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# PEKAN REVIEW

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Bridging Universiti Malaysia Pahang to the world community

**UMP named Best University in Research and Innovation for No**



Universiti Malaysia Pahang (UMP) was named best university in research and innovation under the category (Institution) for Non-Research University at the recent Malaysia's Research Star Award (MRSA) 2019 and Award.

Universiti Malaya (UM) was named Best University for Research and Innovation for Research University at Putrajaya on November 6, 2019.

UMP Vice-Chancellor, Professor Ir. Dr. Wan Azhar Wan Yusoff accepted the award from Education Minister Dr. Maszlee Malik who represented Education Minister Dr. Maszlee Malik.





UMP also added another impressive feather in its cap when its lecturer, Associate Professor Dr. Wan Azmi - Prominent Topics in Research for his heat transfer research project and Young Researcher Award.

Associate Professor Dr. Wan Azmi, 35, was selected for being the best researcher under the age of 40.

His research involving nanoparticle dispersion technology was published in a prominent journal and was highly cited. The citations received from the Elsevier Science data base.

His focus was on fluid application in automotive.

He had also come up with several high impact products, results from his research works, which included nano-lubricant for vehicle air-conditioning and the latest being nano-paint for automotive component.

On publications, a total of 116 publications have been recorded in the Scopus data base with 2,083 citations.



Out of these journals, 97 publications have been indexed by Web of Science, 57 are categorised as Q1 h data citations in the Elsevier data base

A large number of the publications are related to heat transfer.

Professor Ir. Dr. Wan Azhar also said in their bid to move forward and towards excellence, UM accomplishments and that the success achieved was a 'one for all' effort.



He added that the achievement was indeed a remarkable feat for the university, considering it was only established as a public university 17 years ago.

He also said with its slogan, 'Moving Together', the university and its community would continue to enhance research and service with world-class standards and by doing so in a more creative and innovative engineering

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The university would ensure that with the efforts taken to improve its quality, the efforts taken would also improve the Quality Standard and Vocational Educational Training (TVET) of high standard which would bring about good benefits to the

Malaysia's Research Star Award (MRSA) 2019 and CRÈME 2019 Acknowledgement of Journal Award was given to the university with the cooperation of Clarivate Analytics and Elsevier.

Dato' Dr. Mohd. Gazali Abas officially opened the event which was also attended by Higher Education Director, Dato' Tapsir and Deputy Secretary General (Strategic), Dato' Kamel Mohamad.

Other awards presented by Clarivate Analytics were Hot Review Paper (one recipient) and Research and Innovation Award (seven recipients).

Elsevier also named 12 researchers as MRSA recipients for the categories International Collaborative Research (four recipients), Citation Classic (four recipients) and Young Researcher (one recipient).

A total of 15 researchers from Malaysia received the Highly Cited Researcher 2018 Award from Clarivate Analytics. These are Malaysian researchers who were ranked among the top 1% of researchers for most cited documents in the

CRÈME 2019 Acknowledgment of Journal Award was also given to 27 outstanding journals from Malaysia. The award was given at the award stage, based on the Metric Journal Cite Score, Impact Factor and Quartile Journal as well as the number of

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## **UMP inks MoU with Turkey's Duzce University to promote tertiary bilateral relations**



Universiti Malaysia Pahang (UMP) recently inked a Memorandum of Understanding (MoU) with DU for academic and research developments in academic and research, as well as to strengthen bilateral relations between the two nations.

DU is a public institution of higher learning located in the Black Sea territory of Turkey. It was established in 1993 and currently has 33,000 students pursuing their tertiary education in 14 faculties. Situated at DU, there are also four institutes and several centers of research and applications, including a research hospital.





At the MoU signing ceremony held at the Banquet Hall of UMP's Gambang Campus, UMP Vice-Chancellor and Director of International Office, Dr. Mohd Azmir Mohd Azhari, represented the host university, while Cakar, and Head of University Hospital, Professor Dr. Oner Abidin Balbay, signed on behalf of the Turkish

Also present to witness the historic event on October 30, 2019, were UMP Deputy Vice-Chancellor (Research & Innovation), Professor Dato' Dr. Yusserie Zainuddin, and Deputy Vice-Chancellor (Student Affairs & Alumni), Professor Dato' Dr. Yusserie Zainuddin.

According to Professor Dr. Ir. Wan Azhar, the two universities have agreed to collaborate on promoting research and innovation between the two public institutions of higher learning – spelt out in terms of an exchange programme between students.

"Via this MoU, both universities hope there will be an enhancement of sharing of experience and transfer of knowledge," said the Vice-Chancellor.



Speaking of the exchange programme, DU Rector, Professor Dr. Nigar explained that the academic and research exchange programmes between the two universities will be conducted under the “Mevlana Exchange Protocol”, which will be fully sponsored by the Turkish Ministry of National Education.

“The Mevlana Exchange Protocol was established to enable exchange programmes of academic staff and students between universities in Turkey and other countries in the world,” emphasized the Rector.

He hoped the collaboration with UMP will see staff and student mobility, and potential further discussions on the Erasmus+ European Union programme for education, training, youth and sport, which runs for seven years from 2014 to 2020.

Opportune to the signing ceremony at UMP, the Turkish delegation was also treated to a talk on “Plant-based Bio-Technology” by Professor Dr. Nigar, as well as meetings with the Director of Centre of Excellence for Bio-Technology Industry Cluster, Assoc. Prof. Dr. Arun Gupta and other fellow researchers.

