

RESONANCE

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Happy Anniversary
UKM

50 *Years*
of Glory
(1970-2020)





EDITORIAL TEAM

Chief Editor
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Executive Editor
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Wan Noor Hayati Wan Ismail

Journalist
Asmahanim Amir

Publication Support
Mohd Noor Ramly

Designer
Sharmiza Zan

Photographer
Centre for Corporate Communications
Photo Unit

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

RESONANCE

Editorial Team

2019 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!



Message from the Vice-Chancellor

PROF. IR. DR. MOHD HAMDI ABD SHUKOR

When I set foot in UKM as the VC exactly a year ago, I have to admit that the feeling of being lonely and alien in a completely new place was so prevalent and dominating. Nevertheless, I welcomed the challenge, marshalled on my previous experiences, and am thankful that there are many opportunities to learn many new things.

My very initial move was to seek first to understand, and then to be understood. Massive engagement programmes were crucial within the first 100 days. I needed to talk to and seek the views of many academic colleagues of UKM. I came to understand the UKM system and culture very well. Knowing where UKM is and where it inspires to be, the achievement gap was established. This eventually became the basis for the formulation of the strategic plan 2019-2021.

Clarity of direction is paramount in an academic institution like UKM. Hence, the 'Bicara Perdana 2019' presented a vision of the 'House of Quality (HoQ)' where important elements are focused on within the strategic plan. Research, academic, internationalization, talent and income generation, are the foundations upon which we will concentrate our efforts and resources.

In order to encourage Warga UKM to strive for the HoQ, incentives are given where appropriate. Majority of Warga UKM has geared themselves, in terms of thinking and efforts, towards the new direction. Confidence level has boosted largely due to the sporadic success unattainable before. As always the case, 'success breeds more successes'. We are on track in building the 'High Performance Culture' mode in UKM.

Nonetheless, we need to put ourselves in a higher gear in order to move faster. The whole world is moving at a much faster rate and we don't want to be left behind.

Therefore, the year 2020 will be a crucial year for us. Apart from UKM celebrating her Golden Jubilee, we need to align the entire university to achieve the strategic plan.

I envision UKM to be a great 'World Class University' with academics that are internationally renowned and respected. The officers and support staff are of the highest quality and highly efficient. UKM becomes the university that attracts top notch students to get their degrees.

Let us make the year 2020 as a remarkable year in our history. We can make a difference. Here's wishing all of you a very Happy New Year.

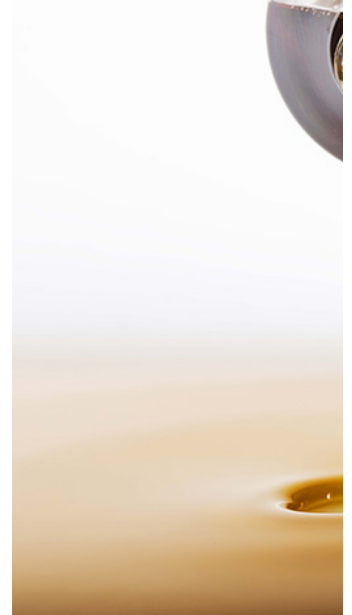
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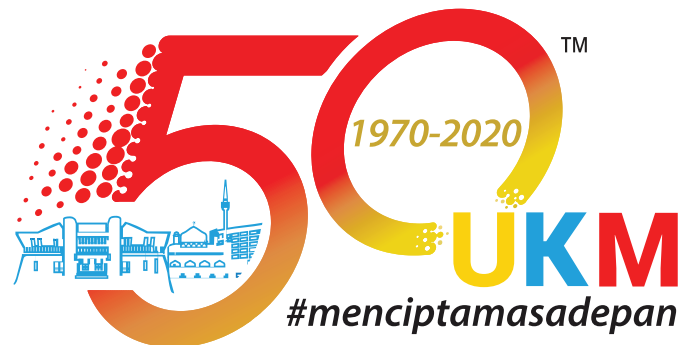


UKM Launched Special 'UKM' Vehicle Plate



UKM launched a special 'UKM' vehicle registration numbers to commemorate the university's 50th anniversary next year. The launch is also to take up the ministry suggestion to generate income for the university development.

