The UMP Edge 2/2019

The UMP E

Universiti Malaysia Pahang

University Ranking Newsletter

Universiti Malaysia PAHANG

Engineering • Technology • Creativity

STEM Carnival
out creative inv
among school s



Universiti Malaysia Pahang (UMP), in collaboration with the Pahang State Department of Educatio
Technology, Engineering and Mathematics) and Green Technology Carnival at the former's Astaka Hall, UM

The carnival saw about 2,000 primary and secondary school students from around the state participatin
STEM Invention & Innovation Contest; STEM Digital Video Contest; Water Rocket Contest; Remote-contro
Contest; and Greenhouse Architecture Contest.
The carnival was officially launched by UMP Deputy Vice-Chancellor (Student Affairs & Alumni), Professor

Also present at the launch were Director of Industry & Community Network Centre (ICoN), Associate Profes
of Management from the Pahang State Department of Education, Abdul Rahim Muhammad Yunus.

In his welcoming speech, Professor Dato' Dr. Yuserrie expressed his gratitude to the Pahang State
confidence in UMP to collaborate as its strategic partner for the State's STEM and Green Technology Carn

According to the Deputy Vice-Chancellor, the carnival is an excellent initiative to cultivate the students' in
as well as to enhance their competitive trait.

"UMP is consistently committed to support the national agenda of the Ministry of Education, includi
Technology, Engineering and Mathematics under Malaysia Educational Development Plan 2013-2025," exc

He stressed that UMP is consistently in search of opportunities to conduct STEM-related workshops and/o
at the university itself, to attract and actively engage primary and secondary school students on STEM subj

One instance, and to his pleasant surprise, this year's STEM and Green Technology Carnival saw partic even as young as a six year-old.

Professor Dato' Dr. Yuserrie emphazised this goes to show that programmes associated with STEM e reaching out to the target groups, especially when conducted creatively and interactively.

He hoped the university, specifically ICoN, and the State Department of Education, will sustain this noble measures and intervention courses which they can collectively carry out in the face of future challenges.

*credit to Pekan Review



UMP Researchers Invented Stingless Bee Honey Suction Pump

A group of researchers from Universiti Malaysia Pahang (UMP) has developed a product called 'Sleek farmers to extract honey without compromising the quality.

The group was led by Dr. Mohamad Firdaus Basrawi, 34, who is also a lecturer at Faculty of Mechanical the rest of the members were Dr. Daing Mohamad Nafiz Daing Idris, Dr. Mohd Hazwan Yusof, Dr. Mohd Anati, Luqman Abdul Halim and Siti Sarah Shaikh Mohd Raziff.

Dr. Mohamad Firdaus said the project began in 2016 and was fully completed in 2018, following a requ Entrepreneurs Association (PUKP).

He said Malaysia had more than 4,000 stingless bee honey farmers and in Pahang alone, there were 11
Their monthly production was estimated at 1,400kg, he added.

“The association had sought help for an easy and cheap method to extract the honey which gave us th
various methods had been used which included using of the straw, syringe and even a pump. However, th
less quality, bubbling while the suction flow was slow,” he added. He said the ‘Sleek Pump’ created was a b

He also said if a rubber tapper would require a good knife to get quality latex, a stingless bee honey farme
quality honey.

At the initial stage, the tool was used and tested by 30 farmers who were members of PUKP and feedb
effectiveness of the suction pump, he added.

“Based on their response, they said it was much faster to use the suction pump as compared to other devic

“There was less bubbling. Most of the consumers did not like honey with too much bubbling, and at times, it

“With the ‘Sleek Pump’, suction can be made straight from the bee nests into bottles and it does not ne
bubbling to set in. The system is powered by batteries that can last up to four hours,” he said.
He added that the compact-designed pumps would be in the market soon and the price was set between R

“The suction pump works faster and the honey produced in bubbling-free,” said Dr. Mohamad Firdaus.

*credit to Pekan Review



Graduates of UMP, the Preferred Choice of the Jo

The engineering and technology programmes offered by Universti Malaysia Pahang (UMP) have always values through continuous benchmarking process using world-class model, a result of a partnership prog Science (HsKA) Germany.

