

UNIVERSITI KEBANGSAAN MALAYSIA

RESONANCE

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UKM
Ranked
Number 1 in
Malaysia for
Top University
Under 50 Years
Old



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Universiti Kebangsaan Malaysia is one of Malaysia's premier research universities. Its' astounding and renowned presence in the academia is reflected through the various contributions it has made to the society, remarkable research that its researchers take part in and the many cooperation it made with the industry. Flip through Resonance's pages to read about UKM's prestigious achievements in research, publications, students and staff related activities. Happy reading.

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Message from the **VICE-CHANCELLOR**

Prof. Tan Sri Dato' Seri Dr. Noor Azlan Ghazali

UKM Menjuarai.

The phrase was coined to denote how UKM is always at the forefront of research, publication and teaching & learning. As a National University, we try our best to help solve nation's problems and grand challenges.

Our effort was recently recognised when UKM was ranked 184th among more than 20,000 universities worldwide, and 43rd in Asia. This is indeed an extraordinary feat, considering that we have only been established for 48 years. It is an achievement by all and for all, deeply rooted from the values which have been inculcated through the university's vision and mission.

Recently, UKM successfully organized its 46th convocation which saw 197,191 students graduating. My heartiest congratulations to all. This historical achievement should be celebrated, especially with your loved ones.

UKM is extremely honoured and proud to play a part in producing the nation's high-quality future leaders. I hope that these successes will inspire everyone to further nurture their possibilities as the guardian of the nation.

Well done and congratulations!

