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# PEKAN REVIEW

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Bridging Universiti Malaysia Pahang to the world community

**UMP and MUJ hosted ICAMEN Conference**



By: DR. SAIFUL ANWAR CHE GHANI, FACULTY OF MECHANICAL & MANUFACTURING ENGINEERING

Universiti Malaysia Pahang (UMP) and Manipal University Jaipur (MUJ) jointly organised the International Conference on Advances in Mechanical Engineering and Nanotechnology (ICAMEN 2019) on March 9, 2019.

The conference, which was held in Jaipur, India attracted more than 200 research papers from around the world.

UMP Vice-Chancellor, Professor Dato' Sri Dr. Daing Nasir Ibrahim, who attended the conference, also presented a paper on strategies on excellence and networking in technical university (MTUN).

Other guests included Faculty of Mechanical & Manufacturing Engineering (FKMP) Dean, Professor Dr. R. S. Kulkarni and Dr. Daing Mohamad Nafiz Daing Idris.

MUJ was represented by Dr.. Santosh Patil from the Department of Mechanical.



Professor Dato' Sri Dr. Daing said both universities had come up with a lot of ideas that would meet their ne



“The gathering gave the participants the opportunity to share expertise in a move to further advance the field

“It will also increase UMP’s visibility at the international level,” he added.

MUJ’s Faculty of Engineering Dean, Professor Dr. Jagannath Korody said the university was now in the m including the elements of ‘Outcome Based Education’ or OBE that would correspond to the vocational educ

UMP’s delegation also made a courtesy call to MUJ President Dr. JK Prabhu at his office and held discus

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practices and exploring the possibilities of collaborations between UMP and MUJ.

Present at the meeting was MUJ Faculty of Science Dean Professor Dr. Anoop Kumar Mukhopadhyay.

The official launching of the conference involved watering of trees that marked the symbol of sustainability two universities from two countries.

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## **Alumni networking programme fosters greater bond among**



By: NURIZZATUL ALIN AHMAD BASTANI, DEPARTMENT OF STUDENT AFFAIRS & ALUMNI  
Photo By: KAMARULZAMAN SAFIE



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To commemorate the 17th anniversary of the foundation of Universiti Malaysia Pahang (UMP), the Alumni Network in the Northern Zone on March 2, 2019, saw a successful gathering of 60 alumnus, who happily reminisced about their university.

Organized by the Alumni Relations Unit of the Department of Student Affairs & Alumni (JHEPA), in collaboration with the Alumni Network & Community (JJIM), the hi-tea was held at The Light Hotel in Seberang Jaya, Penang.

The event was attended by the Deputy Vice-Chancellor (Student Affairs & Alumni), Professor Dato' Dr Yusoff Yusoff; Vice-Chancellor (Corporate Affairs & Quality), Professor Dato' Dr. Ishak Ismail; Assistant Vice-Chancellor (Student Affairs & Alumni), Dr Jamil Ismail; JHKK Director, Dr. Irene Ting Wei Kiong; Chairman of Working Committee for Industry Network, Dr. Hamzah; and Pro-Registrar, Abd. Rahman Haji Safie.

At the gathering, Professor Dato' Dr. Yuserrie shared the latest updates on UMP, including a preview of INAP.

He also exchanged ideas with the alumni, encouraged them to update their contact details into the latest database, and emphasized the importance the alumni's contributions or endowments would make to help upgrade the university.

"Alumni are encouraged to update their details in the latest database system at the university, which was the main objective of that such move will help foster a stronger bond between the alumni and the university, and it will help UMP to move forward."

Meanwhile, Dr. Irene Ting stressed that the alumni also play a vital role in improving the university's future by contributing to their alma mater, directly or indirectly.

On that note, Amir Ashraf chipped in, sharing the present structure of INAP's committee as well as the plan to involve the alumni and its alumni for a long-term positive impact for both parties.

Commending the networking hi-tea, Muhamad Saiful Azrul Hassan, who graduated in 2016 with a B.Eng (Hons) Electrical Engineering, said such programme is a good opportunity for him to get to know other alumnus and foster good relationships.

"Nothing makes an alumnus happier than to get together with former university friends, and this can also be a good opportunity between UMP and its alumni," he exclaimed.

