



# the global goals

2021

SUSTAINABLE  
DEVELOPMENT  
GOALS





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# Getting To Know UiTM

**170k**  
local and  
international  
students

**13**  
autonomous  
state  
campuses

Founded in 1956, Universiti Teknologi MARA (UiTM) is a mega public university in Malaysia. With its main campus in Shah Alam, the state capital of Selangor, UiTM has 13 autonomous state and 21 satellite campuses spread throughout the nation. UiTM is not only the largest university infra-structurally but also demographically with 169,364 local and international student enrolment supported by 17,706 academic and non-academic staff. With 526 academic programmes, ranging from foundation to postgraduate levels UiTM boasts of 26 faculties covering areas of specialisation from medicine to the arts.

Spanning the length and breadth of Malaysia, UiTM campuses are well equipped with modern facilities to accommodate its community's academic and research needs. UiTM currently offers 216 postgraduates programmes and has earned a reputation for research and teaching excellence over the last 6 decades. At UiTM you will experience the education and environment that will steer you on the right path towards a professionally rewarding and personally fulfilling future. Be inspired by the remarkable achievements of our students, staff and alumni, make global connections, develop your talents, pursue your passion and chase your dreams. UiTM is where we will guide you to make your mark not just for yourself but on the world around you.

# 18k

academic and  
non-academic  
staff

# 526

academic  
programmes

# 21

satellite  
campuses

13

14

- 1** **UiTM Perlis Branch**
  - Arau Campus
- 2** **UiTM Kedah Branch**
  - Merbok Campus
- 3** **UiTM Pulau Pinang Branch**
  - Bukit Mertajam Campus
  - Bertam Campus
- 4** **UiTM Perak Branch**
  - Seri Iskandar Campus
  - Ipoh City Campus
  - Tapah Campus
- 5** **Shah Alam Main Campus**

- 6** **UiTM Selangor Branch**
  - Puncak Alam Campus
  - Puncak Perdana Campus
  - Jalan Othman Campus
  - Seksyen 17 Campus
  - Sungai Buloh Campus
  - Dengkil Campus
  - Selayang Campus

- 7** **UiTM N. Sembilan Campus**
  - Kuala Pilah Campus
  - Seremban 3 Campus
  - Rembau Campus

- 8** **UiTM Melaka Branch**
  - Alor Gajah Campus
  - Melaka City Campus
  - Jasin Campus

- 9** **UiTM Johor Branch**
  - Segamat Campus
  - Pasir Gudang Campus

- 10** **UiTM Pahang Branch**
  - Jengka Campus
  - Raub Campus

- 11** **UiTM Terengganu Branch**
  - Dungun Campus
  - Kuala Terengganu Campus
  - Bukit Besi Campus

- 12** **UiTM Kelantan Branch**
  - Machang Campus
  - Kota Bharu Campus

- 13** **UiTM Sarawak Branch**
  - Samarahan 2 Campus
  - Mukah Campus

- 14** **UiTM Sabah Branch**
  - Kota Kinabalu Campus
  - Tawau Campus



# Learn from Yesterday as We March to the Future, Responsibly.

The global goals 2021 is the second Sustainability Report of Universiti Teknologi MARA (UiTM), Malaysia, which assembles the initiatives and programmes undertaken by UiTM in 2020. Published by the Institute for Biodiversity and Sustainable Development (IBSD). The report highlights the research, innovation, academic, and community initiatives by the "keluarga UiTM" - A concept of unity, harmony, diversity of knowledge, and synergy between the academics, administrative staff, students and alumni. Some of the initiatives even involved our national and global partners.

This year, the artists and experience makers have created a diorama miniature art that incorporates individuals interacting, landscapes, underwater, industrial, community, technology, and architectural aspects, symbolising all 17 goals. In an effort to reproduce scenarios with satirical messages and societal criticisms, the artists and experience makers have successfully demonstrated impressive technical skills, aesthetic quality, and meticulous craftsmanship of the total production. The miniature diorama art communicates the voice of change, advocating for a better sustainable world. The designs made for this book emphasise the importance of communicating a powerful narrative.

The artworks exhibited here are a testament to the curation team's collaborative effort, which includes artists, designers, curators, photographers, and curatorial support. Their common goal is to co-create, express, and interpret all 17 SDGs using their artistic talent, creative strength, and synergistic spirit.

In light of the recent meeting attended by world leaders, COP26 (Conference of the Parties) is unquestionably of critical importance. As such more joint ventures on sustainability initiatives are required in order to promote environmental integrity and embrace green prospect. This is necessary as the pandemic has made it even more difficult for the globe to achieve progress toward the United Nations' Sustainable Development Goals.



At UiTM, sustainable activities and initiatives on and off campus are in keeping with the GRU 2025 strategic plan that has been aligned with national and global visions.

Thus, the global goals 2021 documents the continuous progress, accomplishments, and improvements based on the previous year's report as well as new initiatives pledged by the initiators. The goal of the initiatives is to instil the importance of planning, executing, and assessing deliverables, which is a never-ending responsibility.

As you read through the global goals 2021, we should learn from history so we could march forward responsibly, in the name of a better life, a sustainable world and a promising future for generations to come.

Photo by Dhanu Arum on Unsplash

Photo by Andi Achre on Unplash

DEWAN AGUNG  
THANKU GANSELO





# For Prosperity, People, Planet, Partnerships, and Peace.

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Universiti Teknologi MARA (UiTM) is committed to achieving the global goals agenda by ensuring that its GRU2025 strategic plan is aligned with the national and global shared visions. For that, "Keluarga UiTM" is optimizing the effort and capacity to advance research, discover innovation, introduce new initiatives, measure deliverables, and at the same time maintain its academic quality through the many projects specially geared for all 17-goals.

Having the world's population experienced the devastating impact of the coronavirus pandemic on its health, economic and social systems, has left us with only one choice. That is to change, rebuild resilience and practise the new norm. In the case of the future of work, change can only happen when organisational eco-system, mind set as well as skillset of people have been reformed. At UiTM, our new mantra is to reset, recover and restore our plans and actions accordingly and realistically. These include improving the access to as well as increasing the digital capacity towards the teaching and learning experience.

Being a modern civic university with a special mandate to uphold, we believe in the importance of sustainability as a means to ensure a progressive and safer world, through quality education. Therefore, a unified strategic initiative should enable us to reframe the outcomes into business actions and impacts as any decision made could lead to big changes in our everyday lives and even the future.

Without a doubt, the projects depicted here is evidence that we have improved on all 17-goals of last year, alongside the extra new efforts made available in this report. Hence, in the name of prosperity, people, planet, partnerships, and peace, Universiti Teknologi MARA (UiTM) presents to you the global goals 2021.

**Professor Ts. Dr. Roziah Mohd Janor**  
Vice Chancellor

# Integrating the Global Goals Agenda into Diverse Domains

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The university is one of the sectors that can promote, support, and eventually contribute to the United Nations' global agenda of 17 Sustainable Development Goals (SDGs). Academics at universities possess the expertise, capabilities, and comprehension necessary to conduct research that advances the sustainability agenda and addresses sustainability concerns. Since the establishment of the Global Agenda for Sustainable Development in 2015, Universiti Teknologi MARA (UiTM) has been engaged in and strengthening the university's sustainability efforts. This commitment promotes and supports the SDGs' concepts and conducts environmentally friendly activities on university campuses. Additionally, the university has committed to conducting research that contributes to resolving SDG concerns.

To be successful, the university must commit to supporting the implementation. In UiTM, internal research grants mapped to 17 goals of SDG were offered to the faculties to demonstrate the university's commitment to embrace the SDGs agenda. For instance, the Office of the Deputy Vice-Chancellor (Research and Innovation) has developed an SDG Triangle@UiTM research initiative to symbolise the university's strategic initiative to integrate SDGs into its research agenda. Four locations in Peninsular Malaysia were identified as study areas which include Pithang National Park, Gunung Ledang National Park, Royal Belum State Park, and Tuba Island. In addition, a special project called SDG Research@Borneo was introduced to promote research collaboration between three public universities (i.e., UiTM, Universiti Malaysia Sarawak (UNIMAS) and Universiti Malaysia Sabah (UMS). Greater synergy in SDGs attainment would result from institutional and agency collaboration on strategic research. This work would entice even more international researchers to collaborate on advancing the SDGs to advance a shared global agenda. Furthermore, UiTM is currently collaborating with a number of international universities to integrate the SDGs agenda into various domains. Following that, the agenda will promote and create new knowledge, technology transfer, community and human capital development, increased entrepreneurship and small- to medium-sized businesses (SMEs), and finally, giving back to society through university social responsibility (USR) and social innovation.

The SDGs represent a concerted global effort. UiTM has been playing a critical role in anchoring SDGs for country's research and innovation agenda to ensure that we can achieve sustainable development without jeopardising future generations. Most importantly, applicable research findings must be translated for the benefits of the community, industry and society. UiTM recognises the critical role of research in advancing the SDGs 2030 agenda and advancing all 17 goals.

**Professor Ts. Dr Mohd Nazip Suratman**  
*Deputy Vice Chancellor (Research & Innovation)*

# Beyond Biodiversity and Sustainability Research

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I am glad to present the Sustainability 2021 Report from Universiti Teknologi MARA (UiTM), which provides a wide overview of our efforts to achieve the United Nations Sustainable Development Goals (SDGs). Sustainable development is defined as development that meets current community needs without jeopardising future generations' ability to meet their own.

All UN member states accepted the 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals (SDGs) in 2015. All members of society will have to work together to achieve the SDGs. Through its research and teaching efforts, UiTM is also accountable for contributing to the building of a sustainable future. UiTM is at the vanguard of research that generates new knowledge and ideas that address the SDGs' related social, economic, and environmental concerns.

Since its inception in 2020 under the guidance of UiTM's Deputy Vice-Chancellor (Research & Innovation), the Institute for Biodiversity and Sustainable Development has played a critical role in promoting and encouraging a sustainable and balanced academic community through academic programmes, research, and academic publications in multi-discipline sustainability science.

At UiTM, we are dedicated to ensuring that all of our activities, including research, teaching, community service, and operations, help to move people and the world forward. In this report, we highlight a few of our university's many efforts that contribute to the attainment of the Sustainable Development Goals for a more sustainable future.

**Professor Sr Dr. Zulkiflee Abd Latif**

*Director*

*Institute for Biodiversity & Sustainable Development*

A hand is holding a white model airplane with red and grey accents. The airplane is positioned over a black and white outline map of the world, specifically over the Indian subcontinent. The background is a plain, light color.

# The Global Goals Indicators

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Photo by Photo by Andrea Picquadio from Pixels

2020 Active Research Theme based on 17 SDGs

 1 NO POVERTY	RM1,632,778.21	63	 10 REDUCED INEQUALITIES	RM1,894,669.00	73
 2 ZERO HUNGER	RM3,325,627.30	93	 11 SUSTAINABLE CITIES AND COMMUNITIES	RM11,614,402.47	268
 3 GOOD HEALTH AND WELL-BEING	RM37,727,684.46	624	 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	RM10,983,022.34	254
 4 QUALITY EDUCATION	RM11,208,907.79	324	 13 CLIMATE ACTION	RM2,418,240.00	44
 5 GENDER EQUALITY	RM941,229.93	21	 14 LIFE BELOW WATER	RM2,073,899.12	49
 6 CLEAN WATER AND SANITATION	RM1,977,476.00	58	 15 LIFE ON LAND	RM9,368,402.00	246
 7 AFFORDABLE AND CLEAN ENERGY	RM7,052,332.00	137	 16 PEACE, JUSTICE AND STRONG INSTITUTIONS	RM7,863,976.62	253
 8 DECENT WORK AND ECONOMIC GROWTH	RM13,557,260.34	337	 17 PARTNERSHIPS FOR THE GOALS	RM12,372,518.14	112
 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	RM49,909,763.44	877			

2019			2020	
TOTAL COUNT	TOTAL (RM)	SDG	TOTAL COUNT	TOTAL (RM)
6	819489.00	1	3	100517.12
4	708639.00	2	12	364589.72
53	2050441.50	3	81	1529041.70
65	3795743.40	4	123	3112794.32
0	0.00	5	1	31164.00
5	710479.28	6	10	960665.78
24	1637019.10	7	12	1339968.29
23	7696745.60	8	73	6236734.62
199	7547406.50	9	277	7238511.33
4	53388.00	10	7	119006.20
19	1415007.20	11	102	5196159.45
2	89000.00	12	27	659828.69
2	130000.00	13	0	0.00
1	7560.00	14	5	358233.12
4	768680.00	15	26	4886162.78
14	934297.20	16	34	6710312.00
343	22883497.00	17	699	35233793.11

2019			2020	
TOTAL GRANTS	TOTAL (RM)	SDG	TOTAL GRANTS	TOTAL (RM)
19	588,798.00	1	63	1,632,778.21
46	2,155,785.94	2	93	3,325,627.3
339	25,022,028.39	3	624	37,727,684.46
137	5,404,653.16	4	324	11,208,907.79
8	152,900.00	5	21	941,229.93
30	1,004,956.90	6	58	1,977,476.00
25	2,404,706.00	7	137	7,052,332.00
171	10,479,794.82	8	337	13,557,260.34
480	28,144,570.88	9	877	49,909,763.44
19	573,800.00	10	73	1,894,669.00
224	9,896,503.53	11	268	11,614,402.47
90	4,189,805.95	12	254	10,983,022.34
27	1,111,075.00	13	44	2,418,240.00
31	1,093,303.56	14	49	2,073,899.12
104	5,287,794.78	15	246	9,368,402.00
89	3,942,663.00	16	253	7,863,976.62
246	25,856,473.90	17	112	12,372,518.14







1 NO  
POVERTY



# End poverty in all its forms everywhere

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## Reaching Out to Underprivileged Students

UITM's main mission is to provide inclusive education and equal opportunity to the underprivileged. Under this flagship, UITM has launched the UITM Prihatin program specifically to provide assistance to assist the B40 students to continue their study during these trying times. Through this initiative, incentives will be awarded to the students that were affected by the postponement of student registration. This initiative was well-received and strongly endorsed by the Minister of Higher Education, YB Dato' Dr. Noraini Ahmad.

## UiTM Malaysia Collaborates with UNAIR, Indonesia Eradicating Poverty and Hunger

World leaders have identified poverty and hunger as two of the most pressing global issues, and the United Nations has set a target of eradicating extreme poverty and famine by 2030 in the Sustainable Development Goals (SDGs). Towards this end, the Universiti Teknologi MARA (UiTM) in Malaysia collaborated with the Universitas Airlangga (UNAIR) in Indonesia in a pro-active initiative aimed at improving the quality of life of the communities by providing opportunities for the local people in Dusun Sine, Desa Kalibatur, Kecamatan Kalidawir, and Tulungagung, a quiet seaside village located approximately 200 kilometres from the Indonesian university of Sur. The programme, was conducted from the 1st of January 2020 to the 27th of January 2020, was attended by undergraduate and postgraduate students, with 29 students from Universitas Airlangga and 7 overseas students participating.

The academic team from Malaysia had given their full support to this joint effort which aims to improve the collegiality between Indonesian and Malaysian academics.



<https://news.uitm.edu.my/uitm-malaysia-collaborates-with-unair-indonesia-towards-achieving-sdg/>

## Virtual Conference on Zakat, Waqf and Islamic Philanthropy

Islamic philanthropy is a critical pillar of economic growth that can help to alleviate poverty and promote social justice in the world. The Islamic Economy, as well as the numerous instruments that are included, can have a positive impact on the national economic position. Various forms of Islamic philanthropy, such as zakat, zakum, waqf, and shadaqah, have emerged as essential instruments in the pursuit of the Sustainable Development Goals' objectives (SDGs). People can now donate with just a single click thanks to the presence of technology, which has made universal accessibility easier. The pandemic has given rise to a new wave of interest in Islamic Economics as a potential solution. Several mechanisms of Islamic economics, particularly zakat, waqf, and shadaqah, have the potential to play a significant role if they are managed properly. UiTM has collaborated with other organisations to arrange the 4th International Virtual Conference on Zakat, Waqf, and Islamic Philanthropy (ZAWAFI 2020), which will take place on

September 17th. Dr Sri Mulyani Indrawati, Indonesia's Minister of Finance, and Datuk Dr Mohd Daud Bakar, Chairman of the Sharia Advisory Committee for Permodalan Nasional Berhad (PNB), Malaysia, were both in attendance and spoke on Islam and finance. One thing that is vital in maintaining the public's confidence in the institutions that handle these social funds. Institutions must be accountable, open, and responsible in their operations. With such coordination, it is hoped that the partnership between the Indonesian and Malaysian governments will be strengthened, particularly in the growth of Islamic economy.



<https://pb.ac.id/news/index/2020/9/sharia-economic-department-of-ipb-university-and-uitm-malaysia-held-an-international-conference-on-zakat-endowments-and-islamic-philanthropy/1c96-6d80178ee03629ab98bb07baac641>

## ZAWAF UiTM Immediate COVID -19 Financial Support Model

In response to the sudden implementation of the Movement Control Order (MCO) on March 18, 2020, the ZAWAF UiTM Immediate COVID-19 Financial Support Model was established to provide immediate help to UiTM personnel and students who are in need. This concept was developed as an alternative to the traditional face-to-face way of aid distribution, which is time-consuming and, to a certain extent, bureaucratic in its nature. Following the adoption of the Movement Control Order (MCO), various challenges have arisen, such as social distancing between students and zakat officers, as well as the practise of Open and Distance Learning (ODL), both of which contribute to the complexities of the Teaching and Learning process. As a result, this approach is focused on the following:

**Achievement of SDG targets (no poverty, zero hunger, good health & well-being and quality education)**

**Good Governance is essential (Special Task Team for COVID-19 Assistance, Digitalize Process) Muraqabah is the third option (Management Supervision)**

This allows the ZAWAF UiTM Immediate COVID-19 Financial Support Model to be given in an effective, comprehensive, timely, and transparent manner to the target recipients among UiTM personnel and students who are in need of financial assistance. Global Islamic Finance Awards 2020 recognised ZAWAF Universiti Teknologi MARA as the Best Zakat Management in Higher Education 2020 at the Global Islamic Finance Awards 2020 (GIFA 2020).



<https://imte.org.my/zawaf-uitm-immediate-covid-19-financial-support-model/>

### **Bee Friendz**

The Bee Friendz team was chosen as the ambassador of Mahasiswa Harapan Masyarakat (MHM) for Universiti Teknologi Mara (UiTM) Johor branch, at the Pasir Gudang campus to execute a community project which is the Bee Friendz stingless bees farming, for the purpose of improving the society's economic level at Kampung Melayu Raya, Pekan Nanas, Pontian, Johor. The main objective of this project is to help increase the income of students and farmers, to increase the production of honey as well as to assist the villagers in commercializing products that are based from stingless bee honey or honey kelulut (Madu kelulut). The Bee Friendz team received grants to the amount of RM10,000 from Yayasan Pelajaran Johor and RM5,000 from the chief minister of Johor for its achievements. During the early stages, 5 (B40) families were chosen to receive kelulut logs. As a result, each family was able to generate RM 300 to RM 400 per month from the sales of honey, bee bread, propolis, honey soap, propolis soap and honey balm. Besides selling products such as honey kelulut (madu kelulut), propolis and bee bread, Bee Friendz also sold the villagers' products as well as products from Bee Friendz's own innovation. Bee Friendz products that are distributed through online shopping platforms such as Shopee and Lazada received great response from the market. Now, kelulut honey has been considered as a superfood by MARDI and the selection of a personal honey project was chosen because it could increase the body's immunity to fight against COVID – 19. The business of honey kelulut or stingless bee honey does not require a lot of energy and capital because bees are capable of finding their own food and would later hasten the process of pollination on trees. This project was presented in 2 International Conferences and received the recognition from Johor as an entrepreneurial project that is viable to help the bottom 40% (B40) income earners. The courses that the students have attended and with the experience they have acquired, they are now capable of providing consultation even though they are still at the diploma level for their educational studies. So far, 3 kelulut projects have been carried out due to the consultation services conducted by the students of the Bee Friendz team. These students have not only generated their own income, but they have promoted the benefits of pure honey.





copyrights

12



consultancy  
projects

3

RM100,517.12



research  
grants

63

RM1,632,778.21

year 2020

▲  
19

year 2019





# End hunger, achieve food security and improved nutrition and promote sustainable agriculture

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## Zero Hunger Program

The epidemic brings greater attention to the issue of college students who are facing food insecurity, as well as the ways in which their institutions may assist them. As higher education adjusts to the "new normal," it must be prepared to meet the needs of today's students, many of whom are fatigued as a result of the transition. More than 200 pupils from low-income families (B40) received assistance through this initiative. The selected pupils were informed about the location of food delegations as part of this project. This initiative also received funding from the Kelantan government's Department of National Development and Human Resources (KPDNHEP), Edlee Fried chicken, KS Chu Marketing, IMPAK and Koop Ummah, Kayangan Properties, and private sponsors.



<https://www.kelantan.uitm.edu.my/v2/index.php/news-uitm/16-mac-2020-program-zero-hungger>



<https://www.hmetro.com.my/mutakhir/2020/03/555167/200-pelajar-uitm-tidak-lagi-ikat-penut>

## Effectively Addressing Students' Basic Needs Requires Campuswide Efforts Through Hep Care Fund

Many colleges and universities are taking steps to combat hunger, although these efforts do not always result in hunger being avoided. In order to truly reduce student food poverty, we must start at the source. UiTM employees who wish to make contributions or donations to this worthwhile cause can do so through the HEP CARE fund. These funds are utilised to create opportunities, launch meal donation programmes, and expand current campus food security services such as pantries and a foodbank, among other things. Dismantling the stigma of the "starving student" is not enough; the fact is that when a student feels well-nourished, it has a positive impact on so many other elements of their lives. To advocate on behalf of the one in every three students who will be affected by food insecurity this year, UiTM has urged all the state and satellite campuses across the country to take advantage of this unique opportunity and expand their response to basic needs insecurity beyond the scope of a food pantry shelf. Taking advantage of the lessons learned from being adaptive over the past year, we now have an opportunity to put the urgent needs of students first by creating an educational experience that not only results in a degree, but also results in students who are stronger and healthier.



## Alumni Calls for UTM COVID-19 Student Aid Fund

Our over 800,000 Alumni are encouraged to contribute to the university's COVID-19 Student Aid Fund to cover the cost of providing food to the students who were forced to remain on campus until the MCO ended. In addition to the financial contributions, alumni and the general public can assist UTM by donating food items that will be distributed to students in need during the MCO.



<https://www.malaysiakini.com/news/517749>

## Food Security in Urban Areas of Malaysia: Developing a New Urban Poor Family Business Model Using Cognitive Approach

Despite the fact that Malaysia's poverty rate has dropped to 0.4 percent, a survey done by Unicef Malaysia and DM Analytics found that 34% of residents of low-cost flats in Malaysia earn less than RM2,000 per month. According to 97 percent of respondents, high prices prevent healthy meals from being prepared. As a result, Mr. Muhammad Faizal's study intends to add to the current body of knowledge by developing a new urban poor family business model using a cognitive method. The goal of this research is to establish a comprehensive model for policymakers to use in developing and designing business assistance programmes for the urban poor and entrepreneurs. The research findings and proposed model will be used as a basis for the growth of urban poor entrepreneurs, which may influence the desire to start a business, particularly in the food industry, in order to ensure food safety and a framework for action plans. This urban poor entrepreneurship plan is expected to be one of the first to successfully foster business in the city.



Photo by Nico Smith on Unsplash



copyrights

13

year 2020

▲  
0

year 2019



research  
grants

93

year 2020

RM3,325,627.30

▲  
46

year 2019



consultancy  
projects

12

RM364,589.72



### 3 GOOD HEALTH AND WELL-BEING



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

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## UiTM Hospital, Fighting the Invisible Enemy

UiTM Hospital (HUITM) is made up of three facilities: namely Puncak Alam Hospital, UiTM Private Specialist Centre (PPUiTM) Sungai Buloh, and UiTM Private Specialist Centre (PPUiTM) Selayang. As an academic institutional healthcare facility, HUITM seeks to achieve academic excellence while providing the best clinical services to all its clients. Puncak Alam Hospital is a specialist-led teaching hospital which can accommodate 400-beds and offers womb-to-tomb services, with a focus on advanced women and children healthcare, minimally invasive surgery, geriatric, and advanced rehabilitation. PPUiTM Sungai Buloh is a well-known referral centre for heart and thoracic surgery, as well as respiratory illnesses. Outpatient, emergency, inpatient, diagnostic, pharmacy, surgeries, and day-care are among the services provided. Cardiac, Vascular, and Lungs Research Institute (CaVaLRi) has replaced PPUiTM Sg Buloh as a Centre of Excellence that provides innovative and advanced care in its specialist areas. Meanwhile, the primary care staff at PPUiTM Selayang provides out-patient services to the neighbouring community.



Photo by Clay Bank on Unsplash

During the COVID -19 pandemic, HUITM and its management team had battled tirelessly to keep its employees safe. Zero covid infection among HUITM staff had been one of the indicators for success of its operation enforced by its Disaster Committee. Providing and ensuring adequate Personal Protective Equipment (PPE), active contact screening, providing an innovative swabbing booth called the 'COMBAT,' setting up a diagnostic lab for the COVID-19 virus, and connecting with private agencies and non-governmental organisations for resources and facilities required during the pandemic were just a few of the vital procedures taken. Consequently, HUITM was able to keep its workforce free of covid 19 infection from April to October 2020.

In December 2020, the management team of Sungai Buloh Hospital (HSB) visited HUITM to show their appreciation of a significant partnership that HUITM had established with the Ministry of Health during the pandemic. HUITM had relieved the strain on HSB, as the state of Selangor's main COVID hospital, by admitting and receiving non-COVID patients to its surgical and orthopaedic wards. HUITM also volunteered to transport non-covid patients between HSB and HUITM using its ambulance. As HUITM

Residential Colleges were unoccupied during the pandemic period, it was made available as temporary housing to the HSB nurses and personnel who were on duty. The Emergency Department for COVID -19 quarantine, PPUITM Sungai Buloh provided a tent for HSB and put up a drive-through pharmacy to assist HSB patients to get their medications. Our diagnostic COVID lab is one of many in the country that received samples from the Malaysia National Public Health Laboratory, and almost 5000 samples had been analysed at our facility.

