The UMP Edge 1/2020

The UMP E

Universiti Malaysia Pahang University Ranking Newsletter

UMP Receives RM157,800 from UMW To

Universiti Malaysia Pahang (UMP) received RM157,800 from UMW Toyota Motor through UMP Foundation will commence this April, involving more than 1,000 school students nationwide.

The current rapid development of information and technology requires the students to be knowledgeable science, technology, engineering and mathematics (STEM), and master the 21st-century skills such as c and creative thinking.

According to the Deputy Vice-Chancellor (Student Affairs & Alumni), Professor Dato' Dr. Yuserrie Zainuddi Foundation, it is UMP's priority to help improve the community well being and socioeconomic through aspiration of UMP to realise the agenda of communitising technology for the benefits of the local community

"The collaboration between UMP and UMW Toyota Motor in Ninja Project@UMP STEM lab will attract robotics and digital technology.

“It also involves UMP students as facilitators, teachers and lecturers in empowering STEM,” he said
Ceremony from Toyota Classic UMW Toyota Motor to UMP in conjunction with the kick-off of Ninja Proj
Chancellery, UMP Pekan on 7 January 2019.

Speaking about UMP Foundation, he added that since January 2020, MyGift UMP was rebranded to My
Foundation, to collect and manage funds from the public, companies and institutions for the welfare of UMP

“It includes funding for educational and community programmes and provides learning facilities for UMP stu

“By 2025, UMP Foundation targets to support 7,000 UMP students from families in the B40 group and exce
university,” he said.

The President of UMW Toyota Motor, Ravindran K, presented the mock cheque, with the presence of
Shamsor Mohd. Zain and the General Manager of Marketing Division, Richi Lim.

Also in attendance were the Deputy Vice-Chancellor (Academic & International), Professor Ts. Dr. Mohd F
Community Network Centre (ICoN), Associate Professor Ir. Dr. Nurul Hazlina Noordin.

Meanwhile, Ravindran said that the collaboration with the Ministry of Education in Eco Youth Program sin
schools have been successful in organising environmental awareness programmes.

“Toyota Dream Art Contest which was introduced seven years ago, managed to inspire 9,000 students to
drawings.

“Toyota, as the sponsorship partner, also introduced a new initiative Toyota Outrun in conjunction with To
raised RM150,000, to be donated to Paralympic Council of Malaysia.

“Through the organisation of the Toyota Classic Concert, we managed to raise a total of RM9.4 million fr
which has benefited more than 72 organisations related to environmental care and young people of this cou

“Beside UMP, Sabah Wetland Conservation Society Malaysia also received a donation from UMW Toyota M

**credit to Pekan Review*

PhyMill is Created to Aid Therapists and Paed
Undergo Physiotherapy Treatme

The sympathy towards children who face difficulties in controlling their bodies' position and activation d
better known as cerebral palsy, inspired a group of Universiti Malaysia Pahang (UMP) researchers to deve
aid patients in training their walking movements.

According to the project leader, who is also a lecturer at the Faculty of Mechanical and Automotive Engine
Hisham Mohd Adib, PhyMill is an automatic exercise device to train walking movements for patients underg

"PhyMill is also designed specially to help therapists rehabilitate patients during physiotherapy sessions,
extremities or lower body parts.

"Until now, most rehab products require care and management by the therapists.

"The existing rehab devices are also manual, with most of them obtained from overseas at incredibly high p

“The development of this product was achieved with help and advice from a physiotherapy expert in Kuant
Narimah Daud.

“The fusion of ideas between physiotherapy experts and researchers greatly simplified the creation of Phy
to fulfil the patients’ needs,” he said in the PhyMill handing-over ceremony for use by the centre on the 17 J

He further added that its small size allows portability according to the patient’s needs and requirements.

“PhyMill has three modes of usage; the first mode can control the patient's movements walking forwards an

“This movement is controlled fully automatically simply by pressing the allocated button. Speed control is a
the speed according to the rehabilitation level specified by the therapist.

“Meanwhile, the second mode is the automatic height adjustment. PhyMill lets patients set the level of the h

“The third more is a special screen to catch the patients’ attention and to avoid boredom while undergoing a

“PhyMill can also be used by children as young as 4–7 years old and can support up to 30 kg,” he said.

