Air	Penang	Malaysia
6	Jabatan Pembangunan USM	Penang	Malaysia
7	Jabatan Pendidikan Negeri Pulau Pinang	Penang	Malaysia
8	Jabatan Taman Botani Pulau Pinang	Penang	Malaysia
9	Japan-Malaysia Association	Tokyo	Japan
10	Kampus Sejahtera	Penang	Malaysia
11	Kolej Komuniti Bayan Baru	Penang	Malaysia
12	Persatuan Sains & Matematik Negeri Johor	Johor	Malaysia
13	Majlis Perbandaran Pulau Pinang	Penang	Malaysia
14	Majlis Perbandaran Seberang Perai	Penang	Malaysia
15	Maktab Rendah Sains Mara Balik Pulau	Penang	Malaysia
16	Muzium dan Galeri Tuanku Fauziah USM	Penang	Malaysia
17	Persatuan Pengguna Pulau Pinang	Penang	Malaysia
18 19	Pusat Islam USM Pusat Kajian Kalastarian Global (CGSS)	Penang	Malaysia Malaysia
19	Pusat Kajian Kelestarian Global (CGSS)	Penang	iviaraysia
20	Pusat Pembangunan dan Kecemerlangan Akademik & Penasihatan & Pembangunan Pelajar (CDAE)	Penang	Malaysia
21	IKRAM-MUSLEH	Kuala Lumpu	Malaysia
	MANAGETT	radia Lumpu	ividiaysia
	Pusat Pendidikan, Latihan dan Penyelidikan Tenaga		
22	Diperbaharui, Kecekapan Tenaga dan Teknologi Hijau (CETREE)	Penang	Malaysia
23	Pusat Pengajian Kejuruteraan Awam	Penang	Malaysia
24	Pusat Penyelidikan Arkeologi Global	Penang	Malaysia
25	Pusat Sejahtera USM	Penang	Malaysia
26	SEAMEO Recsam	Penang	Malaysia
27	SK Convent Green Lane	Penang	Malaysia
28	SK Minden Height	Penang	Malaysia
29	SMK Penang Free	Penang	Malaysia
30	SMK Tinggi Bukit Mertajam	Penang	Malaysia
31	SMS Tun Syed Shahbuddin	Penang	Malaysia
32	UNESCO IHP-Malaysia	Kuala Lumpu	Malaysia
33	Water Watch Penang	Penang	Malaysia
34	Biro Hal Ehwal Wanita, Masjid Al-Jami' Al-Soghir Taman Pekaka	Penang	Malaysia
35	SMK Penang Free	Penang	Malaysia
36	SK Bandar Behrang 2020	Perak	Malaysia
37	SJKT Ladang Behrang River	Perak	Malaysia
38	SMK Convent Taiping	Perak	Malaysia
39	SMK Dato' Onn Butterworth	Penang	Malaysia
40	WWF-Malaysia	Penang	Malaysia
41	SMK Penanti	Penang	Malaysia
42	Tadika Iman Ehsan	Penang	Malaysia
43	SMJK Chung Hwa Confucian	Penang	Malaysia
44	Jabatan Belia dan Sukan Pulau Pinang	Penang	Malaysia
45	SMK Tun Hussein Onn	Penang	Malaysia
46 47	Pusat Racun Negara Tadika Tahfiz Al-Islah	Penang	Malaysia Malaysia
47	Kolej Matrikulasi Pulau Pinang	Penang Penang	Malaysia
49	Sekolah Tahfiz Al-Islah	Penang	Malaysia
50	leglasi Nieyah Educational Organization	Penang	Malaysia
51	Jabatan Alam Sekitar Negeri Pulau Pinang	Penang	Malaysia
52	Jabatan Bekalan Air	Penang	Malaysia
53	Pusat Pengajian Sains Fizik	Penang	Malaysia
54	SMK Bukit Jambul	Penang	Malaysia
55	SMS Sultan Mohamad Jiwa	Kedah	Malaysia
56	Malaysian Nature Society Penang	Penang	Malaysia
57	Pertubuhan Astronomi Pulau Pinang	Penang	Malaysia
58	SMK Permatang Tok Jaya, Penang	Penang	Malaysia