This is seen as the best case in point in producing graduates who are competent, holistic, balanced and w the needs of the industry.

Also, being in the 101-150 ranking of the world's best young university of the Quacquarelli Symonds list, U foreign universities and industries in forging closer ties, and bring about positive impacts in the graduates p

This strategic alliance has proven to be effective as the rate of Graduate Employability (GE) of the univer 96% and surpassing the target of 80% set by the Ministry of Education.

According to UMP Vice-Chancellor, Professor Ir. Dr. Wan Azhar Wan Yusoff, UMP had always stay comm in its academic programmes through strategic collaborations at the international level.

“In our efforts to be a competitive and global player, the internationalisation process of UMP is admini partnership with Germany. This has enabled us to groom and produce competitive graduates.

“By having a German education background, graduates have become more marketable and will have mor

that have business links with Germany.

“The graduates are also more adept in their soft skills, knowledgeable and highly skilled – qualities that when facing with the new industrial revolution of the IR 4.0, transformation in the digital world and automati

As part of the efforts taken to groom human capitals to cater to the needs of the country, UMP offers Bach the Malaysia Technical University Network (MTUN) members - Universiti Tun Hussein Onn Malaysia (U (UTeM) and Universiti Malaysia Perlis (UniMAP).

This initiative was seen as complementing the country’s Technical and Vocational Education and Training (

The organising of CEO Programme@Faculty by the Ministry of Education was also seen as a move tha industrial sector into the country’s higher learning system where prominent personalities shared their experi

The latest personalities to join the programme were Chairman of Nova Wellness Sdn. Bhd., Dr. Abd M Dream Edge Sdn. Bhd., Khairil Adri Adnan and Director of Scomi Transit Project Sdn. Bhd., Rohaida Ali.

They were appointed by the ministry to participate in the programme where they would deliver talks, sessions which would benefit the university students and staff.

*credit to Pekan Review



UMP Researchers Invented ‘Mhelfagv’ – a Forklift that Could Lift than 50 Kg

Concerned over problems faced by the industries relating to material handling equipment, a group of Univ came up with a vehicle that could lift steel roll, weighing between 50kg and 60kg, from a relatively narrow more than 20 minutes.

It is called the Mini Heavy Loaded Forklift Autonomous Guided Vehicle (MHeLFAGV).

The right type of forklift is used to lift heavy loads but normally, the size is rather bulky and unsuitable to limited space.

Lead researcher and lecturer with Faculty of Electrical & Electronics Engineering (FKEE), Ir. Dr. Addie Ir came up when Vacuumschmelze (M) Sdn. Bhd. (VAC) invited him to work together to solve problems faced

“It started with a discussion and it led to the development of MHeLFAGV that met the industrial requirement

“Research on the product began in 2014 and it was carried out together with my colleague, Ir. Dr. Akhtar Ra

“The idea for the vehicle was mooted by VAC General Manager, Mohd Arif Zakaria. It was completed las Pahang.

He added that the vehicle was designed using the ‘pick-and-swallow’ mechanism that involved the heav was moved to the designated location.

“This is to ensure balance when moving the load. It is different as compared to the other common forklifts fo

“It also used the omni tyre that allows the machine to move in all directions and make turns without takin turns to enter into an aisle,” he said.

He said MHeLFAGV was easy to handle in a tight space with less possibility of accidents occurring such as

He hoped that the company would find the equipment working to their likings and meet their industrial nee and that this would result in better and smoother work flow in the workplace located in Pekan.

“At the same time, both parties have plans to obtain more funds so MHeLFAGV can functioned more effe by making it more automated.

“The plan is to speed up the lifting process by using the automatic system based on image processing a unique mechanical mechanism.

“We also plan to further improve the robotic design, expand it and market it for other transportation ap various versions,” he added.