Despite the hurdles posed by the COVID-19 infection, HUITM has maintained a low level of COVID -19 infections among its staff and has continued to provide clinical services to the public. Our diagnostic COVID lab and 'Combat' had brought in a large amount of revenue. In 2021, HUITM was granted RM 1.2 million from the Ministry of Higher Education to continue its battle against the disease. Hence, HUITM and its leadership have successfully demonstrated credible and effective techniques for containing and combating COVID-19 infection during the pandemic.

## COMBAT: Innovation During the Pandemic Period

UITM Hospital through its partnership with UITM Alumni and NGO I-Medik have jointly developed a state of the art, innovative, and effective COVID -19 mass screening tool named COVID Mobile Test Unit (COMBAT). COMBAT basically is a mobile COVID -19 test booth which was built in a 20-foot cabin container. It consists of 5 patient sampling booths which includes 2 wheelchair friendly booths, equipped with safety features such as contactless patient interaction, negative pressure system, and auto sanitation. This is how it works: Initially, patients discover COMBAT services from the website, social media, print, or publication. Then, they register online through the link or QR code provided to book and confirm their date of swab test. On the day itself, patients come to COMBAT, wait in their vehicle before they are called for their turn. After identity clarification, the patient then proceeds with payment which is totally cashless via online transfer or credit card. Next is the swabbing procedure, which is entirely separated from healthcare workers through a glass barrier. The patient then receives the test result via email within 48-72 hours. There is zero contact between healthcare workers and patients. There is no unnecessary or prolonged process at registration or billing counters. PPE usage was reduced significantly with COMBAT as opposed to the normal swab technique. This in turn is friendlier to the earth as it reduces trash and waste particularly plastic products. It also benefits the government as it saves cost by reducing the incinerating of biohazard and hospital waste products such as PPE. From a spark of ideas, innovative minds, and futuristic vision, a team of doctors, engineers, and technicians from UITM join hands to sketch, design and build COMBAT from its humble prototype beginning into a complete, ready to deploy unit. Fast forward to today, COMBAT is durable, sturdy, tested, and proven on the battlefield. To date, there are 2 units of COMBAT on the field; one in CaVaLRI (HUITM Sungai Buloh) and another one in Kajang Plaza Medical Centre (KPMC). There is also COMBAT FLEX which is a smaller and scaled-down version of the COMBAT. It provides greater flexibility and mobility to the already mobile COMBAT, hence it could be deployed and used in any circumstances or places such as rural areas that may be unreachable by lorry (used to transport COMBAT) albeit it requires more PPE than a "normal" COMBAT does. Principally, COMBAT also can be used for a large scale COVID -19 vaccination programme safely and effectively.

## MyRehabMaker: Creating an Inclusive Ecosystem Through Social Innovation in Disability Management - Malaysian Experience

Technology has the potential to serve as a fundamental platform in empowering the community. MyRehabMaker is a community initiative project utilizing technology to solve the PWD problems (patients with disabilities) and society. MyRehabMaker embraced the inclusivity spirit by encouraging community involvement in helping the PWD. We share the aspiration and goals of social innovation concepts that was broadly described as a process of deploying solutions to overcome challenges in systemic society in support of social progress and address deep-rooted societal problems in education, employment, healthcare, community development, and livelihood. MyRehabMaker also diversifies corporate social responsibility by attracting monetary contribution and encouraging knowledge, skills, and technology sharing, hence strengthening the academic and industrial strategic partnership. This project has demonstrated (i) a proof of concept with a viable work process, (ii) value of the scientific output in the body of knowledge pertaining to product development and innovation (iii) knowledge transfer from academic and industrial experts to the community, and (iv) impact of the project towards current practice and the community. MyRehabMaker has received a research grant from the Ministry of Education under the FRGS- RACER scheme, industrial collaboration with 3D Gan Sdn. Bhd and AA 3D Shop, recruited five graduates as technical team members, developed eight usable AAD for 5 identified PWDs, three copyrights and publications in indexed journals. Activities include participation in community events among school children and the public in building awareness regarding PWD and 3D printing technology. MyRehabMaker demonstrates a good research exercise by solving real field problems, impacting the community well-being holistically, and upgrading current healthcare services.

## H.O.P.E

Hold On, Pain Ends (H.O.P.E), @Awareness\_HOPE is an online campaign organised by students of Communication Management and Policy from the Faculty of Communication and Media Studies at UITM, Shah Alam. This online campaign was part of their Final Year Project aiming to reach the public on the importance of mental health especially among the social media users. H.O.P.E is an online campaign that was designed to address the issues concerning mental health as well as to boost public awareness about mental health and increase their acceptance of it in the society today. The online campaign serves as a source for the public to understand mental health and other issues relating to



mental health. The platform is unique in achieving its goals, as it has used remarkable materials, and inspiring live sessions with prominent personalities. The campaign included online contests with attractive prizes to attract public attention and interest. One of the programmes organised by H.O.P.E., featured PU Amin who is a well-known young Islamic preacher (da'wah), to talk about mental health concerns from Islamic point of view. Besides, H.O.P.E. also organised live question and answer sessions with qualified counselors from the Malaysian Mental Health Association. This demonstrates how H.O.P.E. is committed in ensuring that the online campaigns are effective to achieve its goals and objectives. Survey on public acceptance, understanding and awareness on mental health issues after gaining knowledge from H.O.P.E and participating in its programmes showed remarkable improvement in their attitudes towards mental health. It is hoped that the online campaign benefits the public at present and in the future. H.O.P.E. can be connected via Twitter, Instagram and TikTok @Awareness\_HOPE.

### We Care, We Help – Post COVID Tele-Counseling

The impact of the COVID-19 pandemic is beyond humanity, and morbidity has become apparent since the outbreak began in February 2020. A large population throughout the world is certain to have a massive psychological impact and about one-third rated as moderate-to-severe anxiety. Realising this vulnerability may occur among students and staff, the Career and Counseling Centre, Students' Affairs Division of UiTM Kedah Campus initiated the "Tele-Kaunseling UiTM" that provide support groups in dealing with mental health issues among staff and students in and off campus grounds. Professional counselors are assigned to assist those affected by adopting coping mechanisms and survival mechanisms to prevent them from succumbing to a mental breakdown. This initiative is then adopted throughout the university system for the benefit of all staff and students.



<https://careercounseling4u.uitm.edu.my/pkk/index.php/program-kedah/763-tele-kaunseling-pasca-covid>

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copyrights

104



research grants

624

year 2020

RM37,727,684.46

339

year 2019



consultancy projects

81

year 2020

RM1,529,041.70

53

year 2019







# Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

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## UiTM SPE Bags the Prestigious Student Chapter Excellence Award 2020

The Society of Petroleum Engineers (SPE) Universiti Teknologi MARA (UiTM), Malaysia Student Chapter was recently awarded the Student Chapter Excellence Award for their exemplary efforts in achieving their goal as a student organization, in line with SPE's mission of industry engagement and social outreach. It was the organization's first time to receive such a prestigious award since its establishment in 2013 in UiTM. The award, is an international award which is SPE's second-highest award that a student chapter can receive, is awarded annually to only 20 percent of eligible student chapters worldwide. Zharif Zharulazfar Mohd Asri, the SPE President said that the award means so much to them after their hard work preparing for two



Photo by Tim Galloway / Unsplash

international events. The two major international events organized by the student organisation were the Energy and Environment Competition (EEC) and SPE Student Chapter Malaysia Oil & Gas Convention. (SMOGC). SMOGC was hosted by UiTM, in collaboration with five other student chapters namely Universiti Malaysia, Heriot-Watt University, UCSI University, Universiti Teknologi Malaysia, and Universiti Teknologi Petronas. The prestigious award would not be possible without the support and guidance from Advisor, Dr. Nor Roslina Rosli; the Head of Studies Centre for Oil and Gas, Ir. Ts. Dr. Nur Hidayati Othman, and Student Society Coordinator and Mr Tengku Amran for all their guidance in training the students to become future leaders. SPE actively organises at least one activity per month, and greatly appreciates all the help, knowledge and trust that have been entrusted to them by SPE Kuala Lumpur and all companies involved. The award is a great motivation for them to work harder in the future to achieve the Presidential Award, which is the highest recognition, annually awarded at a technical convention in the United States of America.



<https://qs-gen.com/uitm-spe-bags-the-prestigious-student-chapter-excellence-award-2020/>

### UiTMLaw Malaysia Student Selected as Yseali Academic Fellowship Participant at University of Nebraska Omaha, USA

Launched in 2013, the Young Southeast Asian Leaders Initiative (YSEALI) is the U.S. government's signature program to strengthen partnerships with emerging leaders in Southeast Asia; to expand their skills as effective civic, economic, and non-governmental leaders in the region; and to encourage them to work together. Iman Jazmina Mohd Jameel, a UiTM Law student, was selected to participate in the Young Southeast Asian Leaders Initiative (YSEALI) Academic Fellowship: Civic Engagement at the University

of Nebraska Omaha, USA, from 14 March 2020 to 18 April 2020. Participants of this programme were selected based on merit and skype interview. Iman Jazmina has been actively participating in women's equality movements and was then chosen as Girl2Leader Malaysia Ambassador. The YSEALI Academic Fellowship is a fully funded programme by the US Department of State's Bureau of Educational and Cultural Affairs. It is a public diplomacy programme aimed to expand regional strategic goals, break down obstacles that divide the next generation of leaders in Southeast Asia, and bring together those talented leaders to the United States. By doing so, the YSEALI Fellowship will bring outstanding young leaders from Southeast Asian countries to the United States to further develop their professional and leadership growth. A sequence of seminar discussions, readings, group presentations, and lectures are included in the programme as well as educational travel, site visits, leadership events, and service opportunities in the local community supplement the coursework and classroom activities. It also consists of a four-week academic residential component and a one-week domestic study tour. Participants can participate in educational and cultural events outside of the classroom during their academic stay in the United States.



<https://qs-gen.com/uitmlaw-malaysia-student-selected-as-yseali-academic-fellowship-participant-at-university-of-nebraska-omaha-usa/>

## Non-Academic Seminars to Instill Positive Skills and Values in Well-Balanced Graduates

The UITM2025 Key Plan was proposed to the institution's citizens in early 2020 to achieve three (3) strategic thrusts: Quality Education, Global Excellence, and Value-Driven Performance. Quality Education Strategic Thrust 1 is linked to three strategic themes, one of which is to generate well-balanced graduates with a target of 90 percent graduate employability (KPI 4). With the National Education Philosophy to generate holistic graduates, this theme contributes to Goal 3 of the United Nations Sustainable Development Goals, which promotes healthy lives and well-being for all human beings.

When the COVID-19 pandemic ravaged the world in 2020, everyone was worried about students' health. Face-to-face seminars are replaced with internet webinars, which can reach a bigger audience. To achieve six key performance indicators pertinent to this goal, the indirect approach of non-academic seminars targeting vast segments of audience is sustained throughout 2020. Throughout the year 2020, eight seminars were handled by various student and teacher groups with particular purpose of teaching students the knowledge and skills linked to mental health and self-development, especially in the age of online distance learning.

No matter what they study, students must graduate with healthy minds and psychological balance. Although the win should be measured in thousands, too many young brains are not mentored to become holistic persons. So, as Helen Keller said, I wish to achieve a large and noble mission, but it is my greatest duty to accomplish modest tasks as if they were grand and noble.

The sole indirect measure of student outcome support is favourable feedback from non-academic seminars. Findings show increasing student learning experience (mean = 3.60), developing excellent values (mean = 3.71), adding soft-skills (mean = 3.64), growing self-potential (mean = 3.62) and establishing a positive mentality (mean = 3.74). More than 90 percent of the participants agreed that universities should allow students to attend non-academic seminars to help develop their skills and prepare them for the job market. To ensure more students benefit from good values and happy vibes, non-academic developmental intervention seminars must be popularised and made a norm in universities.

## UTM and Huawei Collaborate on Smart Campus and Other Technology Solutions

UTM and Huawei Technologies Malaysia have signed a Memorandum of Understanding (MoU) to collaborate on building Smart Campus solutions, a Smart Data Centre, and other ICT Infrastructure solutions at UTM. Each organisation will use their own skills and strengths to achieve clearly defined objectives under the terms of the MoU. One of the goals is to use Huawei's Smart Campus technology to create an intelligent campus with cutting-edge digital infrastructure and cybersecurity solutions, which will be delivered via smart classrooms and virtual desktop infrastructure. Another goal is to explore projects to build a Smart Data Centre and ICT Infrastructure Solutions. Using Huawei's technological and technical skills, workshops and technical discussions will be held, and digital solutions will be implemented on UTM's campuses around the country. Finally, the partnership aims to support Huawei and UTM's commitment to develop local ICT talent through the Huawei ICT Academy, which will provide training to raise more ICT talent within the university, with the added benefit of Huawei certifications. Huawei will be at the forefront of Smart Campus technology because of the collaboration, with the goal of empowering universities and communities with the right innovative technologies. The smart campus solutions we offer will effectively match the increasing needs of higher education institutions and enterprises, which will encourage the growth of Malaysia's ICT talent, thanks to Huawei's pioneering technologies and experience. UTM, being one of Malaysia's largest universities, has the potential to serve as a centre for the creation of creative solutions and local talent to help Malaysia's digital transformation.



<https://qs-gen.com/utm-and-huawei-collaborate-on-smart-campus-and-other-technology-solutions/>



## Decypher: A Gamification Approach to Teaching and Learning

DECYPHER is a project established by students majoring in Instructional Communication and Training from the Faculty of Communication and Media Studies at UTM, Shah Alam. It is an online competition that brings together participants to unravel a hidden truth using various social media platforms to find answers to existing questions. It was created and promoted at the end of 2020 under the theme of "A Social Network Gameplay Based on Real-Time Situations." DECYPHER, which means "unravelling something," was chosen as the official name for the competition because it suits the subject of this online game. Players must solve the mystery surrounding the disappearance of a character named Mary and a terrible murder case of a character named Karen. The Malaysian Communications and Multimedia Commission (MCMC) supported the DECYPHER project for its major award, which was worth RM10,000. DECYPHER is a cutting-edge project that reimagines social structure through an online competition that brings people together in a social networking game. The real-time location-based experience is made for a fascinating, mindful, and interesting mission-solving game. DECYPHER is a technical teaching tool that helps digital natives become more aware of their digital footprints. The gaming concept can be used to teach kids media literacy as well as subjects that can be decoded using a game's structure.

## UFUTURE

Throughout the COVID-19 pandemic, all campuses of higher institutions worldwide were compelled to close, and course instruction was required to continue uninterrupted via online. As a result, instructors were forced to quickly shift their course instructions to a wholly online environment in response to the pandemic. Numerous educators who transitioned their traditional classroom education to the online environment instantly wanted to familiarise themselves with online learning platforms. UFUTURE, the UiTM Learning Management System, is utilised to deliver asynchronous online learning activities (self-paced learning activities, pre-recorded video content, lecture notes, and online discussion boards) and assess students online (individual/group assignments, quizzes/tests). The trend away from traditional classroom instruction and toward online interaction between instructors and students is a paradigm shift. As instructors seek to adapt to the new technological norm and improve course delivery, the use of UFUTURE has increased in popularity during the COVID-19 pandemic. However, regardless of the classroom structure, the components of great instruction such as good communication with students, the quality of instructional delivery, and feedback on tasks are the same (face-to-face or online). Thus, UFUTURE provides high-quality online course instruction by facilitating instructional design, aiding students in meeting course learning objectives through learning activities and evaluations, and facilitating communication and cooperation. UFUTURE combines most of the reporting and subsystems linked to student learning. In UFUTURE, examples of reporting or subsystems include Blended Learning Reporting, Entrance and Exit Surveys (EES), Student Feedback Online (SuFO), OBE-SDL-COI, Student Progress and Performance Reports, and Online Class Schedule and Attendance. UFUTURE was built in-house utilising the cakePHP framework and the MVC flow. UiTM was able to save a significant amount of money by developing and maintaining the application in-house. This is because the costs associated with employing LMS as a service or outsourcing are higher due to the large number of student population and the numerous internal processes required. Now, it operates on a hybrid basis (virtual machines and physical servers). Soon, UFUTURE will migrate to private cloud hosting to accommodate the increasing number of learners and the scalability of resources. UFUTURE now supports learning for University of the Sunshine Coast courses, MOOCs, and micro-credentials designed by University of the Sunshine Coast instructors. Students from both UiTM and non-UiTM institutions are welcome to enrol in MOOCs and micro-credential courses to enhance their skills and knowledge. The contemporary model of education is one of

self-directed learning. Soon, a system of free education and paid certification will be adopted. This allows for revenue generation from certifications delivered via MOOCs or micro-credentials.



<https://ufuture.utrn.edu.my/home/>

## Grammar Learning Adventures (GLAD)

The term G.L.A.D. stands for Grammar Learning Adventures, a project led by Associate Professor Dr. Norwati binti Haji Roslim from the Academy of Language Studies at Universiti Teknologi Negeri Sembilan, Rembau Campus. G.L.A.D. comprises of grammar lessons and activities. Three modules were created: the Workbook Adventure, the Board Game Challenge, and the Short Story Camp. The aims were to enable students to reach out and assist other students in achieving academic success, to provide English language activities for learning in a pleasant and interactive manner, and to establish a learning environment using English language games. To carry out this initiative, certified English language lecturers from the Academy of Language Studies and selected students of the Language Club from UiTM Rembau campus received training from the Project Leader prior to the project to ensure its smooth running. The G.L.A.D. project was awarded a grant of RM4,200.00 by the KHIND Starfish Foundation and the project was carried out at SK Bongok, one of the under-enrolled elementary schools in Negeri Sembilan's Rembau District. 100 Years 1 to 6 pupils who needed assistance with their English language learning and 12 schoolteachers participated in this project. Generally, the pupils' monthly tests results amounted to less than 50% which proves their lack of proficiency in both written and oral communication. This project analysis was based on the accomplishment of group work presentations and interviews with the pupils and teachers. Students at SK Bongok were exposed to three modules designed to help them acquire the English language. The project was undertaken between 2019 and 2020 and reached its peak and claimed success by all parties involved. Even the Parent Teacher Association (PTA) has demonstrated its confidence pledged full cooperation if the project is to continue in the future. The State Education Department (JPJN) Negeri Sembilan has urged that this project be expanded to other schools and

will share its experience with the education department. KHIND STARFISH FOUNDATION applauded the project due to the amount of effort and creativity that went into making it a success. The G.L.A.D. Project outcomes include materials created for the community such as Workbook, Board Games, and Short Stories, in collaboration with Academy of Language Studies, UiTM Rembau, Language Club, UiTM Rembau, KHIND Starfish Foundation, and the Ministry of Education.

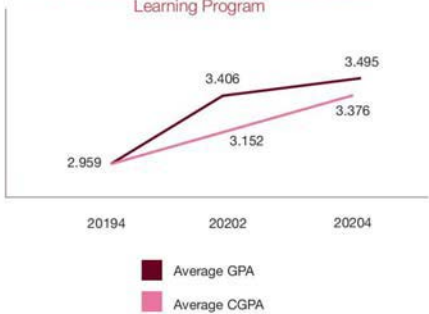
Copyright and intellectual property protection (MYIPO – 2019: CRLY00018964 and MYIPO – 2020: LY2020004524), and lecturers' awards (IDEX 2019).

### Innovative Delivery and Learning Development (CIDL)

In 2019, we launched our Education 5.0@UiTM strategy, which includes Meaningful Learning Experience as one of the five pillars. Inadvertently, the pandemic has increased opportunities to support this pillar and stimulated learning outside of the traditional classroom. According to a survey of nearly 13,000 students conducted in 2020, 14 percent of respondents are involved in international mobility programmes (physically and virtually). The formulation of our collaborative learning framework, which now includes global learning sessions (GLS) and cross-university learning, has been the most significant effort in bringing elements of mobility into students' learning over the last 18 months. GLS is a series of classroom sessions/lessons in which industrial practitioners and experts from various fields of work are invited to share current and relevant knowledge and experience with the class. Global learning promotes intercontinental awareness, diversity appreciation, and real-world learning experiences outside the classroom. To date, more than 11,000 UiTM students have participated in GLS, with positive feedback. Students agreed that classroom global learning has broadened their worldview and improved not only their understanding of the course content, but also their cross-cultural understanding of people from around the world. A pilot study of 500 students from various disciplines found that GLS participation improves students' learning outcomes and increases their grade point average (GPA). Students seem to be more motivated to learn from and with their global peers. Despite not being physically present, due to the Covid 19 pandemic, students are still aware of cultural and global issues among them. Immersion may not be ideal method, but the outcome is better than expected, considering the constraint in movement brought by the pandemic.

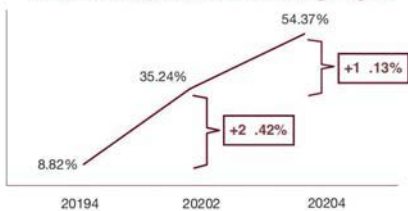


Performance of Students Participated in Global Learning Program



Semester	Average	Average CGPA
20204	3.495	3.376
20202	3.406	3.152
20194	2.959	2.959

Percentage of Dean's List Award Recipients for Students Participated in Global Learning Program



Semester	Percentage of Dean's List Award Recipients (%)
20204	54.37
20202	35.24
20194	8.82



## UiTM Malaysia Collaborates with Lejen Press Sdn Berhad to Support Sustainable Development Goal (Sdg) 4 and 17

In 2020, the Faculty of Film, Theatre and Animation (FITA), Universiti Teknologi MARA (UiTM), Malaysia collaborated with Lejen Press Sdn Bhd, a local media and publication company to provide news articles for its series of online projects, lamlejen.com and tehtarikgelasbesar.com. Since then, students taking Electronic Media Writing course and Popular Writing course have been encouraged to submit articles to both publication sites weekly. Several articles were successfully selected for publication in both digital platforms. This initiative coincides with the Sustainable Development Goals (SDGs) 4, Quality Education and SDGs17, Partnerships for the Goals. Associate Professor Dr. Mohd Syuhaidi Abu Bakar said that students must receive practical exposure apart from theoretical learning in the classroom. The initiative resulted in students becoming more confident in their writing especially for the online platform, as their articles have met the industry's expectation at the same time gaining better reputation of publishing news articles. Currently, FITA has more than 2,300 active students and offers 16 undergraduate academic programs in the field of film, theatre, animation, creative industry management and creative writing and 3 postgraduate programs. The Faculty of Film, Theatre and Animation or its acronym FITA was planned in 1997 and later established in 1998 which was in line with the trend in the development of the creative industry in Malaysia.

## Save Money and Environment Via Online Distance Learning (ODL)

Due to the COVID-19 pandemic, UiTM has not been able to conduct face-to-face final examinations since May 2020. The university has moved away from using examinations to evaluate students, instead allowing instructors to use continuous assessments to meet the overall learning objectives during the Movement Control Order (MCO) period. During normal academic sessions prior to the pandemic, the Academic Assessment and Evaluation Division, UiTM had been managing more than 2400 courses with a budget of RM200k every semester to conduct face-to-face final examinations. It included the costs for printing, papers, and others. However, by using the online platforms and converting the final examinations into continuous assessments which include tests and assignments has reduced the operational cost to roughly RM800k within four semesters. Initially, the Academic Assessment and Evaluation Division was able to reduce final examinations by 50 percent by introducing the Question Bank System (QBS) and encourage the usage of online assessment. Consequently, with the pandemic, everyone had no choice but to administer assessments via online platform. The move from a traditional to a digital strategy aids the institution in adopting, adapting, and preparing for future possibilities. This is in line with the educational quality, so nobody is left behind. Every student may gain access and participate in their learning without jeopardising the quality of the assessments.







# Achieve gender equality and empower all women and girls

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## Energy, Climate and Women Empowerment Discussed at UTM's E-Wire

To support UNESCO's efforts to advance and promote science for the sake of peace and sustainable development, the Faculty of Mechanical Engineering, Universiti Teknologi MARA (FKM UTM), in collaboration with the UTM Solar Research Institute (SRI), hosted a three-day programme titled E-WIRE: Empowering Women in Renewable Energy from August 20 to 22, 2020. The initiative was financed by the Selangor Human Resource Development Corporation (SHRDC), the Sustainable Energy Development Authority (SEDA), and the ASEAN Climate Change and Energy Project (ACCEPT). Its mission is to advocate for and strengthen capacity in engineering and climate change, as well as to engage young women as change agents.

The first day's programme began with a unique public webinar on the Climate-Energy-Women Nexus, featuring speakers from national and international organisations, including SEDA, ACCEPT, and the Global Women's Network for Energy Transition (GWNEN). Officiated by Prof.

Dr Mohd Nazip Suratman, Deputy Vice-Chancellor for Research and Innovation, and moderated by Dr. Azlin Mohd Azmi, Chair of the E-WIRE Programme, the webinar began with an insightful keynote address by SEDA Chief Strategic Officer, Dr Wei-Nee Chan, on "Flattening the Climate Curve: Status of Global and Local Renewables." Dr. Chen discussed the importance of energy transition in combating climate change, as well as Malaysia's renewable energy projects, notably in the area of solar photovoltaic (PV) application. This was followed by an inspirational presentation on "Energy and Gender Perspectives" by the Executive Director of GWNET, Ms Christine Lins. Ms Lins addressed the perspectives of women working in renewable energy and the critical role of gender equality in achieving a sustainable energy shift. Dr. Hoyyen Chan, Senior Officer at ACCEPT, then joined the webinar to discuss her fascinating topic, "Climate Change Communication in Accelerating the Low-Carbon Transition." Dr. Chan discussed the gaps in climate change communication using COVID-19 as a backdrop from her Google Trends investigation, emphasising the critical role of women in driving the low carbon transition. The webinar concluded with participant questions about renewable energy progress, women's obstacles in the industry, and the region's energy shift.

The following day, the SHRDC performed a 'Solar PV Fundamentals' training via Cisco Webex due to the present COVID-19 pandemic situation. Twenty-seven recent graduates from public and private universities, as well as early-career professionals, were chosen for the training from around the country. The two-day training finished with a virtual tour of UITM's 50 megawatt (MW) large-scale solar farm in Gambang, Pahang.

The E-WIRE programme is the first of its type in the country in that it connects the three critical pillars of Energy, Climate, and Women in order to facilitate a practical and effective energy transition and climate change mitigation. Empowering all women and girls will have a cascading effect on achieving sustainability goals, particularly those related to clean energy and climate action. It is hoped that this will not be the last gathering of women mobilising, educating, and empowering one another to campaign for positive improvements in energy transition and climate change mitigation.



