

UMP makes tech leaps with society in mind

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UNIVERSITI Malaysia Pahang (UMP) has implemented environmentally friendly initiatives to make its campus sustainable in line with the country's Sustainable Malaysia 2030 aspiration.

This synergy between environmentally friendly practices and education will foster a culture of sustainability among UMP's staff and students at its Pekan and Gambang campuses.

UMP Vice-Chancellor Professor Datuk Dr Yuserrie Zainuddin said the university was in the midst of a digital transformation to create a smart campus so that it would remain relevant to stakeholders.

"This is in line with the needs of the Industrial Revolution 4.0. Equipped with the resources and expertise in big data, Internet of Things (IoT), green campus, and digitisation, UMP will witness a massive shift through these platforms in the use of technology.

"The campus has planned various initiatives that conserve resources and improve the quality of the environment. These are the aspirations of UMP board of directors chairman Tan Sri Dr Abdul Aziz Abdul Rahman, who aimed for a sustainable campus as well as initiatives to produce a conducive green ecosystem," he said.

He said the government had provided various initiatives to emphasise IR 4.0, especially in artificial intelligence (AI) and robotics.

"This will produce more researchers who will benefit and cater to the needs of the country. For example, UMP is developing autonomous vehicle technology, or the Smart Campus Autonomous Vehicle (SCAV), Ele-Bot, drones and virtual reality (VR) that will accelerate efforts to empower these fields at UMP," he said.

Yuserrie said UMP had strengthened its research, industrial innovation and commercialisation agenda, in line with the UMP Strategic Plan 2021-2025 through innovation with industry collaboration and high-impact technology exploration.

"The objective of innovation with industry collaboration is to enable the



Representative of the Menteri Besar of Pahang, Mohd Shahrim Md Zain (fourth left) with UMP vice chancellor Professor Datuk Dr Yuserrie Zainuddin (sixth right) and the Cendekia Bitara award recipients at the 'Pillar Of The New Dawn' Bitara Scholars Awards 2021 ceremony, at Zenith Hotel. PIC BY FARIZUL HAFIZ AWANG

technical capabilities of UMP and industry.

"This is implemented not only by technical knowledge transfer from UMP to the industry, but also from the industry to UMP.

"UMP is committed to spur product development and provide research involving industry to produce high-level technology that will contribute to the community through the social enterprise ecosystem," he said.

In research, Yuserrie said UMP had created an ecosystem that encouraged and groomed researchers to improve the quality and quantity of research papers at UMP.

And this was evidenced by the increasing number of major external grant researchers every year.

"This increase is in tandem with the support of university research grants, where UMP researchers conducted research at the university or on a basic internal grant before applying for research funds provided by external parties.

"For 2021 there were 1,685 active research grant projects. Of this total, 24 per cent were from UMP's research grants while 76 per cent were from external research grants from ministries, agencies, industry and international funds.

"High-impact technology exploration refers to research that produces positive changes to the community. This is done by producing new cutting-edge knowledge and technology, and the impact of the research is measured through the new technologies that have been generated.

"In this aspect, new technologies can be seen through the number of intellectual properties that are licensed and applied, thus, benefiting the community."

Yuserrie said UMP had a score of 1.16 in research publications and citations based on Elsevier's source for Field Weighted Citation Impact, indicating that studies published by UMP researchers were of high quality and impact.

He described UMP as a catalyst for

Pahang's urban development through research, innovation and commercialisation activities.

"UMP collaborates with public universities to create a university joint grant initiative that can benefit joint publications at the national level. UMP receives grants from agencies such as the Malaysian Cocoa Board, Pahang Islamic Religious and Malay Customs Council, Paya Besar parliamentary constituency and the Higher Education Leadership Academy."

In bringing technology to the community, Yuserrie said UMP was committed to promote product development and provide research involving industry to produce high-level technology that would contribute to the community through the social enterprise ecosystem.

This approach is in line with UMP's Strategic Plan 2021-2025 themed "Technology for Society".

"UMP's efforts in empowering the research and development field is to ensure that projects have a high impact and benefit the world. It can be seen through the continuity of the research and innovation ecosystem through research functions, industrial innovation and commercialisation.

"Collaboration between the government, community, industry and universities will indirectly help the country's economy through consultation, commercialisation and professional training, as well as increase the number of impactful publications through funds provided by the government, universities and industry," he said.

He said UMP would continue to excel in research and innovation, thus increasing the university's technological capabilities through the number of products it made (Technology Made in UMP) and the discovery or new technologies that have high impact.



UMP board of directors chairman Tan Sri Dr Abdul Aziz Abdul Rahman (third from left) with UMP researcher Dr Noor Zaiyah Jamal (fifth from right) and drone practitioner Zek Aman Abd Ghani (sixth from right) created the multi-functional 'Rajawali' drone to increase the productivity of the agricultural sector. PIC COURTESY OF UMP

UMP RESEARCH RECOGNISED AT THE MALAYSIA TECHNOLOGY EXPO 2021

The 2nd Covid-19 International Innovation Awards

- Computer Science Faculty lecturer Associate Professor Ts Dr Mazlina Abdul Majid won a gold medal and a special award at the Turkish Inventors and Innovators Network Awards for her research titled "PISAH Covid Patient Tracking System at Home".

- Industrial Management Faculty lecturer Dr Diyana Kamarudin won a gold medal and a special award at the National Science, Technology, Engineering and Mathematics (STEM) Association Award and Euro Business-Haller Awards for her research titled "Hear Me Assistive Technology for the Deaf and Hearing Impaired During Pandemic".

- Centre for Mathematical Sciences lecturer Dr Norazaliza Mohd Jamil won a gold medal and special award at the Malaysian Association of Creativity and Innovation Award for her research titled "A GUI Simulation Tool for Pandemic Outbreaks".

- Electrical and Electronics Engineering Technology Faculty lecturer Ts Dr Roshahliza M. Ramli won a bronze medal for her research titled "SMART Unmanned Ground Vehicle (UGV) for Covid-19 Waste Management".

UMP FACTS AND FIGURES

- Ranked 129th in Asia's QS World University Ranking 2022.

- Ranked 9th best university in Malaysia and top among Malaysian Technical University Network (MTUN).

- 12 UMP lecturers listed among top 2% of the world's best scientists in a variety of fields and disciplines (data from Stanford University, United States).

- Quacquarelli Symonds Rating System 2022 five-star rating for eight categories: teaching, job marketability, internationalisation, research, facilities, strength of academic programmes (Mechanical Engineering), innovation and inclusiveness.

- 221 academic staff received UMP's Cendekia Bitara Award on July 21, 2022 for journal publications (39), international grants (2), industry grants (3), commercialised intellectual property (1), commendation award for journal publication (15), research product commendation award (6), journal publication gold merit award (103), journal publication silver merit award (50) and university academic award (2).