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# The UMP E

**Universiti Malaysia Pahang**

University Ranking Newsletter



## **UMP Maintains Position on the QS World University Rankings 2021**

Universiti Malaysia Pahang (UMP) maintained its position in the QS World University Rankings 2021 edition, published by the ranking agency QS Quacquarelli Symonds on 10 June 2020.

The QS World University Rankings 2021 edition examined 1,604 institutions from all over the world and based on various factors which are academic reputation, employer reputation, citations per faculty, faculty/student ratio, international faculty, and international students. This ranking witnessed UMP in the top 64% in the QS World University Rankings compared to last year's 64%. UMP is ranked as the best university among the Malaysian Technical University Network (MTUN) and sits in the top 10% of all universities in the world.

Information on the QS World University Rankings 2020 edition — published by Quacquarelli Symonds, [www.topuniversities.com](https://www.topuniversities.com), accessed through [topuniversities.com](https://www.topuniversities.com).

*By Puan Hazlina Faizal, Rankings & Branding Unit, Centre of Corporate & Quality Management*



### **7 UMP Subjects Listed in World's Ranking**

A total of seven subjects of Universiti Malaysia Pahang (UMP) joined the list of world's elite universities World University Rankings by Subjects 2020.

The listed subjects are Engineering and Technology (386), Chemical Engineering (151–200), Electrical Mechanical, Aeronautical and Manufacturing Engineering (351–400), Pure Science (Chemistry) (451–500), and Social Sciences and Management (Business and Management Studies).

The Deputy Vice-Chancellor (Academic & International), Professor Ts. Dr. Mohd. Rosli Hainin said that performance of four indicators, namely academic reputation, employer reputation, the number of indexed articles from Scopus.

According to the President of the Students' Representative Council (MPP) 2019/2020, Mohd Fitri Zulkaffli



in the QS World University Rankings by Subject this year proves that this university is on the right track in becoming a world-class university by 2050.

Meanwhile, Ahmad Rifqi Mohd. Jerome Rinjes, the Vice President (Communications and Corporate) of Universiti Malaysia Perlis (UniMAP), also felt proud with all the subjects listed in the QS World University Rankings.

*Credit to Pekan Review*



### **CITREX 401 Products Flourish Innovation Culture**

The 10th edition of Creation, Innovation, Technology & Research Exposition (CITREx) 2020 saw Universiti Malaysia Perlis (UniMAP) encouraging and nurturing the innovation culture among the researchers including academicians and students. The event was part of the Malaysian Technological University Network (MTUN), Kolej Poly-Tech MARA, Advanced Technology Training and Research Institute (ATR) and other education institutions (HEI) across the country.

The exposition was held on 12 and 13 February 2020, involving 401 entries that included participation from various institutions. This initiative supports the university's aspiration in communitising technology through the encouragement of innovation.

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 129 entries from UMP students and secondary and primary schools.

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

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

Also present were the Chairman of the UMP Board of Directors, Dato' Sri Ibrahim Ahmad, Deputy Vice-Chancellor (Research & Innovation), Professor Dr. Kamal Zuhairi Zainuddin, and Deputy Vice-Chancellor (Academic & International), Professor Ts. Dr. Zainuddin.

*Credit to Pekan Review*



### **UMP Bags 10 Medals and the Best Award for Consumer Electronics**

A highly efficient light-emitting diode (LED) system known as MP-Rediac LED Stick was awarded a gold medal for "Best Award for Consumer Electronics" in the Malaysia Technology Expo (MTE) 2020 which was held for three days from 2 to 4 February 2020 at the Putra World Trade Center (PWTC), Kuala Lumpur.

This product was invented by Ts. Ikram Mohd Rashid from the Faculty of Electrical & Electronic Engineering. It has a unique feature where it does not produce heat at high temperature and does not require heat sink.



The efficiency of the LED UMP Rediac system is high at 157 lm/W. This LED system can be applied not only on floodlights, street lights and other LED applications. This product can also solve the problems faced by night users to obtain a light source at night. This product is mobile and does not require a power source.

The other three gold medals were won by Dr. Chin Siew Choo from the Faculty of Civil Engineering Technology (Project: Sustainable Building Materials), Ts. Dr. Waheb Abdul Jabbar Shaif Abdullah from the Faculty of Electrical Engineering (Project: NB-IoT-FMWS) and Nor Azhar Ahmad from the Faculty of Computing (Project: HeDoo Space Analysis Modules & Generic Circuit Board).