UKM is the first university in the country to receive approval from Road Transport Department (JPJ) to offer the special plate number which begins with the alphabet UKM. The plate number is offered to all Malaysians especially to those alumni or anyone who has memories associated to UKM. This is as a platform for the public to contribute to UKM.



An online bidding platform known as Ubida is developed by the UKM's Chancellor Foundation and Information Technology Centre to make sure an efficient process that goes in line with JPJ regulations. For now, public can reach the



system at ubida.ukm.my. The UKM special vehicle license plate is a limited release and will only be for sale within three years of bidding starting on January 8, 2020. The special plate number will be from UKM 1 to UKM 9999. UKM also offers the Ubida online system to other public universities to ease the bidding process of the vehicle registration numbers.

As the sale of the plate number is one of the university's income generation, it is certain that the income obtained will be channelled to the betterment of the university research development, in which will assist UKM in achieving excellence in the research work conducted.





Good Governance is the Best Medicine for Developed Countries – Dr. Jomo Kwame Sundaram

Good governance is considered as a miracle cure that can solve the problems and challenges of today's development, said the Senior Advisor Khazanah Research Institute (KRI), Dr. Jomo Kwame Sundaram.

He said, a sufficient governance approach to development is a more pragmatic and realistic approach that needs to be utilized.

"The Washington consensus shares the view that good governance can solve market failure.

"Two aspects of a good governance approach are to avoid the politics of labor and the bureaucrats in public administration and the economics of technocratic power should be given to those who care about national interest," he said while delivering the 4th Chancellor Tuanku Muhriz's Lecture at the Dewan Canselor Tun Abdul Razak (DECTAR), Universiti Kebangsaan Malaysia (UKM).

He added that the example of good governance was emphasized by the Washington Consensus for developed countries where existing governments are very different in developing countries.

Moreover, the World Bank and The Organization for Economic Cooperation do not consider the history and the real situation as they assumed that developed countries has advanced governments and vice versa.

"It is important that we take into account the context and the surrounding of a government so that we can understand what is lacking in the country and the governance is considered good governance if it is free from any form of corruption", he said.

"With that I hope it can reassure the audience that it is important for us to think about governance, not just imitate the examples provided by others but we must think of a governance that can fit the context and challenges that we are facing," he said.

Dr. Jomo Kwame Sundaram who is also a member of the Economic Advisory Council, has authored and edited over 100 books and has translated 12 books. He also wrote a variety of scholarly articles that includes media writing.

The 4th Chancellor's Tuanku Muhriz Lecture was attended by the Chancellor of UKM, His Royal Highness Yang di-Pertuan Besar Negeri Sembilan Darul Khusus, Tuanku Muhriz Ibni Almarhum Tuanku Munawir and followed by Her Royal Highness Tunku Ampuan Besar Negeri Sembilan Darul Khusus, Tuanku Aishah Rohani binti Almarhum Tengku Besar Mahmud.

Also present were UKM Chairman, Tan Sri Abdul Wahid Omar, UKM Vice-Chancellor, Prof Ir Dr Mohd Hamdi Abd Shukor, Deputy Vice-Chancellors, Dean of the Faculty, University senior officials and other invitees.



UKM- RCSEd New International Strategies to Support Surgeons and Dentists





Due to the worrying shortage of surgeons in Malaysia, higher education demands for surgical services is arising. RCSEd seeks to encourage junior doctors and medical students in their clinical years to pursue their career in surgery and to review the available options through this new international strategy.

The strategy includes education, training and examinations to advocate the highest standard of surgical and dental care in its safety practices. The establishment of ASSC (Advance Surgical Skills Centre) is regarded as one of the most comprehensive and versatile surgical training centres in Malaysia.



