

Inspiring Futures, Nurturing Possibilities


RESONANCE



Issue • 56

UKM International Bulletin • ISSN 1675-7270

Oct-Dec 2017



A Statesman to Remember **Tan Sri Dr. Surin Pitsuwan**

MANAGEMENT

Vice-Chancellor

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

Deputy Vice-Chancellors

Prof. Dato' Ir. Dr. Riza Atiq Abdullah O.K. Rahmat
(Academic and International Affairs)

Prof. Dato' Noor Aziah Mohd Awal
(Students Affairs and Alumni)

Prof. Dato' Dr. Imran Ho Abdullah
(Industry and Community Partnership)

Prof. Dr. Hj. Mohd Ekhwan Hj. Toriman
(Research and Innovation Affairs)

Registrar

Abd Razak Hussin

Chief Librarian

Wan Suhaimi Ariffin

EDITORIAL TEAM

Chief Editor

Dr. Sabariah Mohamed Salleh

Executive Editor

Nastura Nasir

Wan Noor Hayati Wan Ismail

Journalist

Asmahanim Amir

Publication Support

Mohd Noor Ramly

Designer

Khalid Hashim

Sharmiza Zan

Photographer

Centre for Corporate Communications
Photo Unit

RESONANCE, UKM International Bulletin is published quarterly by the Centre for Corporate Communications, Universiti Kebangsaan Malaysia.

Articles are welcomed and can be sent to:
pkk@ukm.edu.my

2017 has been a wonderful year for UKM – filled with numerous achievements and successes. It has been an honour for us to be able to publish and document these remarkable accomplishments in Resonance. Thank you for sharing your stories with us. We hope it has touched or inspired our lovely readers. Here's to a great new year!

Editorial Team

Message from the **Vice-Chancellor**

UKM lost a great friend last November. A prolific statesman, Tan Sri Dr. Surin Pitsuwan has always had the future of the ASEAN community in his heart. In his most memorable talk in UKM, he explored and discussed the effect of cronyism and elitism, which he believed had characterized the ASEAN political and economic landscape.

I am truly inspired with his dedication and devotion in creating a better future for ASEAN. This is the spirit I hope to see inculcated among everybody in UKM because, as the national university, we need to play our role as the guardian of the nation.



It is important to remember to do research, not because of KPIs and popularity, but to create a better tomorrow. Discover the potentials of our students and showcase their red umbrella, not because of fame and fortune, but for them to inspire and motivate others to achieve greater heights.

A lot of community engagements, remarkable research and notable wins have been achieved this year. It has indeed been a great year for UKM but I am pretty confident that 2018 would be more amazing.

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

Table of **CONTENTS**

06
iWarner: The
Latest Flood
Warning System

07
KITA-UKM
Upgraded as a
National Institution



08
UKM the First
University in Malaysia
to Produce Artificial
Kidney



09
World's Smallest OSA Treatment
Device Launched at UKMMC



10
UKM Expert Named As
 Fellow, American College of
 Surgeons

11
**UKMMC Orthopaedic
 Surgeon** Bagged **3
 Golds** at International
 Trade Fair IENA 2017

**Good Governance, a Pillar to
 Efficient Administration**

12

Fasting Able to Delay Aging Process

14

UKM Championing Higher Education
 Rethinking and Redesigning Initiatives

16

MTJA Recognised **UKM's Nobel Research**

17

Alumni Give Back to **UKM**

18

UKM and FGV R&D Collaborate to Study Palm Oil Pest

19

Industry 4.0: Government Provides Relevant Skills
 Through TVET Programmes

20

UKM-Pintar Foundation Helps
 Inculcate Students' Interest in Science

21

UKM@Media

22

iWarner: The Latest Flood Warning System

Intelligent Weather Station and Flood Warning System (iWarner), developed by Universiti Kebangsaan Malaysia (UKM) Deputy Vice-Chancellor of Research and Innovation, Prof. Dr. Hj. Mohd. Ekhwan Toriman is a system which provides warning if there is flood in one area.

Prof. Dr. Hj. Mohd. Ekhwan said the system was developed in 2015 after getting a top down grant from the Ministry of Higher Education (MoHE) for the preparation of a paper on 2014's major flood which occurred in Kuala Krai, Kelantan.

The grant, provides a pathway for UKM to collaborate with industries and stakeholders, including the National Disaster Agency Malaysia (NADMA), National Security Council (MKN) and Department of Irrigation and Drainage (DID).

This grant focuses on two aspects, namely the preparation of disaster control systems, in particular floods and warning systems against natural disasters. The idea for iWarner came up after observing the flooding problems which Universiti Sultan Zainal Abidin (UniSZA), Gong Badak has been facing for almost 35 years.

iWarner was made in line with the design of the flood catchment pond that Prof. Dr. Hj. Mohd Ekhwan made in 2014, which helps to

manage the excess of water, especially in Kuala Nerus. iWarner is an example of a collaborative research between UKM's School of Social Development and Environment and UniSZA's Faculty of Information Technology and Institute of Environmental Research of East Coast (ESERI).

The innovative system has been installed in some areas, including UniSZA campus, Kuala Nerus and some areas in Tawau, Sabah. In the future, iWarner will be combined with the national flood information system and can be accessed through the system developed by NADMA and DID, which will encompass several elements such as sensors for discharge water and flood water quality.

Users can access the iWarner through their respective smart phones via www.iwarner.robopro.org.

The main feature of iWarner is the ability to provide information in advance to people exposed to the flood disaster and give them the opportunity to move to the location designated by the authorities. It is not expensive and has security features as well as high specification in sensing the flow of flood water.

KITA-UKM Upgraded as a National Institution

The Institute of Ethnic Studies (KITA) at UKM was handpicked by Malaysia's Prime Minister Dato' Seri Mohd. Najib Tun Abdul Razak, to be upgraded as a National Institution.

The upgrade will see the institute coordinating



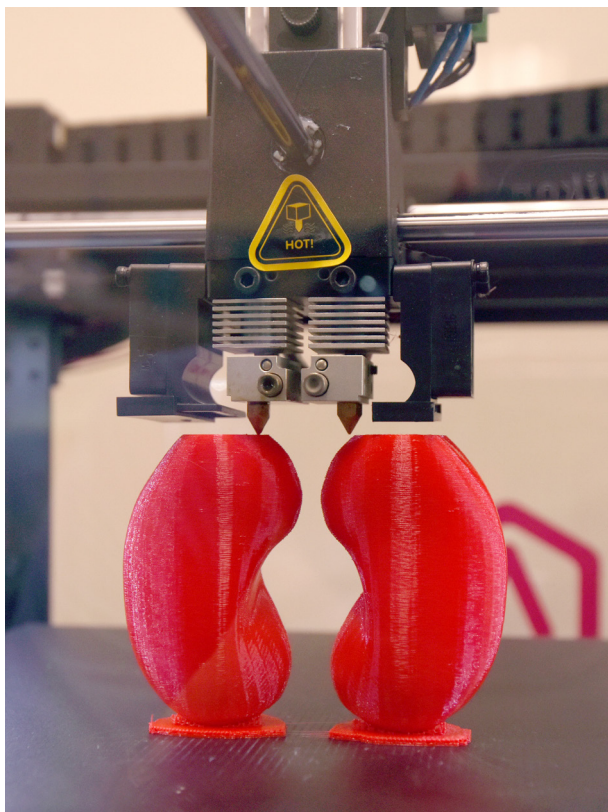
nationwide studies to identify and assess the socio-economic situation across Malaysian community, as an initiative to address social problems more effectively. KITA will also be establishing a national social development index.

Director of KITA, Prof. Ulung Datuk Dr. Shamsul Amri Baharuddin said family is the core element of social integrity and believes that all social problems can be attributed to one's family background. Therefore, the move by government to recognise KITA as a National institution is timely, as more research pertaining to the issue can be conducted.