*credit to Pekan Review



Eggplant Planting Using Fertigation Technology in U

In a move to fully utilise unused area in campus, UMP Technology Sdn. Bhd. (UMPT) which is wholly-own to promote commercialisation activities of UMP products, has successfully cultivated eggplant using th Gambang campus.

Research and planning on the project commenced middle of last year while work on the farming site and c year following approval from the management and UMP Holdings Sdn. Bhd.

According to UMPT General Manager, Dr. Nur Aainaa Syafini Mohd Radzi, the site covered an area of 3 trees for commercial purposes while another 1,000 trees for experimental purposes and technology improv

“The eggplants were placed in a nursery for growing before transferred into polybags in March and Apri middle of May.

“Alhamdulillah, we harvested between 250kg and 350kg every two days. We expect the produce to inc beginning June and will continue to harvest the produce until November,” she said.

he added that currently, the produce were sold from the farm to wholesalers and nearby supermarkets at R

Dr. Nur Aainaa Syafini said the fertigation technology was not new for UMP as the university had carr technology for research purposes at the UMP Model Farm and community activities to help improve the l

programme in Kuala Pahang.

“Based on the potentials in using this system especially the lucrative returns, which is three to four time farming method, has attracted the attention of many parties to use the technique for commercial ventures.

“This will also open the door for UMP other products to be commercially produced.

“Fertigation is a farming technique that maximises the produce through controlled application of water and f

“This application will ensure that adverse impacts from the use of fertiliser to the root, soil and unde fertigation technique is applied, it involves substrate and media such as coconut husks and rice husk ash,”

She also said farming could be done without the use of fertile soil and can be carried out in urban area o could help increase produce and prevent soil-borne diseases.

“Apart from helping to churn money for the company, this pilot project had its own advantages becaus added.

She hoped that the project would pave the way for other UMP agriculture-based products be commerciall open market.

“We hope that we are able to expand farming activities using the fertigation technology so UMPT can Pahang.

“At the same time, the project will provide job opportunities to UMP students and the locals to boost their in

UMPT is now in the process of identifying areas near the campus that could be leased by the company for suitable land for expansion purposes using the fertigation technology.

Throughout the implementation of the project, UMPT consulted the Department of Agriculture and colla Agency (FAMA) for the commercialisation aspect of the produce.

For those who are interested to do their own fertigation farming project, UMPT offers consultation services

Congratulations to UMP for being ranked among



top 2.6%
of universities
in the world

QS WORLD UNIVERSITY RANKINGS
751-800
2020

top 1.8%
of universities
in Asia

5-Star World Class Te

Universiti Malaysia PAHANG

RANKED

STARS

MyMoh

QS Ranks Universiti Malaysia Pahang among Wo

Universiti Malaysia Pahang (UMP) has once again made Malaysia proud, achieving another milestone in C being a distinguished technological university. This time around, QS World University Rankings (WUR) 20 time, UMP has further established its standing as one of the world-class universities in the world map (top 1 in the world (#751-800), five-stars rated).

The QS global ranking for world universities 2020 report announced on 19th June 2019 was based on citations per faculty, student-to-faculty ratio, proportion of international faculty, and proportion of internationa

Among all, the strongest point of UMP is the international faculty indicator where it ranked #360 globally. U its reputations (ranked #501 in the world). These reports suggest that the teaching and research related ap be industry preferences.

Last month, Professor Ir. Dr. Wan Azhar Wan Yusoff assumed office as the new Vice-Chancellor of UMP; n of time commemorates this new appointment. "Having found a place in the rankings is just the beginnin gradually move up as a better global player," Professor Ir. Dr. Wan Azhar said.

The QS WUR rankings — published by Quacquarelli Symonds, an organization specializing in educat topuniversities.com.

*credit to Pekan Review



Empowering TVET Education – UMP's Main A

As a public university and a member of the Malaysia Technical University Network (MTUN), Universiti Ma and strengthen the transformation agenda in the country's Technical and Vocational Education and Trainin developed, high-income nation by 2050.

UMP's Board of Directors' Chairman, Dato' Sri Ibrahim Ahmad said TVET would produce a home-gro country to cater to the challenges expected in the Industrial Revolution 4.0.