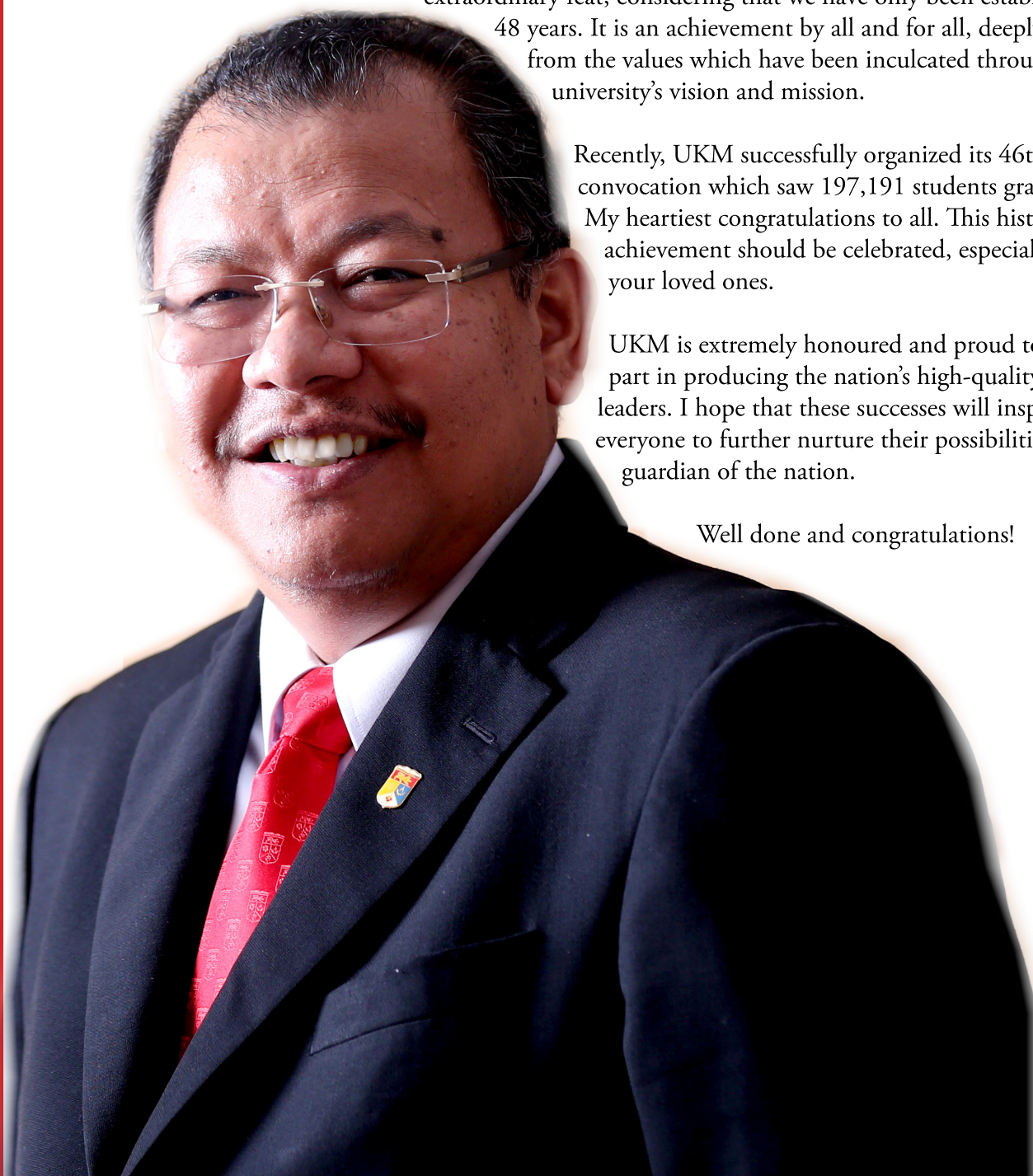


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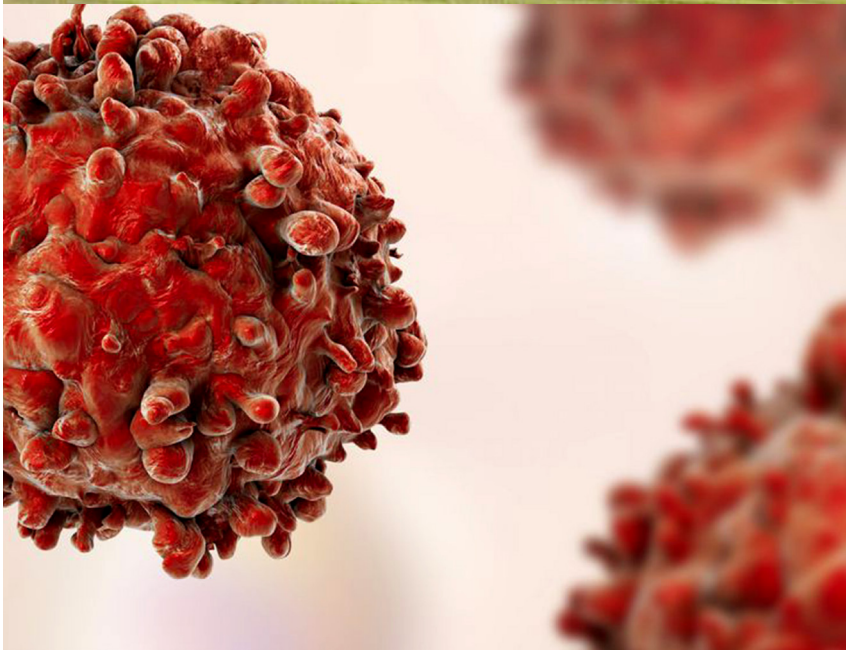
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AYVP Trains ASEAN'S Future Leaders since 2013



ASEAN Youth Volunteer Programme (AYVP), UKM's exclusive ASEAN initiative, is a great platform in creating the region's future leaders.

Held recently in Kuala Lumpur and Langkawi, the AYVP gathered 50 ASEAN Youth Volunteers through a rigorous selection process and gave them the exposure and practical knowledge in managing natural heritage.

UKM's noble initiative in developing ASEAN youth heritage leaders is the manifestation of the university's commitment in promoting ASEAN's integration agenda through a regional youth platform which aims to reach out to youth leaders. This is in line with the ASEAN Workplan on Youth 2016-2020 that emphasises on Sub-goal 4: Strengthen youth involvement and participation in building an ASEAN Community through volunteerism opportunities and leadership programmes.

This year's theme "Protecting ASEAN's Natural Heritage" was chosen for its relevant and crucial application to all 10 Member States of ASEAN. The aspiration was realised through the completion of submodules which includes Edutourism, Social Entrepreneurship, Project Management and Cultural and Natural Heritage, within the span of 28 days.

During the closing ceremony, UKM Pro-Chancellor Her Highness Dato' Seri DiRaja Tan Sri Tunku Puteri Intan Safinaz binti Almarhum Sultan Abdul Halim Mu'adzam Shah said that she hopes the programme will spark some creative ideas among volunteers, in formulating and implementing natural heritage preservation projects in ASEAN, when they return to their home country.

The AYVP was initiated in 2013, and has been held at partner institutions of various ASEAN countries, including Malaysia, Cambodia, Philippines and Indonesia.



UKM Ranked Number 1 in Malaysia for Top University under 50 Years Old

Universiti Kebangsaan Malaysia (UKM) has topped the chart as Malaysia's Top University Under 50 Years Old, according to the Quacquarelli Symonds (QS) which was recently announced.

Ranked at number 12 in the World's Top University Under 50 Years Old, UKM is very proud yet humbled by this best ranking achievement since its establishment in 1970. According to UKM Vice-Chancellor Prof. Tan Sri Datuk Seri Dr. Noor Azlan Ghazali, this is UKM's special gift for Malaysia.

He added that UKM was motivated by the strong roots of 'national aspirations'. University's excellence, he said, must be driven by the right scholarly motives that impact the society. This notion, has also propelled the university to be at

number 184 in the QS World University Rankings 2018/2019.

It is pivotal, according to Prof. Tan Sri Datuk Seri Dr. Noor Azlan, that this global ranking is felt by all stakeholders which includes the *rakyat*, government, industries and scholarly societies. He added that UKM will continuously measure itself with global peers without forgoing its national motives.

The university was also awarded 5 stars in the QS Stars Rating, excelling in eight categories evaluated; Learning, Employability, Research, Internationalization, Facilities, Innovation, Inclusiveness and Education



Five Prestigious Awards for Books Published by UKM Press



UKM Press' accomplishment in publishing high quality books was evidenced when five of its books were awarded the prestigious National Book Award 2018 and MAPIM Award 2018.

The books are *Makanan Ubah Suai Genetik (GMF) Menurut Islam* written by Dato' Dr. Mohd. Izhar Ariff Mohd. Kashim which has won for Higher Education Category; *Bahasa Melayu Moden Awal dan Analisis Dua Kata Kopula* written by former UKM lecturer Dr. Ismail Salleh which won the Best General Book (Linguistic Category); *Bandaraya Bestari: Sistem Kerajaan Elektronik Dan Masyarakat Global Bermaklumat* written by Prof. Madya Dr. Jalaluddin Abdul Malek which was awarded the Best General

Book (Information Technology and Environmental Development) and *Biografi Tengku Abdul Kadir Kamaruddin: Raja Patani Terakhir* written by Mohd. Zamberi Abdul Malek which won the Historical and Malay Sultanate Category.

In addition, *Making the Past Present for the Future Integrated Heritage Conservation through Geopark Model*, co-authored by Prof. Dr. Rahimah Abdul Aziz, Prof. Dr. Ong Puay Liu and Dr. Sarah Aziz won the Edited Book category at the recent MAPIM Award 2018.

Last year, UKM Press successfully published 99 original books and one edited book which encompasses the various academic fields.

STUDENTS' EXCELLENCE

Chanced Encounter Earned UKM PhD Student Place in Havard





A chanced encounter with a Harvard University Professor at a conference was all it needed for Mohd. Nuriman Nawi to gain a place as a Fellow at the prestigious university.

With a stroke of luck, Mohd. Nuriman, a UKM PhD Student is now on his six month stint as a Fellow in Applied Physics at the Harvard John A. Paulson School of Engineering and Applied Sciences.

His supervisor, Dr. Ahmad Rifqi Md Zain who was a Harvard Postdoctoral Fellow in Applied Physics, played a pivotal role in creating the opportunity for Mohd. Nuriman to meet and consequently interviewed by renowned Harvard researcher Prof. Marko Loncar.