The announcement on the upgrade of KITA as a national institution was made when the Prime Minister, Dato' Seri Mohd. Najib Tun Abdul Razak tabled the national budget, last October.



UKM, the first University in Malaysia to Produce Artificial Kidney



UKM is the first university in Malaysia to produce an artificial kidney, as an initiative to help treat kidney failure patients. Institute of Microengineering and Nanoelectronic (IMEN) Director, Prof. Dato' Dr. Burhanuddin Yeop Majlis said that this is the culmination from the research done by experts from IMEN and UKM Medical Centre (UKMMC) since 2014.

Creating an artificial kidney which truly mimics the real organ was challenging for the team as kidney is a complex organ which has seven functions. Thus, the team focused on one of its main function: filtering blood from excretions by utilising nanotechnology applications.

According to Prof. Dr. Burhanuddin, the research involved a substantial amount of cost, which amounted to RM 5 million.

Meanwhile, UKM Vice-Chancellor, Prof. Tan Sri Dato' Seri Dr. Noor Azlan Ghazali said UKM is very serious and committed in this endeavour to help patients undergo normal life without having to rely on dialysis. UKM also strongly hopes that private companies in Malaysia are able to channel funds and collaborate in the development of this research.



World's Smallest OSA Treatment Device Launched at UKMMC

Hospital Canselor Tuanku Muhriz (HCTM), Universiti Kebangsaan Malaysia Medical Centre (UKMMC) was recently handpicked to launch the world's smallest device which is said to be able to treat Obstructive Sleep Apnoe (OSA).

Weighing merely 300 grams, the AirMini Continuous Positive Airways Pressure (CPAP) Machine is lauded as the most effective device for treating OSA, which causes one to stop breathing in their sleep.

According to UKMMC ENT Senior Consultant Prof. Dato' Dr. Abdullah Sani Mohamed, this is the first time, a significantly small device was introduced in Malaysia as most machines in the market are large and weighs about 1.4 kilograms.

The small and light Air Mini CPAP is portable and can easily be brought on one's travels. It can also be used in an aircraft because it is quite



and will not interfere with other passengers. Another advantage of this machine is that it can detect the number of times a patient stops breathing at night and this information can be stored in smart phones.

UKMMC was selected to launch the machine because UKMMC has a very complete and comprehensive facilities to treat OSA patients.

He added that, a person can be diagnosed with OSA when they experience symptoms such as loud snores, sleepy and drowsy during the day, lethargic, unable to concentrate on the tasks, mood swings and terrible headaches.

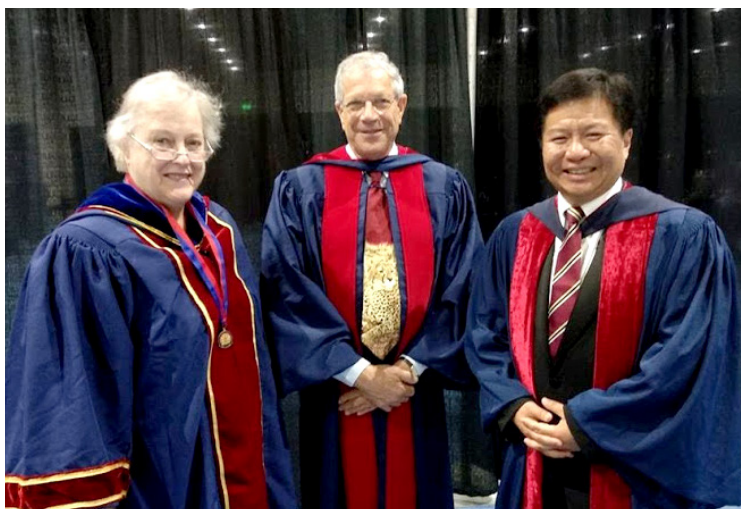


Assoc. Prof. Dato' Dr. Hanafiah Harunarashid, Head of UKM Advanced Surgical Skills Centre (ASSC), was awarded the distinguished Fellowship of the American College of Surgeons, during the College's 2017 Annual Clinical Congress in San Diego, recently.

Also the current Malaysia College of Surgeons President, Assoc. Prof. Dato' Dr. Hanafiah received the award in recognition of his professional accomplishment and his commitment to scholarship & lifelong learning.

This is the second international fellowship award that Assoc. Prof. Dato' Dr. Hanafiah received this year.

In 2015, Assoc. Prof. Dato' Dr. Hanafiah was the recipient of the Royal College of Surgeons of Edinburgh (RCSEd) International Medal. The first Malaysian to receive this prestigious honour in the 500-year history of the Edinburgh College, his expertise was initially recognized by the college when he was appointed as an international Surgical Adviser of the RCSEd.



He was awarded the Singapore Academy of Medicine Fellowship, last July, for the crucial role he played in improving surgical training in the region and his extensive and global surgical networking.

He was also a key member of the Malaysian team that successfully bid for the World Congress of Surgery 2021 in Basel, Switzerland recently.



UKMMC Orthopaedic Surgeon Bagged 3 Golds at International Trade Fair IENA 2017

Assoc. Prof. Dr. Mohd Yazid Bajuri's innovative creations bagged three gold medals at the International Trade Fair IENA 2017 in Germany, recently.

A UKMMC orthopaedic surgeon who specialises on foot and ankle, Assoc. Prof. Dr. Mohd. Yazid won gold medals for his innovation: MyAnkleTM, Development of Bone Scaffold Using Rapid Prototyping System Integrated with Tissue Engineered Cells and My Ankle Fixator.

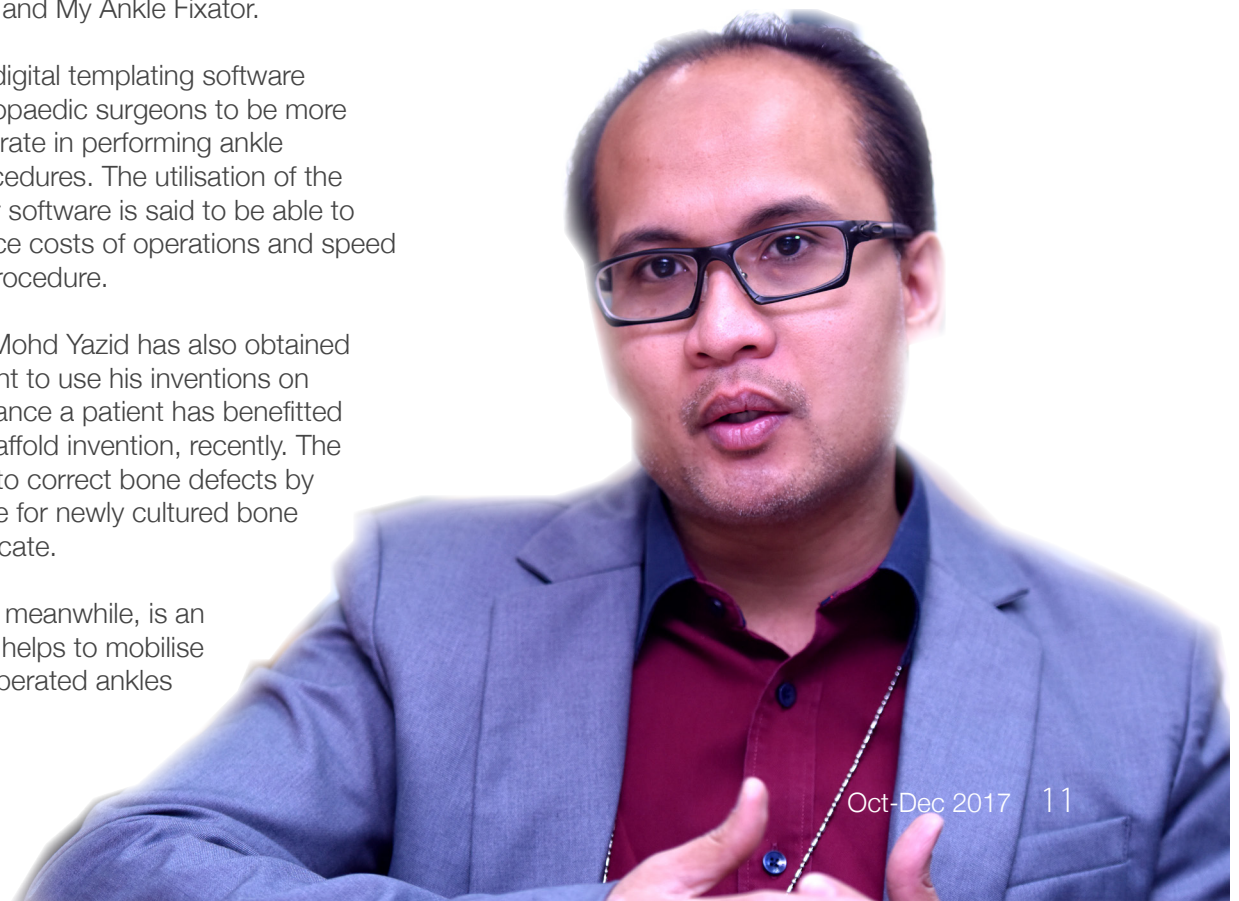
MyAnkleTM is a digital templating software which helps orthopaedic surgeons to be more precise and accurate in performing ankle replacement procedures. The utilisation of the special computer software is said to be able to significantly reduce costs of operations and speed up the surgical procedure.