"By utilising the expertise of the university, the level of industrial competency and productivity can be enha facing technical challenges.

"On this matter, UMP needs to form sound collaborations with related agencies that can help create mor graduates," he said during the 'Coffee Talk with UMP Chairman' at UMP Library Auditorium at the universit

Also present were UMP Vice-Chancellor, Professor Ir. Dr. Wan Azhar Wan Yusoff and members of UMP Ahmad Shariff, Dato' Mohd Zafir Ibrahim Nor, Shaiful Suliman and Mohd Fuad Kamal Ariffin.

Other guests included Deputy Vice-Chancellor (Research & Innovation), Professor Dr. Kamal Zuhairi Zaml Alumni), Professor Dato' Dr. Yuserrie Zainuddin and Registrar/Chief Operating Officer, Associate Professor

Some 300 of UMP staff turned up for the programme comprising the university's management as well a

Association (PPTI) and UMP Supporting Staff Association President (KESUMP) members.

Dato' Sri Ibrahim said in making an organisation an outstanding one, it required workers who enjoyed worki

"Every task or responsibility assigned to a worker must be based on one's capability and talent," he added.

He also advised UMP's staff to carry out their duties based on trust, integrity and responsibility.

"The workforce is a valuable asset to the university. By creating a scholarship programme, this will give the develop their talents and undergo leadership training locally and abroad," he said.

He also emphasised on the aspect of performance, work procedures and governance, apart from several c as customer management, staff management, risk management, procurement and asset.

Industry & Community Network Department (ICoN) Manager and Administrative and Professional Off Raizalhilmy Mohd Rais said he was thrilled with the experience of having to be able to share the aspirations

He said the Chairman spoke about UMP's direction in driving the university to be an exceptional institute of He also thanked the university for their attentiveness in organising training programmes aimed at enhancing

UMP Supporting Staff Association President (KESUMP), Abd. Latip Haji Deris praised the organiser for ever held, a platform that involved the university's top management.

He added that it was the way forward by the top management in playing its role and sharing their views to for the university be a referral feature by others.

Academic Staff Association Deputy President (PAKAD), Ahmad Johari Mohamad said the involvement o programme gave a clearer picture on a lot of things such as the university's Core Values – sustainin upholding principles that had been collectively agreed upon, being creative in making wise decision, tenac in measures taken – which were ethics in having excellent work culture practices.

*credit to Pekan Review



UMP Welcomes its Fourth Vice-Chancell

Professor Ir. Dr. Wan Azhar Wan Yusoff has been appointed as the new Vice-Chancellor for Universiti M effective from May 16, 2019 until May 15, 2022.

He is UMP's fourth Vice-Chancellor.

He received his document for the new post from former Vice-Chancellor, Professor Dato' Sri Dr. Daing N 2019.

The handover of duties ceremony was witnessed by UMP Board of Directors' Chairman, Dato' Sri Ibrahim A

It was held at the Banquet Hall of Tun Abdul Razak Chancellery, UMP Pekan Campus on May 16, 2019.

Professor. Ir. Dr. Wan Azhar Wan Yusoff expressed his appreciation and acknowledgement to Professo excellent service as the third Vice-Chancellor for 11 years.

"I have had the opportunity to personally learn a lot about his leadership in UMP.

"I am very thankful for the trust given to me to hold a variety of portfolios in UMP, over the years. The ro has been extensively put to good use to improve oneself with value added experience and knowledge," he

Professor. Ir. Dr. Wan Azhar added that the experience and knowledge gained would hopefully, be a source duties as the university's Vice-Chancellor.

Professor. Ir. Dr. Wan Azhar is from Pasir Putih, Kelantan. He has a Bachelor of Science degree in Michigan Ann Arbor, USA (1990), Masters' of Science in Mechanical Engineering from Rensselaer Pol Advanced Technology Manufacturing from Universiti Sains Malaysia (2004).