South East Asian Sustainability Network (SEASN)



Background

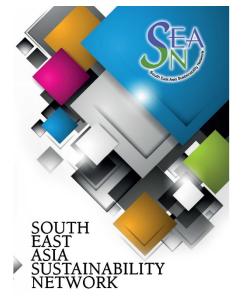
The SEASN is an alliance of higher education institutions, agencies, Civil Society Organisations (CSOs) and industries in South East Asia countries committed to promote, engage and integrate sustainability in the area of teaching, research, community engagement and institutional arrangement. SEASN provides exchange of ideas, findings, information, and good practices in teaching, research, community engagement and institutional arrangement with focus on Water, Energy, Health, Agriculture, Biodiversity, Climate Change and Disaster Risk Management, Consumption and Production, Population and Poverty (WEHAB+3) and Sustainable Development Goals (SDGs).

Objectives

- Exchange ideas, findings, information and good practices in teaching, research, community engagement and institutional arrangement with a focus on Water, Energy, Health, Agriculture, Biodiversity with cross section areas on Climate Change & Disaster Risk Management, Consumption & Production and the Population & Poverty.
- Enhance opportunities to promote, engage and integrate sustainability in the networking arrangement in partnership.
- Leveraging of resources, knowledge and expertise amongst its members to joint collaborations in South East Asia Projects on Sustainability.
- Disseminating and sharing research of SEASN members on Journal articles, books/e-book or any other publication covering sustainability issues on WEHAB+3.
- Build and strengthening members' knowledge on sustainability issues on WEHAB+3.

• Showcasing best practices and niche areas of each member in South East Asia countries on

sustainability.



Application Form for SEASN members

http://www.seasn.usm.my/index.php/ms/

No	University	Country
1	AIMST University	Malaysia
2	Consumers Association of Penang	Malaysia
3	Diponegoro University, Indonesia	Indonesia
4	Kampus ITS Surabaya, Indonesia	Indonesia
5	Chulalongkorn University, Thailand	Thailand
	Corporate Responsibilty and Ethics Association for Thai	
6	Enterprise, CREATE	Thailand
7	Mae Fah Luang University, Thailand	Thailand
8	Mahidol University, Thailand	Thailand
9	The Sirindhon International Environmental Park	Thailand
10	Far Eastern University	Philippine
11	International Rice Research Institute, Philippines	Philippine
12	RCE Southern Vietnam, International University HCMC	Vietnam
13	Universiti Teknologi Mara, UiTM	Malaysia
14	Universiti Putra Malaysia, UPM	Malaysia
15	Fajarbaru Builder Group Bhd.	Malaysia
16	Ideal Healthcare Sdn. Bhd.	Malaysia
17	Inovasi Teknologi Prima Sdn. Bhd	Malaysia
18	Kindness Dot My	Malaysia
19	Landmarks Berhad	Malaysia
20	Nabbir Laboratory (KL) Sdn. Bhd	Malaysia
21	National Defence University of Malaysia	Malaysia
22	NorthPort (Malaysia) Bhd.	Malaysia
23	Parker Hannifin Industrial (M) Sdn Bhd.	Malaysia
24	Seameo Recsam	Malaysia
25	Taylor University	Malaysia
26	Universiti Tenaga Nasional	Malaysia
27	University Sumatera Utara, Indonesia	Indonesia
28	Universiti Kebangsaan Malaysia, UKM Bangi	Malaysia
29	Universiti Malaya	Malaysia
30	Universiti Malaysia Perlis, UNIMAP	Malaysia
31	Universiti Malaysia Sabah, UMS	Malaysia
32	Universiti Malaysia Sarawak, UNIMAS	Malaysia
33	Universiti Pendidikan Sultan Idris, UPSI	Malaysia
34	Universiti Sains Islam Malaysia, USIM Negeri Sembilan	Malaysia
35	Universiti Teknikal Malaysia, UTEM	Malaysia
36	Universiti Sains Malaysia, USM	Malaysia
37	Water Watch Penang	Malaysia
38	WWF Malaysia	Malaysia
39	Universiti Tun Hussein Onn, Malaysia	Malaysia
40	Mindanao State University at Naawan, Philippines	Philippine
41	Give Hope to the Vulnerable, Battambang City, Cambodia	Cambodia
42	Universiti Malaysia Kelantan, Malaysia	Malaysia
43	Pulau Banding Foundation	Malaysia

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Besides global network, USM also have partnership with other agencies and organisations.