<https://qs-gen.com/energy-climate-and-women-empowerment-discussed-at-uitms-e-wire/>

Photo by Myweiziana on Unsplash



## Non-Biased Staff Gender Distribution

### Overall %

Total number of UiTM Academic Staff According to Gender (2015 – 2020)						
GENDER	2015	2016	2017	2018	2019	2020
MALE	3175	3095	3027	2975	2942	3015
FEMALE	5809	5818	5745	5685	5683	5872
<b>TOTAL</b>	<b>8984</b>	<b>8913</b>	<b>8772</b>	<b>8660</b>	<b>8625</b>	<b>8887</b>

2015 = 35 (M), 65 (F)

2016 = 35 (M), 65 (F)

2017 = 35 (M), 65 (F)

2018 = 34 (M), 66 (F)

2019 = 34 (M), 66 (F)

2020 = 34 (M), 66 (F)

### PhD Holder

Total Number of UiTM Academic Staff with PhD According to Gender (2015 – 2020)						
GENDER	2015	2016	2017	2018	2019	2020
MALE	695	717	786	845	914	1048
FEMALE	986	1086	1202	1328	1482	1733
<b>TOTAL</b>	<b>1681</b>	<b>1803</b>	<b>1988</b>	<b>2173</b>	<b>2396</b>	<b>2781</b>

2015 = 41 (M), 59 (F)

2016 = 40 (M), 60 (F)

2017 = 40 (M), 60 (F)

2018 = 39 (M), 61 (F)

2019 = 38 (M), 62 (F)

2020 = 38 (M), 62 (F)

Total Number of Professors and Associate Professors According to Gender (2015 – 2020)							
POSITION	GENDER	2015	2016	2017	2018	2019	2020
PROFESSOR	MALE	94	79	78	78	101	116
	FEMALE	74	69	62	66	85	87
ASSOCIATE PROFESSOR	MALE	371	329	313	295	275	287
	FEMALE	390	371	345	336	344	392
<b>TOTAL</b>		<b>929</b>	<b>848</b>	<b>798</b>	<b>775</b>	<b>805</b>	<b>882</b>



## World Merit UITM on Sex Education: Understanding Sexual Consent

Conversations surrounding sexual topics are considered uncomfortable by many in our society. While some of us do appreciate the necessity of having such discourse, more often than not, any effort to encourage others doing the same leads to a heated exchange. Consequently, sexual education as taught in schools in Malaysia has not been comprehensive. However, it is essential to equip members of society with knowledge regarding their bodies, sexuality and healthy relationships in order for them to be able to make informed decisions.

To raise awareness among the students to understand sexual education

To highlight the importance of sex education

To give information on how to we can solve social issues



<https://www.instagram.com/p/CIK4nE8nCvh/>



<https://www.instagram.com/p/CIInwKg6H-1O/>



<https://www.instagram.com/p/CIQJjuUn9OP/>



Photo by Fa Baroza on Unplash

### *Sharing Session: Sexual Harassment*

Sexual harassment isn't necessarily done for sexual purposes. For example, making sexual remarks and passing it off as a joke is already a form of harassment. It tends to happen when there exists uneven or unequal power relations. Someone that enjoys relatively more power over another could easily get away with it, which is why many victims choose to keep silent.



[https://www.instagram.com/tv/C2kEAyH37S/?utm\\_medium=copy\\_link](https://www.instagram.com/tv/C2kEAyH37S/?utm_medium=copy_link)

### *Sharing Session: Image based Sexual Abuse*

The terminology image-based sexual abuse was coined by Clare McGlynn and Erika Rackley. It groups digital sexual offences under the same category due to the similarities that they share such as permanence of images or videos, especially once uploaded online. It refers to non-consensual acts of creating or distributing private, sexual images which were obtained either secretly (for instance, in cases of upskirting or by way of hacking), or privately. The term image-based sexual abuse thus better captures the nature and harms of these acts as it emphasises the fact that they're abusive because of the breach of privacy.



[https://www.instagram.com/tv/Ci8EdeOHBmd/?utm\\_medium=share\\_sheet](https://www.instagram.com/tv/Ci8EdeOHBmd/?utm_medium=share_sheet)

### *Sharing Session: Shift the Blame, Shift the Burden*

Victim blaming is prevalent where rape culture thrives. Rape culture is said to be thriving when frequent cases of sexual violence is normalised and the society readily justifies their occurrences. It can be seen through media glorification of sexually explicit jokes, and objectification of women's bodies. It's also reflected through statements like 'boys will be boys', and the portrayal of women as having sexual power over men so that she may be conveniently accused of 'inviting'.



[https://www.instagram.com/tv/CJ0Ykknvupf/?utm\\_medium=share\\_sheet](https://www.instagram.com/tv/CJ0Ykknvupf/?utm_medium=share_sheet)

### *UITM Women in Leadership*



<https://shared-assets.adobe.com/link/f:64226f-caba-4410-444b-b383d22592e4>







**MADE IN  
UiTM**  
**MADE  
TO LEAD**

Prof. Dr. Hajah  
Roziyah Mohd Janor  
on your appointment as

Deputy Vice Chancellor  
(Academic & International)

01 DECEMBER 2020

*congratulations*

gesturz™ X ADS CAMPAIGN  
CURATION  
TEAM







# Ensure availability and sustainable management of water and sanitation for all

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## The Efficiency of Activated Carbon Derived from Local Bamboo Charcoal for Pollutants Removal in Water

UITM researchers were awarded RM78,800,000 in research grant to look into the production of activated carbon derived from local bamboo charcoal, and the determination of the characteristics and properties of the activated carbon produced at optima conditions, as well as to measure the effectiveness of activated carbon derived from local bamboo charcoal as an absorbent for pollutants removal in the water treatment. The findings from this study will provide the characteristic profile of activated carbon derived from local bamboo charcoal to meet the high global demand of activated carbon. Additionally, this innovation provides a cheap and effective alternative material of water treatment which will certainly improve the quality and sustainability of life for mankind. This is in line with the 11th Malaysia Plan Strategic Trusts to pursue green growth for sustainable and resilience, and to contribute towards the Sustainable Development Goals, particularly Goal 6-Clean water and 14-Life below water.



Photo by Samsamizah

## Germicidal and Electrocoagulation Treatment (GET) System to Treat Underground Water

Wan Izhan and his team conducted research in leveraging germicidal and electrocoagulation treatment to treat underground water. Electrocoagulation functions like normal coagulation using alum (aluminium persulphate) to coagulate Total Dissolved Solids (TDS) as well as organic and inorganic pollutants. However, a normal coagulation needs a chemical (alum) upon reaction, thus making a continuous process which incurs costs. Electrocoagulation is very economic since it does not require chemicals during the process. Additionally, electrocoagulation uses electricity to activate the ions that function to coagulate the organic and inorganic pollutants. It is, therefore, a more economical and effective way to treat underground water as compared to the filtration process which could possibly eventuate clogging problems and require high maintenance. Germicidal treatment, on the other hand, is a special type of treatment process that uses high energy of light irradiation. A lamp produces ultraviolet (UVC) light that is used to provide high energy light irradiation. This short-wave ultraviolet light disrupts DNA base pairing causing formation of pyrimidine dimers and leads to the inactivation of bacteria, viruses, and protozoa. It can also be used to produce ozone for water disinfection.

## Enhancement of Methane Production from Anaerobic Co-Digestion of IWK Sludge and Food Waste

Indah Water Konsortium (IWK) Sdn. Bhd. generally produces 4.2 million cubic meter of sewage sludge with the cost of about RM 1 billion for its management. IWK has ventured in the biogas production project for its sewage treatment plant at Pantai Dalam, Kuala Lumpur. However, there is insufficient gas production (biogas) from existing set up which is less than 900m<sup>3</sup> from the total gas volume in the collecting gas tank. This could be due to some operational issues and the conditions of the digester such as the pH and temperature which are unsuitable for organic matters to be anaerobically digested to produce methane. Therefore, a group of UiTM researchers led by Dr Faeiza Buyong has been awarded with a Strategic Research Partnership Grant by UiTM and IWK Sdn. Bhd. worth RM50,000 in 2020 to overcome this main issue. This study aims to enhance the production of methane from the co-digestion of IWK sludge with various types of food waste. Biochemical methane potential (BMP) will be conducted for optimisation of conditions such as pH, pre-treatment of inoculum, and substrate based on the types of food waste to be used as well as food waste and sludge ratios for co-digestion process. The optimised conditions obtained from the BMP experiments will be scaled up to a 40L digester that will be conducted at Indah Water Research Centre (IWRC). Findings of this study will not only enhance the biogas production of IWK, but also help to reduce the sludge content and improve the treatments of the wastewater. The results and analysis of this study are important to optimise the biogas production of IWK sludge in anaerobic co-digestion process. Thus, the methane produced will be calculated for the use of IWK plants and electricity generations.







# Ensure access to affordable, reliable, sustainable and modern energy for all

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## SDGS 7, 11, 12 & 13 - Integration of Energy Efficiency and Renewable Energy (EERE) Technologies Introduced by UiTM Solar Research Institute (SRI)

The government's encouragement, incentives, and support in the 10-10 Malaysian Science, Technology, Innovation, and Economy (MySTIE) framework have emphasised the implementation of renewable energy (RE) based photovoltaic (PV) systems and energy efficiency with the goal of increasing socio-economic energy and reducing air pollution. The combination of Microgrids (MGs) with a large number of PV systems will alter the operational structure of the system, changing consumers into prosumers with benefits and opportunities in both energy generation and use. Energy trading from MGs can be enhanced by focusing on energy efficiency, which can be achieved with the help of voltage and reactive power (Volt-VAr) optimisation. Associate Professor Dr Muhammad Murtadha Othman of UiTM's Solar Research Institute (SRI) led the team in this project, which proposes



an enhanced Volt-VAr optimisation based artificial intelligence (AI) as a novel technology to improve energy efficiency problems caused by total power losses, excessive incoming power, and other factors. The United Nation's 7th, 11th, 12th, and 13th Sustainable Development Goals (SDGs), which provide a cost-effective approach for reducing carbon emissions, are likewise aligned with this study endeavour.

### UiTM-MBSA Low Carbon City Initiative

Under the Paris Agreement, Malaysia has committed to reduce its carbon emission intensity by 45% by the year 2030 relative to 2005 gross domestic product (GDP). In driving the climate change and low carbon agenda in Malaysia and recognising the need to reduce emission from urban-cities, the Malaysian Green Technology and Climate Change Centre (MGTC) has initiated the Low Carbon Cities 2030 Challenge (LCC2030C) to help shift cities towards a low carbon future. UiTM, in partnership with Shah Alam Municipal Council (MBSA) has taken up the LCC2030C, via the ASEAN SDGs Frontrunners Cities programme. Anchored by the UiTM Green Centre UGC-LCC Expert Task Force Team, the project is also part of the initiatives under the Memorandum of Understanding between UiTM and MBSA which was successfully signed on August 19, 2019. Aiming to reduce carbon emission by 45 percent by 2030 relative to 2015 level, UiTM is committed to strengthen its low carbon implementation across all 4 elements: Energy, Waste, Water, and Greenery. As of 2020, UiTM has had 1 Low Carbon Zone (Section 1, Shah Alam) and 5 buildings (Chancellery, Engineering Complex, FSPU, FSKM, and Pusat Keshataran), registered in the LCC2030C. Based on the 2019 challenge, UiTM managed to reduce 28,748.01 tonnes of carbon dioxide equivalent, which corresponds to 38.86% emission reduction and subsequently was awarded Diamond Recognitions for its Section 1 campus and all registered buildings.

Photo by American Institute for Clean Energy and Environment on Unsplash

## Solar Thermal Malaysia

Malaysia's National Energy Balance reported 30% of total final energy consumption in Malaysia was used by the industrial sector. In an industry, a large portion i.e. 67% of this total energy from fossil fuel is used for heating requirements. A significant energy from fuel can be reduced if some portions of the heating use in industries is replaced by energy from Solar Thermal. Statistics show that most of the manufacturing industrial energy demand in Malaysia was from food, beverages and tobacco, followed by chemical and paper, textiles, and wood-based products sub-sectors. This indicates that low temperature process heat (< 150oC) is suitable for the industrial sector in Malaysia, which can be met by commercially available solar thermal collectors. The absence of supportive policy for thermal energy is the main barrier for solar thermal implementation in Malaysia. In addressing this issue, the United Nations Industrial Development Organization (UNIDO) has appointed Associate Professor Ir Dr Nofri Yanita Dahlan from Solar Research Institute (SRI) as a Policy Consultant under the Malaysia Energy Efficiency and Solar Thermal Project (MAEESTA) to develop policy inputs for the Malaysian Government. A policy brief titled "Solar thermal deployment strategy for Malaysian industries" was developed to identify suitable instruments and enablers in light of the status quo, challenges and way forward for strategic implementation in five areas: 1) Policy and Regulatory, 2) Financial, 3) Awareness and Capacity Building, 4) Testing, Certification and Standardisation, and 5) Technology and R&D. The document reflects a consolidated viewpoint from numerous stakeholders: ministries, government agencies, industries, associations, external consultants, academic institutes, and multilateral/bilateral organisations. Collaboration between UiTM, UNIDO, and relevant agencies will be established to execute the deployment strategies as specified in the policy brief for supporting solar thermal growth in the year 2021-2025.



[https://www.bernama.com/bm/am/news.php?id=2005214&fbclid=IwAR2iWIPZy2k8BnEODMCSkixQEpcSvT1mUBIYuMaaVceo1HN\\_UI](https://www.bernama.com/bm/am/news.php?id=2005214&fbclid=IwAR2iWIPZy2k8BnEODMCSkixQEpcSvT1mUBIYuMaaVceo1HN_UI)

## Blueprint of Low Carbon City 2030 Challenge (LCC2030C)

UiTM is committed to implement the low carbon cities framework program which focuses on five Greenhouse Gases (GHG) reduction elements: energy, mobility, waste, water, greenery and water bodies. UiTM carbon commitment is to reduce 45% emission intensity by 2030 from the baseline year 2015. A city-based approach is chosen for the whole campus with special projects of performance-based approach for selected buildings. Various initiatives are outlined in achieving the Sustainable Development Goals (SDGs) through sustainable campus practices, green governance and ecosystem, and university-community linkages and partnerships for the goals. A carbon management plan is underway to enable UiTM to be Malaysia's best low carbon public university model by 2030 while also striving for carbon-neutrality. With two blueprints for LCC Zone and Building, UiTM envisioned to be Malaysia's best low carbon public university model by 2030, and missions are as follows:

To incorporate sustainable practices through teaching, learning and research towards development of green talent

To implement green governance that advocates sustainability in managing goal setting, execution, and performance management of UiTM

To commit to protecting and enhancing the green campus ecosystem through carbon management

To increase university-community linkages and partnerships in achieving sustainable development goals



<https://ppii.uitm.edu.my/index.php/korporat/pejabat/uitm-green-centre-ugc>

## Energy Efficiency Enhanced Volt-Var Optimization Via Artificial Intelligence

Associate Professor Dr Muhammad Murtadha from the Faculty of Electrical Engineering (FEE), Universiti Teknologi MARA (UiTM) led his team to win the Gold Award for his research project entitled 'Enhanced Volt-Var optimisation via artificial intelligence (AI) for energy efficiency improvement in a large-scale building'. The Gold Award certification was presented by Professor James Taylor, Chairman of Institution of Engineering and Technology (IET) Control and Automation, Technical Professional Network, United Kingdom. The International Automation and Control Enhancing Innovation Competition (ACEiC) 2019 which took place from 14th to 15th October 2019 at the Dewan Seri Sarjana, Universiti Tenaga Nasional (UNITEN), Selangor had a theme, "Embracing the change of Industry Revolution (I.R.) 4.0". The main objective of the competition was to bridge the knowledge and expertise gap between universities and industries focussing on automation and control systems. The opening ceremony was officiated by the Dean of the Faculty of Engineering, UNITEN, Prof. Ir Dr Izharn Bin Datuk Zainal Abidin with an opening speech by Ir Amir Farid Abdul Majid, Vice Chairman of IET Network Malaysia. This project was conducted under the research collaboration between FEE UiTM and Malaysia Department of Public Works (JKR). The collaborative research team comprised of members from UiTM, namely Associate Professor Dr Muhammad Murtadha Othman and Ts Mohd Fuad Latip, as well as members from JKR, namely Ir Mat Nasir Bin Kari, Ir Zilaila Binti Hj. Zakaria and Ir Mohd Ainor bin Yahya. The research project was funded by the Centre of Excellence in Engineering and Technology (CREaTE), JKR signed under the Memorandum of Agreement (MOA) between UiTM and JKR. This product is an improved version from the previous

research project that was successfully implemented through financial support funded by the Malaysia Electricity Supply Industries Trust Account (MESITA) under the Ministry of Energy, Green Technology and Water (KeTTHA). The AI novel technology project proposes an enhanced Volt-Var optimisation that can be used to improve pervasive energy efficiency problems caused by the total power losses, excessive incoming power, total harmonic distortion (THD), and violation of lagging power factor (p.f.) limit. This is important to ensure that a large-scale building operates in a safe and reliable condition whilst sustaining considerable reduction of electricity usage. Early stages of simulation studies showed that the enhanced Volt-Var optimisation technique is able to improve the energy efficiency by 14% to 24% in several large-scale buildings with a reasonable duration in the return of investment (ROI). The proposed technology has the potential to penetrate in a widespread market environment due to its durability and cheaper cost of electrical components utilisation as well as a cost-effective solution in providing significant improvements of energy efficiency with shorter time period in the ROI.



<https://qs-gen.com/uitms-electrical-engineering-research-on-enhanced-volt-var-optimization-via-artificial-intelligence-ai-won-gold-award-at-the-2019-acei/>



copyrights

8



Patent

3

year 2020



1

year 2019



research grants

137

year 2020

RM7,052,332.00



25

year 2019



consultancy projects

12

RM1,339,968.29



8 DECENT WORK AND  
ECONOMIC GROWTH



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

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## Stimulate an Entrepreneurial Mindset to Start Up Business

The Pahang Chapter of Universiti Teknologi MARA (UiTM) in Malaysia started a bee breeding research employing a rare kind of stingless bee named *Trigona binghami* from the *Trigona* genus, which belongs to the *Apidae* family, dubbed *kelulut* by Malaysians. This initiative was started by Mr. Mohamad Amir Shah Yusop with 10 students from the Diploma in Planting Industry Management on a farm owned by UiTM in Pahang. In the tropical region, the production of honey and other products generated from stingless bees is very promising. Because of their small size, stingless bees are more resistant to illnesses and parasites, and their nests contain propolis (a resinous material collected from diverse plant buds), a natural antibacterial and pest repellent. The bee farm, which is still being maintained in UiTM



Pahang, is unique in that the nests are placed in a starfruit orchard. This orchard produces blossoms that the bees require all year round. The bees collect nectar from the interior part of the flowers, where the concentrated plant nutrients are accessible, and store it in huge egg-shaped pots made up of several forms of propolis. When compared to typical honey, the honey produced on this farm is rich and sweet-sour, fruity-scented, less sticky, and sometimes comes in varied colours. This, however, is dependent on the plants from which the bees grazed. This species develops about 8 logs, and begins to produce honey every three weeks, ranging from 500 to 2000 grammes each month. Mr. Adam Zakaria, of Adama Global Enterprise, a collaborative industry partner with UTM Pahang, advises on marketing strategies and assures sustainable production in the honey business to avoid oversupply. This venture is seen as an excellent way for the students involved to earn money and market their high-quality honey. Apart from research collaboration and student achievement, the main purpose of this project is to encourage students to develop an entrepreneurial attitude for them to start their own firm. According

to Professor Ts. Dr. Mohd Ilham Adenan, Rector of UTM Pahang, a joint industry-academia initiative like this will pave a successful journey for all parties involved because the project can encourage new innovations and the development of green nests, and lead to recognition by established organisations. Furthermore, honey has traditionally been recognised as a 'superfood' because of its nutrient-rich ingredients with complimentary health benefits. This project aims to expand public access to safe, high-quality, and healthful products, in keeping with SDG 3 of the United Nations' Sustainable Development Goals, which calls for everyone to enjoy good health and well-being.



<https://iqs-gen.com/utm-pahang-breeds-stingless-bees-to-produce-high-quality-honey/>



Photo by Jbure Isal Unsplash

## UITM Collaborates with Selangor Youth Community on Entrepreneurship Initiative for Disabled Community

Universiti Teknologi MARA (UITM) has cooperated with the Selangor Youth Community on a special project known as Leadership Entrepreneurship Acceleration and Development (SAY LEAD) to hold the first ever Entrepreneurship League for disabled individuals in the history of the country. The SAY LEAD community is a non-profit organisation dedicated to assisting disadvantaged entrepreneurs in their endeavours. This collaboration between Unit Perkhidmatan OKU, UITM (UFO), a unit providing services for people with disability, and the Faculty of Business Management will synergize the skills of the lecturers to generate new perspectives and insights that will boost the confidence and abilities of the selected entrepreneurs. This relationship will also aid in the promotion of UITM to SAY LEAD as well as the development of strong networking for future collaborations. Entrepreneurship, marketing & sales, accounts management, communication skills, and networking are topics covered in the seven modules of the program, which would be completed by the mentors to coach and observe the performance of their respective mentees.



<https://qs-gen.com/fbm-uitm-collaborates-with-selangor-youth-community-on-entrepreneurship-initiative-for-disabled-community/>



## COVID-19 UiTM Job Creation Policy by Ican

Job Creation is a programme developed by the university's Office of Industry, Community, and Alumni Networking (ICAN) as a means of resolving concerns connected to graduate employability and job availability. Following the pandemic declaration of COVID-19 in March 2020, the Malaysian Movement Control Order (MCO), and various control measures implemented by other countries worldwide to halt the spread of the COVID-19 pandemic, Universiti Teknologi MARA (UiTM) will operate post-COVID-19. The badly affected economic situation has had a significant influence on the economy, resulting in a significant impact on the labour market and human resource intake. As a result, UiTM must adopt a variety of measures to ensure that our graduates are prepared to deal with this scenario until the economy improves. Through the Job Creation programme, new graduates can obtain on-the-job training during their placement term with the Job Creation initiative, which can enhance their marketability and make them more willing to enter the workforce once the economy recovers. The Job Creation programme is perceived as a programme that can assist recent graduates in overcoming the difficulties associated with obtaining work or launching a firm as an entrepreneur in today's covid-19 era.

### Bizmart Books and Such: Student-Based Retail Lab's Social- Entrepreneur

When COVID-19 hit Malaysia in January 2020, the government had no choice but to impose the Movement Control Order (MCO) for 3 months to break the pandemic's link. As a result, most institutions, including UiTM Kelantan, had to close. Many businesses were struggling without their main customers, the students. Students were stranded at their hostels and apartments around the campus. Given the instructions for students to remain indoors, the university administration had to organise a team of academicians and managers to help them during MCO. Volunteers had organised monitoring schedules, healthcare support and therapy. In addition to the effort made by the university administration, Bizmart, a student-run business retail lab, established a team of 16 lecturers and 30 students to assist UiTM volunteers and help the stranded students. There were 100 students in Machang and 40 in Kota Bharu respectively. The team donated food, drinks, medication and toiletries worth RM 5,121.35. The volunteers worked tirelessly to ensure that all students on campus and nearby were supported. The donation from Bizmart enabled the volunteers to focus on other important tasks without having to worry about rations and food supplies. During MCO, students admitted to being hungry and unable to buy supplies due to closure of most retail businesses on campus. Students who received the food said it was a big comfort to have it delivered by Bizmart. Other than food, Bizmart also provided financial assistance to children from disadvantaged households. Nurtazni Et Mazlan, for example, is from a poor household with two disabled siblings who need prescription milk and disposable diapers. Bizmart had provided RM 250 and other non-monetary aid to this family. With its strong Strategic Entrepreneurship training students to become successful retailers, Bizmart hopes to become the best Social Entrepreneurship entity in UiTM Kelantan, and hopefully set a good example for other Higher Education Institutions in Malaysia. With this unique attitude, Bizmart tries to educate and develop students to be more self-sufficient while also showing empathy for others in need.



[https://ican.uitm.edu.my/v1/images/download/circular2020/Dasar\\_Dan\\_Polisi\\_Job\\_Creation\\_Nov2020.pdf](https://ican.uitm.edu.my/v1/images/download/circular2020/Dasar_Dan_Polisi_Job_Creation_Nov2020.pdf)





consultancy  
projects

72

RM5,918,774.22



23



research  
grants

337

RM13,557,260.34

year 2020



171

year 2019



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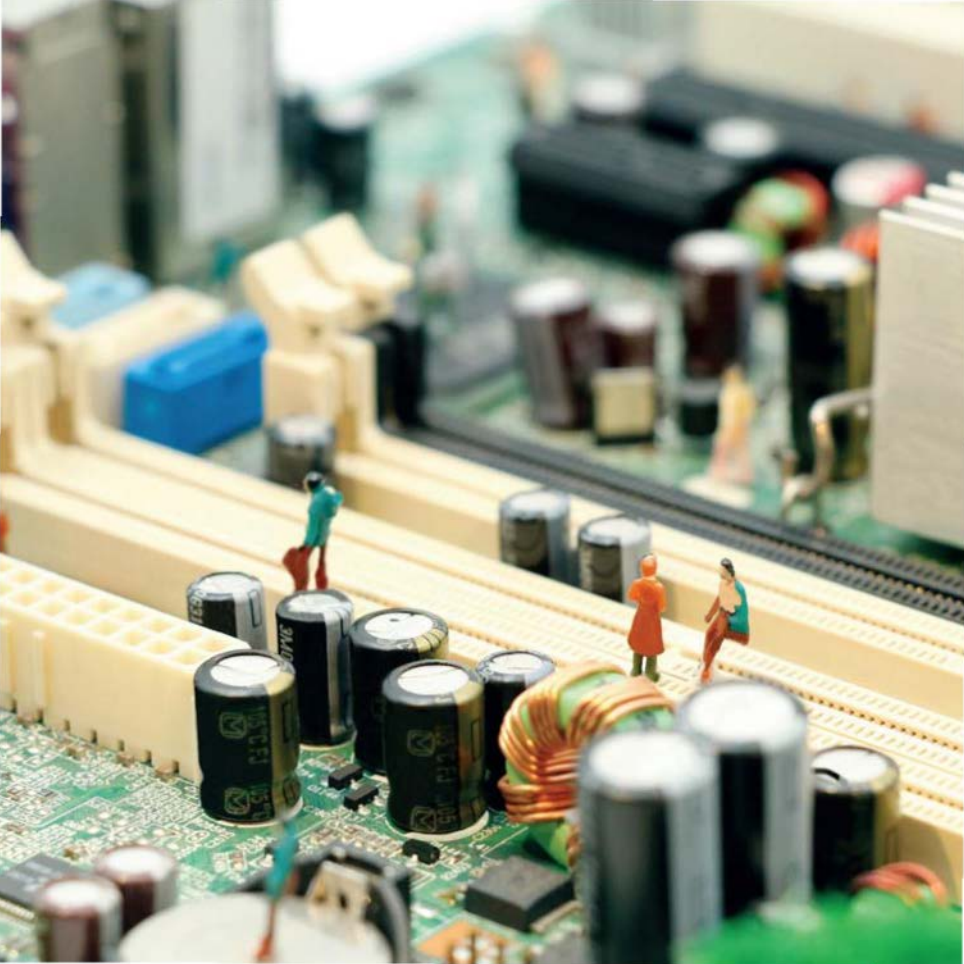
40

year 2020



26

year 2019





# Build resilient infrastructure, industrialization and foster innovation promote inclusive and sustainable

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## UiTM Secures International Collaborative Fund for Nanosatellite Development

The Malaysian Nanosatellite Project will once again be led by the Faculty of Electrical Engineering (FKE) at Universiti Teknologi MARA (UiTM). The Ministry of Science, Technology, and Innovation (MOSTI) has awarded FKE's Centre for Satellite Communication an International Collaborative Fund (ICF) for a project known as Development of Flight Model (FM) for 1U-Sized Nanosatellite (ASEANSAT) with High Ground Resolution Camera Payload. Participants from University of Perpetual Help System DALTA (UPHSD), Philippines, King Mongkut's University of Technology North Bangkok (KMUTNB), Thailand, and Kyushu Institute of Technology (KYUTECH), Japan, are participating in the ASEANSAT. The success of UiTMSAT-1 has a substantial impact on this new project. As part of this project, UiTM will be launching UiTMSAT-2, the second Nanosatellite produced by the university.