Meanwhile, UMP bagged six silver medals through Associate Professor Dr. Agus Geter Edy Sutjipto (Faculty of Chemical Engineering, Development of Inert Ceramic for Industrial Application), Dr. Mohd Shaiful Zaidi Mat Desa (Faculty of Chemical Engineering, Development of Improved Durability and Low-Cost Solid Ankle-Cushion Heel [SACH] Prosthetic Foot), Dr. Wan Ismail (Faculty of Engineering Technology, MD Solution: MD Compact Unit for Industrial Wastewater Treatment), Associate Professor Dr. Wan Ismail (Faculty of Computing, Efficient Distributed Database Replication Systems for Online Selling Website), Dr. Wan Ismail (Faculty of Computing, Enhancement of Single Path to Multipath Clustering in Wireless Sensor Network for Energy Conservation), and Dr. Wan Ismail (Faculty of Computing, Rex-Chain: Root Exploit Detection and Blockage).

The participation and success obtained by UMP is a positive sign and a proud moment when the research and development participation also opens collaboration opportunities with the industries including small and medium enterprises, which ultimately benefits the public, in parallel with the UMP tagline, Communitising Research.

*Credit to Pekan Review*



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## UMP Targets 4 Strategic Objectives towards the Best Technological University by 2050

Universiti Malaysia Pahang (UMP) has laid the foundation in achieving excellence for UMP Strategic Plan 2020-2050 objectives, which are (1) producing holistic community-driven graduates through high-level Technical and Vocational Education and Training (TVET), (2) communitising technology, (3) generating new advanced technologies via research initiatives and (4) achieving sustainability.

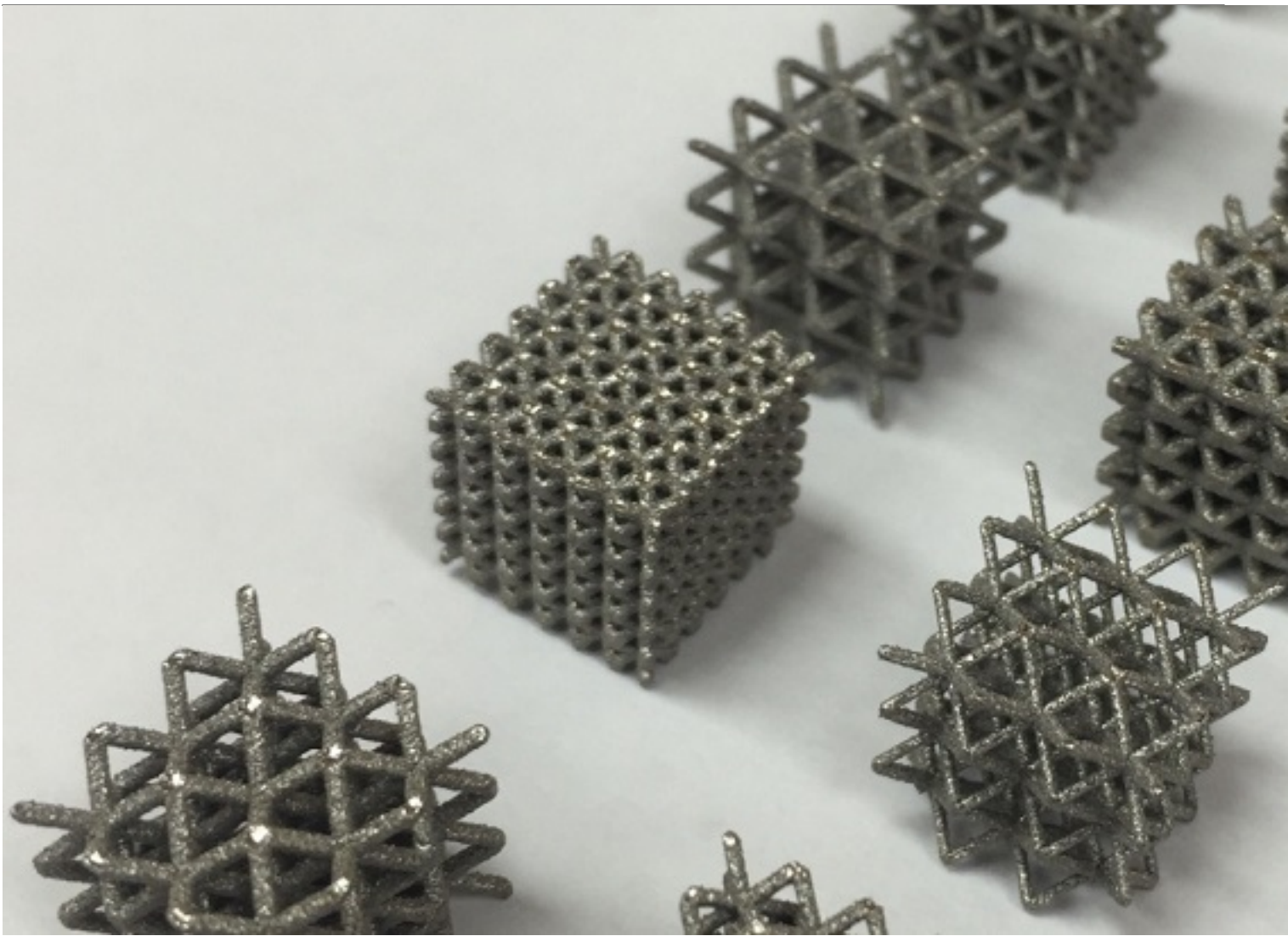
In line with the UMP vision of becoming the best technological university by 2050, the UMP Vice-Chancellor, Professor Ir. Dr. Wan Azhar, emphasised that the university must have the world-class characteristics and most importantly is to have an autonomous status.