During the meetings, Professor Dr Arun Gupta from UMP’s Faculty of Chemical and Process Engineering, who is also the Director of the Centre of Excellence for Bio-Technology Industry Cluster, expressed his appreciation for the visit and the signing ceremony.



“Animal-Based Halal Biochemistry Ingredients/ Extracts”, while the Director of Centre of Excellence for Biochemicals, Nizam Tajuddin, presented his paper on “Perfumery & Cosmeceutical Products”.

## **UMP establishes strategic collaboration with Petronas Chemicals to boost productivity**



Universiti Malaysia Pahang (UMP) recently signed a Memorandum of Understanding (MoU) with Petronas

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establish a strategic collaboration between the academic institution and industry player, in terms of sharing developments in human capital, academic and research.

PCMTBE is a subsidiary of Petronas Chemicals Group Bhd., which markets chemical products to customers in the Asia Pacific. PCMTBE produces fuel additives MTBE (methyl tertiary butyl ether) as octane booster.

According to UMP, the strategic collaboration is hoped to stimulate productivity and innovation in the field of computerization of fluids.

UMP Vice-Chancellor, Professor Ir. Dr. Wan Azhar Wan Yusoff, inked the MoU on behalf of the university. PCMTBE Chief Executive Officer (CEO), Azlimi M Lazim, at a signing ceremony held at PCMTBE's premise in Gebeng.

Also present to witness the exchange of documents at the signing ceremony were UMP Deputy Vice-Chancellor, Dr. Kamal Zuhairi Zamli; Dean of the Faculty of Chemical and Process Engineering Technology, Dr. Mohd Dzull Zabarrod Ahmad; and PCMTBE Head of Technical Services, Salma M Kassim.





According to Professor Ir. Dr. Wan Azhar, UMP is committed to establishing synergy with its industry partners as undertake research and development (R&D) in projects that they have collectively identified, and/or will undertake.

“Via such strategic collaborations, in the long run, UMP hoped to develop and produce talented professionals to meet industrial demands and contribute to the advancement of industries within our nation,” emphasized the Vice-Chancellor.

“On this note, the university’s management is opening up ample opportunities to the academic staff of UMP to participate in the professional training programmes provided by these industries to enrich their technical experience in the field.”

“Simultaneously, employees within such industries are welcomed to pursue their tertiary studies and research at UMP.”

stressed Professor Ir. Dr. Wan Azhar.

Concurring, PCMBTE CEO, Azlimi said the company welcomes such collaboration, especially in the technical engineering and technological operation and research between the two organizations can be shared.



To date, UMP Vice-Chancellor iterated that 90 percent of the university's 800 academic staff are doctors including fields of engineering and technology, like mechanical, manufacturing, chemical, computer science

"UMP is in the midst of realizing the national agenda of enhanced technical capabilities – and that surrounding communities, as well as boosting the competency level of our Technical and Vocational Educa



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Professor Ir. Dr. Wan Azhar highlighted, together with industry partners, UMP is now opportune to develop and add value to the university's staff in expanding their career possibilities.

For instance, UMP's Centre for Modern Languages has recently established the Confucius Institute, which is becoming an international language with the advent of China's industrialization worldwide.

"In addition, the collaborative research and development undertaken by both university and industry partners on industrial issues."

After the signing ceremony, the delegation from UMP took a field tour of PCMTBE's operations in Gebang, there – a priority and part of the work culture at the plant.

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## **2 UMP products win Malaysia Commercialisation (MCY 2019) Awards**



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

The product of Ts. Mohd Najib Razali from the Faculty of Chemical and Process Engineering Technology, Treat, used to treat oily wastewater using green technology formulation, was awarded the Research Commercialisation Year 2019 (MYC 2019), organised by the Ministry of Energy, Science, Technology, Environment and Climate Change, held on 10 October 2019.

Meanwhile, the Electric Nose or e-Nose, developed by Associate Professor Dr. Muhammad Sharfi Najib Razali from the Faculty of Chemical and Process Engineering Technology and Associate Professor Dr. Saiful Nizam Tajuddin from the Faculty of Industrial Science and Technology, was awarded the Innovator Award.





Both winners received RM100,000 worth of prizes including trophy and certificate.

According to Mohd Najib, MNRg-Treat is a natural formulation product that separates oily wastewater and meets environmental standards.

“The trapped oil residue will be treated as a secondary product, grease oil, which is available at very reasonable prices.”

“This innovative product is capable of improving the quality of the environment and has been sold and used in various industries.”

The research conducted since 2012 has been supported by several university research grants, including the UIC161003 – Bio-Coagulant and Smart System for Sustainable Water Treatment and a RM500,000.00 Startup Scheme (SUPERB) under the *Bumiputera* Leadership Agenda Unit (TERAJU) to support the business.





MNRg-Treat has been licenced and commercialised under a start-up company called MNR Multitech Sdn. Bhd.

Meanwhile, the UMP e-Nose technology has been developed to replace the use of human and animal nose.

Interestingly, this technology is fully backed up with scientific data and has been used by international companies, including an agarwood producer in the world to analyse the quality and purity of agarwood resin and related products.

The technology is also used by Sime Darby Oil, Thailand to analyse the quality and freshness of their cooking oil.

The UMP e-Nose is being commercialised by a UMP spin-off company called Synbion Sdn. Bhd.

Both of these companies are mentored by Technology Park Malaysia (TPM) and the products were launched in conjunction with the 10th International Greentech & Eco Products Exhibition & Conference Malaysia 2019 held at the Kuala Lumpur Convention Centre (KLCC).







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