Prof. Loncar, who is the Tiansai Lin Professor of Electrical Engineering, voiced his interest in the research that Mohd Nuriman was doing at UKM's Institute of Microengineering and Nanoelectronics (IMEN) and offered him a place after conducting a short interview.

Mohd. Nuriman will be spending his six-month stint in Harvard researching on light detection device, based on graphs or other two-dimensional materials which has been fueled by the advancement of light technology in the world.

He added that he has the option of returning to Harvard for a maximum period of five years, or until the current research he is working on with Prof. Loncar is completed, after his PhD Viva Voce.



Innovative Breast Cancer Treatment Research Wins Award

at Tech Plan Demo Day

Research on tiger milk mushroom nanoparticles to treat breast cancer conducted by Assoc. Prof. Dr. Haliza Katas with Lignas Bio Synergy has successfully won the Special Award at Tech Plan Demo Day in Malaysia, recently.

Assoc. Prof. Dr. Haliza who is a senior lecturer at UKM's Faculty of Pharmacy said gold nanoparticles produced using mushroom extract has the potential to be used as an agent for the treatment of breast cancer.

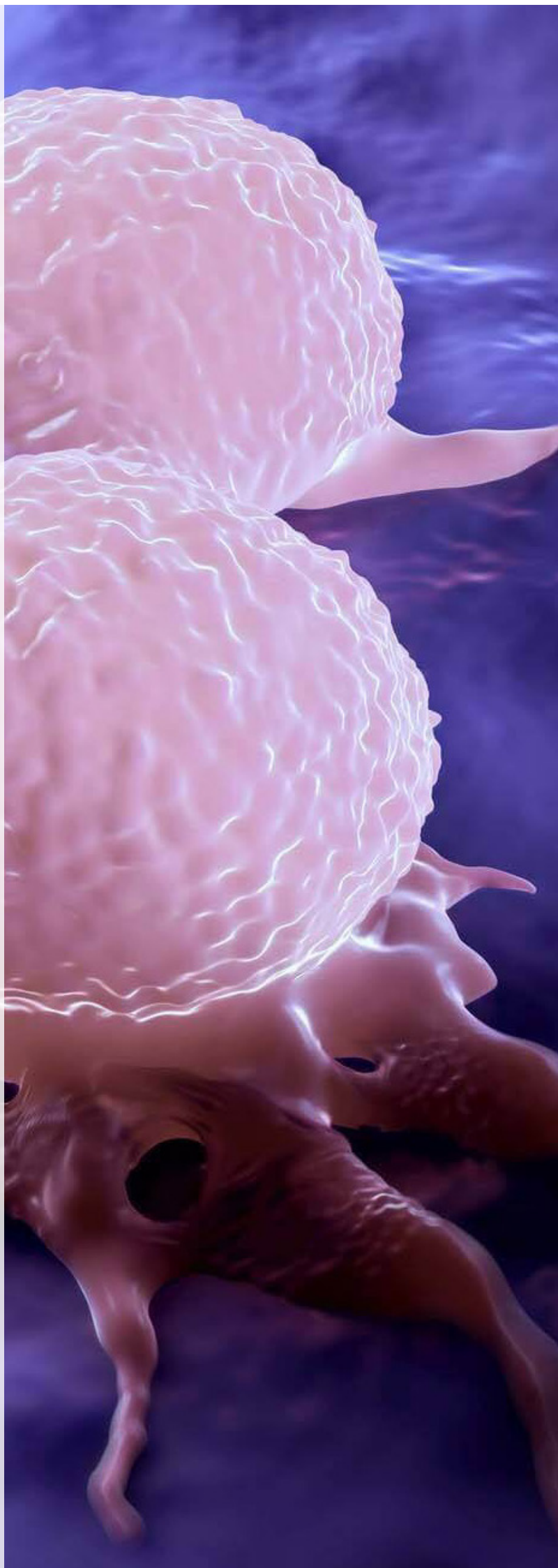
The current chemotherapy treatment, she said, can only be done orally or by injection but nanotechnology will enable breast cancer treatment to be given through local transdermal therapy which will deem drug exposure to the whole body as unnecessary.

Treatment administered orally or by injection, she explained, can have severe side effects and make patients feel uncomfortable which may cause some of them (patients) to refuse further treatments.

Thus the idea of local transdermal therapy which delivers nanoparticles to breast cancer cells was developed. The research group focuses on utilising tiger milk mushroom as existing research shows that it has the capability to kill cancer cells, including breast cancer cells.

She added that the treatment was purposely designed as nanoparticles so that the treatment process can be made through the skin.

With that victory, a Japanese company, JT Company has shown interest in the idea of using the mushrooms and has brought a sample of the study to be tested.





UKMMC, Endocrinologist, First Malaysian Women Appointed as American College of Endocrinology Fellow

Universiti Kebangsaan Malaysia Medical Centre (UKMMC) Consultant Physician and Endocrinologist Prof. Dr. Norlela Sukor was awarded the prestigious Fellowship of the American College of Endocrinology.

She received the fellowship in recognition of her extensive experience in treating diabetic and endocrine patients and commitment in research on the field. The American College of Endocrinology is a scientific,

educational and charitable medical organization dedicated to promoting the art and science of clinical endocrinology, diabetes, and metabolism for the improvement of patient care and public health.

Prof. Dr. Norlela, was also the first Malaysian to receive the University of Queensland Dean's Award for Outstanding Research for her Higher Degree Thesis during her doctoral studies at the University of Queensland, Australia in 2009.

UKM Empowers New Students with Innovative App



week, known as *Minggu Mesra Mahasiswa*—such as schedule of activities, campus bus routes and UKM map. This marks the first time freshies are empowered to plan out their individual activities during the orientation week and explore the campus.



In addition, UKM's transition in utilizing digital technology, will also see new students being less dependent on student facilitators.

The app will also curate students' creative self-introduction video, pictures during the *Minggu Mesra Mahasiswa* and interviews with UKM alumni.