This is the first UiTM Nanosatellite to be created on the ground, with help from other faculties at UiTM, the Malaysian Space Agency (MYSA), and non-governmental organisations (NGOs). The 1U-sized UiTMSAT-2, which will focus on earth observation, is predicted to be one of the world's first 1U Nanosatellites capable of producing high ground resolution imagery. Assoc. Prof. Ir. Dr Mohamad Huzaimy Jusoh, who has been awarded an RM500,000 grant for a two-year tenure, is leading the project. Team members from FKE UiTM include Associate Professor Ir. Ts. Dr. Juliana Johari, Ts. Fatimah Zaharah Ali, Ir. Ts. Dr. Fadhlán Hafizhelmi Kamaruzzaman, Ir. Ts. Dr. Azrif Manuf, and Associate Professor Ir. Ts. Gs. Dr. Norsuzla Yaacob.



<https://qs-gen.com/uitm-secures-international-collaborative-fund-for-nanosatellite-development/>

## Sistem Hartanah UiTM (SIHU)

The Real Estate System, UiTM, or commonly known as Sistem Hartanah UiTM (SIHU) serves as a foundation for a gradual transition from manual to automated asset management. In accordance with the Industrial Revolution 4.0, the Department of Management and Real Estate Investment, Jabatan Pengurusan dan Pelaburan Hartanah (JPPH), in partnership with the Faculty of Computer and Mathematical Sciences (FSKM), has developed a strategy to streamline the university's coordination and management of land information. This collaboration has proven to be effective, as adoption by SIHU has seen a 60% improvement in process efficiency. This is no minor effort given that, in addition to external land titles, there are 38 campuses across the country with over 350 assets totaling over 15000 hectares. SIHU was developed by FSKM professionals and is equipped with a variety of useful features with the primary goal of facilitating seamless and current information management. SIHU is crucial in facilitating the transition from a time-consuming manual approach to data digitization. From routine paperwork, the FSKM and JPPH teams



updated the process to more efficient asset management, since automation enables a more progressive process flow, hence increasing stakeholder empowerment. Additionally, SIHU is a proud indigenous product that has overcome financial obstacles. The features place a premium on asset tracking, ensuring that data on assets such as land titles, title owners, and leaseholders, among others, is current and full. SIHU is also meant to notify JPPH users when their leases are about to expire. This is a significant feature because it has financial consequences and could lead to title loss if proper action is not taken. JPPH can strategize on land investment, land purchase planning, and financial planning with the alert feature in place. In alignment with Sustainable Development Goal (SDG) 9, this innovation is considered as a means of sustaining UTM's growth, as ICT technology and knowledge are developed locally, resulting in a symbiotic relationship within the company. SIHU is not a one-size-fits-all endeavour, just as no one size fits all. Not only may JPPH profit from this invention, but it is also scalable to other government agencies, commercial businesses, and institutions of higher education.

## Digital-Tropical: Breathing the Waves

This project is a proud collaboration of three universities: Universiti Teknologi MARA (UiTM), Universiti Kebangsaan Malaysia (UKM) and Universiti Putra Malaysia (UPM) as well as independent partners. Data is conceptualised in illuminating art form to raise awareness on the aesthetics of big data. The LED lighting portrays the oceanic data migration at the Garden of Pantun (a Malay oral poetic form) located within the vicinity of the Palace of Princess Bongsu, UKM. In short, Digital-Tropical is inspired and used data from Tioman Island, Malaysia. The sea wave data is visualised by lighting the stilts of the Palace of Princess Bongsu, a 300-year-old traditional tropical residence. A cultural artefact has been placed in a new reality, the Palace. The value of big data beyond raw-lifeless-bytes of data is steadily expanding. Big data is often viewed as a decision-making input. Digital-Tropical promotes the beauty of big data while showcasing Nusantara architecture and the power of oceanic nature in waveform. The project also aimed to show that technological advancement should not harm nature, but rather enhance it. Passing motorists enjoy swinging illumination on an otherwise gloomy path. It has attracted a lot of attention from the public and academia, which helps build the university's reputation for encouraging art innovation. As an artform, Digital-Tropical originated as a fiddling of data, which was first displayed at an academic conference. It then competed against the project's core premise. The Academy of Sciences Malaysia proudly awarded this initiative the ArtScience Prize 2020 worth RM20,000. In addition to local accolades, the initiative has sparked interest from the Academy of Fine Arts in Gdansk, Poland. These awards serve as both a monument and a platform to educate the community on the

beauty and purpose of big data. It also shows how technology and artwork work together to not only expose a domain's strengths but also to enhance them. Anwar Suhaimi and Mohd Shahrudin Abd Manan are among the contributors to the Digital-Tropical initiative. The members' diversity promotes interdisciplinary collaboration that includes physical computing, visual epistemology, electronics, data sciences, new media, sensory experience, healing landscapes, and design. This collaboration builds the project's technological and social strength. The team's disagreements drew them together to work on a meaningful endeavour. Team members are quite pleased with this project since it redefines how science and art may exhibit an aesthetic beauty while immersing the audience in data.

## Innovative Mobility Program from Erasmus and Daad

This international research grant has a duration from 2020 to 2021. The collaborators are Professorship of Virtual Production Engineering at Chemnitz University of Technology in Germany, under the leadership of Prof. Dr Birgit Awiszus and Smart Manufacturing Research Institute (SMRI) at UTM Shah Alam under the leadership of Prof. Dr -Ing. Yupiter HP Manuring. The initial purposes of this grant are:

Staff research mobility (5 pax)
Postgraduate students research mobility (3 pax)
BSc students research mobility (3 pax)
Joint publications
Industrial exposure
Cultural exchange

Due to pandemic COVID - 19, some activities are cancelled in 2020 and 2021 and will be planned for 2022, especially in research mobility. In 2020 and 2021, research collaborations were carried out using online media. Some budgets are used for purchasing equipment for online activities and research. Virtual Colloquiums are organized for presenting the results of research carried out by both sides.



research grants

877

RM49,909,763.44

480

year 2020

year 2019



Patent

12

year 2020

9

year 2019



consultancy projects

271

year 2020

RM7,238,511.33

199

year 2019



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151

Photo by Jorge Ramirez on Unsplash





10 REDUCED  
INEQUALITIES



# Reduce inequality within and among countries

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## UiTM Receives Endowment Fund from the National Autism Society of Malaysia and Dow Malaysia

Since 2010, Universiti Teknologi MARA (UiTM), Shah Alam, Malaysia, and the National Autism Society of Malaysia (NASOM) have collaborated on research and other activities aimed at benefiting individuals with autism (PWA) and their families. NASOM entrusted UiTM with the establishment of the National Autism Resource Centre (NARC) in 2019 after collecting an endowment money of RM80,000 from Dow Malaysia. To mark the relationship, UiTM and NASOM signed a Memorandum of Agreement (MoA) on 2nd April 2019 in connection with World Autism Day. The Women, Family, and Community Development Ministry also presented UiTM with the NASOM Autism Research Award. The same year, NARC and NASOM convened a series of workshops and roundtable talks at the national level to adopt PWA policy. Attendees included autism non-governmental organisations, parents, and stakeholders representing key government and business entities. The policy proposals were given during the ASEAN Regional Workshop for Policy Recommendations on Autism, which took place in Bangkok from

October 21-23, 2019. Dow Malaysia and NASOM pledged an additional RM88,000 to NARC in 2020 because of the success story in 2019. NARC intends to continue organising initiatives aimed at increasing Malaysians' acceptance of PWA through webinars, training, and social activities. "Our primary objective for 2020 is to collect statistics and information on autism prevalence, mortality, costs, research, and centres in Malaysia," stated Prof. Dr. Nursuriati Jamil, the Chair of NARC. NASOM and UITM will continue to collaborate through the National Autism Resource Centre to improve the quality of life for individuals with autism and their families. Additionally, volunteers and researchers are welcomed to assist us in accomplishing our purpose.



<https://qs-gen.com/uitm-receives-endowment-fund-from-the-national-autism-society-of-malaysia-and-dow-malaysia/>

## Endowment Scholarship for Students

UITM is providing an opportunity for excellent Malaysians and international students to pursue their undergraduate and postgraduate studies at Universiti Teknologi MARA (UiTM) by offering them the UiTM Endowment Scholarship, the first of its kind in UiTM. The scholarship will not only cover academic tuition fees but also a rewarding monthly allowance. For the year 2020, more than 50 scholarships will be awarded to selected students categorised as follows:

Undergraduate scholarships for Malaysian citizens.

Postgraduate scholarships for Malaysian citizens.

Postgraduate scholarships for overseas students studying at UiTM in the stipulated prioritised areas.

The best candidates who have been offered to further their studies full time at Universiti Teknologi MARA are invited to apply for the UiTM Endowment Scholarship.

## The Drive to Strive for Excellence, Against All Odds

Institute of Graduate Studies (IGS) UiTM has established an integrated marketing approach which includes key strategies, from having aggressive student recruitment to increasing the visibility of UiTM postgraduate programmes. Each key activity was well-thought-out, where the focus was on ongoing marketing campaigns instead of flash-in-the-pan expensive advertisements. Most importantly, IGS has aligned a social marketing approach with a relevant theme to people's lives, and interests, and also selling experiences over products with the aim to capture the attention of potential postgraduate students. What made the approach a success was the way we combined both traditional and digital marketing to enhance organic performance. We participated in traditional physical education campaigns in many targeted countries, such as Indonesia, Maldives, Sri Lanka, China and the Middle East and we initiated strong connections with universities and governments of each country that we visited. A partnership with these governments was intended to ensure the trust of the government towards UiTM, as well as promoting UiTM as a place of study for the civil servants. The University to University (U2U) initiative was promoted to establish close partnership between UiTM and universities overseas. Among the governments that we have established close ties with is Indonesia, where the secretary-general of the United Development Party, is a PhD candidate in UiTM. Locally, we also took part in state education fairs, such as in Sabah, Kedah, Penang, and Kuala Lumpur. IGS UiTM was also featured in the New Straits Times for a cover story entitled The Value of a PhD. Furthermore, for the very first time, Postgraduate UiTM was on a digital billboard ad, strategically placed on the Federal Highway. These marketing strategies created a cohesive assimilation that was intended to spark the discussion about pursuing postgraduate studies among the local

community and to enhance the visibility of UiTM Postgraduate Studies. COVID-19 pandemic that hit the world in March 2020 halted all local and international travel, physical gatherings and events. The situation was indeed a barrier for IGS to execute the planned marketing strategies. However, this did not stop us and since then, we embraced digital marketing, from participating in virtual education campaigns locally and internationally to hosting multiple virtual open days throughout 2020. Consequently, we have reached thousands of prospective students virtually in 31 countries. In addition, official agents were appointed to promote our postgraduate programmes and to recruit students. Importantly, the effort at IGS UiTM is supported by the faculties and the Office of International Affairs (OIA) as to ensure a smooth enrolment process for each student. Fast and friendly student services are the commitment that we take pride in. All campaigns and efforts, after all, will not be a success without our committed and dedicated staff. At IGS UiTM, the harmony and close collaboration with each other are two attributes that we anchor on. As a result of the hard work, creativity and against all odds, our performance exceeded the KPI of 2020. We successfully brought in 9,371 Malaysian students and 556 international students from 35 countries to study in UiTM.

## Bridging the Gap Between Medical Students and the Deaf-Mute Population

Deafness is the inability to hear or also known as impaired hearing. Impaired hearing largely contributes to about 5% of the global population, which largely affects adults and developing nations. In Malaysia, hearing loss is the third most common disability where 44,523 individuals were registered with hearing loss in 2018. Sign languages use visualisation and facial expression to convey conversational meaning. However, not many healthcare workers are able to converse in sign language thus hampering effective communication and quality of health services provided to deaf patients. Increasing awareness amongst healthcare workers is therefore a pinnacle and using sign language as a tool to raise this awareness amongst medical students is explored.

**OBJECTIVE:** To evaluate the effectiveness of sign language in increasing the awareness amongst medical students on healthcare access difficulties faced by the deaf.

**METHOD:** A video on common questions used in the clinical setting using sign language was then developed and shown to a cohort of 224 third year medical students in UiTM. Awareness on the importance of sign language amongst the cohort was surveyed before and after watching the video. The four project members were also assessed on their awareness level and sign language proficiency before and after attending classes.

**RESULTS:** The number of students who were aware of the importance of sign language in the clinical setting increased from 39.7% (N=89) to 98.2% (N=220) after watching the video. Significant increase in post-test scores was also observed amongst project members after attending sign language classes (Mean +2.43,  $p < 0.01$ ) (Fig. 2). Members showed significant improvement in basic knowledge of sign language and were able to demonstrate signs that are commonly used in the clinical setting such as self-



Photo by Chang along on Unsplash

introduction and gathering medical history ( $p=0.046$ ). In totality, awareness of the challenges faced by deaf-mute patients when communicating with healthcare workers increased significantly after students attended sign language classes and watched a video on sign language in a clinical setting ( $p=0.046$ ).

**CONCLUSION:** Language barrier poses a big hurdle on deaf-mute individuals in accessing optimal healthcare. Sign language is essential in improving communication between deaf patients and healthcare workers. It is therefore imperative that healthcare personnel gain basic skills in sign language to improve communication and provide better medical services to the deaf community.





## Bridging the Gap: Financing Virtual Mobility

Universiti Teknologi MARA (UiTM) is a mega university that has a 79% student population comprising Bottom 40 (B40), low-income family backgrounds. Therefore, student's welfare and bridging the gap on student's socioeconomic status have always been the top priorities in UiTM's mission and vision. To address this urgent need, UiTM has launched the one and only student's mobility support fund in Malaysia under UiTM Endowment Fund which aids students financially to participate in international mobility programs across the globe. This impactful initiative is not only successful in financing virtual mobility, supporting internet data and providing fees reduction, but it also synergises with the philosophy of UiTM Strategic Plan 2025 that aspires everyone in UiTM to strive excellence through knowledge transfer.

To support this agenda, the Office of International Affairs (OIA), UiTM is committed to being bold in providing outstanding support and accelerating internalisation activities among students even under the unprecedented situation of the Covid-19 pandemic. OIA has realised that we cannot be idle in waiting for the situation to recover while the students are struggling with their academics and

daily life. OIA with its own initiative of One Student, One Passport, had taken immediate measures by bringing the global university partners closer towards UiTM's students when physical mobility is impossible. This monetary support program provides each of UiTM's students with support from international trainers, exposes students with global citizenship, international learning experience together with cross cultural exposure to prepare themselves to become top-notch global players upon graduation.

With its translucent agenda, OIA had managed to organise six virtual mobility programs solely in the third quarter of 2020 and they were participated by 132 students from various faculties and campuses. These virtual mobility programs provided students with flexibility on class schedules due to different time zones within countries and they also can enrol in courses which are not offered by UiTM. Among these six programs, OIA had successfully organized a flagship program with Samara University, Russia. Throughout these programs, students were exposed to Russian language, advanced space technology, latest digital fashion design, and historical Russian heritage, tradition, and local foods. Besides that, OIA also had a great opportunity to collaborate with Marsa Abroad, Qatar and Intex-co, Turkey, to gather students' leaders from Qatar University and UiTM in a virtual program, called "Change Maker". Overwhelmed by the impressive feedback received from students, the discovery was that these virtual programs have increased their confidence level, leadership, and communication skills, stimulated their motivation, broadened international networking and the students are also looking forward to more international virtual program opportunities.

In conclusion, One Passport, One Students initiative, has nailed various significant outputs majority in total outbound and inbound mobility students, and student's international visibility and marketability. OIA as the university's front liner will continuously accelerate student's involvement in international mobility, persistent in becoming the focal point for virtual mobility support fund and providing consistent monitoring and giving immediate response in addressing feedback from university's stakeholders towards championing 2025 Global Renowned University's agenda.



## A Second Chance to Access Higher Education through UiTM Pre-Diploma Programme

Education is a vital element for realising this dream. Recognizing the differences in social and economic inequalities that exist among individuals based on culture, family income, and access to and assistance to primary education, it is critical to ensure that our children who have experienced all of these setbacks will be given a second chance to pursue higher education. As a result, the University Teknologi MARA (UiTM) has launched a Pre-Diploma Higher Education (PPT) programme. With the goal of making the Pre-Diploma Program a special route for graduates whose SPM results do not meet university entry requirements, whether they are from so that all of them can continue their studies to a higher level and they become competitive, global, and ethical graduates. Candidates for the PPT programme include Malay youngsters, Sarawakians, Sabah locals, and Orang Asli children. Students who do not meet the fundamental prerequisites to continue their studies at a public university can use the PPT programme to enrol in the Pre-Diploma programme at UiTM. These students will be admitted to one of UiTM's Faculties for diploma studies after completing the pre-programme, based on their preferences. Directly, the PPT programme provides students with a variety of higher education options, including bachelor's, master's, and doctoral degrees. Taking the initial step is the only way to reach educational greatness. This first step will bring additional chances and hope for the future for these kids. This is consistent with UiTM's philosophy, which argues that excellence can be achieved through the transfer of knowledge and the incorporation of noble values into one's soul. From 2010 to 2020, a total of 43,302 enrolments were recorded, with an average of 90.43 percent of students completing their courses in the last five years (2015–2020).

Level	2015			2016			2017		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
PhD	782	1213	1995	757	1235	1992	714	1170	1884
Master	2423	5662	8085	2321	5179	7500	2104	4582	6686
Postgrad Diploma	32	97	129	45	115	160	35	96	131
Professional	590	1331	1921	339	865	1204	338	775	1113
Degree	24172	49539	73711	23889	48877	72766	23802	49603	73405
Diploma	30561	50524	81085	27817	46726	74543	27971	47641	75612
Foundation (Asasi)	1471	2841	4312	1403	2767	4170	1453	2484	3937
Certificate	19	14	33	-	-	-	-	-	-
Pre-Diploma	662	1537	2199	827	1866	2693	962	1868	2830
<b>Total</b>	<b>60712</b>	<b>112758</b>	<b>173470</b>	<b>57398</b>	<b>107630</b>	<b>165028</b>	<b>57379</b>	<b>108219</b>	<b>165598</b>

Level	2018			2019			2020		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
PhD	718	1248	1964	787	1262	2049	1000	1722	2722
Master	2048	4221	6269	2056	4000	6056	2334	4317	6651
Postgrad Diploma	77	186	263	74	146	220	28	108	136
Professional	346	661	1007	282	562	844	329	593	922
Degree	24886	53939	78825	26931	57716	84647	29253	62833	92086
Diploma	28470	49444	77914	29771	52668	82439	28378	50764	79142
Foundation (Asasi)	1600	2472	4072	1458	2381	3839	1494	2648	4142
Certificate	-	-	-	-	-	-	-	-	-
Pre-Diploma	774	1606	2380	705	1257	1962	1183	2024	3207
<b>Total</b>	<b>58917</b>	<b>113777</b>	<b>172694</b>	<b>62064</b>	<b>119992</b>	<b>182056</b>	<b>63999</b>	<b>125009</b>	<b>189008</b>



consultancy  
projects

7

year 2020

RM119,006.20

4

year 2019



research  
grants

73

year 2020

RM1,894,669.00

19

year 2019



copyrights

5









# Make cities and human settlement inclusive, safe, resilient and sustainable

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## Research on the Impact of Cultivating New Norms Campaign

Malaysia has launched the New Norms Cultivation campaign on 8th August 2020, with the aim to raise public awareness on the importance of preventing pandemic COVID-19 through practicing the new norms as recommended by the World Health Organization (WHO). Following this initiative, the National Disaster Management Agency (NADMA), Prime Minister Department (JPM) has taken a proactive role to collaborate with Universiti Teknologi MARA (UiTM) to conduct specific research to measure the impact of cultivating new norms campaigns. For this reason, UiTM has utilised 56 researchers and 33 students as research assistants and enumerators to conduct a massive data collection involving: (1) 12,525 respondents who participated in the online survey (first phase of data collection); (2) 2,074 respondents participated in the online survey (the second phase of data collection – aims to measure the impact of the campaign); (3) 250 focused group discussions with 18 target groups; (4) 70 in-depth interviews with the participants who experienced COVID-19 swab test; (5) 12 in-depth interviews with participants among former COVID-19



Photo by Piyoi iwata on Unsplash

patients; (6) analysis documents involving policy and guidelines related to Standard Operating Procedure (SOP) of COVID-19 pandemic in 15 countries; and (7) 1,926 participants who involved in an online survey related to University Social Responsibility (USR). The findings of this study revealed that Malaysians have high awareness about cultivating new norms campaigns conducted by the government. 94% out of 12,525 respondents indicated high compliance on wearing masks; 91% practiced physical distancing when they were at public places; 88% washed their hands with water and soap; and finally, 90% of the Malaysian society used hand sanitizer as an alternative for washing hands with water and soap. These were considered as the current findings during that time (August – December 2020). Notably, this study also revealed a few issues and challenges in cultivating new norms that need to be overcome by all parties. The findings of this study have been used by the Malaysian government to continuously improve the pandemic COVID-19 SOP as a measure to prevent the infections and spreading of this virus.

### UTM Collaborates with Leiden University on Intellectual Heritage of the Malay World

On 5 December 2020, the Centre of Malay Manuscripts at the Academy of Contemporary Islamic Studies (ACIS) at Universiti Teknologi MARA (UiTM) in Malaysia, in partnership with Leiden University in the Netherlands, hosted the International Seminar on Malay Manuscripts (SEMALAM) Serie 1/2020. This multinational meeting, which took place digitally via Google Meet and the ACIS Facebook Live platform, drew attendees from Malaysia, Indonesia, Brunei, Thailand, Egypt, and the Netherlands. The conference gathered Malay manuscripts as the primary source of the Malay world's intellectual heritage. The participants were informed on the authenticity of Malay manuscripts, in which the majority are preserved in the Netherlands and England. The seminar, titled 'Through the Greatness of the Malay Manuscript Nations,' drew over 200 participants electronically via Google Meet and ACIS Facebook, as well as 3000 observers from around the world. Participants in this seminar were awestruck by the brilliance of Malay manuscripts, which brilliantly illustrated the disciplines of Malay literature and culture. The participants were exposed to actual history and Malay identity through the figure of Hang Tuah,

as described by Sulalat as-Salat, Taj al-Salat, and others, who were renowned for their gentle culture, courage, moderation in life, and strong religion. The manuscripts kept at Leiden University in the Netherlands revealed the nation's prominent history the greatness of Malay history and the huge worldwide Malay network that spanned from the era of Hang Tuah to the world heritage of Jawi literature. Leiden University was ranked ninth in the recently released UJ Green Metric, a global sustainability rating of institutions in which over 900 universities participated.



<https://iqs-gen.com/uitm-collaborates-with-leiden-university-on-intellectual-heritage-of-the-malay-world/>

## UITM Orchestra Sessions 2020

"UITM Orchestra Sessions 2020." These sessions grew in popularity and started getting more and more people interested in being invited to talk to the orchestra students about different topics related to the orchestra practice, such as rehearsal techniques, ethics of rehearsal and performance, and a special emphasis on how to practice your instrument successfully. The team also had the pleasure to welcome many attendees, not only from the orchestra class, but also from other majors in the faculty, as well as from other institutions, both nationally and globally.

By the end of the 2020 academic year, despite the pandemic, the team managed to have eight amazing guests from different countries such as Ukraine, Malaysia, Spain, USA, Mexico, and the U.K. These are professional musicians who were quarantined in several parts of the world, and because of this, some of them joined the team from cities such as Kiev, Madrid, Kuala Lumpur, Morelia, London, and San Francisco. The responses from the students and the audience who were invited were superb. Every guest brought something new to the table or reinforced something that the team needed to be reminded of.

It was a happy and successful solution to an issue that was looking quite dark, and perhaps, almost impossible to solve at the beginning of the pandemic. Despite the orchestra class being a fully practical or face-to-face class, the members discovered a new way to continue with it, getting the best out of each class time, connecting with people from all over the world, sharing the music and valuable knowledge during this global quarantine, and continuing learning from each other.

## UiTM Chamber Choir Fly to the World With "New Normal Way"

The COVID -19 pandemic has spread with an alarming speed affecting many people and putting activities on hold. As a result, most musical performances were unable to be continued; however, this did not stop the UiTM Chamber Choir (UCC- Faculty of Music) from being active and bringing the UiTM and Malaysian flags to the world stage. UCC conductor Dr. Kishimoto and the choir committees (students) discussed and searched for another platform to reach their target to present UiTM globally. As the "new normal" takes place, all activities were done through online platforms with the use of technology to keep in touch and plans were carried out on how to create virtual video recording performances.