He also said that UMP currently has over 86 percent of lecturers with PhD and in realising the target by 2050, UMP will focus on field specialists in inventing new technologies and developing an efficient, effective and respected management system for the university.

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

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

*Credit to Pekan Review*



### **The Trend of 3D Printing In Higher Level TVET Skill**

Additive manufacturing is a recent trend in production processes owing to its many benefits around the globe. Producing parts through the deposition of material in a layer-by-layer technique. It has been the most searched technology. According to Frost and Sullivan, the value of additive manufacturing is expected to grow at a rate of 15 percent from 2018 to 2025. The industries that are going to contribute 51 percent by 2025 are aerospace, automotive, and medical.

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

To accommodate the recent trend, UMP collaborates with Qatar University to secure a grant on Qatar National Research Fund (QNRF) of RM3.2 million, and UMP obtained RM160,000 from the award. The main objective of the project was to investigate the feasibility of manufacturing lightweight titanium alloy femoral stems that can be manufactured using direct metal laser sintering (DMLS). A graded design was utilised to develop a novel pore cellular structure with compressive properties.

A 3D finite element model was developed to study and compare the load transfer to the periprosthetic femur, offering different stiffness configurations. Also, fatigue and static tests were done on the fabricated design under various loading conditions. Factors affecting the manufacturability and production of the femoral stem through DMLS are being studied. Total hip arthroplasty (THA) is a common hip replacement procedure. Due to material stiffness mismatch between the implant and bone, it is possible, and many patients had to redo the surgery because of the excruciating pain.



As such, novel material design for the hip femoral stem is needed to reduce material stiffness mismatch through manufacturing will give the surgeon the freedom to customize the hip femoral implant based on the patient's project is essential to produce a printing implant for the patient. The current trend shows an increase in the completed successfully, and it is a stepping stone for UMP to involve in additive

*Credit to Pekan Review*



### **UMP Contributes 600 Hand Sanitisers for Frontliners**

As an effort to assist the frontliners to curb the spread of the Covid-19 outbreak, Universiti Malaysia Pahang contributed 600 hand sanitizers: triUMPH (1 L) and hand-carry Germs Free Hand Sanitizer (30 mL). Senior Executive from the Universiti Malaysia Pahang, Saharudin Ramli presented the contribution to Senior Private Secretary of Pahang Menteri Besar, Dato' Hasmid Daudar, on 15 May 2020.

Also attended were the General Manager of UMP Technology Sdn. Bhd., Muhamad Nizam Abdul Rashid and the Senior Executive from the Services Division of the Office of Pahang Menteri Besar in Kuantan. This triUMPH product is the innovation of MNR Multitech Sdn. Bhd., which are the wholly-owned subsidiaries of UMP Holdings.

Germs Free Hand Sanitizer is a product of UMP Renal Care Sdn. Bhd., a UMP spin-off company. According to the company, the sanitizer is formulated according to the standard of the World Health Organization.

According to Saharudin, the contribution was one of the social responsibility initiatives to the community during the outbreak of COVID-19 by the frontliners who are working hard to break the virus chain.

In addition to hand sanitisers, UMP Renal Care Sdn. Bhd. Also produces food vinegar-based high-level surface disinfectant for public housing areas, housing interiors, schools, offices and hospitals. In an effort to support the frontliners tirelessly to fight the outbreak, UMPH has also launched triUMPH Frontliners Fund to collect donations from the public.

*Credit to Pekan Review*

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