The Vice-Chancellor of UKM, Prof. Ir. Dr. Mohd Hamdi Abd Shukor said UKM has always committed in giving its support. "We have always recognised the importance of proper training and education."

Regarding this new international strategy, UKM and the Royal College of Surgeons of Edinburgh (RCSEd) have launched a new international strategy to support and enhance the skills of surgeons and dentists worldwide with establishment of Advance Surgical Skills Centre (ASSC).

ASSC has conducted almost 1,000 courses such as life surgeries, cadaveric course, examinations, and conferences which benefit not only doctors in Malaysia but also its neighbouring countries.



Malaysia to keep its Palm Industry Sustainable and Eco-Friendly

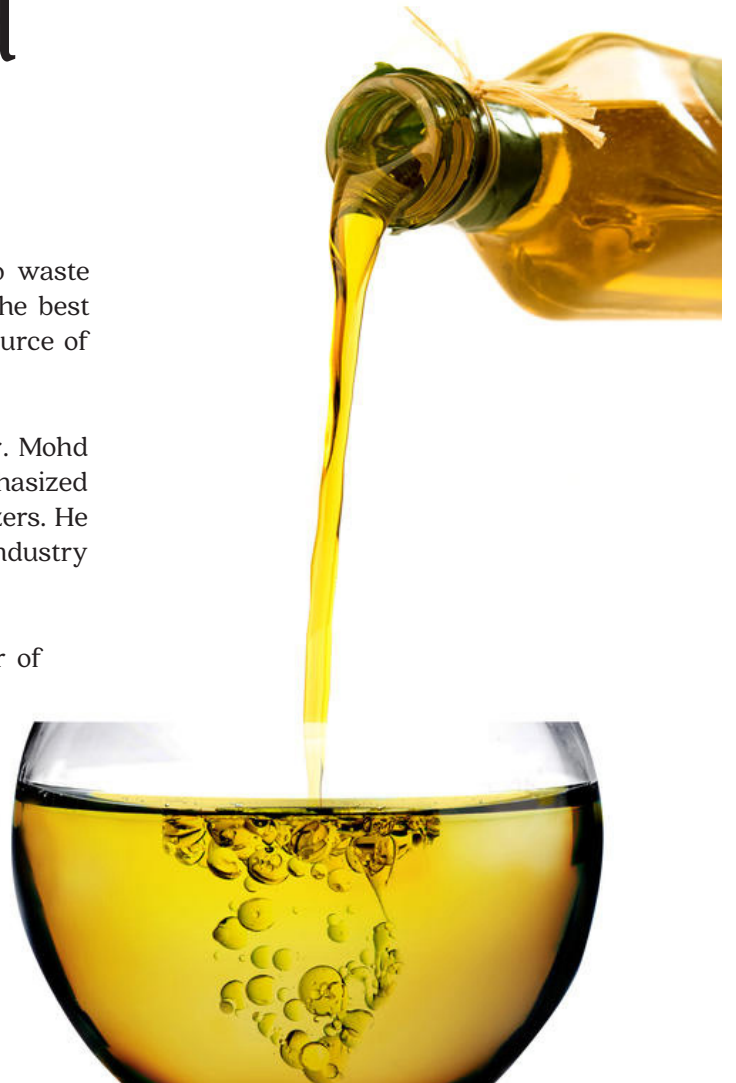
Malaysian palm oil industry will be getting its first zero waste concept soon. The project is said not only to be one of the best models of its kind, but also has the potential as a new source of energy.

Citing oil palm empty fruit bunch as example, Prof. Ir. Dr. Mohd Sobri Takriff from UKM who leads the research emphasized that the waste can be recycled and used as organic fertilizers. He further said that this will help to keep the local palm oil industry eco-friendly as well.

Prof. Ir. Dr. Mohd Sobri Takriff who is also the Co-Chair of UKM-YSD Sustainable Development Chair: Zero Waste Technology described that the pilot project does not only serve its research mission but also can increase the country's oil palm future productivity and sustainability.