Creating an international quality video performance required strong commitments from all the choir members as they had to prepare their singing videos individually. The toughest part of it was in combining all voices and ensuring the sounds appeared to be blended. Through this activity that was done in the "new normal" setting, the students certainly learned many skills of using technology and felt as if they were still connected even though they were only seeing each other through a screen. From their hard work, the students successfully produced good quality videos and submitted them to the international choir competition. The satisfying result was as listed below:

1st prize (2 categories): VIII International Jean Sibelius Choir Competition, Finland

1st prize: International Choral Competition Harmony of Cultures, France

Gold diploma: Rimini international choir competition, Italy

1st prize (5 categories): World Art Games International Art Media Contest, Spain

Most Favourite Audience Award

Entertainment Award

Musical Award

Judges Special Award

1st Tele-Chorus International Virtual Choir Competition, Japan

Besides that, UCC was also part of a significant event where the members of UCC performed at a national collaboration concert called "Konsert Bangkit Malaysia - Simfoni Orchestra" organised by Radio Television Malaysia (RTM). Consequently, UCC was also invited for Japan, Kenya and Malaysia singing project vol.1 that was broadcasted on a Japanese television show and newspapers. The Covid -19 pandemic fully affected the normal way of executing activities for UCC (UiTM Chamber Choir). However, the "new normal" provided the members with new ways and possibilities to carry out the musical activities..

### Land Management and Digitalization of Asset and Property for Malaysian Multinational Electricity Company (Tnb)

A group of academic staff from the Faculty of Architecture Planning and Surveying, were awarded a consultancy contract by TNB to improve their land management and property management. The task involved GIS-based digitalization of assets and properties that belong to TNB, conduct land survey and property management study. This project highlighted the recognition of a multinational corporate company towards UiTM expertise.

### Study on the Development Of The Blue Print and Assessment for Ipoh Towards Low Carbon City

From January 2021 to October 2021, the Ipoh City Council has hired academics from Universiti Teknologi MARA Shah Alam for an RM 250,000 study project on the formulation of the Ipoh Action Plan Towards Low Carbon City 2030. Prof. Dr. Zakiah Ahmad and researchers from Civil Engineering Studies are leading this study project, and they are also backed up by researchers from the UiTM Branch Sri Iskandar Perak Campus. The drafting of the Ipoh Action Plan Towards Low Carbon Cities 2030 is in line with the Malaysian government's desire, as expressed through the Ministry of Energy, Green Technology and Water (KeTTHA), to encourage local governments across the country to pursue low-carbon programmes. The major goal of this effort is to reduce carbon emissions intensify across the country to meet the government's goal of reducing greenhouse gas emissions by 45 percent by 2030. Ipoh City Council's (MB) Ipoh Action Plan Towards Low Carbon City 2030 provides strategies, action plans, and targets towards recognition as a Low Carbon City. Hopefully, the preparation of this Action Plan through the collaboration between MBI and UiTM would improve people's awareness on the initiative done to attain the goal of making Ipoh a Low Carbon City by 2030. The scientific partnership between UiTM and Ipoh City to produce this action plan is expected to assist Ipoh City in achieving Low Carbon City status.

Photo by Facebook Reklam on Unsplash









# Doing more with less, leveraging on the transition towards a greener and more socially inclusive global economy

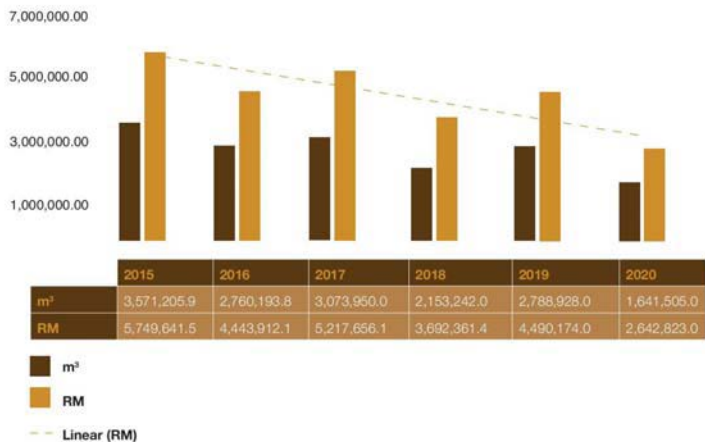
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## Warga UITM Being Responsible Consumers

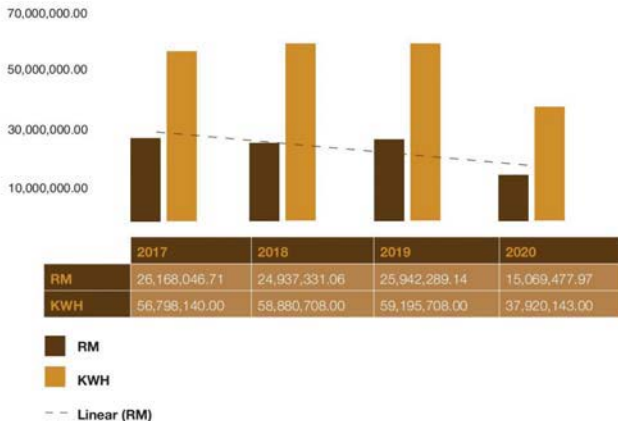
The university and its community's pledge to be responsible users of water supply and energy has been materialised. Records have exhibited a remarkable amount of reduction over 5 years in terms of its m<sup>3</sup> and KWh as well as the money spent to pay the bill. The trend of water and electrical consumption can be seen in the following graphs.



## Water Consumption



### Electricity Consumption



The reduction rates are summarised in the table below

	m <sup>3</sup>	RM
% reduced in water consumption	54.03	54.03
	KWH	RM
% reduced in electricity consumption	33.24	42.41

## UiTM Green Centre (UGC): Strengthening Greenation@UiTM

Environmental sustainability and green initiatives have always been in the forefront of Universiti Teknologi MARA's planning. The university is committed and recognizes the need for a better future through its management and operations. The establishment of UiTM Green Centre or better known as UGC was approved by the University Executive Council or Majlis Eksekutif Universiti (MEU) meeting (34/2 2020) on the 21st of October 2020, under the portfolio of the Deputy Vice Chancellor of Development, Universiti Teknologi MARA (UiTM). This initiative is in line with UiTM's Strategic Plan 2025 under the Strategic Theme 8 (Smart Campus) and aims to uphold the sustainability agenda of the university, community, and the world. UiTM Green Centre (UGC) promotes dynamic and diversity in its operations where the key members are appointed among the UiTM community, assisted by Expert Task Force (ETF) from different faculties who have a strong passion and interest in advocating the agenda of the sustainability of the university.

## The Chronology and Tagline

Prior to the official establishment of UGC, a dedicated environmental sustainability committee was formed on the 7th of November 2018 after obtaining the approval of MEU No.8/2018. To support the 2030 Agenda for Sustainable Development by the United Nations (17 SDGs), the university launched the Greenation@UiTM campaign on 13th June 2019. The campaign was designed to engage and synergize the efforts of all stakeholders towards achieving world-class sustainable practices.

## The Green Initiatives

In achieving the objective of transforming UiTM into a sustainable green campus, UiTM Green Centre (UGC) is currently focusing on six (6) key clusters: Setting and Infrastructure, Waste, Water, Energy and Climate Change, Education and Research, and Transportation. Each cluster has its own specific aim in supporting the environmental sustainability agenda of the university.



Photo by Dan meyers Unsplash



research grants

254

year 2020

RM10,983,022.34



90

year 2019



copyrights

48

year 2020

0

year 2019



consultancy projects

27

year 2020

RM659,828.69



12

year 2019



Patents

6

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# Take urgent action to combat climate change and its impacts

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## Ecological Consequences of Climate Change for Forest Growth Pattern in Peninsular Malaysia

Climate change is a major problem that has been widely discussed throughout the world. It is caused by excessive emission of global greenhouse gases (GHGs), particularly carbon dioxide (CO<sub>2</sub>). While looking at the responses of trees to global climate change, it is important to look at their response to these environmental factors i.e. future increase in CO<sub>2</sub> emissions, increasing day and night temperatures, precipitation and other extreme events. The mechanisms driving photosynthesis, tree growth, water use, phenology and species composition under these conditions will provide insights into the responses of trees in a changed environment in the future. Identifying these issues is important to research on the current state of biomass and carbon stocks that influence how carbon moves between storage and the atmosphere.

Therefore, a two-year research led by Dr. Faezah Pardi, in collaboration with the Forest Research Institute Malaysia (FRIM) attempts to explore the growth pattern of two dipterocarp forests, i.e., Tekam Forest Reserve and Lesong Forest Reserve, Pahang over the past



Photo by Iqbal Haryono on Unsplash

33 years and to assess the ecological consequences of climate pattern for the forest growth. This project, under the UKM-Yayasan Sime Darby Chair for Climate Change, aims to determine the concentration of CO<sub>2</sub> that exerts the greatest effect on the growth of plants. In order to achieve the objectives, a unique dataset of forest growth and yield collected over the past 33 years will be analysed together with a long-term local weather measurement to assess the ecological consequences of climate change for forest growth pattern. Meanwhile, samples of young plants will be subjected to CO<sub>2</sub> exposure via a Green House Gaseous simulation for a minimum of 12 weeks.

Higher biomass accumulation is expected due to rapid carbon sequestration caused by increased temperature and CO<sub>2</sub> level. An elevated CO<sub>2</sub> level would give a significant effect on the young plant's growth rate. In the context of Malaysia, this research will be significant to the National Priority Area for the 11th Malaysia Plan (2016-2025) under the Environment and Climate Change area. Data from this research will be useful as a reference to many groups of consumers especially policy makers, Environmental Impact Assessment (EIA) consultants, environmental planners and conservation agencies to make a sound decision when it comes to balancing between development and environmental sustainability.

## The Green Achievements and Important Green Milestones for UGC in Support of a Sustainable Green Campus for UiTM

Since its establishment, a concerted effort by UiTM Green Centre (UGC) has enabled it to accomplish many green initiatives. The university was awarded the 9th place among the 20 institutions of Higher Learning (IHL) in Malaysia in UI Green Metric World University Rankings 2020 (UIGM). In the same year, six UiTM buildings were the diamond recipients of Low Carbon Emissions Challenge 2030. Through the initiatives of UGC, UiTM participated in the National Energy Award (NEA) 2021 and inaugurated various collaborations with the stakeholders and strategic partnerships such as the Ministry of Environment and Water and Pengurusan Aset Air Berhad (PAAB) or Water Asset Management Company.

UiTM Green Centre (UGC) pledges to promote green initiatives to transform the university into a sustainable green campus through its nine (9) strategic areas: sustainable green campus, sustainable roadmap, community engagement, sustainable knowledge hub, collaboration and industrial linkages, green initiatives, research and innovation, professional competency development and green talent development. These green initiatives will be part of a continuous effort by UGC. Together we are committed to make UiTM greener for the future.

## Our Students Championing Climate Change Awareness Campaign

As the climate is changing, it is important to implement proper policies to deal with the risks associated with climate change because it is more expensive to deal with climate change than to stop it. Realising the need to make UiTM students as well as the public aware of the changing climate, World Merit UiTM, a student association actively advocating the SDGs, has successfully organised a Climate Change Awareness campaign from 7 to 19 October 2020. Besides raising the awareness on climate change, the campaign aims to encourage the public to practise good habits in keeping a clean and safe environment.



<https://www.instagram.com/p/CGCR8bHngFI/>



<https://www.instagram.com/p/CGPfmWHnda/>



<https://www.instagram.com/p/CGTrU83nDkd/>



<https://www.instagram.com/p/CGcZFmyHthrZ/>



<https://www.instagram.com/p/CGg2mPwsvr/>

## Grow Your Own O2 by Worldmerit UiTM

Planting trees is one of the simplest ways of dealing with climate change. Besides removing carbon dioxide from the atmosphere, trees give us clean oxygen to breathe. Realising the importance of trees in mitigating the effects of climate change, World Merit UiTM organised a campaign called 'Grow Your Own O2'. This campaign aims to give some ideas to the youths on how they can keep the air clean by creating their own O2. In addition, its objectives are to promote a culture of growing your own plants at home and to make known that planting is a simple yet fun activity.



[https://www.instagram.com/p/CGoK-gMnl\\_i/](https://www.instagram.com/p/CGoK-gMnl_i/)



<https://www.instagram.com/p/CGuQLrhtAo/>



<https://www.instagram.com/p/CG14n6DHLKw/>





copyrights

2



research  
grants

44

RM2,418,240.00

▲  
27

year 2020

year 2019

Photo by Steve Krummer on Unsplash





# Conserve and sustainably use the oceans, seas and marine resources for sustainable development

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## The Fishes of Sungai Sat at Taman Negara Pahang

To better plan and manage Taman Negara Pahang (the National Park, Pahang) which is the oldest national park in Malaysia for future generations, more studies are needed on the flora and fauna that exist there. One under-researched area at the national park is the fish communities and their populations in its water bodies. Thus Dr Harinder Rai Singh from UiTM is conducting a study at Sungai Sepia and Sungai Sat, tributaries of the Tembeling River in Taman Negara Pahang, in collaboration with Europasia Services Sdn Bhd. The study explores the fish communities in the area to determine the richness of the fish species, quantify the Catch per Unit Effort (CPUE) with respect to fish biomass and density, and also measure the fish morphometrics. Sampling of the fish population is conducted using fish traps, and also gill and cast nets. The fish traps and gill nets are utilised at sampling stations over a period of 12 hours while the cast nets are used to sample fishes based on the number of throws at appropriate sampling sites. All fishes sampled are identified to the lowest taxon and their total length (TL), standard length (SL) and wet weight (g) are recorded. Data on fauna and flora of the fish habitats, essential for sound



biodiversity conservation and management, are also recorded. It is hoped that the study when completed would add to the national freshwater fish database and enhance the ecosystem based management protocols for Taman Negara Pahang.

### Dive Against Debris and Fish/Coral Sustainability & Conservation

In conjunction with the 63rd Merdeka Day celebration, the UITM Marine Research Station (MARES-UITM) in collaboration with Teluk Keke Cafe and Campsite, hosted a two-day event at Teluk Keke, Perhentian Island. The event was held to raise awareness regarding marine conservation. Participants were given the rare experience of releasing baby turtles to the ocean and using fish aggregation device to deploy reef balls among others.



[https://www.divebuddy.my/environment/perhentian-merdeka-coral-fish-conservation-dive?fbclid=IwAR2nwoI4E03EdVKpHkqscPIU7wayHWhdpWz\\_6laTEcXb6WQ-LuJWCuyoYE](https://www.divebuddy.my/environment/perhentian-merdeka-coral-fish-conservation-dive?fbclid=IwAR2nwoI4E03EdVKpHkqscPIU7wayHWhdpWz_6laTEcXb6WQ-LuJWCuyoYE)

### Towards Environmental Sustainability in Marine Fish Aquaculture

The contribution of small-scale fisheries has been increasingly recognized as a major factor for food security and livelihoods at household and community levels, particularly for island communities around the world. In view of this, the UITM Marine Research and Excellence Centre (MAREC – UITM) and the Northern Corridor Economic Region (EmpowerNCER), Langkawi, worked together to organise a nine-day aquaculture training programme in Langkawi. This programme helped to empower communities from Pulau Tuba by enhancing skills on seafood product processing. It particularly focused on skills and academic and socioeconomic enhancement in order to provide participants with the knowledge and confidence needed to be employable or business savvy. The training schedule included the following:



Day 1: Theory and practice - otoshimi (fish meat) product

Day 2: Theory and practice - otoshimi product - Keropok lekor

Day 3: Theory and practice - otoshimi product - Traditional and modern satay

Day 4: Otoshimi product innovation

Day 5: Product packaging design

Day 6: Theory and practice - surimi (fish paste from deboned fish) product

Day 7: Theory and practice - surimi product - Bebola ikan, Kek ikan, Satay ikan / locking and Sardine

Day 8: Theory and practice - surimi product- nugget and burger

Day 9: Surimi product innovation

## Effects of Applying Fish waste as Fish Meal Substitute in Formulated Fish Diet on The Growth Performance of Nile Tilapia Fish Fingerling (*Oreochromis Niloticus*)

The intensified interest in the application of organic waste in fish culture is propelled by the necessity to sustain aquaculture growth. Limited availability of affordable quality feeds is one major problem that impedes sustainable growth of fisheries, particularly in the aquaculture industry in Malaysia. Using organic waste in fish culture is not only an economical alternative source of fish feed but it also eliminates problems associated with indiscriminate dumping of organic waste in the environment associated with air, water and soil pollution. In view of this, Dr Ros Aniza and her colleagues are carrying out a study to determine the roles of organic waste residues in fish culture, in the development of aquaculture in Mukah, Sarawak. The aims of the study include formulating fish pellet using fish waste from local wet market, comparing fish growth on formulated feed with commercial feed and comparing the cost of the formulated feed with commercial feed.



<https://www.facebook.com/mares.uitm.edu.my>



<https://www.facebook.com/mares.uitm.edu.my/posts/1368656003471236>



<https://www.facebook.com/mares.uitm.edu.my/posts/136933633403203>

## Optimization of Effective Microbes (Em) Formula for Freshwater Lobster (Lat) Growth Improvement

Effective Microorganisms (EM) are a culture of coexisting beneficial microorganisms predominantly consisting of lactic acid bacteria, photosynthetic bacteria, yeast, fermenting fungi and actinomycetes. They are claimed to enhance microbial turnover in water disease control and improve the growth of fresh lobster (LAT) during cultivation. However, to date, an appropriate formulation of EM remains limited thus affecting the yield of LAT negatively. The inconsistent weight and delayed growth of LAT, and uneconomical marketed EM used are among the problems faced by breeders. Thus a project to optimize the formulation of EM is being carried out using the Response Surface Methodology (RSM) approach to enhance the growth of LAT during cultivation. It involves cultivating and fermenting EM using media such as fruit waste (skin and tails) and molasses as nitrogen and carbon sources used in LAT cultivation tanks. The impact of the formula is subsequently observed and evaluated by using growth rate and growth duration (in weeks) as responses in the process in order to identify the optimized formula of EM on the growth of LAT.



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year 2020

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year 2019



research  
grants

49

RM2,073,899.12

year 2020

▲  
31

year 2019



consultancy  
projects

5

year 2020

RM358,233.12

▲  
1

year 2019

Photo by Steve Kamenar on Unsplash





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

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#### Scientific Expedition to Discover New Flora and Fauna Species

Recently, a total of 70 scientists and researchers participated in the Taman Negara Scientific Expedition (second edition) as part of efforts to amass information on biodiversity at the National Park, Pahang. The participants were from various fields including botany, zoology, eco-tourism and social sciences, and from various departments, research institutes and public institutions of higher learning, including





Photo by Aleva Film on Unsplash



Universiti Teknologi Mara (UTM). The expedition was aimed, particularly, at identifying and recording new endemic as well as unique flora and fauna in one of the world's most ancient rainforests. During the five-day excursion from 4 to 8 September 2020, researchers were placed at the Kuala Keniam UTM-Perhilitan (Wildlife and National Parks Department) station. Among the research activities conducted during the expedition were flora and fauna sampling, soil sample collection and visits to local food premises and Orang Asli communities.

Numerous findings from the expedition would contribute to the country's sustainable development goals (SDGs). They would also provide valuable information on new flora and fauna species discovered at the national park to Perhilitan which could be used for budget planning and acquisition in the future. Moreover, significant findings would also be documented in books, journals, and documentaries, and presented at conferences. The scientific expedition would arguably further enhance UTM's collaboration with researchers from other organisations in the future.



<https://www.thestar.com.my/metro/metro-news/2020/09/17/scientific-expedition-aims-to-find-new-flora-and-fauna>

### The Central Forest Spine (CFS) Master Plan Consultancy Project

In 2010, the Malaysian government adopted the Central Forest Spine Master Plan as part of the National Physical Plan with the objective of re-establishing, maintaining and enhancing connectivity among the most significant remaining forest areas in Peninsular Malaysia through what was called the Central Forest Spine (CFS). The CFS would form a physically and functionally unbroken link of forests from Johor to the Malaysia-Thailand border, henceforth, connecting with certain protected areas in Thailand. It combines eight forest complexes of 6.71 million hectares, consisting of permanent forest reserves, government forest land, national parks, state parks, wildlife reserves (RHL), agricultural areas and saturated built-up areas. The CFS Master Plan provides a framework for

linkage strategies in creating connectivity via ecological corridors that afford forest cover, food, water, protection from dangers and minimal disturbance for all species. These ecological corridors are crucial to facilitate the movement, existence and nurturing of biodiversity.

However, the Malaysia's Central Forest Spine (CFS) is degrading at an alarming rate as a result of rapid urbanization. Over the years, human intervention for commercial gains has resulted in the clearing of vegetation and forest land for agriculture, settlement and infrastructure development. This has caused an overall reduction of the forest areas, decline in forest quality and fragmentation of forests. Forest fragmentation – the tearing of natural habitats into unconnected parts – inhibits the free movement of fauna and flora. This usually leads to habitat destruction thus ultimately reducing the diversity of plants and animals.

To restore the CFS, two UiTM professors have been awarded a consultancy project to develop a Master Plan for the Central Forest Spine (CFS) ecological linkages by IZM Consult, a town planning consultancy firm. Once completed, the master plan would be a guide to the conservation and preservation of forest biodiversity as well as wildlife. Conservation of biodiversity is critical for the economy as non-timber forest produce is essential as raw material for many industries including tourism. In addition, advances in biotechnology rely on genetic diversity of parent stocks and protecting biodiversity is crucial to the habitat of indigenous people and traditional knowledge. Thus the CFS Master Plan would be invaluable as a reference in land use planning and control in the CFS area.

## Biodiversity Conservation at the Melaka Butterfly & Reptile Sanctuary

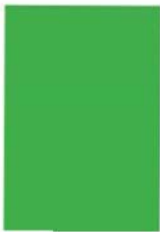
The COVID-19 pandemic recently affected the Melaka Butterfly & Reptile Sanctuary (MBRS) to the extent that the park had to euthanize its butterfly larvae. Moreover, due to financial distress, it had to offer its invaluable farm-bred butterfly chrysalis for sale to the public. However, MBRS's Managing Director, Mr. Gerard Wong, believed that the organisation could be helped by implementing several strategies such as raising funds/pure donation, adopting butterfly chrysalis, and organizing a Giant Tree Nymph conservation project called "Angular Child" to release the butterflies.

In view of this, Dr. Muzamli Mustafa, Head of the School of Science, UiTM Pahang Branch, had reached out to MBRS as part of UiTM's Social Responsibility (USR) initiative. With the help and expertise provided by UiTM Pahang, the initiative would be able to introduce joint research activities, conservation promotions, industry outreach programs and student development projects with MBRS. Moreover, the initiative would also provide opportunities for industrial training programs at MBRS for students in the future.

## Integrated Multimodal Soil Health Sensing Detection Techniques with Low Power Connectivity

A team of researchers at UiTM are involved in a project to monitor soil health using low power electrical conductivity (EC) funded by the Ministry of Science, Technology and Innovation (MOSTI) under the International Collaboration Fund (ICF). The team, led by Dr Wan Fazlida Harim Abdullah, consists of several academic researchers from the field of Electrical Engineering (working on the sensing layer fabrication and circuits and system design) and one from the Chemical Engineering field (working on sensing mechanism), who are collaborating with a partner from the Free University of Bozen-Bolzano, Italy.

The scope of the project is potentiometric sensor technology development of pH, EC and nitrate towards soil sensing applications, covering from material fabrication techniques to interfacing circuit and system design. To date, they have fabricated sensing layers based on their recipes and developed a circuit sensing technique that allows detection for pH (between 4-10), EC (between 5-10 mS/cm) and nitrate (presence/absence at 100ppm within 5% variation of current-voltage operating conditions set by the sensing layer). The research development aims to end with technology readiness level 4 – with preliminary alpha testing on agricultural soil samples under transmission lines.



## Student-Led Indoor Planting Campaign

A group of students from UITM took the initiative to organise an online campaign to empower the public to take up indoor planting. The aims of the campaign specifically were to provide opportunities to cultivate planting as a culture at home, create one's own living art in a tranquil atmosphere and expose indoor planting as an easy undertaking.

The students believe that undertaking indoor planting is beneficial as it not only can be achieved in the comfort of one's own home especially during the pandemic, it also purifies the living environment. Thus the students, using social media, provided instructions and advice on several suitable indoor plants and herbs to grow in a tropical climate and how best to cultivate them. In addition, tips on ingredients and methods to prepare fertilizers from natural resources and natural replacements for harmful pesticides were also provided. They also shared efforts made by several students in planting houseplants to lead by example. Initial feedback regarding the campaign indicated positive response from the public.



<https://www.instagram.com/p/CHIL-VOFLZT/>



<https://www.instagram.com/p/CHfMI0gqlw/>



<https://www.instagram.com/p/CHfMOg9a2s/>



<https://www.instagram.com/p/CHFFmzNnEYs/>



<https://www.instagram.com/p/CHSqa6Tnzy/>



<https://www.instagram.com/p/CHeqDd16RV/>

## Raising Awareness Through a Public Outreach Programme

The pandemic had caused many pets to be abandoned by their owners and strays to be deprived of leftover food given by the public especially at the workplace. This left the animals to starving and becoming feral. Thus several students from UITM organised a Stray Cat Awareness Week to tackle the rising number of animal cruelty cases during the pandemic involving stray cats. The aim of the project was to raise awareness among members of the public on the welfare of the stray cats. Specifically, the students intended to draw the public's attention to the risks to stray cats if nothing was done to help them and provide information on organisations that could help care for the stray cats.

Using Instagram (IG), the students reminded pet owners of their responsibilities to their pets and highlighted the plight of the stray cats to prevent pet owners from abandoning their pets. The IG feeds also encouraged the public to do more for the stray cats by providing information on how to care for the strays such as by adopting them and donating money to animal shelters.



<https://www.instagram.com/p/CHoo5IGnXLaf>



<https://www.instagram.com/p/CHtvVWHXRI/>



<https://www.instagram.com/p/CHwm8iGHZj/>



<https://www.instagram.com/p/CHYxVENnPiz/>

### UiTM Students Championed Animal Adoption

With the long movement control order (MCO) implemented in Malaysia due to the Covid-19 pandemic, the National Zoo not only suffered from scarcity of visitors but also funds. This affected the well-being of the zoo animals. Concerned with this, a group of UiTM students took the initiative to encourage more Malaysians to come forward and adopt the zoo animals. They reached out to the public via social media to raise awareness about the animals' survival and their well-being at the zoo. They also provided information on the different opportunities and options the public could choose from to support the zoo financially.