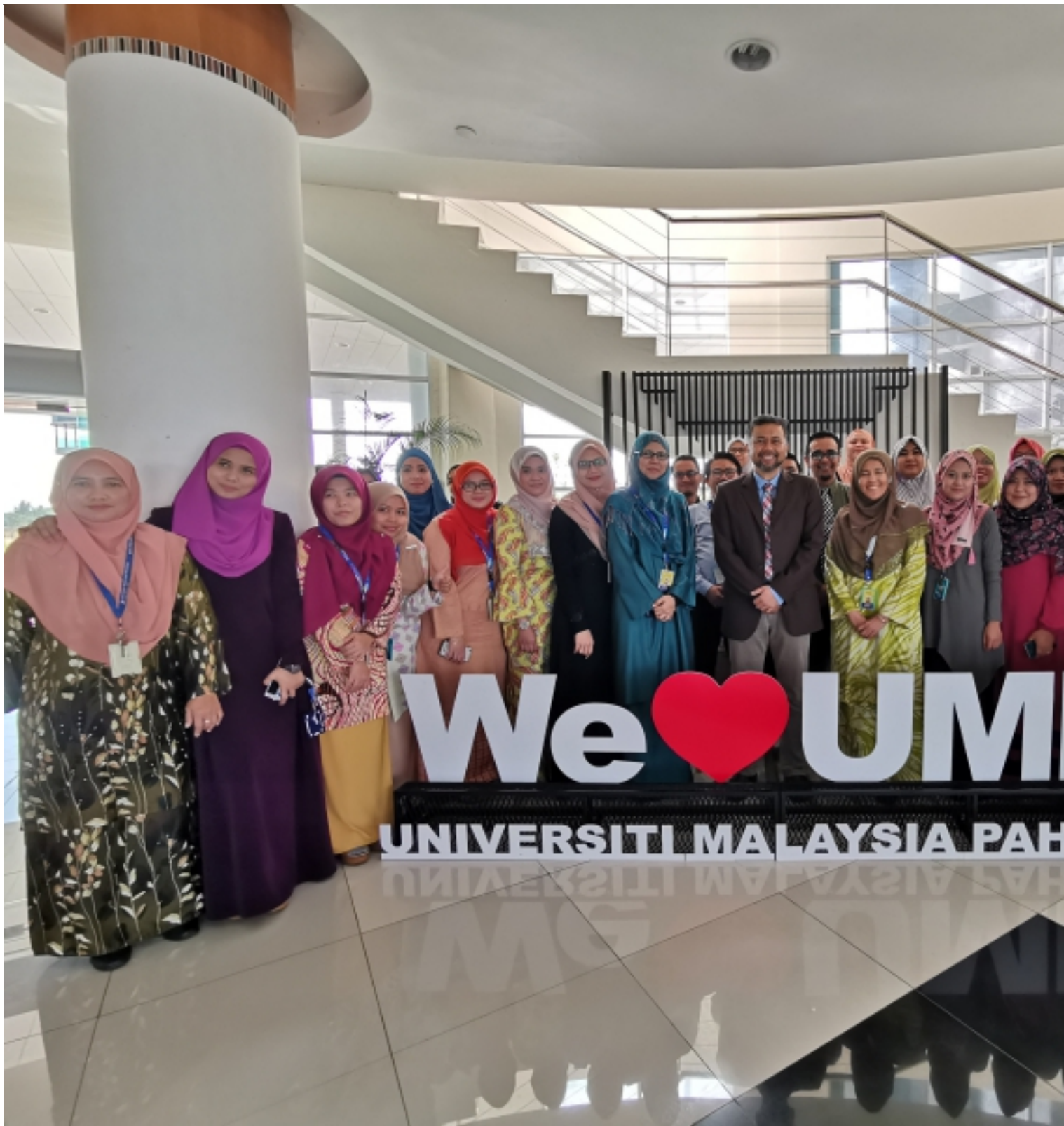
Concurring, another alumnus, Nurul Izzati Pandak Jabo, who graduated with a B.Eng. (Hons) Electrical Engineering, said the programme must prevail as it helps alumni keep abreast with the latest updates on the university, such as its vision and mission.

"With such update, alumni can help the university work on achieving its objective to elevate its ranking and celebrate UMP's 17th anniversary, which fell on February 16, with the other alumnus."