The MESRA@UKM app, which can be downloaded through Google Playstore and App Store, was launched by UKM Vice-Chancellor, Prof. Tan Sri Dato' Seri Dr. Noor Azlan Ghazali at Persada Canselori.

UKM recently launched an app, MESRA@UKM, in conjunction with the registration of its new students for the 2018/2019 academic session.

The app innovatively designed by students from UKM's Faculty of Information Science and Technology— will help students efficiently plan and organize their first week at the university. It can be used to access information about the orientation

Also present were Deputy Vice-Chancellor (DVC) of Students and Alumni Affairs, Assoc. Prof. Dr. Roslee Rajikan and DVC of Academic and International Affairs, Prof. Dato' Ir. Dr. Mohd Marzuki Mustafa.



UKM and USM Jointly Developed World's First MY-DRG® Oral Health Casemix

Universiti Kebangsaan Malaysia (UKM) and Universiti Sains Malaysia (USM) created history when the institutions jointly developed the world's first dental casemix system, MY-DRG® Oral Health Casemix System.

According to UKM Medical Centre Senior Consultant, Prof. Dato' Dr. Syed Mohamed Aljunid, who is also the founder of International Centre for Casemix and Clinical Coding (ITCC), the system was developed over the last five years together with USM's Casemix Evaluation Unit.

The Casemix System is a patient classification system based on the episodes of treatment received by each patient. It helps to categorise and methodically combine patients into specific categories.

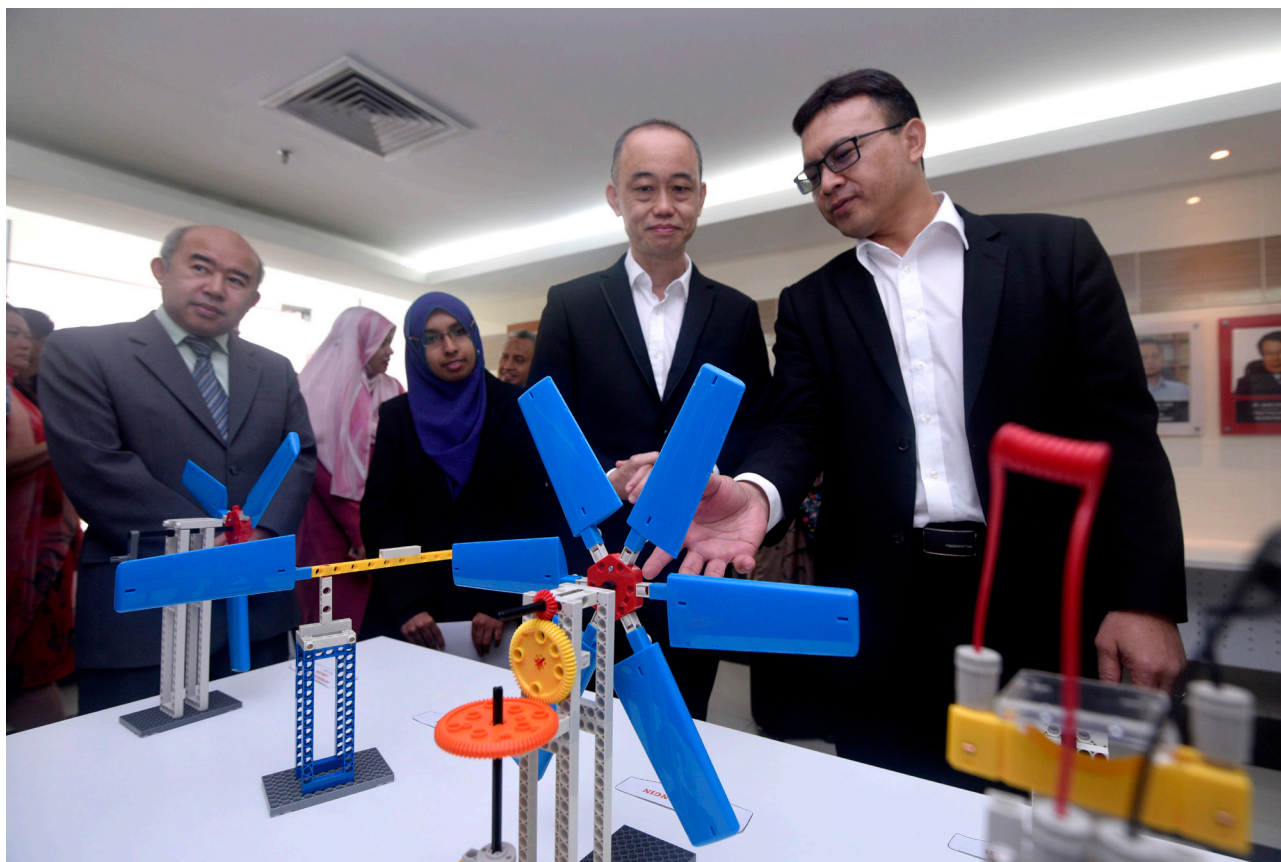
This, in turn, helps to explain the variation in resources used for treatments and will tremendously benefit the

hospital management as it has been shown to be able to improve and strengthen the quality of a hospital's health services.

Another interesting feature of the system is, it can be modified according to the needs and requirements of a hospital in any country that wishes to use it.

The MY-DRG® Oral Health Casemix System therefore, not only benefits the public, enabling them to get a better dental health treatment, but also act as a benchmark of quality and quantity of resource used and cost of treatment to improve the quality of hospital management.

Meanwhile, Malaysia's Health Minister Dr. Dzulkefly Ahmad said clinics and hospitals could utilise the system to make a better evaluation and manage hospital financial resources to achieve the objective of providing efficient, effective and quality health services.



An initiative to equip children with STEM (Science, Technology, Engineering and Mathematics) knowledge to middle and low income families has led to the establishment of the first STEM Transit Centre, at Sungai Long, Kajang, recently.

Innovatively designed by UKM's senior lecturer Dr. Kalaivani Chellappan, the program aims to create interest and familiarize children with STEM knowledge at a reasonable cost as opposed to the various STEM related programs available, which mostly caters to high income families.