Practitioners in the palm oil industry may contact him via email sobritakriff@ukm.edu.my.

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UKM Researcher Establish Airborne IoT Network to Monitor Rural Water Quality

Currently, establishing a reliable wireless communication link in the Tasik Chini biosphere is becoming extremely difficult as a result of tall and thick vegetation with challenging hilly terrain profiles. Invariably, this has hampered the scientists at Pusat Penyelidikan Tasik Chini (PPTC) from performing their duties with ease.

To find the solution, a research team from UKM, in collaboration with the National Institute of Information and Communications Technology (NICT) Japan and Mimos Bhd. has come out with an innovative wireless communication platform, known as Airborne Internet of Things Network (AIN). AIN is expected to automate the water quality monitoring practices of a UNESCO biosphere reserved water basin, in Tasik Chini, Pahang.

Led by Assoc. Prof. Dr Rosdiadee Nordin, the innovation will monitor water quality parameters, such as pH, dissolved oxygen, turbidity, temperature and depth.

Assoc. Prof. Dr Rosdiadee said the project consists of a low altitude airborne platform,

the latest wireless Machine-to-Machine (M2M) networks, sensors technologies and big data analytic enablement platform.

“The combination of low altitude object and narrowband spectrum from wireless M2M communications will allow better coverage due to better propagation characteristic at lower frequency band as well as the elevated airborne platform and thus, provide reliable wireless communications link in a rural area, such as the one at Tasik Chini,” he said.

To ensure its sustainability, the sensors were powered by traditional batteries and solar energy. The “balloon platform” is a superior alternative for remote sensing of water quality compared with a permanent communications tower.

He said, AIN is a more affordable solution. Aside from that, its balloon system is flexible and practical as it could be deployed anywhere and its sampling points were scattered across the lake.

UKM Young Researcher Build Fermentation Technology to Produce Beverage from Matured Coconut Water



For a long time, fresh coconut water has always been known for its multiple benefits apart from its juicy and sweet refreshing taste all over the world.

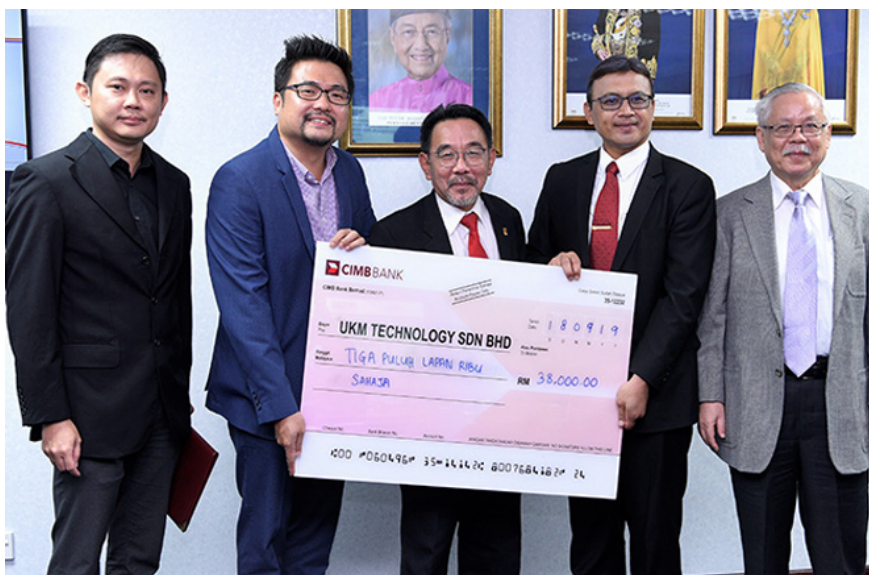
Turbidity in coconut water, however has limited its potential to penetrate a wider market. Therefore, Linaco Resources Sdn. Bhd. (Linaco) has collaborated with a research team from the Faculty of Science and Technology UKM to make a product more marketable.