The Alumni Relations Unit is committed to build on the good relations with its members, and endeavours to reach out to the Southern and Eastern Zones, as well as for the ones in Borneo.

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**Associate Professor Dr. Mohd. Ridzuan Darun appointed as**



Associate Professor Dr. Mohd Ridzuan Darun has been appointed as the new Registrar and Chief Operating Officer of Universiti Malaysia Pahang (UMP) for two years effective March 15, 2019.

Associate Professor Dr. Mohd Ridzuan, 45, is currently the Dean for Faculty of Industrial Management (FIM) at Universiti Malaysia Pahang. He has extensive experience in management.

He earned his doctorate degree in accountancy from Lincoln University New Zealand in 2011, his Master's Degree in Management from Universiti Utara Malaysia in 2006 and Bachelor's Degree in Finance from Southern Illinois University, USA, in 1998.



He was the MBA Programme Head at FIM for two years before appointed as the faculty's Dean in 2014.

On his appointment, Associate Professor Dr. Mohd Ridzuan said it was a big task that must be carried out hand in hand so as to move forward towards excellence.

His first day at the department was greeted by his staff who waited at the Tun Abdul Razak Chancellery lobby.

UMP also announced the appointment of Dzull Zabarrod Ahmad, 57, as the Acting Chief Librarian, effective from 1st January 2015, replacing the outgoing Chief Librarian, Mr. Tan Pee who retires in service.



Dzull Zabarrod has a master's degree in information management from Universiti Teknologi MARA (UiTM), Universiti Malaya (UM) and an advanced diploma in library science from UiTM. He had previously served at

## Palm-O-Lite promotes healthy lifestyle, resolves cooking



Concerned about the negative habit of Malaysians who love to use more-than-necessary oil when cooking, saturated fat in their bodies – three researchers at Universiti Malaysia Pahang (UMP) have collaborated to develop an oil aerosol to be used in culinary industry to facilitate cooking while simultaneously promoting a healthy lifestyle.

Head of Research, Dr. Izan Izwan Misnon, who also lectures at the Faculty of Industrial Sciences & Technology, Universiti Malaysia Pahang, along with Dr. Kamaluddin Muzakir and Dr. Nazikussabah Zaharuddin, the three came up with the name “Palm-O-Lite” – the root words palm oil and light – which the latter is supposed to signify low fat intake.



“Palm-O-Lite is the result of our research efforts, since 2017, to produce a cooking oil that is simple, easy, promotes healthy lifestyle.

“The product also acts as a non-stick agent, reduces fat consumption and gives the cooked dish a more ap



“To promote palm oil as a value-added alternative in cooking, Palm-O-Lite was formulated and bottled suitable to be used in cooking simple dishes, baking cakes and barbecuing,” he highlighted

According to Dr. Izan Izwan, the idea was mooted when often-times there is a penchant for overflow when p existing cooking utensils.

“Hence, spraying the Palm-O-Lite oil from an aerosol bottle resolves the problem and provides a better alte

“Additionally, as a non-stick agent, Palm-O-Lite also helps remove the need to use bakery paper or a laye jubilantly added.

Dr. Izan Izwan stressed that the team also looked into the problems caused by using other cooking oil p pans, as well as on the steel grill, where items fried tend to stick to the pans or grill, not to mention the when cleaning such cooking utensils.

In terms of product commercialization, the researchers discovered that most supermarkets only sell vegeta sunflower seeds and soya base.

“In comparison, palm oil-based cooking oil is not genetically modified and free from cholesterol and trans-f 38 percent mono-unsaturated fat and 10 percent poly-unsaturated fat.

“Furthermore, its Oil Stability Index (OSI) is far better than other vegetable cooking oils’, and is really suitab

“Notwithstanding such traits, Palm-O-Lite has equivalent nutrients when compared to similar or other co market,” he quipped, adding that the compounds making up the palm oil-based cooking oil, inclusive of standards, or E-number; and Palm-O-Lite is nicely packaged into a propellant-filled bottles.

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“The spraying pressure from the bottle produces a thin layer of non-stick aerosol oil onto the cooking utensil. Only 10 gramme of Palm-O-Lite is needed for each cooking session,” said Dr. Izan Izwan.