He hopes that this product can be a pioneer in the field of medical rehabilitation in Malaysia, aside from
reaching their goal towards ‘zero lifelong treatment’ for all patients.

As a researcher, there are plans to improve the current prototype, especially from an aesthetic and function

“By adding a few more specialised functions such as remote control and illuminating the patient’s legs, w
towards patients’ active movement treatment.

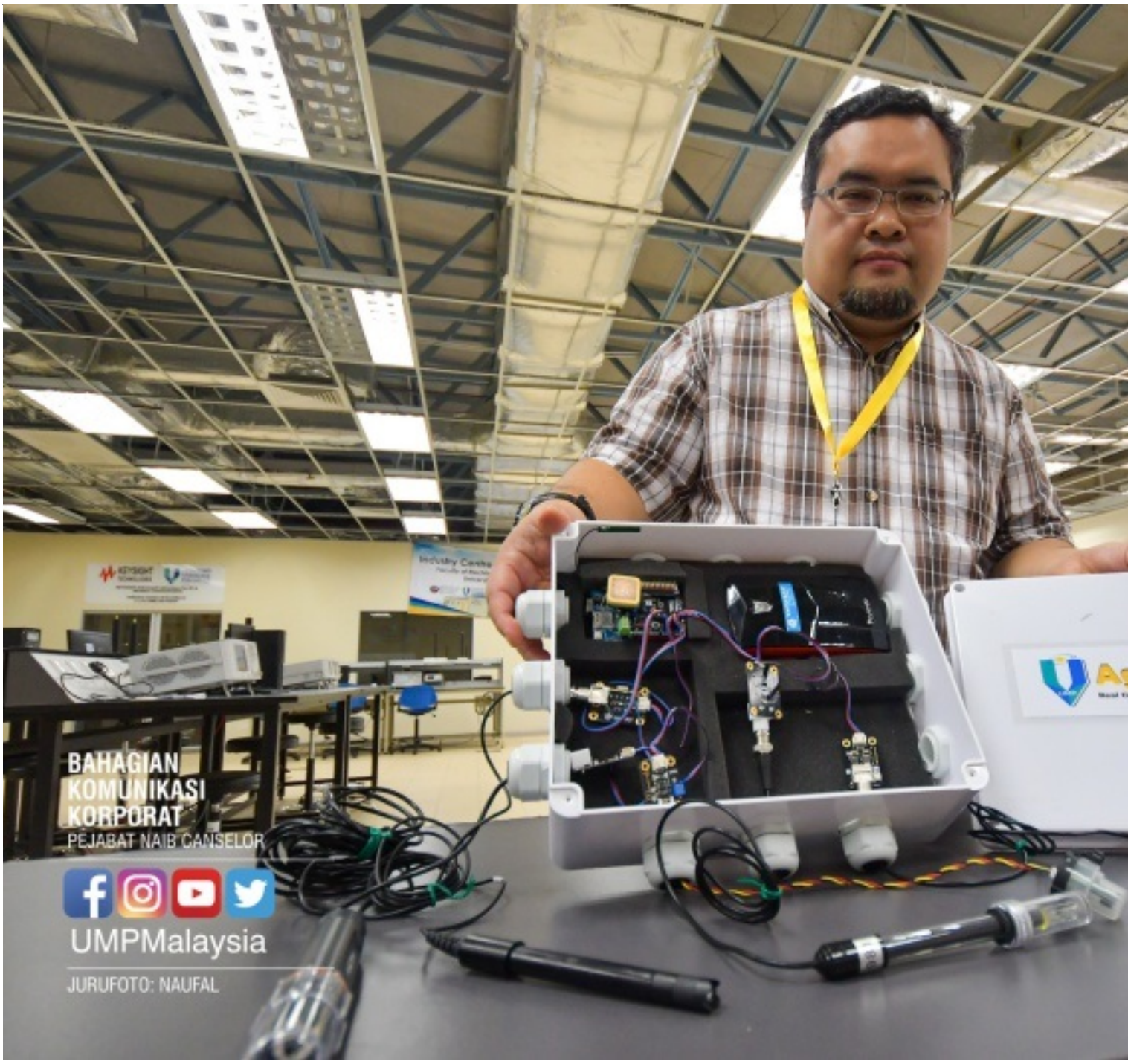
“I also intend to commercialise this product to make it more accessible for paediatric physiotherapy experts
“However, cooperation from the industry or either government or private institutions is very much nee
centres,” he said.