Dr. Kalaivani, who is also Faculty of Engineering and Built Environment's (FKAB) Director of Program *Pemeriksaan Kompetensi Akademik Siswa (PKAS)* said that the STEM Transit Centre is expected to be the medium of dissemination of STEM knowledge to most of the people in this country.

The centre utilizes equipment supplied by BRAINet (M) Sdn. Bhd. The module, which UKM crafted, is planned to be translated to English, Arabic, Mandarin, Tamil and for the international market by SK Innovation Sdn. Bhd. The strategic collaboration, will see more STEM Transit Centres being established nationwide, in the future.

UKM Established First STEM Transit Centre

UKM will also be conducting training of trainers, especially for child care experts, in hopes that it will be taught and embedded in daily lessons at kindergarten, pre-schools and nurseries.

In addition, UKM envisions two new job opportunities being created; STEM Advisor and STEM Integrator.

STRATEGIC PARTNERSHIP



UKM Leads the World's First Innovative Aerospace Employees Selection System



UKM's Institute of Ethnic Studies (KITA-UKM) is set to lead the world's first aerospace employee selection system project which would overcome language differences, when it signed the Memorandum of Agreement with Aerospace Malaysian Innovation Center (AMIC) and an engineering company in France, PROMETIL S.A.R.L (PROMETIL).

KITA-UKM Director, Prof. Ulung Datuk Dr. Shamsul Amri Baharudin said that this is the first known project in the world which aims to provide ideal multi-ethnic and diversified human resources to work in the aerospace industry.

Language problems often occurs in a multicultural and diverse work place, such as the aerospace industry because employees usually come from different countries and diverse backgrounds whose languages and terminologies used are different.

The language collision happens because there is a difference in meaning when a word is translated by the employee and has the potential to cause misunderstanding.

Prof. Ulung Datuk Dr. Shamsul Amri believes that this project will be able to eradicate the problems, especially since it will be involved by engineering specialists, social scientists, administrators and linguists.

The system will see candidates who are interested to work in the aerospace industry undergoing several phases of assessment including personality tests and critical thinking tests.

According to AMIC Chief Executive Officer, Dr. Liew Kan-Ern, a language software will be created to streamline the use of the term so that employees with different backgrounds can understand the terminologies used.

The project also aims to produce, employees, especially from Malaysia, who are able to work in aerospace industry, and at the same time able to raise the name of Malaysia in the field.

UKM, IAEA, AELB & GICNT organised Region's First Nuclear Detection and Response Trilateral Exercise



UKM added another feather to its cap when it became the only public university in Malaysia to be involved in organising the region's first Nuclear Detection and Response Trilateral Tabletop Exercise, recently.

Held in collaboration with the International Atomic Energy Agency (IAEA), Atomic Energy Licensing Board (AELB) and Global Initiative to Combat Nuclear Terrorism (GICNT), the exercise was part of UKM's initiative in enhancing and developing human resource in the nuclear industry in Asean, in line with its position and function as an important stakeholder in Malaysia's Nuclear Support Security Centre.

About 36 people from Indonesia, Phillipines and Malaysia – including UKM experts, Faculty of Science

and Technology Dean, Prof. Dr. Mohammad Kassim and Associate Prof. Dr. Irman Abdul Rahman – participated in the exercise. In addition, it was also attended by international observers from Ecuador, Mauritiana and Saudi Arabia.

The three day programme, saw the three Asean countries exchanging ideas and sharing best practices of detection and response to the occurrence of nuclear securities threat, including structural coordination, communication strategies, protocols and plans.

Issues pertaining to the security of international waters were also discussed.



A total of 43 UKM-Graduate School of Business (UKM-GSB) students were awarded with the Certificate in Malaysian Capital Market, the first of its kind in Malaysia, recently.

The certification program, was designed through a collaborative effort between UKM-GSB and RAM Holdings Berhad.

UKM Deputy Vice-Chancellor of Industry and Community Partnerships, Prof. Dato' Dr. Imran Ho Abdullah said only 38.4 percent of the students enrolled in the programme successfully completed it, making it one of the most competitive programme in UKM.

First Batch of UKM- GSB Students Awarded the Certificate in Malaysia Capital Market

He added that the joint offering of the Capital Market Certification Programme with RAM was created because of RAM's extensive experience in capital market.

This, according to Prof. Dato' Dr. Imran, will help to increase graduates' marketability, making them more relevant to the job market, and thus maximising their potential to contribute to the growth of the Malaysia's capital market.

Meanwhile, RAM's Group Chief Executive Officer, Datuk Seri Dr. K. Govindan said the programme is aimed at strengthening public-private sector partnerships, to raise the marketability of graduates in the job market and also meet the increasing demand for skilled graduates to support the growing sophistication of Malaysia's capital markets.

He said that high standards have been set for this certification programme, to reflect the challenging work environment graduates will encounter in the capital markets.

Students had to complete three modules, namely *Malaysian Capital Market: Overview & Financial Analysis*, *A Practical Guide to The Malaysian Equity Market*, and *Dynamics of the Malaysian Debt Market and A Case Study Examination*, in order to be awarded the certificate.



DATUK DR JOHN ANTHONY XAVIER

ABOLISHING GST

TARGETED SUBSIDIES ARE BETTER

It can alleviate the plight of the vulnerable B40 group

ECONOMISTS are prone to hedge their bets. When asked for an opinion, they are habitually two-handed. Their usual refrain is, "on the one hand, but on the other". So much so, Harry Truman, the 33rd president of the United States, thundered in frustration: "Give me a one-handed economist." Let us see if we can clamber off the economic fence regarding the much debated Goods and Services Tax (GST).

Admittedly, the GST was regressive and hit the poor the most. Notwithstanding, it broadened the tax base as only one in 10 pays Income tax. Sadly, the GST has been made the whipping boy for the escalation of the cost of living. Empirically, a consumption tax such as the GST only causes a one-off spike in inflation. And, over the years the inflationary trend is relatively lower than without the GST.