Assoc. Prof. Dr. Mohd Yazid has also obtained UKMMC's consent to use his inventions on patients. For instance a patient has benefitted from his bone scaffold invention, recently. The innovation helps to correct bone defects by acting as a bridge for newly cultured bone cells to communicate.

My Ankle Fixator, meanwhile, is an innovation which helps to mobilise joints for newly operated ankles

(ankle iron). It consists of a piece of iron placed near the ankle which also simultaneously treats wounds.

MyAnkleTM and Development of Bone Scaffold Using Rapid Prototyping System Integrated with Tissue Engineered Cells has been registered as an Intellectual Property (IP).



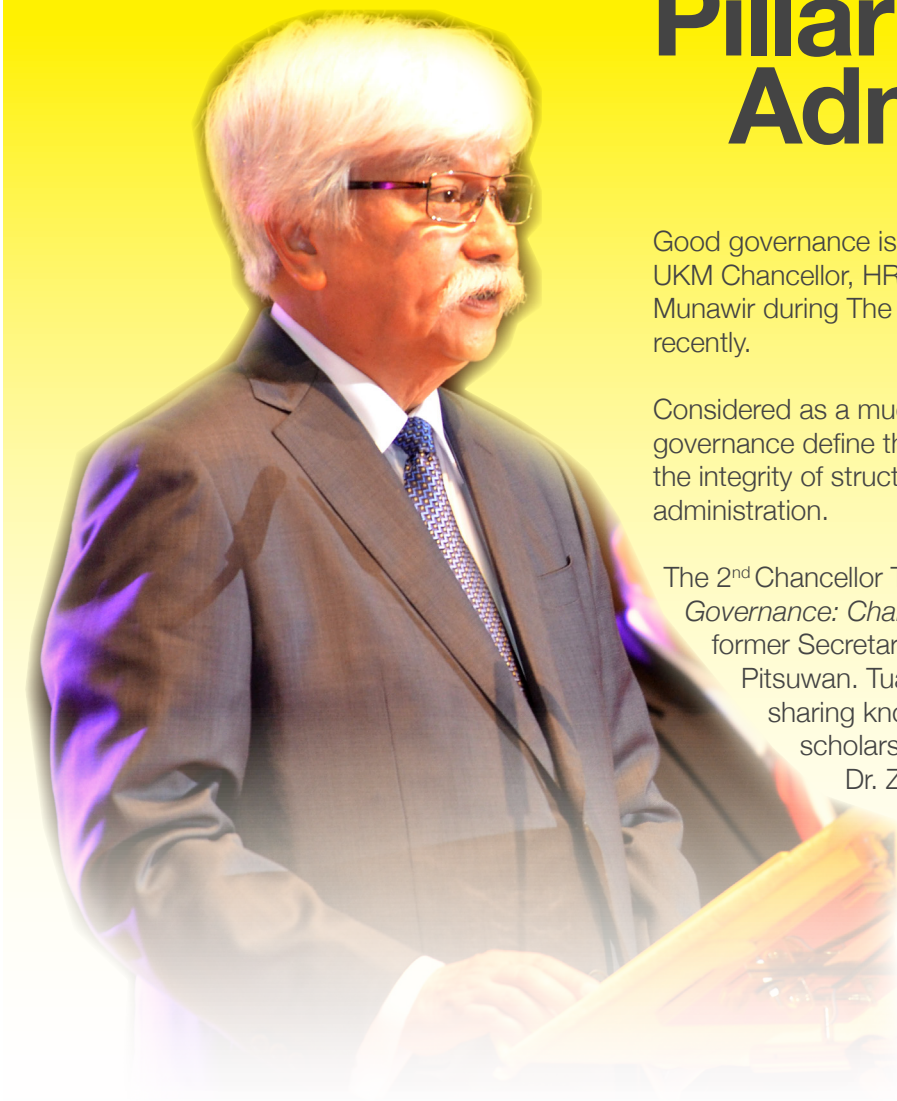
Good Governance, a Pillar to Efficient Administration

Good governance is the pillar to an efficient administration, said UKM Chancellor, HRH Tuanku Muhriz Ibni Almarhum Tuanku Munawir during The 2nd Chancellor Tuanku Muhriz Lecture, recently.

Considered as a much needed value, not only does good governance define the rights of people, it is essential in ensuring the integrity of structure, process and procedures pertaining to administration.

The 2nd Chancellor Tuanku Muhriz Lecture, titled *Good Governance: Challenges for ASEAN Communitites*, featured former Secretary General of ASEAN, Tan Sri Dr. Surin Pitsuwan. Tuanku Muhriz hopes that the practice of sharing knowledge by distinguished figures and scholars, such as Tan Sri Dr. Surin and Tan Sri Dr. Zeti Akhtar Aziz last year, will largely and positively benefit the livelihood of society in Malaysia.

Tuanku Muhriz, who is the Yang di-Pertuan Besar of Negeri Sembilan Darul Khusus, added that as the national university, UKM should always strive to sustain its role as the repository and conduit of knowledge, as well as the generation of new ideas for the socio-economic development of society.



SYARAHAN CANSER
TUANKU
MUHRIZ
KF-2

THE 2nd CHANCE
TUANKU MUHRIZ LECTURE



Meanwhile, in his lecture, Tan Sri Dr. Surin explored the urgent need and the formidable challenges of good governance faced by the ASEAN Community in its quest for a new transformation into a more competitive, sustainable and prosperous region.

ASEAN, he said, is currently being challenged to rise above the restrictive form of governance which benefits only a limited number of people close to or associated with the center of power, which has characterized the ASEAN political and economic landscape, up to this point.

Good governance, therefore is a very much needed aspect in an administration because it will ensure an effective democratic system of a government, transparency in the management of state resources and discharge of power, accountability, full participation of the people and a strong system of check and balance to guard against abuse of power.

Also present at the lecture were HRH Tunku Ampuan Besar of Negeri Sembilan Darul Khusus, Tuanku Aishah Rohani Almarhum Tengku Besar Mahmud, UKM Board of Director Chairman, Tan Sri Dato' Seri Dr. Ibrahim Saad, and UKM Vice-Chancellor, Prof. Tan Sri Dato' Seri Dr. Noor Azlan Ghazali.



In Memoriam

TAN SRI DR. SURIN PITSUWAN, a native of Nakorn Sri Thammarat, Southern Thailand, was born on 28 October 1949. He received his primary and secondary education in his home province.

