
[VOL. 66 MAR 2020](#)

PEKAN REVIEW

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Bridging Universiti Malaysia Pahang to the world community

CITREX 401 products flourish innovation culture

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

The 10th edition of Creation, Innovation, Technology & Research Exposition (CITREX) 2020 saw Universiti Malaysia Pahang (UMP) encouraging and nurturing the innovation culture among the researchers including academicians and students from Malaysian Technological University Network (MTUN), Kolej Poly-Tech MARA, Advanced Technology Training and Education Institutions (HEI) across the country.

The exposition was held on 12 and 13 February 2020, involving 401 entries that included participation from

This initiative supports the university's aspiration in communitising technology through the encouragement of

A total of 218 entries involving UMP staff, eight from MTUN, four from local public universities including Universiti Malaysia (UPM), Universiti Teknologi MARA (UiTM) and Universiti Perguruan Sultan Idris (UPSI), as well as

The remaining came from UMP students (129 entries) and secondary and primary schools (40 entries).

Also held was the exchange of Memorandum of Understanding (MoU) between UMP and NanoMalaysia with PlaTCOM Ventures Sdn. Bhd. (PlaTCOM) relating to the promotion of technology commercialisation and centralised in the East Coast of Peninsular Malaysia.

The event witnessed the Deputy Vice-Chancellor (Research & Innovation), Professor Dr. Kamal Zuhairi Executive Officer (CEO) of NanoMalaysia, Dr. Rezal Khairi Ahmad, while PlaTCOM was represented by the company.

Also present were the Chairman of the UMP Board of Directors, Dato' Sri Ibrahim Ahmad, Deputy Vice-Chancellor (Academic & International), Professor Dr. Rosli Hainin.

16 new students received incentives under UMP Educa

A total of 16 new Universiti Malaysia Pahang (UMP) students who recently registered for the 2019/2020 incentives under UMP Education Incentive Assistance Scheme.

Each received a sum of RM1,000 that would help lessen their financial burden.

They were selected from 438 students who registered for the second intake that took place at both of the u on February 7, 2020.

The incentives were presented to students at both campuses with Deputy Vice-Chancellor (Academic and Hainin handed out the incentives at the Student Activity Centre in UMP Pekan Campus while Student Service Dean, Associate Professor Dr. Mansor Sulaiman gave out the incentives at the Second College Re

According to Professor Ts. Dr. Mohd Rosli, the scheme was an effort taken to help reduce the financial privileged family background (B40 group).

"To those who receive the incentives, they are also eligible to receive RM500 if they obtain good results, above every semester.

“It is a new incentive introduced this year aimed at motivating students to maintain good results until they complete their studies,” he said.

“UMP Foundation is also on an aggressive campaign in seeking funds to ensure that more students can benefit from the scheme,” he added.

“To date, funds are derived from donations by corporate bodies, strategic partners such as Bank Rakyat, among others,” he said.

One of the recipients, Muhammad Firdaus Nor Hamda, 22, who is from Jerteh, Terengganu, said he was grateful to be selected.

He also said he had not expected to be selected.

The third child of eight siblings, Muhammad Firdaus said he was grateful to be able to continue his studies at UMP in the Faculty of Manufacturing Engineering.

He added that initially, he had second thoughts about continuing his study as his family's livelihood only depended on his father.

“However, my mother advised me to continue with my studies, saying that education can shape our future and help us to succeed in life. I am grateful to my mother for supporting me to continue my studies and be successful and eventually, help my family,” he said.

Khairull, student-cum-rental car entrepreneur, provides cheaper car rental services to students in campus

By: SITI NURFARMY IBRAHIM, PUBLIC RELATIONS UNIT, OFFICE OF THE VICE-CHANCELLOR

It started with his intent to facilitate students to move around in campus and going by with only a Periodic Pass (PP).

Khairull Nasruddin Mansor, 25, is a proud owner of a modest car rental business with five cars.

He had some experience running the business following a working stint with a car rental operator prior to the start of his studies.

The Faculty of Chemical and Process Engineering Technology undergraduate said at first, it was tough as the business was not well known.

With a loan and some savings that he made when working, Khairull, or fondly known as Kerol, now runs the car rental business.

He said the cars were more suitable for students while the rental rate was not as high as those charged on a daily basis.

Khairull said he charged the students on an hourly basis, starting from RM6 up to RM10, depending on the type of car.

The cars were also placed at strategic locations where students could easily pick the vehicles, he added.

Khairull said he also provided delivery service to customers outside of the campus.

He strongly believed that an undergraduate must be brave to try something new such as a business venture plan that involved a good balance for studying and running a business.