However, the timing was inauspicious. When it was introduced the GST was at the confluence of other inflationary forces. Economic recovery globally caused prices to trend upwards. Japan and Europe were getting out of their stagnation. The US was also on a growth, and hence inflationary, trajectory. Ringgit depreciation compounded imported inflation. As two-thirds of intermediate products are imported, that worsened the cost of final manufacture. And, the nefarious profiteering by businesses ignited this tinder. Like a rocket-firework shooting up when lit, so did the cost of living soar.

All this is now water under the bridge. The Pakatan Harapan government has demonstrated honour in keeping its pledge to abolish the GST even as critics berate it for being ham-fisted. Critics argue that the soon-to-be-reintroduced Sales and Services Tax (SST) is inferior to the GST. It will not enrich the government coffers as much as the GST did. It may even fuel another round of inflation.

The government has acknowl-

edged the envisaged revenue shortfall between GST and SST collections to be RM14 billion. It is confident that it can meet this yawning revenue gap through savings from administrative restructuring and from plugging mismanagement, waste and corruption.

Let us do the maths. If the government can squeeze a five per cent saving from its annual budget, which is highly plausible given the government's verve to eke out savings, that will constitute RM 14 billion — just nice to compensate for the revenue deficit. Transparency International Malaysia estimates that the government lost close to RM50 billion through corruption last year. A one-quarter reduction in corruption from, among others, the elimination of directly negotiated and limited tenders will yield enough to close the revenue shortfall.

What has escaped the unfolding debate on GST abolition is that what is lost to the government in revenue is gain to consumers by way of additional income. Consumer spending will be boosted to that extent. It will have an emollient effect on the economy.

We should also not forget that oil prices are hovering at US\$77 a barrel. That is US\$25 more than the price projected in preparing the 2018 budget. The government stands to make RM300 million for every dollar rise in fuel prices. The fuel-price rise will give the government a windfall of RM8 billion. That sum can partially de-

fray the subsidy on pump prices.

Critics suggest that a transient spike in fuel price should not be a basis for recalibrating government revenue. However, with geopolitical tensions — Trump's trade war, North Korea's prevarication on nuclear disarmament, militarisation of the South China Sea, trouble in oil-producing countries in the Americas, and Opec price controls — we can expect the oil-price blip to remain awhile.

While the government is on over-drive to ease living costs, it must also have one eye on the side-mirror of market expectations. Markets revel in economies that are unswayed by price controls and subsidies. They rejoice where budget deficits are sustainable.

Unsustainable budget deficits, partly on account of indiscriminate subsidies, have damaging effects on an economy. They depreciate the currency, cause inflation and lower real incomes. If financed by huge borrowings, deficits can trigger a debt default. Such a default happened in Argentina and other Asian and Latin American countries in the past.

Interest rates will have to rise to curb inflation. Interest-rate rises will make investments costlier. That can depress productivity and wages.

Budget deficits, like public debt, impinge on generational equity. Large deficits benefit the current generation while lumbering future generations with debts incurred to finance them. Keynes, an early 20th-century British economist, argued that

the long term did not matter. We would all be dead by then. But, the long term matters for our children and their children.

We can build market confidence in our economy by the better targeting of subsidies to alleviate the plight of the vulnerable bottom 40 per cent of the population or B40. Blanket subsidies such as petrol subsidies tend to favour the rich more. Any inequity arising from such subsidies must be corrected by higher income taxes on the richer segment of the population — more so, as the income-tax structure was revised downwards upon the imposition of the GST.

SST, too, must be better targeted so that the B40 is hurt only minimally, if at all. We must remain vigilant against profiteering. The minister for domestic trade must be urgently appointed to orchestrate initiatives against the racketeers.

One-handed decision-making in government is hard. It involves trading off costs and benefits. Solutions come in shades of grey, not in black and white as two-handed economists would have us think. The government has demonstrated that it knows what it is doing.

Nevertheless, given the risks and uncertainties ahead, one should "cross the river by feeling the stones".

john@ukm.edu.my

The writer, a former public servant, is a principal fellow at the Graduate School of Business, Universiti Kebangsaan Malaysia

We can expect a transient spike in fuel price considering the geopolitical tensions around the world such as Trump's trade war and the trouble in oil-producing countries in the Americas. FILE PIC

Targeted Subsidies Are Better

NST-29 May 2018

What has escaped the unfolding debate on GST abolition is that what is lost to the government in revenue is gain to consumers by way of additional income. Consumer spending will be boosted to that extent. It will have an emollient effect on the economy.

POSTGRADUATE PROGRAMMES

Keeping pace with cybersecurity technologies

ROZANA SANI
rsani@nst.com.my

CONTINUOUS learning is necessary to stay ahead of the curve or at least keep pace with current developments in information and communication technology (ICT) security.

Cognisant of this, the Faculty of Information Science and Technology at Universiti Kebangsaan Malaysia (UKM) eyed working IT professionals as its target group when it developed the Master of Cyber Security programme.

Offered since 2013 with a one to two-year duration for full-time students and two to four years of studies for part-timers, the modular programme — a collaboration between UKM and CyberSecurity Malaysia — is designed to produce graduates who, among others, will be able to employ knowledge of principles, theories, and scientific methods to come up with effective solutions to cybersecurity problems; protect organisational cyber assets as well as plan, strategise and launch cyber counter-attacks; and implement a cybersecurity management standard for the organisation.

Associate Professor Dr Siti Norul Huda Sheikh Abdullah, chairman of the faculty's Center for Cyber Security, said: "We looked deep into the cybersecurity ecosystem with high consideration of industrial, professional and governmental human resource gaps in the market when we created this programme."

Today a company only remains competitive



Today a company only remains competitive if it acquires, develops and uses knowledge faster than its rivals.