On January 2008 until December 2010, he served as the Secretary General of ASEAN. One of his most recognized accomplishments was when he helped restore law and order in East Timor during the violent uprising. He also led the ASEAN Member States and the United Nations and other international institutions such as the World Bank and various International NGOs. He was involved in a rescue mission in Myanmar during the Cyclone Nargis tragedy in May 2008 and remained there until the mission was accomplished in December 2010.

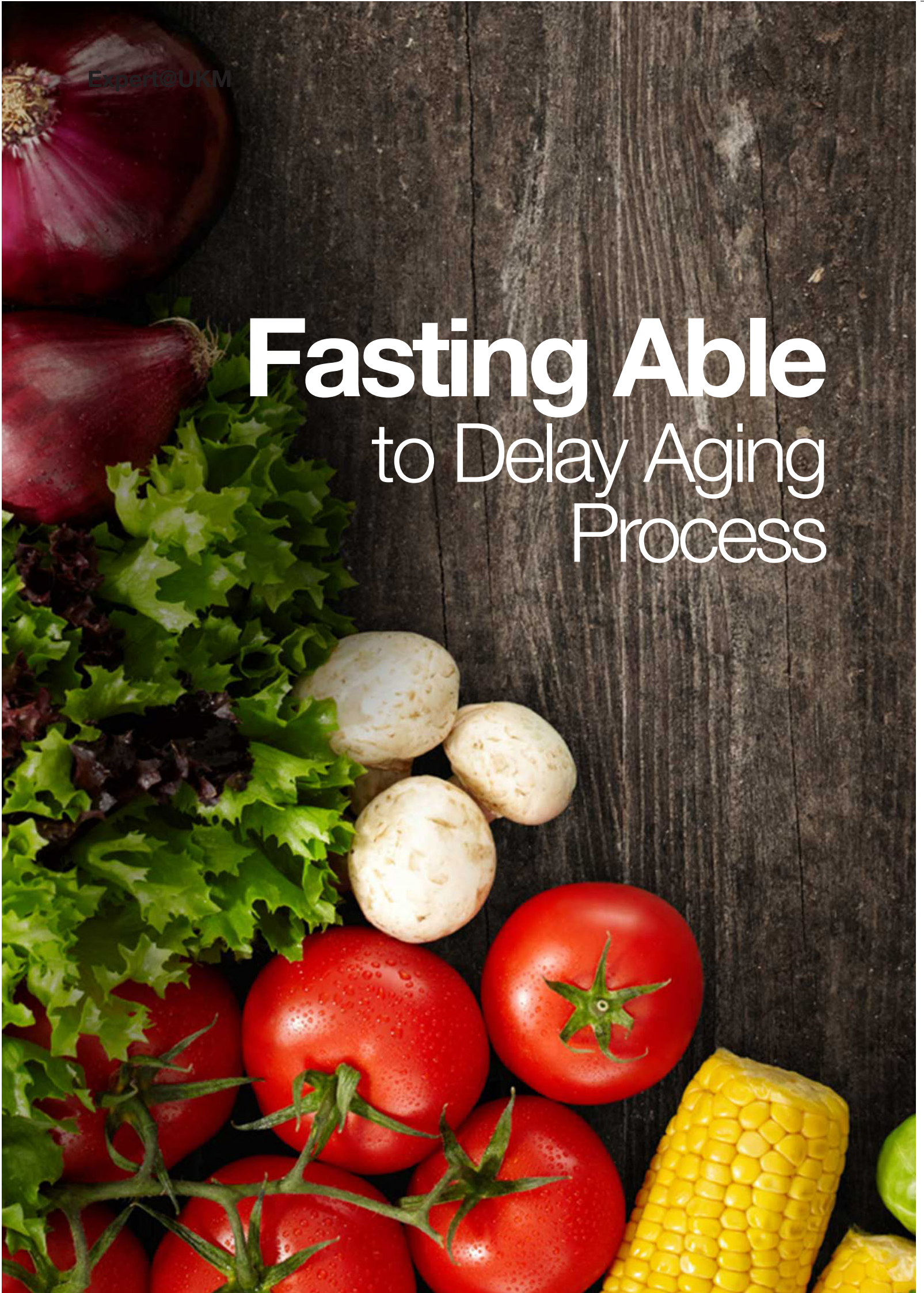
He was previously on the Advisory Board of the UN Human Security Trust Fund, the Advisory Board of the International Crisis Group, an International Academic Advisor of the Centre for Islamic Studies, Oxford University and an advisor to the Leaders Project, a conference arm of the Cohen Group of former US Secretary of Defence William S. Cohen.

He was appointed as a Visiting Professor, an Adjunct Professor and a Visiting Fellow at the Graduate Institute for Policy Studies, Tokyo, University of Nara, Japan and University of Malaya and also the Chairman of the Future Innovative Thailand Institute. Throughout his life, Tan Sri Dr. Surin Pitsuwan has been involved in promoting regional integration in East Asia, educational and political reform efforts in Thailand and frequent speakers at various international conferences. He received his PhD in Political Science and Middle Eastern Studies from the University of Harvard and was awarded an honorary doctorate by UKM in International Relations.

Tan Sri Dr. Surin Pitsuwan passed away on November 30th, 2017.

Expert@UKM

Fasting Able to Delay Aging Process





Fasting on Monday and Thursday in addition to adopting a balanced nutrition can delay the process of aging, says UKM Nutritionist and Dietetician from the Faculty of Health Sciences, Prof. Dr. Suzana Shahar.

“It was discovered that if the practice (of fasting on Monday and Thursday) continues for three months, it can help decrease weight, besides reducing fat body percentage, blood pressure and blood lipid levels.

She added that the practice of fasting combined with self diet restrictions (FRC) can help one to reduce between 300 to 500 calories on weekdays.

Meanwhile, taking an excessive variety of foods, especially foods with high density nutrient can be regarded as wasteful and harmful to the body as it could lead to obesity and chronic disease. “It is important for middle aged individuals to achieve an ideal weight in order to age healthily,” she explained.

Prof. Dr. Suzana said superfood diet that includes fish as well as other sources of protein aside from consuming fruits and vegetables in abundance is important for maintaining the health of senior citizens.

“Local fish such as kembung and cencaru contains a high amount of omega fatty acids,” she said.



“Another superfood is ulam such as daun kesom, ulam raja dan daun selom contains polyphenols. Daun selom can improve memory and social function of senior citizens who suffer from emotional disorders,” she said.

Prof. Dr. Suzana also explained that soups and roasted food such as singgang, asam pedas or roast chicken can maintain the content of omega in food compared to deep frying.



UKM Championing Higher Education Rethinking and Redesigning Initiatives

Academics at UKM topped the list of winners, in four out of six categories contested at the Inaugural Rethinking and Redesigning Higher Education Awards (APRS) 2017, held in Istana Hotel, recently.

The creative academics won second place for the Immersive Online Experience Award category, second and third place for Immersive Blended Learning Award category, second place for Immersive Face-to-Face Learning Award category and winner and second place for Transformative and Interactive Teaching Award category.

The two other categories contested were Transformative Teaching Without Lecture Award

and Innovative Teaching Curriculum Award. UKM Law Faculty lecturer Dr. Shahrul Mizan Ismail, who won first place in the Transformative and Interactive Teaching category innovated his teaching approach upon seeing students quite bored with the subject during lectures.

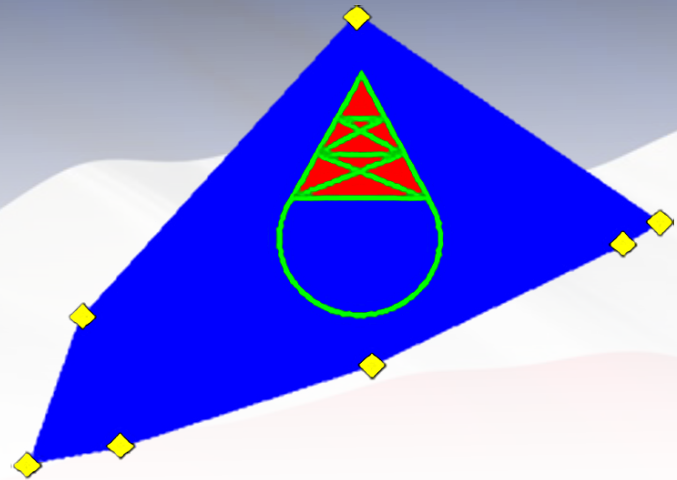
Law, he said, can be a very dry subject. Thus, he decided to be more creative in order to attract student's attention and ensure that they focus in class.