Led by Dr. Lim Seng Joe, the team used fermented yeast and bacteria through series of trials in order to prove the consistency and viability of the product. Based on the prototype secured, Linaco being the largest producer of coconut based products had decided to bring the research to the forefront.

The fermentation technology used by the research team had upgraded the uncommercial turbid beverage from local consumption drink to the global market, to quench everyone's thirst.

This leads to the signing of TLA which further strengthen the collaboration between UKM and Linaco and the UKM team main responsibility is to advise Linaco on the technological aspects of

the product as well as to scale up its production capacity. For future undertakings, Linaco currently planning to penetrate market in China and Europe, which leads the pathway for the researchers to further enhance this product.



The fruitful project is now being celebrated by other team members like Dr. Shazrul Fazry Sa'ariwijaya, Prof. Dr. Wan Aida Wan Mustapha and Dr. Babul Airianah Othman, who started the research a year ago.



UKM Research Team Produced a Prototype of Fire-resistant Concrete Tunnel Lining

What happen if an accident occurred in a tunnel and create a fire explosion? Will the tunnel structure be damaged and caused further harm to the commuters in the tunnel? How can the impact of the explosion be minimised? These are some questions extended by the research team from Smart and Sustainable Township Research Centre (SUTRA), Faculty of Engineering and Built Environment (FKAB) when conducting the research work on fire-resistant concrete tunnel lining. Preliminary work done by the team had discovered that most tunnels established in Malaysia are not designed to resist tunnel fire load resulting in infrastructure damage to the tunnels.

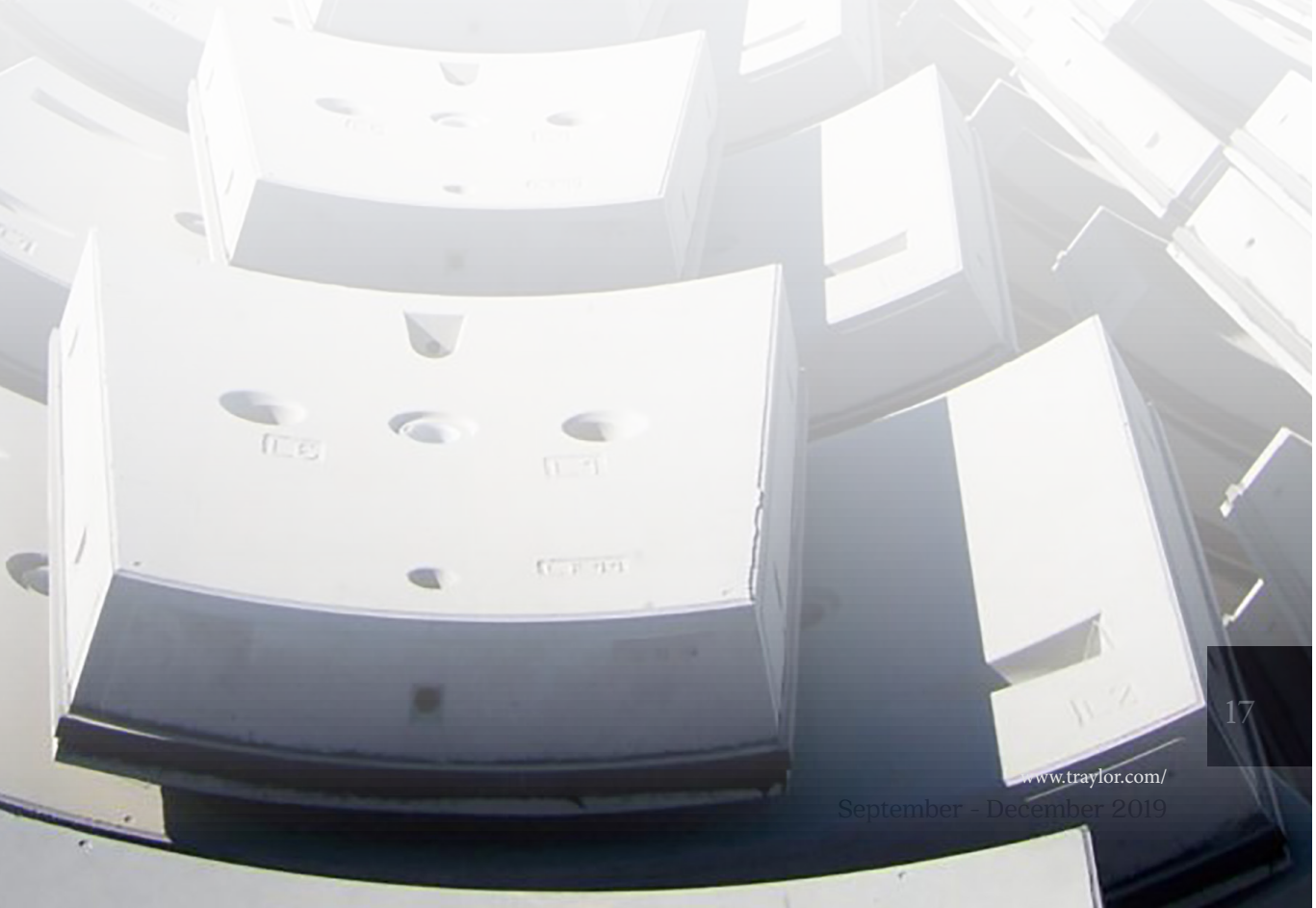
The team led by Assoc. Prof. Dr. Roszilah Hamid has produced a prototype of fire-resistant concrete tunnel lining. The UKM patented sustainable concrete mix design proportion is resistant to the actual fire temperature inside a tunnel.



