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PEKAN REVIEW
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Bridging Universiti Malaysia Pahang to the world community

# UMP contributes 10 thousand pieces of medical gloves to a hos
# China

By: FATIN ZAHIRAH MANSUR, ACADEMIC AND INTERNATIONAL AFFAIRS DEPARTMENT
Edited by: DR. ROZAIMI ABU SAMAH, FACULTY OF CHEMICAL AND PROCESS ENGINEERING TECH

Universiti Malaysia Pahang (UMP) contributed 10 thousand pieces of medical gloves to a hospital at Heb
coronavirus or also known as Covid-19.

The UMP Vice-Chancellor, Professor Ir. Dr. Wan Azhar Wan Yusoff handed over the medical gloves to

China Confucius Institute (CI) UMP, who is also a Professor from Hebei University.

The handover ceremony was held at Confucius Institute UMP Pekan campus on 11 March 2020.

Hebei University is the strategic partner of UMP to collaborate with the Confucius Institute in UMP.

Malaysia is the world's largest manufacturer of medical gloves.

UMP took the initiative to donate medical gloves to a hospital at Hebei University as China is currently facin

UMP hoped to assist China in combatting Covid-19.

"We wish Covid-19 will be under control in China, and all other countries will be free from the virus," he saic

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# Using technology and e-Learning maximise learning ex

Translation by: DR. ROZAIMI ABU SAMAH, FACULTY OF CHEMICAL AND PROCESS ENGINEERING T

Lecturers of Universiti Malaysia Pahang (UMP) activated virtual classroom (e-Learning) for all teaching an
switch was due to the announcement through the Administrative Circular No. 3/2020 issued by the universit

A lecturer from the Faculty of Computing, Ts. Aziman Abdullah, uses online e-Learning mode via UMP Kno
(KALAM) and Google Classroom.

"Google Classroom is more convenient for notifying, giving feedback, and assessing students' work. Mea
accreditation or official university matters," he said.

For instance, he designed the learning activities in the form of preparing proposals.

"Students need to do their work during the session scheduled to complete within the stipulated time without

"Lecturers should use e-Learning technology to maximise the impact of meaningful learning experience am

"Besides, this approach is practical not only during this restricted time such as the threat of an outbreak
sessions," he said.

He added that the biggest challenge in e-Learning is the attitude and mentality of educators who resist char
the existing methods.

Meanwhile, the Deputy Director of the Centre of Instructional Resources and e-Learning (CIReL), who is als
Ts. Dr. Awanis Romli opted for Google Meet for her online class with her students recently.

She was overwhelmed with the encouraging students' feedback that they were happy with the approach
anywhere.

"Furthermore, UMP subscribes G Suites for Education that allows lecturers and students to use all the appl

Similarly, a lecturer from the Faculty of Industrial Management (FIM), Dr. Suhaidah Hussain, said that the le

"This approach helps lecturers and students to continue to learn virtually without interrupting the class sche

"In addition, tutorials and forums can be carried out using KALAM.

"The main challenge was the limited internet coverage in certain areas.  However, it is not an obstacle for
by utilising the current technology," she said.

In accordance with the announcement made by the Prime Minister on 25 March 2020 on the extension of
Control Order and the temporary closure of all Public Higher Education Institutions in Malaysia, Universiti M
its service operations from 18 March to 14 April 2020.

Accordingly, all teaching and learning sessions including online learning, in UMP are suspended during the

UMP will also make amendments to the academic calendar for Semester II, Session 2019/2020 and the de

# UMP volunteers handle Campus Pantry for stude

Edited by: DR. ROZAIMI ABU SAMAH, FACULTY OF CHEMICAL AND PROCESS ENGINEERING TECH

A total of 200 volunteers consisting of 110 volunteers from UMP Gambang Campus and 90 from UM Campus Pantry at both campuses on 13 March 2020.

They were divided into two groups that managed dry foods and daily necessities such as detergent, toc managed wet foods such as vegetables, fruits and fish.

According to the Head of Volunteers, Ikmal Shauqi Burhan, 20, the volunteers were brought to Pasar Be leftover vegetables from the grocers or donors.