Meanwhile, Minister of Higher Education, Dato' Seri Idris Jusoh said that the academia is now faced with the challenge of providing a batch of graduates for jobs, which may not even exist in the future. This means, the teaching and learning approach should be more active, effective, interactive, immersive and this means, the application of latest technology is not an option, but is a necessity.

He added that the lecturers should be dynamic and adaptable to changes while upholding the basic concepts of higher education.

A total of 27 finalists were selected to present projects and innovation produced, during the APRS Sharing Best Practices (pitching) Session.

MTJA Recognised UKM's Nobel Research



MALAYSIA-THAILAND
Joint Authority

Malaysian-Thailand Joint Authority (MTJA) recently awarded UKM a grant worth RM13.89 million to develop an integrated demonstration plant to convert carbon dioxide (CO₂) gas to methane (CH₄).

The plant, according to the project's lead researcher Prof. Dr. Mohd Ambar Yarmo, is part of UKM's initiative to promote a greener world. This is because, according to reports, processing carbon dioxide emitted in the air is said to be able to help reduce global warming due to the formation of greenhouse gases (GHG).

The problem is significant as it is estimated that the oil and gas industries produce an estimated 6% of the total emission of CO₂ annually.

Thus, the noble effort by UKM and MTJA to process CO₂ emitted in the air is indeed timely as it is said to be able to help reduce the contribution of CO₂ to the global GHG. This is because, according to reports, utilization of CO₂ is said to be able to reduce the effect of CO₂ to global GHG level and global warming.

*The National University
of Malaysia*

MALAYSIA-THAILAND
Joint Authority





Alumni Give Back to UKM

UKM Alumni gave back to the university and contributed about RM366,700 to the Alumni Council Fund, recently.

The hefty collection was presented to UKM Chancellor HRH Tuanku Muhriz Ibni Almarhum Tuanku Munawir at the *Majlis Santapan Diraja Alumni UKM*, held at Dewan Canselor Tun Abdul Razak (DECTAR).

More than 600 UKM alumni, who graduated between 1973 and 2017, attended the prestigious and exclusive dinner.

UKM Vice-Chancellor, Prof. Tan Sri Dato' Seri Dr. Noor Azlan Ghazali in his speech said that the University plans to build a good partnership and maintain networks with alumni and look forward to hear ideas, advices and useful feedback, which would greatly contribute to the development of UKM.

Alumni who wish to reach out to students through the sharing of knowledge and experience were also welcomed.

The ceremony also saw the official launch of the UKM Alumni Council and the handing over of donations to the Alumni Fund.

HRH Tunku Ampuan Besar Negeri Sembilan, Tuanku Aishah Rohani Almarhum Tengku Besar Mahmud and UKM Pro-Chancellors, YAM Tunku Laxamana Tunku Dato' Seri Utama Naquiyuddin ibni Almarhum Tuanku Ja'afar and Tun Ahmad Sarji Abdul Hamid was also present at the ceremony.

Among UKM's distinguished alumni present were Malaysia's Minister of Transport, Dato' Sri Liow Tiong Lai, Sarawak Deputy Chief Minister, Datuk Amar Haji Awang Tengah Ali Hasan and Cyberjaya University College of Medical Sciences President, who is also the President of the Alumni Council, Prof. Dato ' Dr. Mohamad Abdul Razak.

UKM and FGV R&D

Collaborate to Study Palm Oil Pest



Institute of Systems Biology (INBIOSIS), UKM will be collaborating with Felda Global Ventures Research and Development (FGV R&D) Sdn Bhd on research pertaining to oil palm plants diseases.

UKM Deputy Vice-Chancellor of Research and Innovation, Prof. Dr. Hj. Mohd. Ekhwan Hj. Toriman said at the Memorandum of Collaboration signing ceremony between UKM and FGV R&D Sdn. Bhd., the university has always been trusted by the industry to conduct high impact research. He also believes the collaboration between UKM and FGV R&D experts will produce a positive development and will give a big impact to the palm oil industry.

The cooperation will see both parties involved in a metabolic study of the development of biological markers to detect the infection of palm oil pest,

known as Ganoderma. The cooperation includes a provision of an opportunity for FGV employees to further their studies at the PhD level in UKM.

Meanwhile, Head of R&D Cluster and FGV Agriculture Services, Syed Salim Syed Ali said he believes the study conducted by FGV R&D and INBIOSIS researchers will be able to find a more sustainable solution to the Ganoderma disease by means of the production of bio-control agents which has high potential microb.

According to Syed Salim, these efforts can be used to save palm oil trees from attack in the early stages of infection and thus block attacks from Ganoderma more widely. The collaboration from the technical expertise and research facilities between both parties is very important to advance the country's agricultural sector.

Industry 4.0: Government Provides Relevant Skills Through TVET Programmes

Government through the Ministry of Human Resources (MoHR) are providing relevant skills pertaining to Technical and Vocational Education and Training (TVET) programmes to face the Fourth Industrial Revolution (4IR).

Secretary General of MoHR, Dato' Dr. Mohd Ghazali Abas, who delivered a speech on behalf of the Minister of Human Resources, said the preparation is not only essential for the future labour market, but is also pivotal in preparing human capital for nation building.

Thus, he added, TVET providers were encouraged to align themselves to the latest skills standard and curriculum to ensure the 4IR is well-understood and learned. He was speaking at the Launching Ceremony of the National Conference on the 4IR Skills Development: Road Map to the Future (NC4IR-VET), here, recently.

The conference was organised by Faculty of Education, UKM and Department of Skills Development, MoHR.

He said for a long time, TVET been regarded as the last option in education and career selection owing to the public perception that the courses are for those who did not perform well in other academic endeavors.

This impression is changing as government around the world have increasingly recognized the significance of the technical and vocational courses towards supporting their national economy, with developed and industrialised countries having a higher number of students in the vocational and technical stream.

He said the establishment of TVET Malaysia coordinated by MoHR, is a timely decision.

Meanwhile, UKM Deputy Vice-Chancellor of Research and Innovations, Prof. Dr. Hj. Mohd Ekhwan Hj. Toriman said the objective of the conference is to ensure the industry pattern and job requirement in the 4IR.





UKM-Pintar Foundation Helps Inculcate Students' Interest in Science

UKM through the Institute of Climate Change (IPI) collaborated with Pintar Foundation to conduct programs at several secondary schools in Kedah in an initiative to inculcate interests in science and technology.

UKM Deputy Vice-Chancellor of Industry and Community Partnership, Prof. Dato' Dr. Imran Ho Abdullah said 13 schools were selected to join the Pintar-UKM Sustainability and Green Technology Through IG-Home Module, Phase 1 2017 programme.

According to him, this programme requires students and teachers to innovate and create a sustainable home. Interestingly, the participant does not merely consist of Science teachers and students but encompasses students from various disciplines.

Prof. Dato Imran was speaking at the Closing Ceremony of Pintar-UKM Sustainability & Green Technology Through IG-Home Module Phase 1 2017 Programme and the Signing of

Memorandum of Agreement (MoA) between UKM and Pintar Foundation.

He hopes that the MoA will also spur further areas of cooperation between the two parties as well as to generate new areas of cooperation that can make an impact to the well-being for the next generation.