An experimental setup of two tunnel rings to scale, with one being the prototype of UKM patented concrete mix lining and the other, lining segments from current tunnel construction, was designed to simulate actual temperature of tunnel fire. Previously, UKM has entered into an agreement with SPC Industries Sdn. Bhd. to manufacture the prototype of the tunnel segments. The tunnel fire test was conducted jointly with Fire Research Centre (PUSPEK), Fire and Rescue Department of Malaysia (JBPM).

“The result showed that the UKM patented concrete mix lining cover remained intact, while the later was severely damaged, the concrete cover had spalled and the reinforcing steels were exposed,” she said.

As stated by Assoc. Prof. Dr. Roszilah, the patented concrete mix can withstand the intense heat of tunnel fire, therefore the tunnel developers are hoped to use the passive protective materials for the tunnel lining especially in the future tunnel development.





UKM Awarded Honorary Doctorate in Global Peace and Sustainable Development to Ban Ki-moon

Former Secretary General of the United Nation, Ban Ki-moon, received the Honorary Doctorate in Global Peace and Sustainable Development from UKM on its 47th Convocation Ceremony. UKM is the first university in this country to honour and appreciate the dedication and continuing contributions of this global diplomat towards the world sustainable matters.



H.E Ban Ki-moon is well known as an individual who has analytical clarity, humility and perseverance. Throughout his career, he served in various countries, including India as a Vice Consul. While in Korea, he served as Director of the UN Division, Director of the United Nations' International Organizations and Treaties Bureau.

Due to his vast experience on sustainable development, he was recently appointed as a Chairman for the National Council on Climate and Air Quality by the Korean government. His main initiative is to put climate change as a global agenda at the Climate Change Summit. One of his task is also to focus on sustainable development issues like poverty, quality of life, and the empowerment of women and youth.

In his speech on the conferment of the Honorary Doctorate, he emphasized on the future sustainability. "I have maintained a focus on people's dignity and rights, the pillars of our common humanity, sought to stand up for the vulnerable and those left behind today. I have tried to be sure that we are doing all we can so that future generations can live in peace."