Palm-O-Lite is produced fully from palm oil, in response to the call from the Ministry of Primary Resources and Industries to increase the country’s palm oil production, to help boost national socio-economic progress, better healthcare provision and a greener environment.

As a net exporter of palm oil, its supply in Malaysia is readily available and much cheaper to obtain, when compared to other vegetable oils.

Hence, Palm-O-Lite has commercial potentials to be marketed as alternative to or as an additional cooking oil for the transport, truck and hotel industries, as well as for outdoor activities (like picnics).

Recently, Mordor Intelligent reported that the global market for vegetable cooking oil is projected to value at \$1.5 billion by 2020 – thus, it seems rather realistic to just target 0.1 percent of such market for Palm-O-Lite.

Presently, the research is at the secondary prototyping stage, and the team has been granted the university patent for the product development with commercially viable traits.

Thus far, Palm-O-Lite is formulated for non-stick, frying and barbecuing applications, but with further research, it can be formulated with flavors, such as lemon, for salad preparations, for example, and to add zesty aroma to the cooked dishes.

The research trio is also collaborating with Symbiotech PLT, a symbiotic company under the purview of the Ministry of Trade and Industry Corporation (MTDC), to explore the appropriate commercial segments to penetrate and conduct market research locally and globally.

Dr. Izan Izwan said he hoped, at the very least, the collaboration will produce a positive outcome for Palm-O-Lite in the market. For this initial phase, Palm-O-Lite is packaged into 200 gramme bottles and sold between RM13 and RM15 per bottle.

He said the research team will also continue to improvise the bottling design to be more user-friendly, and ensure it is halal certified with good manufacturing practice (GMP).

Last year, Palm-O-Lite won the gold medals at the International Invention, Innovation & Technology Exhibition (SIIF 2018) and the Technology & Research Exposition (CITREX 2018). The cooking oil aerosol also took home a bronze medal at the SIIF 2018 (SIIF 2018).

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## **MDSolution research treats industrial waste-water into drinking water**





Concern about the environmental impact arising from industrial waste, researcher from the Faculty of Technology, Universiti Malaysia Pahang (UMP), Dr. Nadzirah Mohd Mokhtar, took the initiative to invent a membrane distillation system for various industries, like rubber, palm oil and textile factories, and food and beverage.

Code-named MDSolution, this membrane distillation system is wholly formulated at UMP, with the assistance of her colleagues as well as cooperation from under- and post-graduates students.

According to Dr. Nadzirah, the ongoing research – which commenced in 2017 and is a continuation of her previous work – examines water quality from various industries by testing them with various membranes.

She discovered that the research output proves waste-water can be treated into clean water, with quality comparable to the standard B of the Environmental Quality Act 1974.

“I can see potentials of expanding this membrane distillation technology to the industries in Malaysia and the technology was mainly focused on de-crystallization of sodium chloride from sea water.

“With direct cooperation from the rubber factory of MARDEC (Malaysian Rubber Development Corporation) and the factory of LCSB (LKPP Corporation Sdn. Bhd.) Lepar in Gambang, waste-water samples for this research were provided. The research was funded by the Research Grant Scheme (FRGS) and University Research Grant (RDU), with total cost of formulating the technology highlighted.

Dr. Nadzirah explained what the membrane distillation system does is to treat waste-water by producing solution turned cold using membrane parting.

“The difference in temperature for the two solutions allows for the clean water to pass through the membrane into the waste-water tank,” she added.

Dr. Nadzirah plans to commercialize the membrane distillation system as it will not only help treat industrial waste-water but also produce clean drinking water.

Judging from the results of her latest research, she discovered clean water can be extracted from industrial waste-water. However, more research needed to be carried out to test and determine the durability of the membrane distillation system before it can be used to conduct the processes of the research on a bigger scale.

Dr. Nadzirah is hopeful that she can soon introduce the membrane distillation system to the communities to solve their waste-water problems.

She also hopes that she will be able to produce MDSolution in a more efficient, low-cost, easy-to-use and d

To date, MDSolution has won the gold medal and the Green Technology Award at the recent Creativity and Innovation Exposition (CITREX), and last year, it took home the gold medal from the Industry Networking and Business Development Malaysia Perlis (UniMAP).

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