Meanwhile, Chairman of Pintar Foundation Trustee, Tan Sri Dato' Seri Utama Arshad Ayub said he believes UKM experts can help teachers to inculcate students' interest in science. For instance, students in the rural area are actually very creative and often innovate, but they don't have the proper guidance to highlight their inventions. IG-Homes, is a good example of a programme which can harness students' skills in innovation.

Sekolah Menengah Kebangsaan Syed Mohamed Al-Bukhary, Alor Setar won first place in the competition with their innovative use of food waste and manure in creating cooking gas.

BY ROZANA SANI
rsani@nst.com.my

BASED on the latest scientific evidence, there is a need to propose changes to the current clinical practice guidelines in Malaysia, pertaining to dietary recommendations with regards to the prevention and management of risks related to deaths, heart disease and strokes.

This follows the publication of three papers in *The Lancet*, produced from a major global study led by researchers at the Population Health Research Institute (PHRI) of McMaster University and Hamilton Health Sciences in Hamilton, Canada.

Data from the Prospective Urban Rural Epidemiology (PURE) study which followed more than 135,000 people from 18 low-income, middle-income and high-income countries uncovered findings that challenged current perception in diet practices. The study asked people about their diet and followed them for an average of seven and a half years.

Among the researchers involved in the global study is a team from Universiti Kebangsaan Malaysia (UKM) called RESTU headed by Professor Dr Noor Hassim Ismail.

The PURE study is groundbreaking because it focuses on food patterns in a wider range of countries. Before this, all policies and recommendation in countries like Malaysia, for example, are based on research done by advanced and high income countries. But findings in this new research can be applied to countries in the middle and low income band as they provide information from a wide range of socioeconomic, food availability, and cultural food intakes data. And this is the first study where samples are followed from when they had no illnesses and diseases to their current situations," said Dr Noor Hassim.

While PURE kicked off in 2003, the UKM group only began their portion of the research in May 2008 — starting with the recruitment of cohort members from Tanjung Karang in Selangor using only existing resources and staff. By the end of the first year, they had 8,000 participants recruited from places like Felda Seoharto in Selangor and urban areas in Kuala Lumpur.

The researchers thoroughly collected health updates and did verbal autopsy for information on the recruited population over a one-year, three-year and five-year follow-up. In 2012, the group presented the initial findings at an international conference in Toronto, Canada.

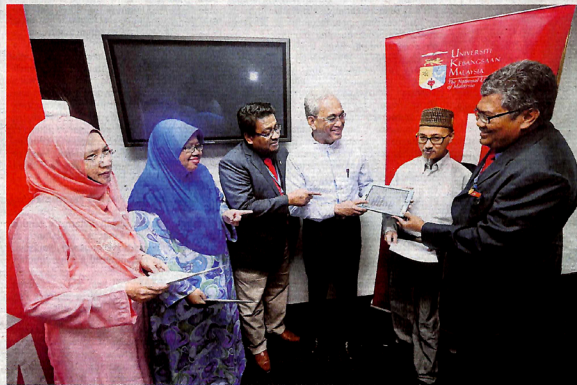
The input and analysis of all involved led to two reports published recently which highlighted the message "Global dietary guidelines should be reconsidered in light of these findings."

Dr Noor Hassim said the first paper focused on the research on dietary fats where it was found that they are not associated with major cardiovascular disease, but higher fat consumption was associated with lower mortality. This was seen for all major types of fats (saturated fats, polyunsaturated fats and mono unsaturated fats), with saturated fats being associated with lower stroke risk.

"A decrease in fat intake automatically led to an increase in carbohydrate consumption and our findings may explain why certain populations such as South Asians, who do not consume much fat but consume a lot of carbohydrates, have higher mortality rates and this is where the problem lies," he said, citing from the paper.

In Malaysia, the Ministry of Health had suggested food intake to be taken in the portion of quarter carbohydrate, quarter protein and a

Input for improved health guidelines



Dr Noor Hassim Ismail (third right) with the team of researchers showing the published papers in *The Lancet*.



Moderation in most aspects of diet is to be preferred, as opposed to very low or very high intakes of most nutrients.

DR NOOR HASSIM ISMAIL
UKM professor and group head for RESTU

half portion of vegetables/fruits. And this, Dr Noor Hassim said, should be reinforced and emphasised.

The second paper from the PURE study assessed fruit and vegetable and legume consumption and related them to deaths, heart disease and strokes.

The study found current fruit, vegetable and legume intake globally is between three to four servings per day, but most dietary guidelines recommend a minimum of five daily servings. Given that fruits and vegetables are relatively expensive in most middle-income and low-income countries, this level of consumption is unaffordable for most people in many regions of the world such as South Asia, China, Southeast Asia and Africa, where the levels of their consumption is much lower than in Western countries.

"Raw vegetable intake was more strongly associated with a lower risk of death compared to cooked vegetable intake, but raw vegetables are rarely eaten in South Asia, Africa and Southeast Asia. Dietary guidelines do not differentiate between the benefits of raw versus cooked vegetables. The study results indicate that recommendations should emphasise raw vegetable intake over cooked," Dr Noor Hassim added.

In light of the finding, he suggested that there be a programme to encourage Malaysians plant their own garden vegetables for consumption like *ulam*.

In a third study published concurrently by *The Lancet*, Diabetes and Endocrinology, the same researchers looked at the impact of fats

and carbohydrates on blood lipids and blood pressure.

They found that LDL (so-called 'bad' cholesterol) is not reliable in predicting effects of saturated fat on future cardiovascular events. Instead, the ratio of Apolipoprotein B (ApoB) and Apolipoprotein A1 (ApoA1) or organising proteins in the blood, give the best indication of the impact of saturated fat on cardiovascular risk.

"Moderation in most aspects of diet is to be preferred, as opposed to very low or very high intakes of most nutrients," said Dr Noor Hassim with regards to the content of the reports.

He highlighted that the RESTU group plans to follow the cohort up to a period of 15 years as there are many papers yet to be published at the global, regional and local levels. However, this kind of study requires permanent dedicated staff and that requires a lot of funds.

Other than RESTU from UKM, Universiti Teknologi MARA (UiTM) is also involved in the PURE study.

UKM deputy vice-chancellor (Research and Innovation Affairs) Professor Dr Mohd Ekhwan Toriman said the group's work is indeed commendable as not many Malaysian medical and health sciences researchers get published in *The Lancet*.

"The Lancet has a high impact factor particularly to society, globally and locally. The study has high value in translational research as could become a model or an idea for practices in society," he said.



Mohd Ekhwan Toriman

CLASSIFICATION SERVICES

ZULITA MUSTAFA
zulita@nst.com.my

WITH the biggest number of sports contested, the recent 9th Asean Para Games Kuala Lumpur 2017 — hosted for the third time in the country — was filled with exciting and inspiring performances by 1,500 athletes who took part in the seven-day event.

A total of 368 gold medals were up for grabs in the 14 sports contested, with Malaysia forming the largest contingent of 331 athletes.

Some 1,115 local and foreign officials served as technical delegates, international technical officials, national technical officials and classification officials.

Before competing in the games, the para athletes underwent a three-day classification process — a functional assessment by a panel — to determine the sport categories they belong to and their eligibility to participate.

Classification provides a structure for the competition to ensure that the athletes compete fairly based on their impairment and its impact on their functional ability.

This year, the classifiers were from a few universities in the country such as Universiti Teknologi Mara and Universiti Kebangsaan Malaysia (UKM).

Professor Datuk Dr Rokiah Omar, a low-vision specialist from UKM who is also Asean Para Sports Federation (APSF) classification director, said the athletes are systematically grouped into sports classes according to their physical, visual or intellectual impairment in each sport.

APSF and the Malaysia Organising Committee (MASOC) are committed to providing classification services that represent the highest standards of honesty, integrity and dignity throughout the Asean Para Games in compliance with the International Paralympic Committee Code of Ethics.

The functions of the classification services include developing transparent procedures and policies for sports class and sports class status allocation, and providing the best possible working environment, ensuring efficient and accurate classification of athletes.