This product has received recognitions at research displays, winning a silver medal at the Creation, Innc
(CITREX 2019) and also in the International Festival of Innovation in Green Technology (i-FINOG 2019).

PhyMill was developed fully by Tim Rehab under the Human Engineering Group (HEG) from the Faculty
Technology, assisted by Dr. Nurul Shahida Shalahim, Idris Mat Sahat, Dr. Zakri Ghazalli, Dr. Muham
Integrated Design Project (IDP), namely Afiq Ikmal Zahir, Ahmad Hijran Nasaruddin, Muhammad Shazzuan

**credit to Pekan Review*

AGRISOFT to Boost Production for Farmers



Concern with problems often faced by farmers or breeders in monitoring and regulating their crops or liv
Pahang (UMP) researcher to come up with a system called IoT-Enabled Farmer Digital Expert System @ A

The system is developed to help overcome losses due to damages in crops or livestock caused by ecologi
earlier.

According to Lead Researcher and Director of Industrial Centre of Excellence (ICoE) for Electrical and El
Dr. Fahmi Samsuri, he came up with the idea after seeing most farmers and breeders in Malaysia still rel
based system, when working on their land or breeding livestock.

“This can cause them to incur high losses unless the ecological factors can be identified sooner with preve
thus saving their yields and harvests which can be sold to customers.

“By using modern technology, it can help increase their production and reduce dependency on manual labo

“For example, in Europe and the USA, modern technology have been used in the agriculture and lives among the world’s biggest crop and aquaculture producers,” he said.

On AGRISOFT, Professor Ir. Ts. Dr. Fahmi explained that readings related to the ecological elements suc soil or water, oxygen concentration, the murkiness of the water, electrical conductivity of the water and a water could be obtained from sensors installed in the system.

“After the readings are obtained, the system will record the data and make recommendations on the overcome problems arising from changes that occur in the parameters.

“For example, the suitable pH range for planting crops is between pH level 6 and 8, and the reading showe

“The system will then send the information to the user through telephone with suggestions on the right mea level to the precise level by increasing fertilisers containing sulphur, iron and aluminium into the soil,” he sa

He added that the system demonstrated the most suitable way in assisting farmers or breeders to grow palm trees and modern crops planted using the hydroponic method.

It was also suitable for rearing fish or prawns in cages, he said.

“The system operates by collecting data from sensors placed around the area where crops are planted or be taken by the minute or on hourly and daily basis, depending on the condition or needs of the crops or liv

“If something happens, the sensor will detect the changes and send a warning signal to the main contro wired or wireless broadband connections.

“The main control computer system will then process the information, send messages and recommend system or SMS in mobile phones.

“All the communications are made through the Internet and this will allow the user to get notifications from a

Professor Ir. Ts. Dr. Fahmi also said research on the system began in 2015 and was developed in stages v year while the second stage was completed in 2019.

“Works are now being conducted to complete the third stage of the research,” he added.

Professor Ir. Ts. Dr. Fahmi said he planned to develop a holistic system that combined wireless Internet tec

The third level of the research involves developing an online application system (mobile apps) and users ca livestock by using the mobile apps installed in their mobile phones.

All the data and information are stored in the iCloud database which is accessible from any location and a and controlled at the touch at the fingertips.

The Perak-born researcher planned to expand the system in other industries such as in rearing of dairy ani

He hoped that the system could be developed to help small-time farmers and breeders to optimise their p technology.

Professor Ir. Ts. Dr. Fahmi also expressed his gratitude for the cooperation and support from UMP

Evaluation Fund/Lab2Market Seed Fund for the research grant he received amounting to RM80,000.

For those who are interested in having the system, a complete set cost between RM1,500 to RM3,000 - number of sensors required.

AGRISOFT has won medals and received credits in various national and international conferences and Creation, Innovation, Technology and Research Exposition (CITREX) in 2016 and 2019, a gold medal a 2016, a silver medal at the Institute of Higher Learning Invention Expo and Conference (PECIPTA) 20 Invention, Innovation and Technology Exhibition (ITEX 2019).