“The food supplies will be taken to UMP Mosque for preprocessing before being distributed to the UMP stu

The distribution is done at around 4.00 pm because this the usual time that a few students return from lectu

The volunteers on duty will ensure food such as bread, biscuits and essential items are in good condition a

He and his team thanked UMP for the care and concern for the welfare of students at the university.

Meanwhile, the Deputy Vice-Chancellor (Student Affairs and Alumni), Professor Dato' Dr. Yusserie Zainud
Pantry before the Ministry of Domestic Trade and Consumer Affairs launched Food Bank in UMP.

"UMP Campus Pantry provides wet and dry foods contributed by various agencies, UMP associates, indivic

"At the same time, we also receive donations from UMP Foundation that helps UMP Campus Pantry a lot.

"Until now, a total or 1,500 students have benefited from UMP Campus Pantry, and the number is growing

As we have 60 percent students from the B40 class with less than RM3,000 monthly earning," he said.

He also emphasised that 28 percent of the students come from the families with less than RM1,000 monthl

"So, it really helps ease their burden.

"UMP Campus Pantry is now open in the morning session as well and all the items are all taken by student

"Students who have financial problems and wanted to get food supplies just need to come here and t
provided," he said.

For one of the contributors, Tan Kwai Loon, who is also an alumnus of UMP, every week he contribu
cucumbers, green mustards, water spinach, bitter gourd, chillies and many more.

"The vegetables are the leftover that can still be used and they are local produce at individual farm," he said

The Student Affairs and Alumni Department (JHEPA) will always ensure an adequate supply especially to
students in greater need of food and money during this time.

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## UMP targets 4 strategic objectives towards the best technolog

Universiti Malaysia Pahang (UMP) has laid the foundation in achieving excellence for UMP Strategic objectives, which are (1) producing holistic community-driven graduates through high-level Technical and (2) communitising technology, (3) generating new advanced technologies via research initiatives, and sustainability.

In line with the UMP vision of becoming the best technological university by 2050, the UMP Vice-Chancell emphasised that the university must have the world-class characteristics and most importantly is to have autonomous status.

“With that, we can gather not only students but also lecturers as the world’s first technology specialists.

“It makes UMP well known, and Pekan will be famous someday.

“At that time, UMP is capable of producing highly reputable graduates who are pioneers and sources of r solving, and this is the epitome of a university,” he said while implying the future of a university.

He added, “The university management system is also respected, efficient and effective, as well as enhanc

“Therefore, we have to be smart in finding ways to freely strengthen the financial sustainability of RM5 billio

“UMP has a vision of being the best technological university by 2025 with a target of 90 percent of its lectur

“It can be reflected through reputable and relevant graduates and the service to the global community.”

He also said that UMP currently has over 86 percent of lecturers with PhD and in realising the target by field specialists in inventing new technologies and developing an efficient, effective and respected manage the university.

“This expertise will be referred, and programmes to develop the experts will be built,” he said.

Delivering *Amanat Tahunan Naib Canselor* 2020 on 15 February 2020, Professor Ir. Dr. Wan Azhar sa Education Malaysia (MOE), UMP achieved the highest graduate employability status, where 96 percen months after graduation.

“This target should be maintained in 2025 at a minimum of 90 percent, but the university must scruti graduation.

“The students are not only evaluated academically but also targeted to achieve 80 percent i-CGPA to po from other skills, which include soft skills such as communication and bilingual, as well as a third language.

“In addition, the university aims to focus on volunteerism, sustainability and environmental care, and other c

He added, “We will also measure the student’s ability through the concept of major–minor.
“For example, engineering students are allowed to enrol in courses from other fields such as business psychology, *qiraat al-Quran*, and many more, as we have lecturers with the said expertise.

“These minor programmes allow technical students to talk about the economy, finance, and those that co the expertise of UMP lecturers to develop talents and produce holistic and global students.

“In the meantime, UMP will provide an opportunity for the public to join programmes involving industry and a

In increasing the number of collaborations with international universities especially in Germany and China addition to the partnership with the Karlsruhe University of Applied Science (HsKA) Germany, the collabor Ltd. in Shenyang, China, as well as educational institutions in China allows students to complete two yea another year for industrial training in SIASUN.