"This will challenge one to break out from one's comfort zone. One must feel the pain and gain in business something that is really valuable," he said.

He said there were many challenges faced due to stiff competition from other car rental operators but that is the business.

One of the challenges was not having customers during the semester holidays but Khairull managed to attract students from nearby learning institutes.

Khairull also said he emphasised on safety and would ensure that the cars were in good condition and safe for the passengers.

He also acknowledged the support from the university in providing the opportunity for students to go into business.

On his future plans, Khairull said he hoped to set up a branch in his hometown and to find business partners as well as to open a car wash centre and workshop that offered lower maintenance cost.

Khairull, who came from a middle-income family and the only son among his siblings, had also set out to find a part-time job while he was still a student at Universiti Malaysia Pahang (UMP).

The money that he earned was used for expenses while in the university and that he even send some of the money to his parents.

Apart from the car rental business, Khairull also dabbled in other businesses like selling perfume and doing odd jobs with several friends.

Our nation needs more Professional Engineers

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The journey of an engineer begins from obtaining a scroll of an engineering degree till becoming a professional engineer better known as Professional Engineer (PE). Becoming a Professional Engineer can be considered as the ultimate achievement for any engineering graduate in any area. The recognition as a Professional Engineer will provide a sense of triumph to an engineer. Professional Engineer will only deliver the tasks based on their most exceptional engineering skills, optimum solution to the problem, comprehensive investigation and analysis, utilisation of best available technology, safeguard, a high priority of public safety, and sound judgement in project management through ethical and professional sectors for our engineers to serve including consultation, research & development, construction, building, plantation, aviation, maritime, sales, and oil & gas industry, as well as institutions of higher learning like teaching engineer.

For our beloved country to become a developed nation, the engineer to population ratio must be 1:100. For a population of 32 million, the number of engineers should be 300,000. Surprisingly, based on the Education Ministry's statistics for 2019, the number of engineers produced per year by the local institutions of higher learning, excluding graduates from international programmes, is 14,000. The cumulative total of all engineers produced from 1997 to 2020 is estimated to be about 400,000. The number of engineers in Malaysia is estimated to be 350,000.

Unfortunately, the reality is that only 35 percent of the graduate engineers (GE) registered with the Board of Engineers Malaysia (BEM) are registered as Professional Engineers (PE). The Board of Engineers Malaysia is a statutory board by the Malaysian government to administer the registration of PE. Although according to Malaysia's law, the Engineers Act 1967 (Revised 2015), all practising engineers must be registered with the BEM as GE to work as an engineer. According to a report published by BEM in February 2020 (Figure 1), only 10 percent out of 142,000 registered Graduate Engineers have obtained certification as Professional Engineer which is less than 4 percent of all engineers in Malaysia.

At least five most common engineering fields that run the country today, which are mechanical, chemical, electrical, civil, and electronic engineering. As shown in Figure 2, civil engineering shows the highest number of registered Graduate Engineer followed by mechanical engineering. More than 50 percent of the total registered Graduate Engineer have been upgraded to Professional Engineers. For chemical engineering, the number of converted Graduate Engineers to Professional Engineer is slightly less at about 40 percent. The least amount of converted Graduate Engineers to Professional Engineers is demonstrated by chemical and electronic engineering.

Several reasons have been identified to be the cause of this mismatch:

1. Some engineers thought that Professional Engineer status is only required for engineers who work in the public sector.
2. The jobs do not require engineers to register as a Graduate Engineer.
3. The job never deals with document submissions to the authorities that require registered Graduate Engineers.
4. Some local engineers choose to work abroad.
5. Some engineers leave the engineering profession.
6. Mismatch expectations between engineering graduates and employers resulted in unemployment.

While the number of engineering graduates has been very encouraging in terms of quantity, Malaysia is still facing challenges in terms of employability and retention of talents within the engineering sector and companies. Since Professional Engineers are the key to achieving a developed nation's status, all engineering graduates should register as Graduate Engineer before seeking employment.

Figure 2: Percentage of GE and PE according to engineering disciplines in Malaysia

BEM has facilitated the process of obtaining the Professional Engineer status by offering three alternatives

1. Route 1: through Professional Assessment Examination (PAE),
2. Route 2: through Professional Interview (PI), and
3. Route 3: through Professional Qualification Equivalent (PQE).

Professional Assessment Examination (PAE) and Professional Qualification Equivalent (PQE) are the same process managed by the Board of Engineers Malaysia (BEM). Whereas, Professional Interview (PI) is managed by the Institution of Engineers Malaysia (IEM) with the same purpose of ensuring the PE candidates meet all competencies required for a Professional Engineer.

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