ASEAN Youth Camped in Outback of Gua Musang

More than 200 people, including Government agencies and Non-Governmental Organisation (NGO) such as Royal Malaysia Police (RMP), Fire and Rescue Department of Malaysia (FRDM), Ministry of Health (MoH), Department of Indigenous Development (JAKOA), National Registration Department (NRD) and Rescue Adventure Team (RAT 4x4) with the ASEAN youth volunteer was camped in Pos Gob, the Orang Asli (indigenous) village.

The ASEAN Youth Volunteer Programme (AYVP) Malaysia 2019 was held for five days, with the theme Poverty Eradication.

Director of University Community Transformation Centre (UCTC) UKM, Prof. Datuk Dr. Rokiah Omar said the exceptional feature of this programme is it involves volunteers and the Orang Asli community living in Pos Gob, an area which is very remote in Kelantan.

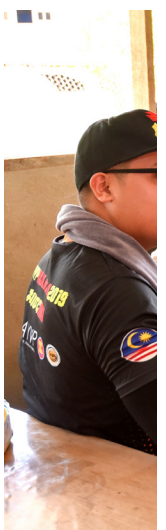
“Our focus is to give education to indigenous kids besides focusing on environmental sustainability and basic facilities through the edu tourism activities.

“This is the specialities that we give to the community (Orang Asli) to learn and feel the

experience receiving guests so that they can conduct tourism activities to increase their income because in the area (Pos Gob) there are too many natural resource assets such as waterfalls, river flora and fauna and so on, which they can use to add their income,” she said at the launch of 70 four-wheel drive (4x4) convoy to Post Gob for AYVP here, recently.

She said AYVP is one of the ways to teach and educate the Orang Asli community to receive the guest and manage the inap house through the audio tourism activities.

To date the Orang Asli Pos Gob has built 19 inap houses and one big hall with the help of UKM funds raised from CIMB Islamic donations.



“We hope with this exposure, Orang Asli community and AYVP volunteer can learn how to appreciate the environment because we need to save it for the future.

“We are trying to make it more sustainable (environment), therefore the new technologies such as solar panel is used. We are also in the process to discuss with various government and private agencies to improve the existing facilities because there is no electricity, water is directly from the river,” she explained.



Prof. Datuk Dr. Rokiah hopes that all the volunteers will gain useful knowledge and skills throughout the program and will also be able to implement other community projects after returning to their respective countries.

She also thanked all the agencies involved in the AYVP Malaysia 2019.

For the duration of stay at the Pos Gob, all the volunteers underwent various activities such as asset mapping, build the package of edu tourism, jungle tracking, ASEAN Cultural Night

and also Excellent Student Awards Night from the UKM-CIMB Islamic Community Education Centre.

AYVP Malaysia 2019 has gathered 49 ASEAN youth from 10 ASEAN countries such as Malaysia, Thailand, Indonesia, Philippine, Singapore, Brunei, Cambodia, Myanmar, Laos and Vietnam and this programme has been going on 27 days starting from August 1st, that involved activities around Kuala Lumpur, Selangor and Kelantan.



UKM Students Received Scholarship from Celcom XPAX

Amin Jaafar (Faculty of Education), Ahmad Nur Faid Afiz Aziz (Faculty of Law), Muhammad Aiman Ezan (Faculty of Social Sciences and Humanities) and Anas Azfar Ab Karim (FKAB) won RM50,000 scholarship for being the first runner up in the competition.

This competition was organized by Celcom XPAX in the XPAX E-sport Campus Tournament Season 2. UKM was being represented by two teams; The Ultra Instinct Team won the Mobile

Legends: Bang Bang for two consecutive semesters and Madness Esports won the PUBG Mobile tournament category.

The Deputy Vice-Chancellor Industry and Community Partnership, Prof. Dato' Dr. Imran Ho Abdullah applauded the victory as these students did not only perform in the competition but also in their academic results. He also added that the scholarship will motivate them to contribute more to the University and at

the same time will add value to their personal curricular vitae.

"I believe students should be smart and be able to manage their time regardless any types of sports they choose to play. Although the sport is e-sport, they show that specific skills are required and the students proved that they are able to acquire the skills," he said.