SITI NORUL HUDA
SHEIKH ABDULLAH
UKM Center for Cyber Security chairman

UKM'S MASTER OF CYBER SECURITY PROGRAMME STRUCTURE

Computer Security, Network Security, Cyber Law and Ethics, Information Security Management, Project (16 compulsory-12 electives + 12 projects + 40 credits)

Information Security	Digital Forensics	FinTech Security	Cyber Intelligence	Cyber Security Strategy
Continuous monitoring	Something has happened, and how to solve it	Continuous monitoring for financial institutions	Something might happen, and how to prevent it	Top level strategic planning
*Intrusion Detection and Prevention	Fundamental of Digital Forensics	*Digital Banking and Financial Services	*Big Data Analytics & Management	*Strategic Information
*Ethical Hacking and Penetration Testing	*Data Recovery and Analysis	*Financial Technology and Risk	*Cyber Sentiment Analysis	*Cyber Security in Storage, Studies and International Relations
*Security Audit and Assessment	*Digital Media Forensics Analysis	Security Audit for Blockchain, Internet of Things and Risk Provider Analysis	*Cyber Threat Intelligence Analysis	*Organizational Cyber Security Strategy
Information Security Analysis	Digital Forensics, Evidence and Forensic Witness		Cyber Threat Intelligence Analyst	Cyber Security Strategy (CSCA, PTD, POC)

if it acquires, develops and uses knowledge faster than its rivals. New knowledge and technology are quickly making what we learn today obsolete. As knowledge workers, we have to keep on learning throughout our lives, or else we will become unemployable or non-relevant to our work environment."

With a total of 40 credit hours, there are five core subjects amounting to 16 credits which encapsulate cybersecurity fundamentals and skill sets: Cyber Law and Ethics, Computer Security, Network Security, Information Security Management and Project.

The remaining credits are from a choice of five specialised tracks: Information Security, Digital Forensics, Financial Technology Security, Cyber Intelligence and Cyber Security Strategy.

"Cryptocurrency and Block Chain technology have become hot topics in the financial industry. Therefore, we grasp the opportunity to encourage either personnel from a financial or ICT background to upgrade their skills in fintech tools by emphasising financial security measures and policies."

"We blended finance and ICT together under the Financial Technology Security track and introduced new elective courses covering Digital Banking and Financial Services and Financial Technology Security and Risk."

Meanwhile, the Cyber Security Strategy Track was designed to accommodate information strategic planning of an organisation through collective and real-time information.

"Cybersecurity strategists, cyber troopers and cyber warfare analysts are in demand in the market. Some lectures will be conducted by experienced chief information officers to

deliver knowledge transfer regarding to level strategic information planning. Elective courses in this executive track include Strategic Information, Cyber Security in Strategic Studies and International Relations, and Organizational Cyber Security Strategy.

In collaboration with CyberSecur Malaysia, the courses are designed in such way that face-to-face learning, which include active learning, lab activities, discussion and case studies, is done in five days. Assignment need to be completed in the next three weeks for full-time students or seven weeks for part-timers. Ongoing assessment contributes 10 per cent of the overall marks and the final examination accounts for the remaining 40 per cent."

At International Islamic University Malaysia

apart from master's and postgraduate

cybersecurity programmes, the tertiary

institution has a cyber-range programme which

offers hands-on training on cybersecurity

Or Mohamed Ridza Wahidin, a professor at

the Kulliyah of ICT in IUM, said: "The cyber

range is our flagship activity. It is the first in

Malaysia and was launched by the Ministry

of Science, Technology and Innovation in

September 2016.

Agoller frequents a driving range to practise

golfing skills and some military personnel

frequent a shooting range to hone shooter

skills — this is the concept that Cyber Rang

Malaysia creatively innovated for cybersecurity

professionals to practice cybersecurity defense

skills," he said, adding that participants will be

Certified Cyber Defender Associates once they

pass the examination.

Keeping Pace with Cybersecurity Technologies

NST-18 July 2018



Working professionals attending classes under the Master of Cyber Security programme at

Send your letters to Letters Editor, New Straits Times,
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A letter must have a writer's name, signature, home address,
phone and e-mail numbers. It should not be more than 300 words.
The editor reserves the right to edit a letter for clarity and length.

LETTERS

CONSERVATION

MASS TOURISM HURTS MANGROVES

TODAY is the International Day for the Conservation of the Mangrove Ecosystem. This is the third year it is being celebrated after it was proclaimed by the United Nations Educational, Scientific and Cultural Organisation (Unesco) at its 38th General Conference in Paris on Nov 6, 2015.

Mangroves are established mainly on sheltered tropical and subtropical coastlines.

Although mangroves cover one per cent of the earth's land mass, they play important roles and contribute significantly to global sustainability.

Maintaining water, nutrient and climatic cycles are just some of their prominent functions. Scientists have recognised mangroves as the most efficient ecosystem to sequester atmospheric carbon, a natural process which becomes one of the best mechanisms – our best weapon – to counter global warming and climate change. This is the central role performed by mangroves.

The importance of mangroves is globally recognised and there are international efforts in place to push for their protection and conservation.

One of these efforts is through the Ramsar Convention. Malaysia is a proud party to the convention with seven designated sites, of which six are mangrove forest sites.

They are Pulau Kukup, Tanjung Piai and Sungai Pulai National Parks in Johor, Kuching Wetlands National Park in Sarawak, and Lower Kinabatangan-Segama Wetlands and Kota Kinabalu Wetlands in Sabah.

Other global mangrove conservation efforts are linked to Unesco programmes, including the Man and the Biosphere, Local and Indigenous Knowledge Systems, International Hydrological Programme, World Heritage Convention and Global Geoparks Network.

The only Unesco conservation site involving mangroves in Malaysia is at the Langkawi Global Geopark.

On top of these international efforts, mangroves in Malaysia are being protected and conserved through local government



There must be careful consideration when carrying out tourism activities and development work near mangrove areas, especially those designated as Unesco sites. FILE PIC

of forest reserves under the National Forestry Act or the National Parks Act.

Other mangrove sites are being protected together with the delineation of marine parks under the National Fisheries Act and state laws such as Sabah's Parks Enactment.

Being recognised as a site of international importance is an extraordinary privilege. It opens up tremendous opportunities for an area to be protected and preserved with strict regulations and guidelines without compromising the cultural use by local communities.

The recognition of a site by international conventions usually demands that comprehensive plans and resource management be undertaken by local authorities, with the participation of local communities for the maintenance and protection of the site's distinctive property.