There are three types of impairment in disabled sports — physical, visual and intellectual. Each sport has its own para sport rules depending on the type of impairment the athlete has.

For example in visual impairment, there are three levels of impairment whereas in physical impairment, the impairments range from limb amputations to neurological disorders and spinal cord injuries.

The duty of a classifier is to ensure that athletes are eligible to compete and they are placed in the correct sport class based on their level of disability to ensure they compete fairly," said Dr Rokiah, who is the first optometrist in Asia to be inducted as an International Blind Sports Federation classifier in 2006.

As an international classifier, she has been involved in various national, regional and international sporting events.

She was appointed as classification director for the Incheon 2014 Asian Para Games and 8th Asean Para Games Singapore 2015.

As an appointed classification director, her role is to oversee classifications performed at these multi-sport games and ensure that the classifications are conducted in accordance with the rules and regulations of the particular sport.

"Without classifiers, it will be difficult to place the athletes into their proper sport class to allow them to compete fairly. Classifiers ensure that athletes get to compete in the correct games."

Also in the classifier team from UKM are Dr Mohd Harimi Abd Rahman (chief classifier visual impairment), Gan Chan Hong (intellectual impairment classifier) and Norashikin Mohamed

A structure for fair and equitable competition



Dr Rokiah Omar (third from left) and Dr Mohd Harimi Abd Rahman (second from right) browsing through the Classification Guide Book with volunteers in conjunction with 9th Asean Para Games Kuala Lumpur 2017.



The duty of a classifier is to ensure that athletes are eligible to compete and they are placed in the correct sport class based on their level of disability.

DR ROKIAH OMAR
APSF classification director

Noor (athletic classifier).

Dr Mohd Harimi said athletes competing in Paralympic sports have an impairment that leads to a competitive disadvantage in a sport.

"Classification provides a structure for fair and equitable competition within the Paralympic Movement."

"It groups athletes with disabilities into sports classes according to how much their impairment affects their ability to carry out the fundamental activities in a specific sport."

The purpose of classification is to define who competes in para sport and ensure that the impact of impairment in each event is minimised. "Classification ensures that the success of an athlete is determined by skill, fitness, power, endurance, tactical ability and mental focus," he added.

Each sport has its own disability criteria which can be grouped into three broad categories — visual impairment, intellectual impairment and physical impairment which may be mild, moderate or severe.

To be either locally or internationally certified, classifiers apply to pursue a course, sit an examination and complete training by working under the supervision of a classification instructor from a particular sport.

A classifier generally has a degree or qualifications in a suitable healthcare discipline or in certain sports, possesses technical qualifications in the sport.

It is the collective responsibility of each National Paralympic Committee (NPC) through its chief de mission and relevant team officials to inform athletes about and to comply with the Asean Para Games classification policies and procedures before and during the events.

It is their responsibility to ensure that accurate classification information is provided to MASOC before the arrival of athletes in the host



Gan Chan Hong

country," added Dr Rokiah.

Dr Mohd Harimi added that the NPC ensures that athletes are informed about requirements related to the classification procedures.

"Each NPC must identify an official within its contingent who will be responsible for all communications during the games, beginning with the classification evaluation."

Gan said it is important to engage intellectually-impaired athletes psychologically to know their behaviour.

Two tests — an IQ test (level 70 and below) being the minimum eligibility criteria to participate in the games and adaptive functional behaviour test — are used.

"One of the conditions is that athletes are able to adapt to their surroundings even though they have a low level of IQ," added Gan, who has eight years of experience as a classifier.

UKM

MEL



In the front row are Hamidah Nazidin (9th from left), CIMB Foundation Board of Trustees Datuk Robert Cheim (sixth from left), UKM deputy vice-chancellor (industry and community partnership) Professor Datuk Dr Imran Ho Abdullah (fourth from right) with student delegates at the closing ceremony of the 2017 CIMB Young ASEAN Leaders programme. PIC BY OSMAN ADNAN

WORKSHOPS

Uniting youths to shape Asean's future

ROZANA SANI
rsani@nst.com.my

A BETTER understanding of current issues, and a deeper sense of shared responsibility in shaping Asean's sustainable future based on the principle of inclusivity were the key takeaways for participants of the recently concluded CIMB Young ASEAN Leaders (CYAL) programme.

Organised by CIMB Foundation in partnership with Universiti Kebangsaan Malaysia (UKM), the annual event — which is now in its fifth year — brought together 50 undergraduates from Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam for a four-day workshop on Asean's economic future, with the theme 'Sharing Economy Beyond Boundaries'.

Aimed at creating a platform for young Asean leaders to share experiences, it is hoped that after and beyond the event they will be inspired to initiate programmes that benefit their respective home communities.

CIMB Foundation chief executive officer Datuk Hamidah Nazidin said this year's theme — 'Sharing Economy Beyond Boundaries' — focused on two sub-topics: the Fourth Industrial Revolution (4IR) characterised by new technologies that blur the lines between the physical and virtual worlds which redefine ways to live, work and connect; and secondly, the concept of a sharing economy that aims to democratise and leverage on a community's collective physical and intellectual resources.

"It is imperative that youths be empowered to help us shape the future of Asean, for they are the ones who will inherit it from current leaders. And what better time than during their undergraduate years to inculcate in them the importance of embracing and promoting Asean's diversity to maintain its strength, peace and prosperity as an economic bloc supporting over 630 million

people," she said in her speech at the closing of the event.

"The 4IR has given rise to a borderless world where collaborative and on-demand economy is fast becoming the norm, democratising the way goods and services are supplied, and information is shared."

"Our aim is for participants to not only brainstorm on opportunities afforded by this new tech-defined operating landscape, but also reflect on how such developments may exclude pockets of society," she continued.

The four-day workshop discussed Asean identity and unity, entrepreneurship in the 4IR, socio-economics of Asean countries and online web creation and e-commerce.

There was also a special panel session on entrepreneurship featuring successful young entrepreneurs across the Asean region. Key speakers for the panel session include Ambika Sangaran — a partner at Biji-Biji Initiative, Jom Tumpang CEO Mohamed Ismail Shaik, ILM Legacy Sdn Bhd CEO Wan Nong Muzafar, WHEE project managing director Rhorwyn Hagedorn and Robotics Malaysia managing director Ilyia Kamaruzaman.

Muhammad Rizal Saanan, 21, from Universitas Muhammadiyah Yogyakarta in Indonesia said meeting new people from the 10 Asean countries and the speakers was an incredible experience.

"I can bring back the knowledge that I have gained from CYAL, especially on entrepreneurship back to my university in Indonesia. I have also learned about the essence of Asean citizenship — that it is more than just friendship which is more valuable in the future," he said.

Although Tea Jalin Castillo Ty, 20, from University of the Philippines Diliman have been involved in programmes for Asean youth before, she found the focus on being different yet similar something refreshing.

Working together with youths from other



It is imperative that youths be empowered to help us shape the future of Asean, for they are the ones who will inherit it from current leaders.

HAMIDAH NAZIDIN
CIMB Foundation CEO

Asean countries means interacting with people who come from very different but similar cultures. That dynamic of similar but different truly defines what it means to be Asean. The spotlight on the 4IR in the Asean perspective as faced as one region has made me consider future prospects in Asean, rather than just my own country. I would definitely stay in touch with new friends and they may be colleagues in future projects," she said.

Nur Faiz Mohamed, 20, from UKM believes the future of Asean is bright.

"We have been taught about being better leaders. I came to the programme with a viewpoint of a law student and am taking away a wider perspective in areas like business and economy. This programme allowed us to set up networking and connections which will be useful in the future," he said.

At the closing of CYAL, Hamidah announced the setting up of a CYAL alumni network.

It is hoped that this will bring past participants of the programme together to have more sharing on current and future issues and come up with more ideas that can be implemented not just in Malaysia but also in the Asean region," she said.