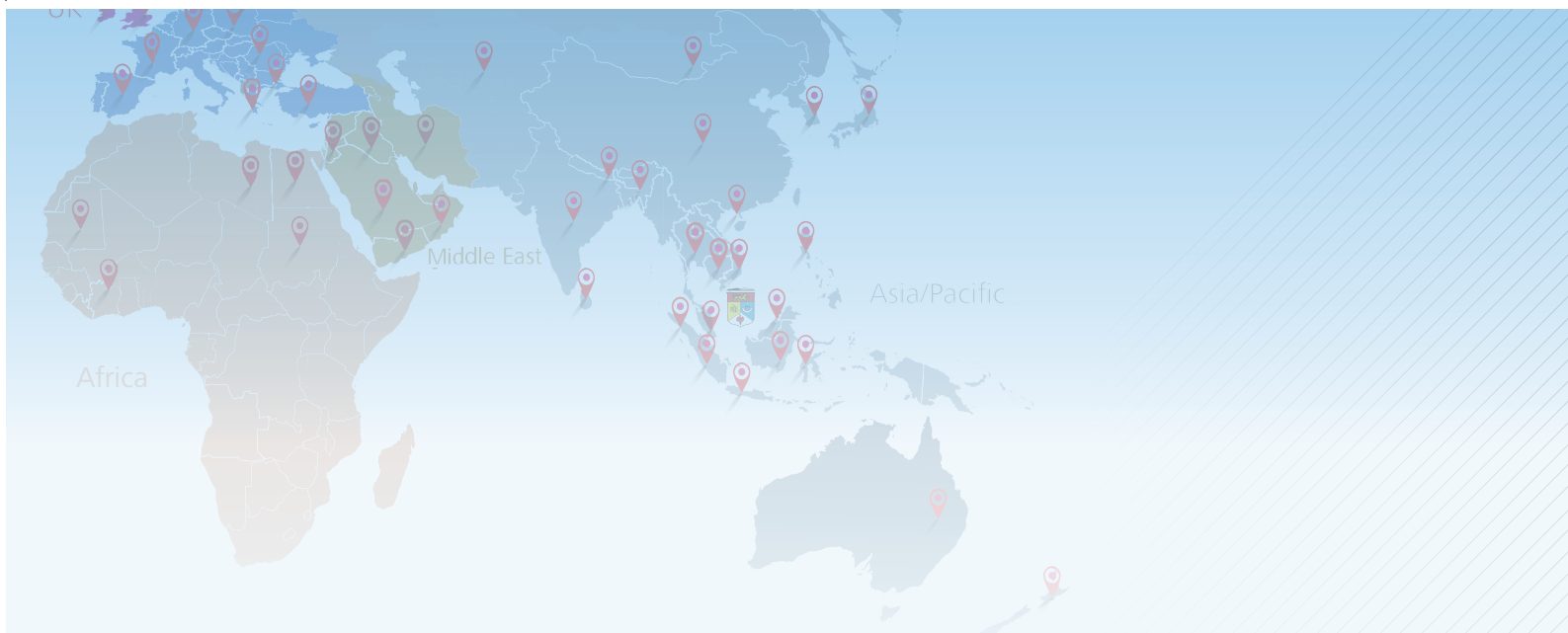
The winning team is expected to inspire other students to take part in any competitions that help them to enhance the competency and at the same time representing the University.



UKM students had once again proved their talent in winning a championship Mobile Legends: Bang Bang and PUBG Mobile competition which was held at the end of November 2019.

The winners, Ashif Halaj from the Faculty of Engineering and Built Environment (FKAB), Nik Nazrin Shahzan Nik Adlin Fariz, Muhammad Hazirie Abdul Rahim, Muhammad Aiman Ahmad Ansary and Azirool Fareed Sunder from the Faculty of Information Science and Technology in Ultra Instinct Team, and Madness Esports which was represented by Muhammad Amirul





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

- ✉ pkk@ukm.edu.my
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