[https://www.instagram.com/p/B-6YkKPrvW2/?utm\\_medium=share\\_sheet](https://www.instagram.com/p/B-6YkKPrvW2/?utm_medium=share_sheet)

### Necrobiome Community Structure and Soil Chemistry Profiles Associated with Penguin Carcasses and its Correlation with Bone Density Under Antarctica Climate

The decomposition process is the most important ecosystem function in terms of energy flow and nutrient recycling. Without a well-functioning decomposition process, it is almost certain that the ecosystem will collapse due to the depletion of nutrient supply to primary producers such as plants. In other words, the decomposition process is essential in maintaining biodiversity on Earth, as well as maintaining food supply security and sustainability. Thus there is a need to study the necrobiome – organisms such as bacteria, protozoa and helminths, associated with decomposing human corpses and animal carcasses.

Due to the fact that the decomposition process is extremely understudied in the continent of Antarctica, a research, led by Dr Heo Chong Hin, is conducted to better understand bacterial, protozoal and metazoal communities (e.g., helminths, mites) associated with penguin carcasses found there. This is critical to better appreciate the fundamental mechanism on the how decomposition and nutrient recycling work under the freezing temperatures and on the icy soil of this unique ecosystem. The bone density of the penguin carcasses is also examined using Micro-CT scan as the extrapolated data would be useful in archaeological study to determine time of death.

This study is essential in understanding the ecology of decomposition in the Antarctica as thus far, no such study has been carried out. This is due to the novelty of the project in terms of the unique ecosystem and animal model selected. As such, the generated knowledge would be critical in the conservation of polar biodiversity, enhancement of food security in the polar, and in forensic archaeological applications. It also falls within the six priorities of Antarctica research which is to learn how Antarctica life evolve and survive, and answer a part of question number 64 – how can temporal and spatial "omic-level" analyses of Antarctic and Southern Ocean biodiversity inform ecological forecasting?

## Scientific Expedition at Taman Negara, Pahang



[https://youtu.be/2KMJP\\_Ev3w](https://youtu.be/2KMJP_Ev3w)



<https://youtu.be/SA4ptXw39NA>



<https://youtu.be/duGSge3qBnU>

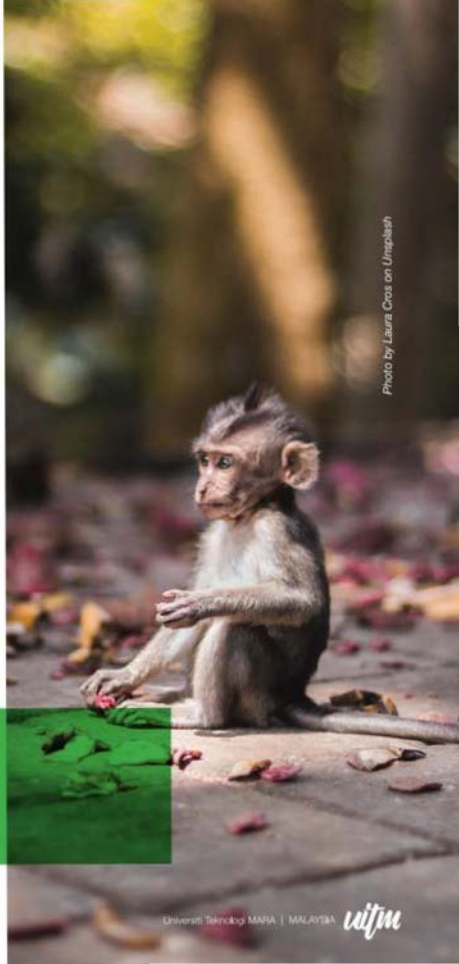


<https://youtu.be/1MwUXNpEuy7s>



<https://youtu.be/UvDwGbSRbU>

Photo by Laura Cross on Unsplash





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consultancy  
projects

26

year 2020

RM358,233.12



4

year 2019



research  
grants

246

year 2020

RM9,368,402.00



104

year 2019



16 PEACE, JUSTICE  
AND STRONG  
INSTITUTIONS



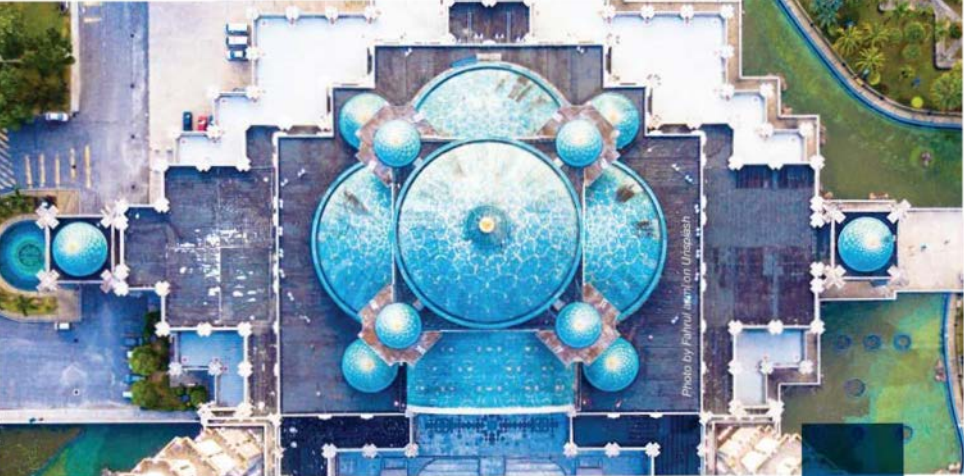
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

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#### Towards Excellence, Synergy and Integrity In Leadership and Management

The COVID-19 outbreak was declared a global pandemic on 11 March 2020. The Movement Control Order (MCO) was immediately enforced on the whole nation. UiTM and all other learning institutions were not spared of the ruling and resorted to full ODL instantaneously. The Faculty of Applied Science galvanised the strategic planning and principles of Excellence, Synergy, and Integrity (ESI) and was able to turn obstacles into opportunities during the pandemic by aligning its actions to the aim of UiTM becoming a world-renowned university by 2025. Challenges were dealt with utilising top-down and bottom-up approaches, as well as a Succession Planning Model, which





was incorporated into the faculty's Strategic Action Plan. This includes a Mentor-Mentee programme initiated in 2019 wherein several mentees were assigned to every professor. In 2020 faculty members used a unique 360 survey to monitor and analyse creative comments on leadership and management.

To prepare the personnel for Open & Distance Learning (ODL), a total of 15 series of tutorials and workshops were conducted immediately before and during the lockdown. At that point, the management's prompt response was critical which had led to one academician's success in winning the ODL UITM 2020 award. For the entire semester, 96.1 percent of students engaged in ODL. Asynchronous techniques were used to assist those with network concerns, such as using pre-recorded courses. The Majlis Perwakilan Pelajar (MPP), a student body, presented to all the academic staff their findings on the difficulties faced by students during ODL. Efforts to accredit academic programmes at the Faculty of Applied Science (FAS), such as through the Malaysia Board of Technologist (MBOT) were made. In 2020, MBOT granted accreditation to a total of 7 diploma and 9 bachelor's degree programmes.

The FAS Student Affairs Office spearheaded various projects to encourage students to stay active and stress-free during ODL. Through a tremendous collaboration between the MPP, Sekretariat Mahasiswa Fakulti (SMF), and 14 student associations, a total of 65 academic and non-academic student activities were successfully organised. As a result, students of the FAS won the first place in the Inter-Faculty Sports Tournament Virtual Edition (SAFVE), second place in the Nuclear Debate Varsity 2020, and the Gold Special Award in the 4th World Invention Academic Conference. Faculty welfare funds as well as zakat (tithe) donations and other contributions from faculty members were used to help the less fortunate students of the B40 group.

The FAS ended the year 2020 with a total of RM2,623,218.28 in research awards, and international efforts accounted for 25% of this total. Asset monetisation, short courses, and training programmes yielded RM24,959 in revenue. A total of 259 publications were generated across all categories, with 70 of them

In the Q1/Q2 category, The FAS was ranked in the top three for the UTM 2020 grant acquisitions and Q2 paper publishing, as well as the top ten for h-index publications and citations. In the same year, 19 MoUs and MoAs were active, boosting relationships with both domestic and foreign partners.

Great leaders produce great results. The faculty's action plans were indeed successful, as evidenced by the recent UTM I-Score release of a 6-Star rating (94 percent) and a clean audit result from the iQMS External Audit (Cycle 5/2021) exercise. By 2025, the faculty is set to achieve its goal of being a world-renowned faculty.

## Futuristic and Transformational Leadership of UTM Law in Reaching Excellence

UTMLaw is committed to strive for excellence in delivering futuristic and transformational leadership at the faculty with defined Strategic Initiative Plan focusing on the following pillars:

Strategic Partnership with Legal Giants

Corporate Alumni Network

Next-Gen Lawyers

Visibility in the Ivy league

The tumultuous pandemic had certainly made 2020 an eventful year for the faculty. The pandemic had forced the Faculty of Law to galvanise its resources to redesign legal education and develop the new normal in teaching and assessments. With the extraordinary commitment of the executive members, staff, lecturers, students and alumni, UTM Law managed to weather the pandemic storm. A swift transition to ODL took place without compromising the quality assurance standard or neglecting students' and lecturers' best interests which remained the faculty's top priority. This was done by implementing the following Action Plan:

### Crisis Governance

Effective Communication

Evidence-based Strategies

Redefining the Role of Educators

Unlocking Digital Delivery

Continuous Internal Monitoring

### Restructuring of Legal Education as the New Normal

Resilience

Flexibility & Adaptability

Emotional Intelligence

Creativity & Critical Thinking

Continuous Learning

### Shifting from Traditional to New Norms of Governance

UTMLaw achieved a remarkable record in addressing the University, staff, students, collaborators, and alumni community needs through research, teaching, global partnership, and service. The annual report for 2020 Performance Indicator shows an exceptional improvement from 69% in 2019 to 82% in 2020, reflecting the outstanding achievements of UTM Law staff and students made possible through a strong partnership with the alumni and collaborators. As the 2020 Performance Indicator approached the end, UTM Law had already exceeded its three previous targets namely research, external grant funding, and graduate employability. This is an excellent accomplishment.

The holistic effort of the team encompasses various factors: a talented and energetic team engaged in research, partnership and service resolved the concerns of the University and legal communities in its journey towards achieving global prominence of UTM Law and competent staff, outstanding students, generous collaborators and loyal and active alumni who continued to support UTM Law in multiple ways. The faculty mobilised the strategic planning process to chart more extraordinary achievements for the following two years. This strategy has helped the faculty to remain steadfast in setting inspiring targets for growth and development. UTM Law believes that it is pertinent to engage the team wisely and professionally. Challenges that affect the leadership and management team are the capacity to make decisions effectively, enhancement of open and effective communication and influencing leaders to empower the members. It is therefore imperative that the leader improve his or her capability and management skills. Thus, UTM Law is driven to realise the following initiatives, revitalize partnership for the goals under SDG17 and continuously improve Quality Education of SDG4:

The establishment of cutting-edge teaching and learning pedagogy supporting the navigation of future legal education

Rise to global excellence

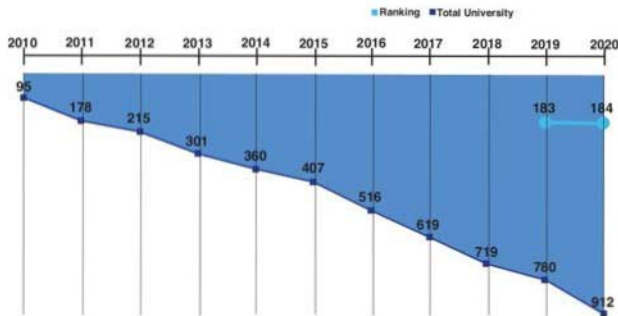
Crafting innovative research and publication culture

## UI GreenMetric World University Rankings

In 2010, Universitas Indonesia (UI) launched the UI GreenMetric World University Rankings to assess campus sustainability activities and policies in institutions throughout the world. UiTM's maiden involvement in this sustainable focus rating was in 2019. Setting and Infrastructure, Waste, Water, Energy, Transportation, and Education Research were the six (6) areas measured in the UIGM approach whereby a working committee was formed. The committee compiled and submitted all relevant data to the ranking body. The results were announced in December 2019 and UiTM was proudly ranked the 10th most sustainable university among 20 other Malaysian universities and ranked 183rd out of 780 universities worldwide for its sustainability efforts. Despite the inclusion of 132 new universities to the UIGM, UiTM improved its national ranking to the 9th place in 2020, while ranking 184th globally.

## Elevating Institutional Reputation through Established Ranking UiTM

The QS Asia University Rankings 2021 that was announced on 26 November 2020 saw Universiti Teknologi MARA (UiTM) ranked 108th among 634 institutions of higher learning in Asia. In just five years, UiTM ascended 73 notches from 181st in 2017 to 108 in 2021. This excellent performance positions UiTM in the top 17% of universities in Asia. UiTM's performance comprises three (3) key indicators: Academic Reputation, Employer Reputation, and International Research Network. Employer Reputation recorded the most significant improvement for 2020, where UiTM was placed 47th in Asia. This achievement creates a positive experience between employers and graduates and the establishment of a mutually beneficial relationship between employers and UiTM. For this edition, the International Research Network indicator is UiTM's core strength. Ranked at 38th after moving up 30 notches from last year, UiTM has demonstrated its determination, commitment, and consistency in establishing and maintaining a robust relationship with international partners, particularly in research and scholarly endeavours. Nevertheless, providing quality education remains its top priority.





## UN SDGs Advocation at Institutional Level

The Times Higher Education (THE) University Impact Ranking announced in April 2020 that UiTM was ranked in the 401-600 band globally for the year 2020. A university's performance is assessed through the accumulated marks of four (4) top scoring SDGs, of which SDG 17 is compulsory. This was the first year UiTM participated in the THE University Impact Ranking. Nonetheless UiTM succeeded in submitting data for 10 SDGs namely No Poverty (SDG 1), Good Health and Well-being (SDG 3), Quality Education (SDG 4), Gender Equality (SDG 5), Clean Water and Sanitation (SDG 6), Affordable and Clean Energy (SDG 7), Decent Work and Economic Growth (SDG 8), Industry, Innovation, and Infrastructure (SDG 9), Reduced Inequalities (SDG 10), and Partnerships for the Goals (SDG 17). For this maiden participation, UiTM reported excellent performance in three (3) SDGs; SDG 1, SDG 4, and SDG 5. UiTM's proudest achievement was for SDG 5, where the university ranked 74th in the world. Meanwhile for SDG 1 and SDG 4, UiTM ranked in the 101-200 band. For SDG 17, which is a mandatory SDG in THE evaluation, UiTM was ranked 601 above. Overall, UiTM showed an encouraging performance by being ranked in band 401-600. UiTM's participation and achievements in THE University Impact Ranking 2020 are a clear indication of UiTM's determination and confidence in becoming a globally renowned university. All UiTM personnel are expected to play their respective roles in mobilizing the university towards improving its performance in this ranking exercise.



<https://www.hmetro.com.my/mutakhir/2020/04/571064/ultr-d-kedudukan-401-600-university-impact-ranking>

## Developing Social Enterprises Governance Through the Saemaul Undong Principles

Social enterprise is often considered as an important tool to alleviate poverty, thus enabling the development of a nation. However, little research supports this claim. Various studies suggest that social enterprises have big potentials but face many hurdles. Realizing the importance of social enterprises in an economy, the Malaysian government started several initiatives which were mostly giving financial support. However, providing financial support alone does not guarantee the sustainability of social enterprises. A more radical change in mindset is needed for them to be successful. Hence, the Saemaul Undong principles practised in South Korea are considered relevant. South Korea is one of the few countries that has a legal definition and form for social enterprise. Saemaul Undong is a community-based integrated rural development programme of South Korea in the 1970s. It is believed that the success of Saemaul Undong is one of the key factors that transformed South Korea from a poor country to the seventh (7th) strongest economy in the world today. In 2013, Saemaul Undong was recognized as UNESCO Memory of the World Programme due to its success in alleviating the economic condition of South Korea. As such, a study on whether these principles are applicable in the Malaysian context is incumbent. The study intends to develop a governance model for social enterprises based on the Saemaul Undong principles. This model would not only benefit social enterprises but would also improve the possibility of attaining the UN Sustainable Development Goals for Malaysia.

## Risks of Corruption in Land Transactions: a Review from the Private and Public Perspectives

Security of tenure is defined as the ability to sell or transfer land rights, create mortgages, and obtain credit (FIG/UNCHs: 1998:18). In short, it means a whole, dignified existence where all human rights are fully enjoyed. The indefeasibility of title is dependent on proper safeguards being enforced in land transactions. In its basic form, security of tenure entails land rights. Land rights and the SDGs emphasised in Agenda 2030 allow governments to track the proportion of the adult population with secure tenure rights to land. Target 1.4: By 2030, ensuring that all men and women, particularly the poor and vulnerable, enjoy equal rights to economic resources, have access to essential services, ownership and control over land and other kinds of property.

This study examines the hazards of corruption in land transactions from two perspectives: the private perspective of lawyers representing clients and the public perspective of land authorities. No in-depth research has been done on the link between corrupt practices and fraudulent activities in land transactions that enable fraudsters to register instruments of deals successfully. Despite the National Land Code 2020 (Act 806) safeguard against land fraud, it leaves a legal gap in assuring compliance by the players in the chain of conveyancing. To reduce the possibility of land fraud and corruption, the law on conveyancing and practices must be regulated. From 2005 to 2018, the Royal Malaysian Police recorded approximately 1202 cases of land fraud. The value of the land implicated in land fraud cases was substantial. The Federal Constitution guarantees the freedom to freely possess land in Article 13, which states that no one shall be deprived of property. The SDG promotes land security tenure as a means of ending poverty globally. Conversely, illegal land transactions rob the owner of the proceeds owed to him when the land is fraudulently sold without his knowledge.

### Exploring Anti-Corruption, Accountability and Transparency in the Healthcare Sector in Malaysia

The academics of UiTM have been awarded a RM56,000 research grant from the Prime Minister's Department of Governance, Integrity and Anti-Corruption Centre (GIACC). This one-year grant will allow Dr Noraiza Abdul Rahman, Principal Investigator, to lead a project on the risks of corruption in Malaysian healthcare. Dr. Noraiza and her team will examine the healthcare sector's risk factors for corruption and how the legal framework, legislation, and good practices might help reduce such risks. This research will enable the researchers and GIACC to analyse corruption in the health sector and propose possible measures towards the establishment of a corrupt-free health sector of the nation, as expressed in the National Anti-Corruption Plan (NACP) 2019-2023. In a world where collective action is increasingly regarded as the only way to combat corruption, this grant could not have arrived at a better time. The Malaysian government has exhausted the means to control corruption, such as through integrity offices, oversight offices, general accountability frameworks, and greater transparency in its operations through the Malaysian Anti-Corruption Commission (MACC) and Cabinet Special Committee on Anti-Corruption (JIKKMAP). Good governance, together with accountability and openness, is a potential measure for preventing healthcare corruption.



Photo by Keith Chan on Unsplash

## Integrity and Transparency In the Telecommunications Sector: Strengthening Mechanisms for a Corrupt-free Industry

Malaysia is not an exception to the global technological revolution as the telecoms industry adapts to digital transformation. Since the first telegraph line was built in Kuala Kangsar in 1874, Malaysia has transformed into a telecommunications industry powerhouse. The explosive growth of telecommunications services increased market demand and revenue in 2018, with mobile operators accounting for 64% of total revenue.

In this context, the recently liberalised telecommunications industry is particularly prone to corruption because of its enormous revenue potential, complicated technological and governance structure, and strong inter-sectoral relationships. Due to the network and scale effects, as well as constant technological change, it is difficult to construct competitive markets, determine fair prices, and establish public interest legislation. This means that special interest-corrupted legislation and regulatory acts are often difficult to uncover. Corruption in the telecommunications sector has substantial detrimental consequences on macro-level development and individual citizens. This study intends to analyse the integrity and transparency policy that reduces or eliminates the potentials of corruption caused by Malaysia's structural and digital telecommunications transition.

It will also explore the pros and cons of existing processes and regulatory frameworks that may lead to corruption, compromising the integrity and transparency of industry participants and stakeholders. Using mixed-methodologies research, this study blends qualitative and quantitative research methods to gain greater knowledge and corroboration. A complete and rich description of the existing policy and practice relating to integrity and transparency is expected from the qualitative doctrinal approach. A wide range of stakeholders, including government ministries and departments, publicly traded government-linked firms, private businesses, lawyers and judges have provided feedback. The quantitative method is used to generate statistical data on the current practice and integrity framework's extensive variables, challenges, and barriers. The research findings will help improve the integrity and openness of the Malaysian telecommunications sector, as outlined in the National Anti-Corruption Plan (NACP) 2019-2023.

It is hoped that this study will shed light on the risks of corruption in this industry and the numerous elements, difficulties, and obstructions in existing practices that mar integrity. More importantly, this research aims to explore more effective processes and ways to combat corruption in Malaysian telecommunications and assist the Anti-Corruption Committee (JAKA) and the Cabinet Special Committee on Anti-Corruption (JGGMAR) draft a national policy on integrity and transparency in Malaysian telecommunications. It will help assure industry players and customers adhere to the gold standard of integrity policy.



research grants

**253**  
year 2020

RM7,863,976.62

**89**  
year 2019



copyrights

**41**  
year 2020

**29**  
year 2019



consultancy projects

**34**  
year 2020

RM6,710,312.00

**14**  
year 2019

Photo by Fairul Azmi on Unsplash







# Strengthen the means of implementation and revitalize the global partnership for sustainable development

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## UITM Digital Partnership Collaboration: Movers & Shakers During COVID -19

The COVID-19 pandemic shook the world, posing unprecedented challenges to higher education. Due to the new pandemic reality, face-to-face classroom contact became remote. Not only has the pandemic halted usual physical activities but also the university globalization agenda. Visits, partnership meetings, and foreign conferences were suddenly abandoned or cancelled.

Nevertheless UITM has to stay focused on UITM2025 plan and its three major areas: Quality Education, Global Excellence, and Value-Driven Performance. For the Performance Indicator (PI) on MoUs/MoAs with foreign universities, UITM revised its internationalisation strategy, shifting to digital international partnerships. UITM's Office of



International Affairs (OIA) was in charge of achieving 364 MoUs and MoAs with international universities by 2020. In 2019, there were 224 MoUs and MoAs, compared to 178 MoUs and 46 MoAs in 2018. The overall number of MoUs and MoAs increased by 62.5 per cent by 2020. One hundred and three (103) new MoUs were signed with foreign universities in Indonesia, Philippines, India, Germany, Korea, and Japan, while 29 new MoAs were formed with international institutions in Indonesia, USA, Japan, South Africa, and Thailand (through Letters of Understanding).

Despite the pandemic, faculties, branch campuses, Hi-COEs, and departments actively collaborated with worldwide partners online. The new normal was to sign MoUs and MoAs via Virtual MoU signing. While the pandemic has hampered mail and courier services, UiTM has carefully introduced e-Signing of MoUs and MoAs as a cost-saving strategy. Such a change in the mode of communication allowed the University to save up to RM70,000 in 2020. Strategically, the new system of engagement has made it possible to virtually reach employees and students across continents for e-collaborative discussions. In 2020, UiTM increased student inbound mobility from 1214 to 1259, student outbound mobility from 950 to 1372, and staff incoming mobility from 111 to 518. Aiming to become a world class university by 2025, UiTM's internationalisation mission is aligned with UiTM 2025 mission.

### Asean Connections: Universiti Teknologi MARA (UiTM) and IMT-GT UNINET

Increasing international capabilities and cultivating collaborations were UiTM's most difficult responsibilities during the Covid-19 pandemic in 2020. Despite the dismal scenario, the chances of establishing new networks among 'family members' based on trustworthiness and devotion to ASEAN members were estimated. The 27 members of the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT) and University Network (UNINET) recognised the necessity and potential of international networking. In the IMT-GT subregion, a new paradigm was required to foster economic growth through member exchange and connectivity. Despite the pandemic, digital ties with Indonesian and Thai partners increased from 50 and 18 pre-COVID to 110 (54%) and 26 (30%) respectively, making UiTM a reliable brand and partner. Staying close to 'home' helped the university to re-establish its reputation among members and achieve IMT-GT UNINET goals. As national coordinators, the IMT-GT UNINET 'puzzle' has been assembled to strengthen staff and student unity to improve staff and student unity among member nations. UiTM has managed to move forward in these difficult circumstances by relating to the UN SDGs through our community (SDGs).

The virtual webinar "Strengthening UiTM and IMT-GT UNINET Cooperation on COVID-19" suggested strategies for academics and students to deal with the pandemic. This is in tandem with SDG 17 - Partnerships for Goals, and IMT-GT objective 4-Solutions for Sustainable Communities. Students' academic, mental, and health issues during COVID-19 were addressed through the 'Virtual Student Leadership Forum' attended by 137 participants. A session on 'Business Model Canvas' for 32 students from IMT-GT countries was also held to help them survive the pandemic and become socially transformed. The 'Virtual Presidential Round Table' gathered six university leaders to discuss their experience through difficult times and the path forward in 'defeating' the pandemic. Other members had been motivated to implement sharing sessions in their universities. These efforts had not only placed UiTM on the global map but also created a fresh opportunity to expand its wings globally. As such, its enterprises and other institutions must reassess their relationships with each other, the society, and the natural environment.

## Hablo Espanol! Universiti Teknologi MARA (UiTM) Malaysia Explored Latin America

The COVID-19 pandemic has tremendously immobilised the world socially and economically and impacted higher education significantly. HEIs, especially UiTM, encountered many obstacles in its internationalisation programmes. However, the pandemic provided an opportunity for UiTM's Office of International Affairs to revamp its internationalisation initiatives. Despite the global pandemic, a strong international engagement is required to strengthen existing partnerships and explore new ones. In certain areas, there had been few or no foreign links. As part of UiTM's restructuring effort, new markets, particularly Latin America were explored. Thus, using established links with embassies in Malaysia, UiTM forged new relationships, especially with Colombia and Cuba that already have long-standing relations with Malaysia, particularly in economy, music, culture, and traditions. Our collaborations with the Colombian and Cuban embassies in Malaysia translated into the 'Ambassadorial Lectures' and popular virtual collaborative sessions. As a result of these engagements, the Cuban and Colombian Ambassadors to Malaysia graciously contributed volumes to the UiTM library. Colombian and Cuban music, culture, and art have captivated the hearts of our community. Collaborations with the Embassy of Colombia began with a virtual musical webinar graced by renowned musicians directed by Dr Juan Montoya, senior lecturer at the Faculty of Music, and Maestro Alejandro Rocca. The Embassy also approved a grant to the Faculty of Music, and artwork to GESTURZ, an art gallery at the Faculty of Art and Design, during the "Colombian Film Festival" Ceremony. Aside from that, OIA enrolled 25 UiTM students in an

online Spanish Summer School at Colombia's Industrial University of Santander (UIS). Moreover, the Colombian Ambassador invited a well-known Colombian football coach to lead football-related events with the UiTM Football Club (UiTM FC). Collaborations with the Cuban Embassy gained UiTM a new partner in Cuba's largest, oldest, and most prestigious university, the University of Havana. Subsequently, an MoU focused on medical research was inked, marking the 336th MoU and MoA secured by 29th December 2020. International partnerships impacted both parties personally, culturally, and professionally. UiTM faculties are very interested in Latin American partnerships for education, research, and employment opportunities. To remain competitive, UiTM will seek connections with other nations too in the region.