**credit to Pekan Review*

Strategic Collaboration Between UMP and Agri Development Qatar in Agricultural Product

Universiti Malaysia Pahang (UMP) has ratified strategic cooperative ties with Agrico for Agricultural Develop agricultural systems and greenhouse-grown produce in Doha, Qatar on January 20, 2020 in Kuala Lumpur.

UMP will work together with Agrico in research, product development, commercialisation, and expertise e utilised in Agrico's greenhouses in Doha, Qatar.

Signing the Memorandum of Understanding (MoU) were the Vice-Chancellor of UMP, Professor Ir. Dr. International Project Development, Agrico Agricultural Development, Qatar, Ahmed Hussain Al-Khalaf, w Directors of UMP, Dato' Sri Ibrahim Ahmad, Ambassador of Qatar in Malaysia, H.E Fahad Mohammed Ka for Governance, Integrity & Anti-Corruption, Prime Minister's Department, Tan Sri Abu Kassim Mohame Dato' Ishak Md. Napis.

According to Professor Ir. Dr. Wan Azhar, UMP welcomes this strategic cooperation with Agrico and hop sharing expertise to meet industry needs in the future, not only within the country but also at an internationa

“This cooperative bond will certainly elevate UMP’s credibility in leading high-level Technical and V programmes.

“Besides the new formulation that will be developed, this collaboration will involve the exploration of new organic liquid fertiliser with prebiotics named Pre-Pecto, at a large scale. This product has been used by Ag been outstanding.

“I am highly proud of the results and efforts which have been and currently are being achieved by UMP res Siti Hajar Noor Shaarani who are involved in this cooperation.

“I hope for many more researchers at UMP will strive to explore further opportunities to cooperate with oth Islamic countries worldwide,” he said.

Meanwhile, Ahmed Hussain Al-Khalaf said the joining efforts to bring about the first collaboration between of agricultural technology, with the hopes to establish a sustainable, consistent and quality production of foo

This initiative shall respond to the need to increase bilateral trade and investment cooperation between the

UMP is an established and competency-based technical university that specialises in the fields of enginee enhance and strengthen its international linkage.

The university has taken various initiatives to add to its educational excellence and has entered int respectable parties to enrich its academic and research activities.

**credit to Pekan Review*

Iwate University Global Fellow Award Recog

The collaboration between Universiti Malaysia Pahang (UMP) and Iwate University (IU) Japan since 2009 exchange and mobility programmes involving students and staff has benefited both sides.

To strengthen the bilateral relations of both institutions, IU has granted the Iwate University Global Fe Mashitah Mohd Yusoff, from the Faculty of Industrial Sciences and Technology (FIST), who passed away o

During her service at the university, she was trusted as the Deputy Vice-Chancellor (Research and Innova Affairs and Quality) and several management positions as well as contributed to the development of resea chemical and bioprocess engineering.

The ceremony witnessed the Vice-Chancellor of UMP, Professor Ir. Dr. Wan Azhar Wan Yusoff received Iwabuchi, in conjunction with the official visit of IU delegates on 4 February 2020.

According to Professor Ir. Dr. Wan Azhar, this recognition is meaningful for the university, and the entire u

the passing of the late Professor Dato' Dr. Mashitah who contributed a lot to the development of research in

"UMP as one of the technical universities in Malaysia is delighted with the recognition that contributes to innovation, as well as social relation," he said.

Meanwhile, Akira Iwabuchi said that this award was granted as the recognition to the staff who have con being active in research at the international level.

"This award should be presented at the Iwate University's 70th Anniversary celebration in November 20 unavailable due to health problems," he said.

He added that Professor Dato' Dr. Mashitah is the 9th of 10 recipients ever awarded by IU.
Besides, he expects more opportunities for collaboration in the future from the close relationship between U

The close relationship is portrayed from the joint organisation of Asian Education and Research Consorti that involved UMP, Iwate University (Japan), Hanbat National University (South Korea) and Dalian Univers in the engineering field.

Also present were the Deputy Vice-Chancellor (Research and Innovation), Professor Dr. Kamal Zuhairi Za & International), Professor Ts. Dr. Mohd. Rosli Hainin and the Director of Centre for International R Department, Dr. Mohd Azmir Mohd. Azhari.

**credit to Pekan Review*

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