The recognition also brings multiple benefits and provides outstanding prospects. It is a remarkable identity that can draw

international attention, a brand name with a huge global fan base.

The branding triggers the birth and development of a massive tourism industry and all other complementary industries which contribute to the country's socio-economic development.

However, without a comprehensive governance framework and careful management and control, development would grow at the expense of the environment.

Marco d'Eramo, in his 2014 article entitled "Unesco's role in the mangrove crisis", described this phenomenon, particularly the destructive tourism industries and communities surrounding the establishment of Unesco World Cultural Heritage sites.

A steady increase in the number of tourists has taken its toll on the environmental integrity of the mangroves in Malaysia.

Catalysed by tourism activities, anthropogenic impacts are affecting the health and resilience

of the ecosystems in our mangrove ecotourism sites.

One identified anthropogenic impact is the tour and cruise boats that frequent the mangrove sites.

These boats, depending on the speed they travel, produce waves that can cause erosion of the riverbanks.

The heavy scouring of sediment will eventually result in the uprooting and loss of mangrove trees.

Consequently, the channels become wider and the water becomes shallower, altering the hydrology and the morphology of the rivers and estuaries.

Changes in the physical characteristics of the mangrove forests will negatively affect the ecosystem, including protection from coastal and climatic hazards.

More environmental issues associated with mass tourism are expected to occur, ranging from waste and litter to run offs and leachate, which may pollute the estuarine waters and affect the

health of marine life.

Careful consideration must be given when carrying out tourism and development activities near mangrove areas.

It is crucial to be equipped with integrated and effective measures to mitigate these risks, especially mangrove conservation sites designated as Unesco sites.

Each mangrove tree is the main actor in the climate change drama. As a stakeholder and global citizen, Malaysia must invest in conservation efforts to protect its mangroves and natural environment for the benefit of current and future generations.

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MASS Tourism Hurts Mangroves

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LAUNCH

App to help new UKM students

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UNIVERSITI Kebangsaan Malaysia (UKM) is the first public university to introduce the use of smart mobile app Mesra@UKM for its new students' registration for the 2018/2019 Academic Session next month.

The app will provide information related to the orientation week schedule, locations and route maps around the university for the new students.

In addition, UKM also introduced seven non-academic domains for students to choose from based on their interests. They are innovation, culture, leadership, volunteerism, sustainability, sports and entrepreneurship.

Students can choose the preferred domain and get information on related activities and events.

It is estimated that about 4,000 new students will register at the university on Sept 1.

The application, developed by the university's Faculty of Technology and Information Science students, is available at the Google Play Store and Apple App Store.

Beginning September this year, students are no longer bound by rules and schedules and are free to participate in activities they love throughout the orientation week.

NOOR AZLAN GHAZALI
UKM vice-chancellor

UKM vice-chancellor Professor Tan Sri Dr Noor Azlan Ghazali said beginning September this year, students were no longer bound by rules and schedules and were free to participate in activities of their choice throughout the orientation week. He said this latest development was a major change that would not only drive students towards using the latest technology relevant in today's life, but also break the tradition during the university's orientation week.

He said for the first time, new students were given a task to upload a video of themselves with an alumni. Once they accepted their offer letter, they will have to find one alumni, get in touch with him or her, and take picture and upload it to the link given to them.

This app is also a platform for students to upload their own video link of the interview with a UKM alumni in addition to leading video and pictures of the orientation week. In line with the Industrial Revolution 4.0, students should also regard this as an early practice for their future



Noor Azlan Ghazali (front row, sixth from right) with Roslee Rajikan (front row, sixth from left) sharing a light moment with new students at the launch of Mesra@UKM app at Universiti Kebangsaan Malaysia. PIC BY MOHD YUSRI ARIFIN

employment as many employees are searching for candidates through video resumes, said Noor Azlan at the launch of Mesra@UKM at UKM recently.

Present was UKM deputy vice-chancellor (Student Affairs and Alumni) Associate Professor Dr Roslee Rajikan.

Roslee hoped that new students would be more creative in leveraging social networks with the alumni.

"With their creative and innovative video, new students will be able to interact with 150,000 alumni," he said.

"The introduction of the video task proves that the university has successfully produced many high-achievers graduates in various fields."

"This can be the driving force and cultivate the spirit of new students to begin their journey at UKM."

Mesra@UKM gives students the freedom to explore UKM without being managed by a facilitator.

Students could also check the bus schedule to each college or faculty via the app, which make it easier for students to plan their movements.

The concept of mentor-mentee among new students and lecturers is also a highlight. It allows new students to communicate with lecturers before lecture begins to make it easier for students to adapt themselves to the atmosphere and surroundings of the campus and to provide exposure on the academic aspects that new students will face.

"I hope that new students take the opportunity to share during the orientation period. Organised programmes are also expected to meet and fulfil the university's image so that each student has a 'red umbrella' and continues to excel in their studies," said Noor Azlan.

The red umbrella, he added, is a concept that reflects on students who are not only good in studies and co-curricular activities, but they also possess additional soft skills.

App to Help New UKM Students

The Star-29 August 2018



Noor Azlan Ghazali (left) touching the screen to launch the Mesra@UKM app at Persada Canselori at Universiti Kebangsaan Malaysia. With him is Roslee Rajikan (second from left).



New students can register using the Mesra@UKM app using their smartphones.

UKM @ Media

UKM HIGHLIGHTS MALAYSIA'S NAME IN THE INTERNATIONAL ARENA FOR 48 YEARS



MALAYSIAN RESEARCH UNIVERSITIES
ARE TOP 1% IN THE WORLD

UKM

IS AMONG TOP
1% UNIVERSITY IN THE WORLD

UKM recorded the highest increase in Quacquarelli Symonds (QS) World University Ranking 2018/2019, and is now ranked 184th in the world.

43



UKM ranked 43rd in QS University
Rankings Asia 2018

UKM has clinched the 43rd spot in the recently
released QS University Rankings Asia for 2019,
up from number 55 last year.

55
2017

56
2016

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