## Partnership for Innovation-Led Strategies to Combat COVID-19 and Related Ailments

COVID-19 and pollution have harmed human lives globally, increasing infections, diseases, and mortality rates. With the support of the International Federation of Inventors' Association, Universiti Teknologi MARA (UiTM) partnered with industries and academic institutions, namely PROTEPM Exhibitions and Conferences Sdn Bhd, SIRIM Berhad, and Malaysia Technical University Network, to collate innovations from Malaysia, Hong Kong, Poland, Ukraine, and Saudi Arabia in 2020. Innovators from Malaysia, Singapore, Brunei, Australia, and Thailand judged the quality of these products and publicised them via electronic media and email. Some developments, including the COVID-19 screening booth and UiTM Ai-in-One pandemic protection system, had been utilised. The Malaysian Prime Minister's Office and Ministry of Health indicated their interests in associated educational and commercial activities in 2021.

Academically, UiTM collaborated with Nagasaki University and Yangzhou University (China) on a global survey involving 371 hospitals from 57 nations. The team working with post and under-graduates from National University of Singapore (Singapore) and Universiti Malaysia (Malaysia) reviews the strategy to develop novel pulmonary particulate drug carriers for cancer and infectious disease treatment. To improve drug delivery performance for all lung diseases, the Malaysian Ministry of Science, Technology and Innovation has established an International Collaboration Fund to work with Sydney University, Coruna University and Tenang Pharma (M) Sdn Bhd. At the same time, Yangzhou University is collaborating with Witwatersrand University, Calcutta University, and Adamas University, India to determine optimal nanomaterial characteristics for successful cancer cell uptake. The ASEAN-India Collaborative Research Program has also begun two similar initiatives with the National Institute of Pharmaceutical and

Education Research (India), National University of Singapore, Adamas University, and Brunel University, Brunel. As a follow-up to its 2020 initiatives, UiTM will launch a 2021 innovation-led Sustainable Development Goals programme with business and academic partners. UiTM and Universiti Malaya have signed a memorandum of understanding with PROTEMP to develop anti-COVID-19 saccharidic nanomedicine as part of their corporate social responsibility and with Taron Solutions Limited, Hong Kong for technology commercialization.

### UiTM Collaborates with Pakistan, Saudi Arabia, Russia, Syria and Indonesia in IADC 2020

The "International Art and Design Collaboration: Virtual Program Series (IADC) 2020" was recently organised by the Faculty of Art and Design (FSSR) of Universiti Teknologi MARA (UiTM) Perak, Malaysia and international strategic partners from Pakistan, Indonesia, Russia, Syria and Saudi Arabia. This international virtual programme series aimed to cultivate diplomatic relations between UiTM and MoU partners amidst the COVID 19 pandemic. The programme was designed for students and academia in promoting knowledge exchange and increasing research networking. The session was divided into four parts: the International Classroom Lecture Series, International Design Talk, International Art Talk, and International Virtual Art Exhibition. For the International Classroom Lecture Series, online lectures were conducted from 1 June to 31 August 2020 for UiTM students and foreign students abroad. Participants of the IADC 2020 were from Pakistan (Bahauddin Zakariya University), Indonesia (Universitas Sebelas Maret, National Multimedia University, Jaya Development University, Indonesia Cultural Institute Bandung and Widyatama University Indonesia), Bangladesh (Jatiya Kabi Kazi Nazrul Islam University), Russia (Moscow State Academic Art Institute), Syria (Damascus University) and Saudi Arabia (Efat University). Local participants included Sultan Idris University, University of Science Malaysia, UCESI University, Multimedia University, University of Kelantan Malaysia, Academy of Aaimedrts and Heritage (ASWARA), Taylor's University and Malaysian Design Council. This virtual programme further enhanced UiTM's visibility globally and its aspirations should expand the nexus of expertise among all universities. This is also well aligned to the Sustainable Development Goal (SDG) No. 4 in achieving quality in education and SDG No. 17 in enhancing global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, and technology.



<https://igs-gen.com/uitm-collaborates-with-pakistan-saudi-arabia-russia-syria-and-indonesia-in-iadc-2020/>

### Erasmus+ Program Grant: UiTM and International Partners Secure Eur 135,670.00 from European Commission, Eu to Boost Curriculum of Textile Engineering and Textile Technology

In January 2020 UiTM was proud to announce that the Textile Research Group from the Faculty of Applied Sciences (FAS) successfully obtained an ERASMUS+ grant from the European Union. "Smart Textiles - Modernization of the Curriculum of Textile Engineering and Textile Technology in Indonesia, Malaysia, and Pakistan" is a three-year project that began on 15 January 2020 and will end on 14 January 2023 with a total grant of EUR 135,670.00.

The project includes collaborative initiatives between European and Asian universities as follows:

University of West Attica, Athens, Greece (Project leader)
University of Ghent, Belgium
Universitat Politècnica de Valencia, Spain
University of Engineering and Technology, Karachi, Pakistan
Bahauddin Zakariya University, Punjab, Pakistan
Bandung Institute of Technology, Indonesia
Polytechnic of Textile Technology, Indonesia
Universiti Tun Hussein Onn, Johor, Malaysia

A consulting company in Piraeus, Greece; IDEC S.A. that provides high-tech training to universities is also involved in the project. Collaborative efforts include the development of a new curriculum on smart textiles and staff exchanges between Asian and European universities, as well as mobility programmes for staff and students in the European textile industry. The programme is expected to generate about 20 MoUs between UiTM and textile related industries in Asian and European countries.

## World Merit UTM Engaging Youth in Sustainability of Environment (IGLIVE)

Youth engagement and how it would help maintain environmental sustainability were discussed in a live IG session with Jabir Meftah, the President of Youth Care Malaysia and UTM Public Relations Executive, Puteri Aileen Natasha. The discussion circulated on how:

To promote environmental sustainability among youth

To explore the motivation for youth to join relevant NGOs



[https://www.instagram.com/tv/B\\_16999HpOF/?utm\\_source=ig\\_web\\_copy\\_link](https://www.instagram.com/tv/B_16999HpOF/?utm_source=ig_web_copy_link)

## FITA UTM Malaysia Signs MoU with Over 80 Creative Industry Companies in Malaysia

The Faculty of Film, Theatre and Animation or FITA was established in 1998. The idea of the establishment of FITA emerged in 1997, in line with the dynamic trend in the development of the creative industry in Malaysia.

Over 80 MoUs were signed between FITA, UTM, Malaysia and creative industry companies in Malaysia. Witnessed by Prof. Dato' Dr Rahmat Mohamad, the Deputy Vice-Chancellor (Industry, Community and Alumni Network (ICAN); and Professor Ts Dr. Hajah Roziah Mohd Janor, the former Assistant Vice Chancellor of the Institute of Quality & Knowledge Advancement (InQKA) now the Vice Chancellor of UTM, the auspicious event took place at Dewan Agung Tuanku Canselor (DATC) UTM Shah Alam on 6 December 2019. The Deputy Dean (Academic), Dr. Syahrul Fithri Musa exercising the duty of the Dean of FITA, pointed out the need to foster cooperation with other organisations due to the large number of students and academic programmes. As of October 2021, FITA has more than 2,300 active students and offers 16 undergraduate academic programmes in the field of film, theatre, animation, creative industry management and creative writing. FITA also offers three postgraduate programmes. All its degree programmes are on Work-Based Learning (WBL) platform known as 2u1i (two years in university, one year in industry). This is an effort aimed at maximising the learning experience of undergraduate students based on the combination of knowledge of the industry and classroom learning. The former Dean of FITA, Dato' Professor Ts Dr. A. Razak Hj Mohaideen stated that the MoUs are vital to provide WBL placements for future students of FITA. This initiative coincides with the Sustainable Development Goals (SDG) 4, namely Quality Education and SDG 17, namely Partnerships for the Goals. He hoped that the MoUs would not only elevate the reputation of the faculty and UTM but would also expand the marketability of FITA graduates in the future.

 1 NO POVERTY	RM100,517.12	3	 10 REDUCED INEQUALITIES	RM119,006.20	7
 2 ZERO HUNGER	RM364,589.72	12	 11 SUSTAINABLE CITIES AND COMMUNITIES	RM5,196,159.45	102
 3 GOOD HEALTH AND WELL-BEING	RM1,529,041.70	81	 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	RM659,828.69	27
 4 QUALITY EDUCATION	RM3,112,794.32	123	 13 CLIMATE ACTION	RM0	0
 5 GENDER EQUALITY	RM31,164.00	1	 14 LIFE BELOW WATER	RM358,233.12	5
 6 CLEAN WATER AND SANITATION	RM960,665.78	10	 15 LIFE ON LAND	RM4,886,162.78	26
 7 AFFORDABLE AND CLEAN ENERGY	RM1,339,968.29	12	 16 PEACE, JUSTICE AND STRONG INSTITUTIONS	RM6,710,312.00	34
 8 DECENT WORK AND ECONOMIC GROWTH	RM6,236,734.62	73	 17 PARTNERSHIPS FOR THE GOALS	RM35,233,793.11	699
 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	RM7,238,511.33	277			

Industrial engagement through consultancy projects

Photo by Steve Lamerar on Unsplash



research grants

112

RM12,372,518.14



consultancy projects

699

year 2020

RM35,233,793.11

▲  
343

year 2019



copyrights

1

# List of Industrial Partners

1	4TH INTERNATIONAL EXCHANGE AND INNOVATION CONFERENCE ON ENGINEERING & SCIENCE 2018 (ASSOC. PROF. OSAMA ELJAMAL)
2	AA 3D PRINTING & ENGINEERING (MOHAMMAD AZEEB BIN MAZLAN)
3	ABDAN PRESTIGE HOLDING SDN BHD (PUAN SYARIWATI AHMAD)
4	ACOTEC SDN BHD (LOW KAI TONG)
5	ACOLUSTRO CORPORATION SDN BHD (MR DAVID KHER)
6	ACS CONSULTING SERVICES SDN BHD (DR LIM FOO HOAT)
7	AGENSI ANTIDADAH KEBANGSAAN (AADK)
8	AGENSI INOVASI MALAYSIA (AIM) (HO TSCK SHIEN)
9	AGENSI KELAYAKAN MALAYSIA (MQA) (AINIL NILAM BINTI MOHD MOKHTAR)
10	AGENSI NUKLEAR MALAYSIA (DR ABDUL MUN BIN ABDUL RAHMAN)
11	AIRASIA BERHAD (HAMDAN MOHAMAD)
12	AIRAZ TECHNOLOGIES SDN BHD (SITI NABILA HASAN)
13	AIRIS ENGINEERS SDN BHD (IR SYED ISMAIL SYED YUSOFF)
14	AJINOMOTO (MALAYSIA) BERHAD (LALU CHIN MUN)
15	AKADEMI AUDIT NEGARA (EN M ZAKARIA BIN IBRAHIM)
16	AKADEMI AUDIT NEGARA (EN MUHAMMAD ZAKARIA BIN IBRAHIM)
17	AKADEMI PENGAJIAN BAHASA UITM SHAH ALAM (PUAN EZURYA BT RATHI)
18	AKADEMI PENGANGKUTAN JALAN MALAYSIA (HASHIM BORHAM)
19	AKADEMI PKNS SDN. BHD. (TUAN HAJI IDRIS ISHAK)
20	AKEPT (PROF MADYA DR ISME ROHA MOHAMED JAIS)
21	AMANAH IKHTIAR MALAYSIA (MARIAM BT MOHAMOOD)
22	ANGKASA CONSULTING SERVICES SDN BHD (DR LIM FOO HOAT)
23	ARENA PESONA ENTERPRISE (NIK MOHD. FAHMI RJ. BEBAHIM)
24	ASIA EDU2UR RESOURCES (EN SHUKRI ISHAK)
25	ASIAN FOOTBALL CONFEDERATION (DATO' WINSOOR JOHN)
26	ASNATECH PLANNING CONSULTANT SDN BHD (TPR HJ AHMAD TARMZI HUSIN)
27	ASSOCIATE MEDIA NETWORK SDN. BHD. (NURUL AIN MUSTAFFA)



28	AUTO ANTENNA MANUFACTURER SDN BHD (MOHD KHAIRI RAHIM)
29	AVANZADO BRILLANTE ASSOCIATES PLT (AHMAD NAQUIDDIN MOHAMAD)
30	AXIATA DIGITAL ECODE SDN. BHD. (AMALINA NADIAH AFFENDI)
31	AXVENTURA SDN BHD (IR CHUAH SHANG CHING)
32	BAHAGIAN HUBUNGAN INDUSTRI, KEMENTERIAN PENDIDIKAN TINGGI (PROF. MADYA DR. ARHAM ABDULLAH)
33	BAHAGIAN PERANCANG EKONOMI NEGERI JOHOR (EN SHAMSUL HANI)
34	BAHAGIAN PERANCANGAN DAN PENYELIDIKAN, IBU PEJABAT JABATAN BOMBA DAN PENYELAMAT MALAYSIA (SHAMSUL NIZAR)
35	BAHAGIAN PERNGURUSAN HARTANAH, JABATAN PERDANA MENTERI (NORHAZIZAH A. HAMD)
36	BANK PEMBANGUNAN MALAYSIA BERHAD (AHMAD NAJME YUSUF)
37	BANK PEMBANGUNAN MALAYSIA BERHAD (AHMAD NAJME YUSUFF)
38	BANK SIMPANAN NASIONAL (FATIN ALAWYAH AMIRUDDIN)
39	BBSB HOLDINGS SDN BHD (MR POON)
40	BEHN MEYER CHEMICAL (M) SDN BHD (PN HANIFA BEGUM MOHD GHANI)
41	BEIJING INSTITUTE OF TECHNOLOGY, ZHUHAI (PROF EDMUND S.T. KWOK)
42	BELLUS TERRA SDN BHD (925048-D) (MOHAMAD AIDIL JANTAN)
43	BESTSONIC ENGINEERING (LEE CHEE JIUN)
44	BESTSONIC ENGINEERING SDN BHD (LEE CHEE JIUN)
45	BIOALPHA R&D SDN BHD (KAYNE SAH)
46	BIO-COLLAGEN TECHNOLOGIES SDN BHD (AZLEENA AL-JEFFRI)
47	BLACKTOP INDUSTRIES SDN BHD (LOW CHI TIENG)
48	BODIBASKS MANUFACTURING SDN BHD (AHMAD SHAH IBRAHIM)
49	BRIGHTSTAR OILS SDN BHD (WILLIAM PU)
50	BSI SERVICES SDN BHD (PUAN FARAH)
51	BTS ENGINEERING SDN BHD (NOORSYAFIKA BINTI ADNAN)
52	BUJANGGA ENGINEERING (ABD MUHAMMAD OMAR)
53	BW SCAFFOLD INDUSTRIES SDN BHD (MOHD RIFAAI BIN CHE RANI)
54	CAA ENGINEERING CONSULTANCY (IR CHEE KOK WAH)
55	CAIDMARK SDN BHD (AHMAD NAJMUDDIN BIN ASSANAH)
56	CAPITAL ENVOY (M) SDN BHD (NOR FARHANA BINTI JASMI)
57	CARBON TECH GLOBAL SDN BHD (NURUL AIN AZMI)
58	CARBON TECH GLOBAL SDN BHD (NURUL AIN BINTI AZMI)
59	CCECC @* MAX JOINT VENTURE (CONTRACTOR OF LOT 2 OF DCRP) (MR. RAYHANUR RAHMAN CHOWDHURY)
60	CCECC-MAX JV (MD RAYHANUR RAHMAN CHOWDHURY)
61	CELCOM AXIATA (FADZLY KAMARUZAMAN)

62	CELCOM TIMUR (SABAH) SDN BHD (ENCIK SHAHARUL NIZA MOHAMAD)
63	CETEAU MALAYSIA SDN BHD (NUR FATIN BINTI MOHAMMED RAD)
64	CETEAU MALAYSIA SDN BHD. (NOR FARHANA BINTI JASM)
65	CETEAU MALAYSIA SDN BHD. (NOR FARHANA BT JASM)
66	CETEAU MALAYSIA SDN BHD. (NUR FARHANA BINTI JASM)
67	CETEAU MALAYSIA SDN BHD. (NUR FATIN BINTI MOHAMMED RAD)
68	CETEAU MALAYSIA SDN. BHD. (NOR FARHANA BINTI JASM)
69	CIDB HOLDINGS (SITI SARAH SALLEH)
70	CIDB MALAYSIA (HIDAYAH BINTI RAZALI)
71	CIDB MALAYSIA (MOHAMAD FAZIRUL IZAT)
72	CIMA SE ASIA (SHE MUN SIM)
73	CIMA SEA ASIA SDN BD (RUSHDAN ROZLAN)
74	CIMB ISLAMIC BANK (KEN MOHAMED FAIZ KAMAL)
75	CISCO NETWORKING ACADEMY (AHMAD ZAIFER MOHD YUSOF)
76	COMMONWEALTH TERTIARY EDUCATION FACILITY (CTEF), UNIVERSITI SAINS MALAYSIA (PROFESSOR DATO&E™ DR MORSHIDI SIRAT)
77	CONSTRUCTION INDUSTRY DEVELOPMENT BOARD (CIDB) (ENCIK MUHAMMAD SYAIFUL AHDAT BIN MUHAMMAD FETRI)
78	CONSTRUCTION INDUSTRY DEVELOPMENT BOARD (MUHAMMAD SYAIFUL AHDAT BIN MUHAMAD FETRI)
79	CONSTRUCTION INDUSTRY DEVELOPMENT BOARD MALAYSIA (CIDB) (MUHAMMAD SYAIFUL AHDAT BIN MUHAMAD FETRI)
80	CONSTRUCTION INDUSTRY DEVELOPMENT BOARD MALAYSIA (MUHAMMAD SYAIFUL AHDAT BIN MUHAMAD FETRI)
81	DAEHAN REHABILITATION SERVICES SDN BHD (MICHAEL LIM)
82	DAHTEC MARKETING SDN BHD (ZULAIKHA MOHD YUSOFF)
83	DAHTEC SDN BHD (PUAN HAFIZAH)
84	DAHTEC SDN BHD (ZULAIKHA)
85	DAIKIN STEEL MALAYSIA SDN. BHD. (UMMI MUSTAQIEDAH AZIZ)
86	DAYA AWANA INDUSTRI SDN BHD (DAVID FOO)
87	DAYA SECADYME SDN BHD (ADLI MD NOOR)
88	DAYA SECADYME SDN BHD (HAJI AKMAL YAHYA)
89	DC EXCELLENT SDN BHD (AWALIZAM ABDULLAH)
90	DEPARTEMEN PENDIDIKAN SENI RUPA, FAKULTAS PENDIDIKAN SENI DAN DESAIN, UPI (BANDI SOBANDI)
91	DEWAN BANDARAYA KUALA LUMPUR (INSTITUT LATIHAN DEWAN BANDARAYA KUALA LUMPUR)(DBI)
92	DEWAN BANDARAYA KUALA LUMPUR (PN FADHLINA)
93	DWI ARMADA RESOURCES SDN BHD (DATO' MOHAMED HANIF ABDUL KUDUS)
94	EASTERN PRETECH (MALAYSIA) SDN. BHD (R. CHU KH.)
95	EFTech DRILLING SOLUTIONS SDN BHD (MOHAMAD SUKOR ZAINAL ABIDDIN)

96	ELCORP TECHNOLOGY SDN BHD (JR DR SHAKOR RAMAT)
97	EMS TEST MEASUREMENT SDN BHD (MOHD ZULHAIRI)
98	ESTOP SDN BHD (HAZLIN BINTI HAMDAN)
99	EURO FACADE TECH MANUFACTURING SDN. BHD. (MUHAMMAD FIZI BIN BORHANI)
100	EVENFIT CONSULT SDN BHD (JR KU MOHAMMAD SANI BIN KU MAHAMUD)
101	EXCEL ENGINEERING & CONSTRUCTION SDN BHD (SITI NORMALIZA HANA BINTI MOHAMMED NOR)
102	FACULTY OF COMPUTER AND MATHEMATICAL SCIENCES (AIDAWATI BINTI ZAINAN ABDIN)
103	FAKULTI KEJURUTERAAN AWAM, UITM (SHUJ' AIBI ZAINAL ABDIN)
104	FAKULTI KEJURUTERAAN UPM (DR FARZAD HEJAZI)
105	FAKULTI PENGURUSAN DAN PERNAGAAAN (PROFESOR MADYA DR. NORMINSHAM ABDUL KARIM)
106	FAKULTI PERLADANGAN DAN AGROTEKNOLOGI (DR. ALAWI SULAIMAN, TIMBALAN DEKAN AKADEMIK)
107	FAKULTI PERUBATAN UITM KAMPUS SG BULOH (DR ANIS SIHAM ZAINAL ABDIN)
108	FAKULTI SAINS GUNAAN (PUAN UMAIFA OTHMAN KOYA)
109	FARMASIA SDN BHD (ZOHRAH RAZAK)
110	FERNTEA (MALAYSIA) SDN BHD (MHURUGAN @CALVIN)
111	FGV PLANTATIONS (MALAYSIA) SDN BHD (MOHD AZWAN BIN MD ISA)
112	FIVE LEVEL CONSTRUCTION (ADNAM)
113	FIX FILM SDN BHD (AZAHARI HAMID)
114	FIX FILM SDN. BHD. (AZAHARI ABDUL HAMID)
115	FLEXWALL MARKETING SDN BHD (NG HANG SENG)
116	FOOTBALL ASSOCIATION OF MALAYSIA (FAM) (MR SAMUEL SIEW)
117	FOXBORO MALAYSIA SDN. BHD. (WAN AZRAEI WAN HUSAIN)
118	GAC BUILDERS SDN BHD (JR MAZLAN ABDULLAH)
119	GAIA PLAS BERHAD (ABDUL QY'YUM FAYED)
120	GAIA PLAS BERHAD (NORSHARINA BINTI MOHD SHAHAR)
121	GAIA SCIENCE (M) SDN BHD (MC CHOI)
122	GAMUDA GM KLANG SDN BHD (NORSUHADA OTHMAN)
123	GAYA MURNI SDN BHD (MR KOH KOK KEONG)
124	GEOCON ENGINEERING SDN BHD (MOHAMED AZIZI MD ALI)
125	GEOCON ENGINEERING SDN BHD (MOHD ASMAWI JOHAR)
126	GEOCON ENGINEERING SDN. BHD. (MOHAMED AZIZI MD ALI)
127	GEOCON ENGINEERING SDN. BHD. (MOHD ASWANI JOHAR)
128	GEODETC SOLUTION SDN BHD (SOEB BIN NORDIN)
129	GEORES RESOURCES (CHE ABDUL SHUKOR B SETAPA)

130	GEORES RESOURCES (CHE ABDUL SHUKOR)
131	GEORES RESOURCES SDN BHD (CHE ABDUL SHUKOR SETAPA)
132	GET SERVICES (MAHADI BIN ABD HAMID)
133	GET SERVICES SDN BHD (MAHADI BIN ABD HAMID)
134	GLOBAL SCIENCE SDN BHD (TAN YEW WERN)
135	GM KLANG WHOLESALE CITY (NORSUHADA BINTI OTHMAN)
136	GOVERNMENT AND PRIVATE ORGANIZATIONS (PM DR ZAMALIA MAHMUD)
137	GRUNCHEM TECH SDN BHD (MOHD SUJIB BIN MOHAMAD ZAWAWI)
138	HANDAL SIMPLEX SDN BHD (RAZLAN RAZALI)
139	HARTASUCI SDN BHD (ENCIK RAZALI MD JANI)
140	HATIMUDA SDN BHD (IZHAR IBRAHIM)
141	HBG FLUXR DIGITAL SDN BHD (VENCE C.)
142	HIKMAT ASIA SDN BHD (NIK RULAZMAN NIK MOHD ROSDY)
143	HOSPITAL SULTAN ISMAIL (DR. SAADON BIN IBRAHIM)
144	HUMAN FACTORS AND ERGONOMICS SOCIETY MALAYSIA (HFEM) (PROF. DR. SHAMSUL BAHRI MOHD TAMRIN)
145	HUMAN VOYAGE (ZAFRAN)
146	IDEAL ENGINEERING LABORATORY SDN BHD (MR YEE LIP CHUAN)
147	IDEAL ENGINEERING LABORATORY SDN BHD (MR YEE)
148	IEEE CSS MALAYSIA CHAPTER (PROF DR MOHD FU'AD RAHMAT)
149	IEEE MALAYSIA SECTION - CONTROL SYSTEM SOCIETY (RAMLI ADNAN)
150	EXPLOTECH ENTERPRISE (SA0428744-K) (DR MOHD ANUAR MAT ISA)
151	IKRAM SKILLS AND RETRAINING ACADEMY (HAJAH ZAFINA HJ MD ZAMIN)
152	INDIVIDUAL (PUAN ZUHAINATUL TA'ASIAH BINTI SALLEH)
153	INDIVIDUAL (ZUHAINATUL TA'ASIAH BINTI SALLEH)
154	INLEA CORPORATION (BARBARA STOTKO)
155	INNOSCIENCE RESEARCH SDN. BHD. (GUO FENG)
156	INSTITUT KRAF NEGARA (EN. ARSAD BIN IBRAHIM)
157	INSTITUT KRAF NEGARA (WAN NORADREENA BINTI WAN RAWI)
158	INSTITUT LATHAN KEHAKIMAN DAN PERUNDANGAN (ILKAP) (INSTITUT LATIHAN KEHAKIMAN DAN PERUNDANGAN (ILKAP))
159	INSTITUT MASA DEPAN MALAYSIA (DR ROHANA KAMARUDDIN)
160	INSTITUT PENDIDIKAN GURU KAMPUS ILMU KHAS (EN RAVICANTHIRAN A/L ARUJUNAN)
161	INSTITUT PENYELIDIKAN PENDIDIKAN TINGGI NEGARA (IPPTN), USM (PROFESOR MADYA DR HAZRI JAMIL)
162	INSTITUT PENYELIDIKAN PERHUTANAN MALAYSIA (FRIM) (ENCIK MOHD ZAMSHARI BIN HJ. ABD. RAHMAN)
163	INSTITUT PENYELIDIKAN PERHUTANAN MALAYSIA (FRIM) (NOOR AZREDA ABD. RASHID)