The key to Asean's future success lies in these youths, whom we hope will develop into holistic strategists and effective change agents who can successfully embrace the new frontier, anticipate the next, and most importantly address the pressing needs of tomorrow to ensure Asean's sustainable success as a region," added Hamidah. CIMB Foundation is a non-profit organisation set up to implement CIMB Group's corporate social responsibility and philanthropic initiatives. Established in November 2007, CIMB Foundation is tasked with strategising and implementing corporate responsibility initiatives, disbursing millions to various programmes related to community development, sports and education. In the past 10 years, CIMB Foundation has disbursed RM120 million through 962 projects benefiting 700,000 people in the communities served by CIMB Group.

UKM LAUDED FOR USING BM IN CLASSES

National language shouldn't be compromised, says Tuanku Muhriz

KALBANA PERIMBANAYAGAM
BANGI
kalbana@nst.com.my

UNIVERSITI Kebangsaan Malaysia is lauded for upholding and preserving Bahasa Melayu in its lectures although most of its courses are science- and research-based.

Yang Di-Pertuan Besar Negri Sembilan Tuanku Muhriz Ibni Almarhum Tuanku Munawir congratulated UKM for using Bahasa Melayu as an official language in its classes.

"With the advancement of information, communication and Technology (ICT), some things, like the importance of Bahasa Melayu, should never be compromised," he said at the opening ceremony of UKM's 45th convocation yesterday.

Some 7,972 students will receive their scrolls, from diplomas to PhDs, at the four-day event.

Tuanku Muhriz, who is UKM chancellor, said UKM had produced 190,170 graduates so far. The university was established 47 years ago at a small campus near Pantai Dalam in Kuala Lumpur before it moved to Bangi in the 80s.

It is ranked 230th out of 20,000 universities in the world and is among the top 50 universities in

Southeast Asia, ranked 43rd.

Tuanku Muhriz said annual increases in the number of graduates proved that UKM, considered Malaysia's leading research university, met international standards.

He said UKM would continue to receive bigger research and development (R&D) allocations to embark on more research efforts.

"UKM has not only shone as a leading R&D university in the country, but also succeeded in producing graduates who are not only good academically but have a strong personality," he said, adding that these graduates were also technologically savvy.

He said the knowledge of UKM undergraduates should not be underestimated as the internal electronic administration system used by the university was a product of former UKM graduates.

"The list of achievements and success is long for UKM as it has become a reference hub for various fields of studies, which enables the university to obtain research grants and have academic collaborations with international universities."

Tuanku Muhriz praised UKM for not neglecting the nation's identity in its process of growing. He was referring to the use of Bahasa Melayu in the university's classes, while strengthening patriotism among its students.

"To all those graduating, I wish you the best in your career. I wish for you to excel and become successful people."

"All the knowledge you gained while studying must be put to



Yang Di-Pertuan Besar Negri Sembilan Tuanku Muhriz Ibni Almarhum Tuanku Munawir (second from right) and Tuanku Ampuan Besar Tuanku Aishah Tengku Besar Mahmud (right) with UKM Vice-Chancellor Tan Sri Prof Dr Noor Azlan Ghazali (left) and recipients of the Royal Education Award at UKM yesterday. PIC BY SALHANI IBRAHIM

good use. Do not tarnish the university's image."

UKM Vice-Chancellor Tan Sri Prof Dr Noor Azlan Ghazali expressed his heartfelt gratitude to Tuanku Muhriz.

He said over the years, UKM had evolved, matured and made sure that it did not fall behind in the tertiary education sector, especially in subjects related to research, development and innovation.

"We will continue to strive hard and move forward in research in hopes of coming up with new inventions and commercialise the findings."

"All the knowledge you gained while studying must be put to

our research."

Among those who received awards were Prof Datuk Dr Abdul Razak Salleh (maths) and Prof Datuk Burhanuddin Yatim (physics), both from UKM's Science and Technology Faculty; Prof Dr Hakimi Abdul Rahman (chemical engineering and process) from the Engineering and Nature Building Faculty; and Prof Dr Wan Zurinah Wan Ngah (biochemistry) from the Medical Faculty. All were awarded the Professor Emeritus title.

The Honorary Doctorate Degree in Philosophy in Public and Corporate Leadership and the Honorary Doctorate Degree in

the field of Accountancy and Integrity was awarded to Tan Sri Effendi Norwawi and Datuk Seri Ambrin Buang respectively by Tuanku Muhriz for their contribution in making the country and nation proud.

Two first-degree students who excelled with outstanding results, Abdul Aziz Ramlee Sau (science and technology) and Choo Wen Chun (law), received UKM's most prestigious award, the Royal Education Award.

Present at the ceremony was UKM Pro-Chancellor Tun Ahmad Sarji Abdul Hamid and board of directors chairman Tan Sri Dr Ibrahim Saad.



Dr. Jeazmine Lim (left) with her husband, Harith Iskander, at the 45th UKM convocation in Bangi yesterday.

Two honoured with Royal Education Award

BANGI: He did his best to ensure that he passed with flying colours, but never expected to receive Universiti Kebangsaan Malaysia's most prestigious student-designated award, the Royal Education Award.

UKM's Science and Technology Faculty undergraduate Abdul Aziz Ramlee Sau said he was overjoyed by the recognition.

Aziz, 22, said he dedicated the award to his mother, a factory operator in Melaka, who worked hard to bring him and his five siblings up alone.

"I am speechless as I never expected to be selected as one of

UKM's two best students.

"It has not fully set in, but I am thankful to my mother for her sacrifices in raising all six of us on her own after my father died in 2000," said Aziz, who graduated with a first-class honours degree in Plants Biotechnology Studies.

He said he studied hard as he knew that only through good education and getting a good job could he change his family's fate.

"None of my siblings have set foot in a university, so this is a great honour for me."

"It is not something easy to achieve and I, too, had put in a lot of effort in my studies and co-

curriculum activities."

Aziz, who comes from a low-income family, said he planned to further his studies abroad in the Biotechnology field if he was offered a scholarship.

Another recipient of the award was law undergraduate Choo Wen Chun, 24, who has secured a job at a legal firm in the Klang Valley.

"It is an honour for all the hard work, late-night studying and struggle we had to go through."

"I am planning to work for a while before being called to the bar."

"Maybe after a couple of years, I

might further my studies."

Choo thanked his parents Choo Beng Hock, 63, and Tey Siok Eian, 59, for supporting him throughout his studies.

"Without good family support, it would have been harder for me to excel with this recognition."

Dr Jeazmine Lim, wife of the World's Funnies Man Harith Iskander, received her PhD doctorate scroll at UKM's 45th convocation yesterday.

She is the first woman to conduct a research on umbilical cord stem cell in Malaysia, and it took her six and a half years to succeed.

UNIVERSITI KEBANGSAAN MALAYSIA

Inspiring Futures, Nurturing Possibilities



As a **research university**,
We continuously strive to reach out
and be relevant to **all parts of the world**.

TOP **100**
QS WORLD UNIVERSITY RANKINGS
by subject
2016

- Architecture / Built Environment
- Chemical Engineering
- Education
- Social Policy & Administration

TOP **55**
RANKED
QS UNIVERSITY RANKINGS
2016

TOP **26**
QS WORLD UNIVERSITY RANKINGS
TOP 50 UNDER 50
2016

TOP **136**
THE ECONOMICS & BUSINESS RANKINGS
2017

Registration for Postgraduate Programmes

via online <http://guest.ukm.my/>

Course work mode / mixed mode

- Open twice a year
- October-November (February Intake)
- April-May (September Intake)

Research mode

- Open throughout the year

Centre for Corporate Communications

Universiti Kebangsaan Malaysia
43600 UKM Bangi, Selangor Darul Ehsan, Malaysia
☎ +603 8921 5540/3370/4142 📠 +603 8921 4097

✉ pkk@ukm.edu.my
📘 UKMOfficial
🐦 ukm_my
📷 ukminsta
📺 ukmtubes