According to Professor Ir. Dr. Wan Azhar, UMP is clustered under the Malaysian Technological Universi capabilities of the country through high-level TVET programmes.

“To enable the capability of communitising technology based on sustainable university-community collabo existing technologies.
“The existence of UMP facilitates the community in understanding building design, control systems, robotic system, artificial intelligence, and others.

“The programmes under the Centres of Excellence UMP apply the high-level technology to provide value cr

“In research, UMP will also increase the research ratio to improve UMP technological capabilities throu Scheme (by department) and Technology Made in UMP (TM@UMP) initiative.

“The university will continue to generate advanced technologies for the community through high-impact property and invention of new first technology in the world.

“UMP will also increase the reserve percentage (TDI) and improve reasonable operational efficie sustainability.

“With the tagline Communiting Technology, UMP is committed to providing community-driven educati enterprise ecosystem,” he said.

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# The trend of 3D printing in higher level TVET

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Additive manufacturing is a recent trend in production processes owing to its many benefits around the producing parts through the deposition of material in a layer-by-layer technique. It has been the most searc to Frost and Sullivan, the value of additive manufacturing is expected to grow at a rate of 15 percent from in 2025. The industries that are going to contribute 51 percent by 2025 are aerospace, automotive, and me

The 2015 Wohler report stated that a lot of new technology had been evolved in material production for m with plastics. SmarTech Markets Publishing reported that metal printing machines sales grew a significant manufacturers turn to three-dimensional (3D) printing.

To accommodate the recent trend, UMP collaborates with Qatar University to secure a grant on Qatar N RM3.2 million, and UMP obtained RM160,000 from the award. The main objective of the project was to inv lightweight titanium alloy femoral stems that can be manufactured using direct metal laser sintering (DML graded design was utilised to develop a novel pore cellular structure with compressive properties that are s

A 3D finite element model was developed to study and compare the load transfer to the periprosthetic offering different stiffness configurations. Also, fatigue and static tests were done on the fabricated desig fatigue loadings. Factors affecting the manufacturability and production of the femoral stem through arthroplasty (THA) is a common hip replacement procedure. Due to material stiffness mismatch between t is possible, and many patients had to redo the surgery because of the excruciating pains.

As such, novel material design for the hip femoral stem is needed to reduce material stiffness mismatc manufacturing will give the surgeon the freedom to customize the hip femoral implant based on the pat project is essential to produce a printing implant for the patient. The current trend shows an increase in t completed successfully, and it is a stepping stone for UMP to involve in additive manufacturing. Figure additive manufacturing field. Figure 2 shows one of the successful printed hip femoral implants by ad Pahang (UMP), in collaboration with Kolej Kemahiran Tinggi MARA (KKTM) Kuantan and Qatar University.

Figure 1. Top higher institutions in Malaysia based on the number of projects related to the 3D printi

Figure 2: Successful printed hip femoral implant

The skill and higher level of learning in additive manufacturing can be included in the TVET national agenda for highly skilled workers. The 3D printing products can be imported or used in the internal market. Malay and impart the skill to the young generation. Three critical subjects can be targeted in the higher level TVE types of the 3D printing process, (2) the software used for the interaction with 3D printers, and (2) variety of

Figure 3: Potential subjects of 3D printing processes for higher level TV

A highly trained additive manufacturing workforce will need to be skilled in the following multidisciplinary me

**1. Computer-Aided Design (CAD)**

Computer-aided design (CAD) is the foundation of additive manufacturing because the result from the 3D structure. That is the reason spatial item configuration is one of the most fundamental skills in additive improving a current 3D model.

**2. Design thinking**

Additive manufacturing prints from CAD models by including materials layer by layer. This procedure is assembling, which expels or subtracts material to frame the ideal shape. Additive manufacturing liberates outlook. The layer-based added substance nature takes into consideration the higher degrees of custom significant part of the plan for additive manufacturing is to recognise and exploit the instruments (generative cross-section structures).

**3. Critical thinking and soft skills**

The focus on hands-on technical skills, the overall level of critical thinking, and problem-solving skills in should not be overlooked. Likewise, the value of interpersonal skills such as communication, collabo important for the additive manufacturing workforce.

***The writers are Senior Lecturers at the Faculty of Mechanical & Automotive Engineering Technology***

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