164	INSTITUT PENYELIDIKAN SAINS DAN TEKNOLOGI PERTAHANAN (PN NORHAYATI ZAHARI)
165	INSTITUT PENYIARAN DAN PENERANGAN TUN ABDUL RAZAK (SUKMA AZURA CHE AHMAD)
166	INSTITUT PERAKALINAN NEGARA (DR MURNI BINTI SUBROTO)
167	INSTITUT PERAKALINAN NEGARA (DR SHAHRIL BIN BAHARIM)
168	INSTITUT PERAKALINAN NEGARA (EN AHMAD AREAZA BIN ABDUL RAHMAN)
169	INSTITUT PERHUTANAN TROPIKA & PRODUK HUTAN (DR MOHAMMAD JAWAID)
170	INSTITUT SUKAN NEGARA (WAN KHAIROL AZWA)
171	INSTITUT TADBIRAN AWAM NEGARA (INTAN) (HARTINI YAHYA)
172	INSTITUT TADBIRAN AWAM NEGARA (INTAN) (NOR BAIZURA MOHD NOORDIN)
173	INSTITUT TADBIRAN AWAM NEGARA (INTAN) (NURBAITY BINTI ABDUL GHANI)
174	INSTITUTE FOR MEDICAL RESEARCH (DR. AMI FAZLIN SYED MOHAMED)
175	INSTITUTE FOR MEDICAL RESEARCH (DR. AMI SYED MOHAMMAD)
176	INSTITUTE MATERIALS, MALAYSIA (NO. D-D-0-9, SETIAWANGSA BUSINESS SUITE)
177	INSTITUTE OF CAPITAL MARKET RESEARCH (DATIN AZLEEN OSMAN RANI)
178	INSTITUTE OF MATERIALS, MALAYSIA (MOHD AZMI MOHD NOR)
179	INSTITUTE OF TROPICAL FORESTRY & FOREST PRODUCT (INTROP) (DR. MOHAMMAD JAWAID)
180	INT.PARALYMPIC COMMITTEE (DR BAYU RAHADIAN)
181	INTEC EDUCATION COLLEGE (DR. RUZELA TAFSIR)
182	INTEKMA ENGINEERING SERVICES & TRADING SDN. BHD. (AHMAD IDZHAR ISMAIL)
183	INTEKMA ENGINEERING SERVICES & TRADING SDN. BHD. (SHAFUL HADY MOHAMAD)
184	INTEKMA SDN. BHD. (AHMAD IDZHAR ISMAIL)
185	INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA (DR. SARAH YASMIN MOHAMAD)
186	INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA (DR. SITI NOORJANNAH IBRAHIM)
187	INTERNATIONAL MALAYSIA TRAININGCENTRE (DR. AMER)
188	INTERNATIONAL MALAYSIAN TRAINING CENTRE (ISAM SALEH)
189	INTERNATIONAL PLANT NUTRITION INSTITUTE (DR THOMAS OBERTHUR)
190	INTERTEK SDN BHD (MR. WILLIAM NG)
191	INTI INTERNATIONAL UNIVERSITY (THIRUMALAYA BALARAMAN)
192	INTI INTERNATIONAL UNIVERSITY (THIRUMALAYA BALARAMAN)
193	IPTAMPTS (-)
194	IRASBINA ENTERPRISE (NADZRI AMIR)
195	ISHARP SDN BHD (SSUBSIDIARY OF BLUE ARCHPELAGO BHD) (EN FAIZ SUDIN)
196	ISTIQ NOISE CONTROL SDN BHD (EN MOHD JALADI BIN MUDA)
197	ISTIQ NOISE CONTROL SDN BHD (ENCIK JALADI MUDA)

198	I2M CONSULT (TPR. IHSAN ZAINAL MOHTAR)
199	JABATAN AUDIT NEGARA (EN NURUL AL BAKRI BIN MOHAMAD)
200	JABATAN AUDIT NEGARA PAHANG (PN KAMARIAH BTE BAPOC)
201	JABATAN KERJA RAYA (JR. DR. SHERLIZA BINTI ZAINI SOORIA)
202	JABATAN KERJA RAYA (JKR) MALAYSIA (SHAFROM DARMAWAN BIN MOHD YUNUS)
203	JABATAN KIMA MALAYSIA (NORMAZLANA BINTI MUHAMMAD)
204	JABATAN MILIZUM MALAYSIA (JMM) (MUHAMMAD AZAM ADNAN)
205	JABATAN PASCASISWAZAH, FAKULTI SENILUKIS DAN SENIREKA (P/M DR. NORFADILAH KAMARUDDIN)
206	JABATAN PENDIDIKAN TINGGI KEMENTERIAN PENDIDIKAN MALAYSIA (PUAN NUR SHAFRIZA BINTI KAMARUDDANIA)
207	JABATAN PENDIDIKAN TINGGI, KEMENTERIAN PENDIDIKAN MALAYSIA (PUAN NOOR CHAYA BINTI KADER)
208	JABATAN PENDIDIKAN TINGGI, BAHAGIAN PENGURUSAN KEMASUKAN PELAJAR (MAZULA BINTI SABUDIN)
209	JABATAN PERLINDUNGAN HIDUPAN LIAR DAN TAMAN NEGARA (PERHILITAN) SEMENANJUNG MALAYSIA (NOOR ALIF WIRA BIN OSMAN)
210	JADI IMAGING TECHNOLOGIES SDN. BHD. (HAZWAN BIN HARMAN)
211	JDEE SPREE RESOURCES (MISS DENISE CHEONG PIK-YEE)
212	JET FORMWORK & SCAFFOLD SDN BHD (CHRISTINE CHOO)
213	JJ-LURGI ENGINEERING SDN. BHD (MS. TAN HIJ NGI)
214	JOHOL ENGINEERING & CIVIL WORKS (MOHD SUHAIFY BIN JURUAN)
215	JOHOR PORT BERHAD (PN. SITI KAMARIAH MD SHAHRIN)
216	JOINT MANAGEMENT BOARD KRISTAL VIEW (MOHD ZULKFLÉE ISMAIL)
217	JUZA MAYA (JUNAIDAH OTHMAN)
218	K2K CONSTRUCTION SDN BHD (AZMIR SHAHARUDDIN)
219	KANSEI RESOURCES (ISMAIL AMAT)
220	KAZAI INNOVATIVE IDEAS SOLUTION (PN ZAIZALINA)
221	KBC TRADING SDN BHD (ADAM)
222	KBC TRADING SDN BHD (MUHAMAD FALIZI NORRIL)
223	KEMAKMURAN 2000 SDN BHD (LOKE HOE)
224	KEMENTERIAN HAL EHWAL EKONOMI (SAHARUDDIN SARWAN)
225	KEMENTERIAN KESIHATAN MALAYSIA (MOHD HAKIMI BIN MAT ADAM)
226	KEMENTERIAN KESIHATAN MALAYSIA (ZALMA BINTI ABDUL RAZAK)
227	KEMENTERIAN PELANCONGAN DAN KEBUDAYAAN MALAYSIA (JAIME YECH)
228	KEMENTERIAN PELANCONGAN, SENI DAN BUDAYA (CIK MASZIAH MOHAMED)
229	KEMENTERIAN PELANCONGAN, SENI DAN KEBUDAYAAN (MASZIAH MOHAMED)
230	KEMENTERIAN PENDIDIKAN MALAYSIA (DR. BAIDURAH BT YAAKUB)
231	KEMENTERIAN PENDIDIKAN MALAYSIA (KO LIAN KIAT)

232	KEMENTERIAN PENDIDIKAN MALAYSIA (MAZILAH MAT DERIS)
233	KEMENTERIAN PENDIDIKAN MALAYSIA (MR. JAGDEV SINGH A/L. KULBANT SINGH)
234	KEMENTERIAN PENDIDIKAN MALAYSIA (PN MAZLAH BT MAT DERIS)
235	KEMENTERIAN PENDIDIKAN MALAYSIA BAHAGIAN BUKU TEKS (EN KO LIAN KIAT)
236	KEMENTERIAN PENDIDIKAN TINGGI (YBHG. DATO' DR. MOHD. HARIZ BIN YUSOFF)
237	KEMENTERIAN PENGAJIAN TINGGI (MOHD NIZAM MOHD NASIR)
238	KENCANA BARAQAH RESOURCES (AHMAD ZAMRI SAHANI)
239	KERETAPI TANAH MELAYU BERHAD (KTMB) (SHAHRIULL AZWAN MAT SULAIMAN)
240	KIM HOE THYE INDUSTRIES SDN BHD (FRYKAZ) BIN MOHD SIDER)
241	KINETICS SYSTEM MALAYSIA SDN BHD. FOR (INFINEON KULUM HI TECH KEDAH) (NORLIDA ISMAIL)
242	KOLEJ MATRIKULASI MELAKA (MOHD KHAIRI BIN ABDUL RAHMAN)
243	KOLEJ POLY-TECH MARA BANGI (ENCIK AHMAD FIRDAUS BIN IBRAHIM)
244	KOLEJ POLY-TECH MARA BANGI (PUAN WATINI BINTI SHARIFF)
245	KOLEJ SAINS PERUBATAN ANTARABANGSA PUSRAWI (WAN NORHASLINDA BINTI WAN ABD RAHMAN)
246	KOLEJ VOKASIONAL AMPANGAN (EN MUHD HARIZ)
247	KOLEJ VOKASIONAL KLANG (PUAN NOOR AIZA BINTI RAZAK)
248	KOLEJ VOKASIONAL MIRI DAN PERSATUAN BOLASEPAK MIRI, SARAWAK (MOHAMAD HAKIMI BIN MAN)
249	KOLEJ VOKASIONAL SETAPAK (NAZMAN ABU BAKAR)
250	KOLEJ VOKASIONAL SETAPAK (PUAN HAZILAH ZAINUDDIN)
251	KOLEJ VOKASIONAL SHAH ALAM (EN. MOHD REDZWAN BIN MAT SAH)
252	KOLEJ VOKASIONAL SULTAN HAJI AHMAD SHAH AL-MUSTAIN BILLAH (WAN NUJRIQAH BT WAN MOHAMAD ZAMRI)
253	KOLEJ YAYASAN PELAJARAN JOHOR (KYPJ) (NORAINI)
254	KPJ SELANGOR SPECIALIST HOSPITAL (JUHAIMY BINTI ISHAK)
255	KSB ENGINEERING SERVICES (SIVA/KUMAR)
256	KSB ENGINEERING SERVICES (SUBRA)
257	KUALA SELANGOR RESOURCES SDN BHD (HJ SHAHRIUL AZWAN USOP)
258	LEMBAGA GETAH MALAYSIA (DR MAZUNA MUSTAFA KAMAL)
259	LEMBAGA KEMAJUAN TANAH PERSEKUTUAN (FELDA) (NUR FATHIHA BT MOHTAR)
260	LEMBAGA KEMAJUAN TANAH PERSEKUTUAN (NUR FATHIHA MOHTAR)
261	LEMBAGA KENAF TEMBAKAU NEGARA (SITI FATIMAH ABDUL HALIM)
262	LEMBAGA PEMASARAN PERTANIAN PERSEKUTUAN (FAMA) (ABD HALIM BIN ZAINAL ABIDIN)
263	LEMBAGA PERANCANG BANDAR MALAYSIA (TPR WAN ANDERY BIN WAN MAHMOOD)
264	LEMBAGA PERINDUSTRIAN KAYU MALAYSIA (NOR SHAHIRA MAT NASIR)
265	LEMBAGA PROMOSI KESIHATAN MALAYSIA (NOORJUL IZDIANY BINTI MOKHTAR)

266	LEMBAGA SUMBER AIR NEGERI KEDAH (NORANIZA HJ MD SAAD)
267	LEMBAGA TEKNOLOGIS MALAYSIA (NUR SAKINAH BINTI ISHAK)
268	LEMBAGA TEKNOLOGIS MALAYSIA (NURHAFIZA SAMSUDIN)
269	LEMBAGA URLIS AIR SELANGOR (DATO' IR HASHIM OSMAN)
270	LEMBAGA ZAKAT SELANGOR (DR. ADIBAH ABD WAHAB)
271	LEMBAGA ZAKAT SELANGOR (MAIS) (HJ. MOHD SAZALI MOHD SALEH)
272	LIMAR EMAS SDN BHD (WAN IBRAHIM)
273	LINCOLN UNIVERSITY COLLEGE (MR RAVIKUMAR KATTA)
274	LKTN (WAN AZLIN)
275	LMS SCIENTIFIC SOLUTION (RICHARD ONG)
276	LZ TERAJU RESOURCE (MUHAMMAD KHARIL BASRI)
277	M-10 BUILDERS SDN BHD (MR IRMAN HADI BIN DZULKAFLI)
278	MA SMART SOLUTIONS (MIOR AZRAI BIN MIOR HASAN)
279	MAAHAD TAHFIZ AL-QURAN WAL QIRAAT SHAH ALAM (TUAN HAJI MOHD BOKHARI BIN SHARIFF)
280	MAGNA VALUE SDN BHD (SHAHARUDIN SHARIFF)
281	MAHSA UNIVERSITY (PROF MADIYA CHAN SEOK CHIN)
282	MAHSA UNIVERSITY (SYAZANA SYAHIRAH JAMALUDDIN)
283	MAJLIS AMANAH RAKYAT (EN.SAAD SULAMAN)
284	MAJLIS AMANAH RAKYAT (ENCIK ABU BAKAR B. ISMAIL)
285	MAJLIS AMANAH RAKYAT (PN NURUL BT SAHARUDIN)
286	MAJLIS KESELAMATAN NEGARA (ZAMRI MISMAN)
287	MAJLIS PARALIMPIK MALAYSIA (KAPT. G. MOHAN)
288	MAJLIS PEMBANGUNAN WILAYAH EKONOMI PANTAI TIMUR (ENCIK NOORAZMAN MERICAN BIN AHMAD MERICAN)
289	MAJLIS PERBANDARAN SEPANG (MOHD FAUZI MOHD YATIM)
290	MAJLIS SUKAN NEGERI PERAK (DR BENDERI DASRI)
291	MAJLIS SUKAN NEGERI PERAK (EN. ZAHIRUL ANNUAR BIN USAILI)
292	MAJLIS SUKAN NEGERI SELANGOR (PUAN SUHANA SUHAILI)
293	MAJLIS SUKAN WILAYAH PERSEKUTUAN (PN NORAZAWANA ABU BAKAR)
294	MAKTAB RENDAH SAINS MARA (MFRSM) SUNGAI BESAR SELANGOR (ENCIK MOHD HAFIZI BIN MOHAMAD PALZI)
295	MAKTAB RENDAH SAINS MARA IMTIYAZ YT KETENGAH, TERENGGANU (MUHAMMAD HAFIZ BIN HASSAN)
296	MALAKOFF SDN BHD (MR. SHARIFF)
297	MALAY SINO CHEMICAL TELUK KALONG, KEMAMAN (MOHD AL-MUSTAZA)
298	MALAYSIA AIRPORTS HOLDING BERHAD (MAHB) (HARRIS DATO' HJ. AZZOOOL)
299	MALAYSIA DIGITAL ECONOMY CORPORATION (JOHAN TERMIZI)



300	MALAYSIA ONE HEALTH UNIVERSITY NETWORK (MYOHLIN) (MUHAMMAD AFIFUDDIN)
301	MALAYSIA PRODUCTIVITY CORPORATION (MOHAMMED ALAMIN REHAN)
302	MALAYSIA RESEARCH & INNOVATION SOCIETY (MYRIS) (ALIDA ABDULLAH)
303	MALAYSIA TECHNOLOGY DEVELOPMENT CORPORATION (PN WAHIDA ABDUL WAHAB)
304	MALAYSIA TECHNOLOGY DEVELOPMENT CORPORATION SDN BHD (MTDC) (ENCIK MANSUR HARUN)
305	MALAYSIAN AGRICULTURAL RESEARCH & DEVELOPMENT INSTITUTE (MARDI) (DR. HADJAH HASSAN)
306	MALAYSIAN ASSOCIATION OF TAX ACCOUNTANTS (DATO' HJ. ABD AZIZ BIN ABU BAKAR)
307	MALAYSIAN CONSUMER AND FAMILY ECONOMICS ASSOCIATION (MACFEA) (PROF. DR. AHMAD HARIZA HASHIM)
308	MALAYSIAN GREEN TECHNOLOGY CORPORATION (MGTC) (ROSMAH BINTI MAMAK RAFI)
309	MALAYSIAN GREEN TECHNOLOGY CORPORATION (NORIZA ADLI)
310	MALAYSIAN INSTITUTE OF INTEGRITY (MOHD ISMAIL ABDUL JALIL)
311	MALAYSIAN INSTITUTE OF SUPPLY CHAIN (DR ASAD ATA)
312	MALAYSIAN QUALIFICATION AGENCY (MQA) (NURAIN ABDUL RAHMAN)
313	MALAYSIAN QUALIFICATIONS AGENCY (AINIL NILAM MOHD MOKHTAR)
314	MALAYSIAN TECHNOLOGY DEVELOPMENT CORPORATION (ALVIRAH MOHD NAIT)
315	MALAYSIAN TECHNOLOGY DEVELOPMENT CORPORATION (MAWAR MURNI MUHAMMAD)
316	MALAYSIAN TECHNOLOGY DEVELOPMENT CORPORATION (PN WAHIDA ABDUL WAHAB)
317	MALAYSIAN TECHNOLOGY DEVELOPMENT CORPORATION SDN BHD (ENCIK MANOR HARUN)
318	MALAYSIAN TECHNOLOGY DEVELOPMENT CORPORATION SDN BHD (MTDC) (ENCIK SHUHARI SAMAD)
319	MALAYSIAN TECHNOLOGY DEVELOPMENT CORPORATION SDN BHD (SIRAJULADI SAHABUDIN)
320	MALAYSIAN TIMBER INDUSTRY BOARD (MAHSURI MAT DRIS)
321	MANAGEMENT & SCIENCE UNIVERSITY (MSU) (EN. NIK SYAMSUL BAHARI BIN CHE YUSOF)
322	MARA (SAIFUL ASMIN BIN TUMIN)
323	MARCO CORPORATION (M) SDN BHD (NICK SEI XING YONG)
324	MBH COSMECEUTICAL SDN BHD (MR FOO CHIT SEONG)
325	MCU COATINGS (M) SDN BHD (BRIAN LIM SIONG CHUNG)
326	MD EARTH SOLUTION (NO 2-2C, MEDAN BUKIT INDAH, AMPANG 4)
327	MIBN RAMADA CORPORATION (M) SDN BHD (SITI ZAIDA YA'HA)
328	MILLENNIUM RELEASE SDN BHD (PARK BUM GWAN)
329	MIMOS (ZALINAH IBRAHIM)
330	MINDSCOPE SDN. BHD. (HARITH NIN)
331	MINISTRY OF ECONOMIC AFFAIRS (FAZE NORSHAHYAMAN BIN SHAHRIL)
332	MMC GAMUDA KVMRT (T) SDN BH (MR NG WEI HONG)
333	MIMI MURNI MANUFACTURING SDN BHD (PN SAKINAH)

334	MNA RESEARCH SDN BHD (MUHAMMAD NJRUL ANUAR)
335	MOBILUS SDN BHD (CHAN CHEE KIAN)
336	MODULA DYNAMIC SDN. BHD. (LOKMAN ADAM KHOO BIN FARIZOL KHOO)
337	MOEM SDN BHD (MR KENNETH)
338	MSC SOFTWARE (EN MD KEMAROL ZAMANI)
339	MSC SOFTWARE INTERNATIONAL (MR MD KEMAROL ZAMANI)
340	MTDC SDN BHD (SIRAJUL'ADLI SAHABUDIN)
341	MTSC TECHNOLOGY SDN. BHD. (WEERANA A/P EH KAN)
342	MULTI CLIENTS (NUR AIN MOHD ZAINUDDIN)
343	MULTIMEDIA UNIVERSITI (DR AZWAN MAHMUD)
344	MULTIMEDIA UNIVERSITY (JR. DR. TAN KIM GECK)
345	MULTIMEDIA UNIVERSITY (SYAZA RAIHA BINTI MARZUK)
346	MYRESCUE TECHNIQUE CONSULTANCY (EN FADZIL B. AMIR)
347	MY-SUTERA SDN. BHD (ISMADI SHAHINZAM B MD LASIM)
348	MZS SERI RESOURCES (MUHAMMAD HUSAINI BIN ANUAR)
349	NZW CORPORATION SDN BHD (MOHAMED RIZATUDDIN NOOR MOHAMED RAMLI)
350	NASI BAMBOO SUNGAI KLAH SDN BHD (PN FAREEN SAFINAZ BINTI MOHAMAD TAHIR)
351	NATTEST LAB SDN BHD (NAZRI ASHAARI)
352	NATTEST LAB SDN BHD (NAZRI ASHAARI)
353	NEGERI SEMBILAN LIAISON COUNCIL (PN HAMDAH AU)
354	NEORONWORKS INTERNATIONAL SDN BHD (MUHAMMAD IZZAT)
355	NEORONWORKS INTRNATIONAL SDN BHD (MUHAMMAD IZZAT)
356	NEURONWORKS INTERNATIONAL (MUHAMMAD IZZAT RUSYADI)
357	NEURONWORKS INTERNATIONAL (MUHAMMAD IZZAT RUSSYADI)
358	NEURONWORKS INTERNATIONAL SDN BHD (MUHAMMAD IZZAT RUSYADI)
359	NEURONWORKS INTERNATIONAL SDN BHD (MUHAMMAD IZZAT)
360	NEURONWORKS INTERNATIONAL SDN HD (MUHAMMAD IZZAT)
361	NEURONWORKS SDN BHD (MUHAMMAD IZZAT RUSYADI)
362	NIZAM HASWIRA & PARTNERS (MAHADI BIN NORDIN)
363	NR MUTIARA TRADING (NORAINI MOHAMAD JAFFRI)
364	NFS GEOTECH TRADING (MD ROSDI BIN ABU HASSAN)
365	NS BLUESCOPE LYSAGHT MALAYSIA SDN BHD (MR BALAKRISHNAN DHAYALAN)
366	NS BLUESCOPE LYSAGHT MALAYSIA SDN BHD (MS. TAN SIEV SIEV)
367	OKU DOBI SDN BHD (MOHD BADRI YUSOF)

368	OMK JURUTERA PERUNDING SDN. BHD. (EN. NAZRI AMAT)
369	ONE NATION RESOURCES (EN JEFFNI BIN NAWAWI)
370	ONE NATION RESOURCES (JEFFNI BIN NAWAWI)
371	ONIMANN INTERNATIONAL SDN.BHD (AHMAD FARID B. BADARULHISAM)
372	ONYX DEVELOPMENT SAS (DR. MONIQUE CHAN HUOT)
373	OPEN UNIVERSITY MALAYSIA (AZNIYANTE BINTI MOHD DAHALAN)
374	OPEN UNIVERSITY MALAYSIA (NUR ANIZA ZAINAL)
375	OPEN UNIVERSITY MALAYSIA (SUHAILA ABDUL HAMID)
376	ORAGNISASI PELBAGAI (PESERTA)
377	PADI BERAS NASIONAL (BERNAS) (ABDUL GHAFFAR ABDUL RAHMAN)
378	PADU SEDIA SDN BHD (R. SOH PONG SUN)
379	PAKATAN AKITEK SDN BHD (AFI MOHD SHAHAR BHARUDDIN)
380	PANASONIC INDUSTRIAL DEVICES MALAYSIA SDN BHD. (PUAN FALZIAH ABDUL JALIL)
381	PANASONIC INDUSTRIAL DEVICES MALAYSIA SDN. BHD. (13094-M) (MS. SHANUJA YOGANATHAN)
382	PARADIGMAX PLT (KU HASNUR AFIZA BT KU HASHIM)
383	PARAGON CAR CARPETS & COMPONENT SDN BHD (ENCK HASRUL AZIZUL BIN AKIS)
384	PATINIAGA SDN BHD (KHAIRUL IZAWANDY BIN ABDUL JAZAM)
385	PBBM GLOBAL CORPORATION BERHAD (MOHD NADZRI MOHD NOOR)
386	PEJABAT JARINGAN INDUSTRI, KOMUNITI DAN ALLUMNI (ICAN) (PM DR MAHADIR LADISMA@AWIS)
387	PEJABAT KESIHATAN DAERAH ALOR GAJAH (FASEHA MISDAR)
388	PEJABAT TIMBALAN NAIB CANSOLOR PEMBANGUNAN (PROF T.S DR. MOHD FOZI ALI)
389	PENGURUSAN AIR SELANGOR SDN BHD (FADZILA MUSTAFFA)
390	PENINSULAR PRECAST SDN BHD (LIJEW WEN TAT)
391	PERBADANAN ASET KERETAPI (MOHD NUR FIRDAUS)
392	PERBADANAN KEMAJUAN KRAFTANGAN MALAYSIA (MOHD NABIL PIKRY BIN BUSRA)
393	PERBADANAN KEMAJUAN NEGERI, NEGERI SEMBILAN (MOHD FADU BIN YAHAYA)
394	PERBADANAN KEMAJUAN PERUSAHAAN KAYU SARAWAK (SHAMIZA BINTI HAJI SARIEE)
395	PERBADANAN NASIONAL BERHAD (PNS)
396	PERBADANAN PRODUKTIVITI MALAYSIA (MPC) (KAMARUDDIN MOHAMAD)
397	PERBADANAN PRODUKTIVITI MALAYSIA (MPC) (SARIMAH MISMAN)
398	PERBADANAN PRODUKTIVITI MALAYSIA (MPC) (VIMALA)
399	PERBADANAN PRODUKTIVITI MALAYSIA, MPC (DATO' MOHD RAZALI HUSSAIN)
400	PERCETAKAN KESELAMATAN NASIONAL (DZAKWAN MANSOR)
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