List of Community Partners (2018) No Name 1 Kementerian Pendidikan Malaysia Kementerian Air, Tanah dan Sumber Asli 2 3 Persatuan Orang Cacat Negeri Pulau Pinang 4 Pusat Kanak-kanak Istimewa Pulau Pinang 5 Pertubuhan Kebajikan Insan Penyayang 6 Kumpulan Sokongan Sensorimotor Family, Pulau Pinang 7 Persatuan Bolasepak Melayu Malaysia (PBMM) 8 Kompleks Darul Hanan, Pulau Pinang 9 Kelab Warga Emas, Kepala Batas, Pulau Pinang 10 Hospital Pulau Pinang 11 Penang Peace Learning Centre 12 Jabatan Kemajuan Orang Asli Malaysia 13 Jabatan Alam Sekitar Negeri Pulau Pinang 14 Persatuan Insan Istimewa Kelantan (Insani) 15 Persatuan Spinal Pantai Timur (PSPT) Pulau Pinang Department of Occupational Safety and Health 16 17 Pulau Pinang Fire and Rescue Department (BOMBA) 18 Koperasi Penulis Buku & Pembaca Muar, Johor Sila Studio Enterprise, Pusat Inkubator Kraftangan Balik Pulau, Pulau Pinang 19

Unit Peneraju Agenda Bumiputera (TERAJU), Jabatan Tenaga Kerja (JTK),

Kelantan Biotech Corporatiob Sdn. Bhd.

Northern Corridor Implementation Authority

Jabatan Kemajuan Islam Malaysia (JAKIM)

Federal Land Development Authority (FELDA)

Kilang OEM Minyak Wangi, Melaka

Seri WV Sdn. Bhd., Kelantan

Kementerian Sumber Manusia

Koperasi Bela Rakyat (KOBERA)

Jabatan Pertanian

Husam Waksa Group of Companies

Suruhanjaya Koperasi Malaysia (SKM)

INSTITUTION PARTNERS FROM KUFS-USM JAPANESE CULTURAL CENTRE (2018)		
NO	INSTITUTIONS	COUNTRY
	1 CHUBU UNIVERSITY	JAPAN
	KOZU HIGH SCHOOL	JAPAN
	JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE (JSPS)	BANGKOK
	4 ENERGIZE INC.	JAPAN
	INTERNATIONAL TRAVEL, HOTEL, BRIDAL COLLEGE	JAPAN
	JAPAN FOUNDATION KUALA LUMPUR	MALAYSIA
	7 MEJIRO UNIVERSITY	JAPAN
	KYOTO UNIVERSITY OF FOREIGN STUDIES	JAPAN
9	SETSUNAN UNIVERSITY	JAPAN
1	KAWAI CORPORATION	JAPAN
1	1 KISARAZU COLLEGE	JAPAN
1	GAIDAI NISHI HIGH SCHOOL	JAPAN
1.	B ABK COLLEGE	JAPAN
1	4 CHUO UNIVERSITY	JAPAN
1.	KYOTO SANGYO UNIVERSITY	JAPAN
1	NAGOYA CITY BOARD OF EDUCATION	JAPAN

More than thousands of Industry and Organisation partners and collaborate with USM under Industry section in 2018.

Conclusion

Sustainable development goals is largely about people, their well-being, and equity in their relationships with each other, in a context where nature-society imbalances can threaten economic and social stability. USM continues to be committed to achieving SDGs by engaging in research, teaching, community engagement and institutional arrangements. In pursuit of sustainable development goals, USM plays a role in carrying out relevant activities and programmes to the USM community to ensure that the USM community understands and aware of the SDG goal. USM hopes that with the efforts already underway, USM will be able to contribute towards achieving Sustainable Development Goals 2030.

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