Prior to this new appointment, he was the Deputy Vice-Chancellor (Academic & International). He was appo

He was a lecturer in UMP's Faculty of Mechanical Engineering since 2004.

Professor Ir. Dr. Wan Azhar, 52, has held the post as Dean for Faculty of Manufacturing Engineering (F UMP Centre of Innovation and Academic Competitiveness Director from 2011 until 2013.

Dato' Sri Ibrahim also said with this appointment, he hoped that UMP would continue to maintain its technology university, steering its way in the fields of engineering and technology, not only in Malaysia but a

"The university would like to express its gratitude to UMP's third Vice-Chancellor, Professor Dato' Sri Dr. Father of Transformation, who has made vast contribution in elevating UMP as being among the best in As

"Being on the best track, UMP will continue to strengthen skills training in Technical Education and Vocat with the aspiration of the Education Ministry.

"The university will be supported by competent and professional staff and will make the academic infrastr the needs of industry and society," he said.

*credit to Pekan Review



UMP's Book on Tahfiz Education and Soft Skill Won Award at The

A book titled, 'Pendidikan Tahfiz dan Kemahiran Insaniah' (Tahfiz Education and Soft Skills) publish Publisher won the best general book (education category) at the National Book Award 2019 that was he May 10, 2019.

The book was written by Centre for Modern Languages & Human Sciences (CMLHS), Senior Lecturer, Dr.

Dr. Rashidi said he wrote the book because he wanted to see the extent of tahfiz education and soft skill d generic skills and applying these skills in facing current challenges.

"There are seven elements of generic skills shared in the book to ensure a well-balanced huffaz is effe critical thinking and problem solving, teamwork, continuous learning and information management, entrep and skills in leadership.

"The book also supports the government's aspiration in producing 125,000 huffaz nationwide by the year faith and takwa.

"The huffaz will be groomed to be leaders and professional workforce and are not limited to only being an i

"The book is also a production of a research work on enhancing al-Quran skills among students," he said.

In the Sharing@BookCafe programme organised by UMP Library recently, Dr. Rashidi shared his experien
comprising campus community and members of the public.

*credit to Pekan Review



Associate Prof. Dr Arun Gupta Created Beauty And Cosmetic Prod Keratin

Universiti Malaysia Pahang (UMP) researcher, Associate Professor Dr. Arun Gupta from Faculty of C
(FKKSA) led a group of researchers to commercially produce beauty care products called Keraglow,
feathers.

The products included anti-aging cream, moisturiser, serum, shampoo and other hair care items.

Associate Professor Dr. Arun's research group comprised foreign and local undergraduates – Basma Yah
Husain (Sudan), Triveni Soubam (India) as well as Malaysians Vanessa Alberto and Liyana Maryam.

Their research work had won a gold medal and special award at the Invention and New Products Exposit
and special award at Malaysia Technology Exposition 2018 and at the Creation, Innovation, Technology an
2017.

Their research finding served as an alternative to the placenta extracts and sheep fleece component often u products available in the market.

According to Associate Professor Dr. Arun, they discovered that the cost to extract keratin from sheep fleec

He noted that the country had a huge poultry slaughterhouses industry that disposed some four million t advantage of the situation to conduct a research and find ways to commercialise the waste.

“We found out that chicken feather consisted of 91% of protein, 8% of water and 1% keratin protein.

“Chicken feathers has special keratin and has 20 types of protein. Protein produced is treated for several unwanted substances that should not be present in cosmetic production,” he added.

He said the chicken feathers were processed at a factory belonging to a subsidiary, UMP Keraglow Sdn. Acknowledgement Certificate during the Bio-economy Innovation Award 2017.

He also said it was the first halal facility in Malaysia to develop a wide range of pharmaceutical and cosm adding, the facility produced 350 litre of keratin daily.

The capacity was expected to increase to 1,000 litre in the next two years, he added.

“To date, we have received demands from abroad and there are plans to form a collaboration with suitable

“Also, for ten years, this product research has its patent registered in the United States and Malaysia for ex pharmaceutical and cosmetic products,” he said.

*credit to Pekan Review

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