ISSUE

PARTNERS@UM

DECEMBER 2018

Farewell 2018! This was really an exciting year with our partners. Our units would like to wish all a million thanks and we look forward to more collaborations in 2019.









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From the desk of the Associate Vice Chancellor (Industry & Community Networks) University of Malaya

The year 2018 has certainly been productive and exciting year for units involved in community and industry partnerships in UM even as we all navigated the historic changes in our country. Activities across campus with partners were widespread bringing value and and impactful collaborations, too many to summarise here. From students engagement to academic and research collaborations UM continues to place great emphasis on partnerships. We were excited to be part of many national initiatives with our stakeholders and were happy to provide new platforms for collaborations such as UNIMAKER and UMXcelerate. More on these for sure in 2019! We are also proud to share the University rankings for UM, 19th in ASIA and 87th in the world! UM's management foresight in concentrating on building academic achievements through research & development, ensuring quality of teaching, collaborating with local and international universities and developing ties with the industries has borne fruit. Let's do even more together in 2019!

RYO UM Dec 2018



UNIMAKER FINALS – 24TH & 25TH NOV 2018

TOWARDS THE NATIONAL FOURTH INDUSTRIAL REVOLUTION (4IR)



UNIMAKER - NURTURING & CULTIVATING MAKER'S MOVEMENT

The Department of Higher Education and University of Malaya co-organized the inaugural UNIMAKER (University Maker) 2018 National Competition on the 24th and 25th November 2018 at Damansara City Mall. The event was graced by YBhg. Datin Paduka Ir. Dr. Siti Hamisah Binti Tapsir (Director General, Department of Higher Education).

UNIMAKER is an innovation and makers competition inspired by the Department of Higher Education, Ministry of Education Malaysia as a platform to nurture and cultivate the Maker's Movement in Universities Malaysia. This innovation challenge is open to all university students; public & private universities from diploma holders to PhD. The theme for this year's challenge is Industrial Revolution 4.0 (IR 4.0). A total of 20 finalists competed in the national level.



The champion, is the group called "WHATEVER", from Universiti Sains Malaysia with their winning project:

Precision Farming with Deep Learning and IoT

The inaugural UNIMAKER 2018 was officially launched early in the year curated by the University of Malaya and our coordinators from the Northern (USM), Southern (UTM), Eastern (UNISZA) and Central regions (UM). After 6 months of boot camps, regional competions and amazing pitches 5 teams were selected form each region

The finals held on the 24th and 25th of November in Kuala Lumpur brought together the 20 top team for a live pitch session in front of a tough 10 person Industry panel. The teams certainly rose to the occasion with thier innovative solutions and tech ideas and prototypes.

Prizes totalling RM300,000 was allocated to all winners of UNIMAKER this year including funds to facilitate IP protection and building their industry ready products for market validation. USM bagged the first and second places while UTM won the third place. The champion, with their project title "Precision Farming with Deep Learning and IoT", aims to use deep learning technique to help farmers achieve precision farming by its innovative plant diseases classification and IoT data analytics. Users can use a phone or drone camera to capture the plants images for real time disease prediction. When an abnormal event is detected, the farmer will be notified with the best suggestion and recommendation to solve the problem.

The finals saw the launch of 4 Maker spaces at the regional coordinator hubs in UM, USM, UTM and USNIZA with more exciting events to be announced in 2019. The final event also featured the UNIMAKER UNIVERSE PAVILION which saw exciting innovation pocket talks and performances, Innovation Space (Recruit Me station, where visitors could meet potential tech hirers and drop their CVs), A hands-on Makers space, A Gig Economy Pavilion by MDEC, AR / VR Learning Lab by WARISCAN and MyCRO, Showcases of Malaysia Innovation Ecosystem, UNIMAKER top 20 finalists showcase and Corporate partners showcase.

The program was funded by the Higher Education Department Ministry of Education with key sponsorship for the final event from Hong Leong Bank and Hong Leong Islamic Bank and other sponsors including Exxon Mobil, Symphony Restaurant by Chef Jo, Starbucks Malaysia, DC Mall and media partners, e-Fm and Asia Research News.

More information can be obtained from the website http://www.unimaker.my/
Write to us at pncjim@um.edu.my for sponsorship and partnership opportunities for UNIMAKER 2019

(Article provided by Research Promotion Unit, University of Malaya)



The participants from North, Central, East & South Zones, UM as the Finals organizer & YBhg Datin Paduka Ir Dr Siti Hamisah

Champion : Whatever - Project: Precision Farming with Deep Learning and IoT

1st Runner Up: 4Dynamo – Project: Making Malaysian Roads Safe Again
 2nd Runner Up: Proman – Project: Koral - The Automated Guided Fish Trap

NST Article: Taking university research to industry level By ROZANA SANI - August 8, 2018

https://www.nst.com.my/education/2018/08/399229/taking-university-research-industry-level



Pic – Post-graduate students doing research at University of Malaya's Faculty Engineering

By ROZANA SANI - News Straits Time - August 8, 2018

MUCH has been said about commercialising university research.

START UPS @ UM

This month features an NST interview with Professor Dr Rofina Yasmin and showcases 3 Tech companies by UM students who are a part of USTART, the University's Start Up Network

- MyCRO
- Hexon Data (prev U-Bus)
- Wariscan

It is often questioned — with many research papers produced and published each year, some accorded recognition as being highly cited supported with the development of product prototypes — why is it that many universities find it a challenge to get the invention or innovation out to market? The heart of the matter lies in the fact that often, the technology is not at the industry-commercialisation stage.

Universiti Malaya Centre of Innovation and Commercialisation (UMCIC) Director, Professor Dr Rofina Yasmin Othman said rather, when looked at in reality, the technology that came out of a university's research was usually at a very early stage. "If you look at the Technology Readiness Levels (TRL) — a measurement system used by the National Aeronautics and Space Administration (Nasa) to assess the maturity level of a particular technology from 1 to 9, where 1 is really basic and 9 is ready to market — you will find that university research is at TRL 3 despite a fantastic research paper, be it on nature or science or whether it contains breakthrough knowledge.

"The research might have undergone all the testing and validation processes, but it is still a laboratory prototype. "To get it to TRL 4, 5 and 6 (the industrial prototype level) university researchers must engage the industry. But, the problem is that 90 per cent of the industry constitutes small and medium enterprises (SMEs) and they might not have the capability or funds to turn university research into industry-ready prototypes."

SMEs, she pointed out, preferred to take on a ready-to-sell product, but would not be able to do much with fundamental research, like what UM focused on. To solve the problem, university researchers will have to be involved in forming an early-stage company to develop the research prototype into industry-ready products.

In UMCIC's earlier technopreneur programme, the centre had 16 researchers as chief executive officers, and half survived. "We allowed the researchers to take 60 per cent equity. They were given seed money and could develop new products," Rofina Yasmin said. "Last year we got four early-stage grants, not for commercialisation, but pre-commercialisation for the technologies. A start-up's success is not measured by how many products they sell, but how much money they raise. The money raised is linked to future potential."

UMCIC has rolled out another programme to take university research to the commercial stage — the UM Xccelerate Incubator, which focuses on accelerating research outcomes in key technology domains to marketable products. Xccelerate is a professionally managed full-serviced incubator that accelerates the commercialisation of UM innovations and technologies by facilitating industry uptake. It offers training and mentoring in entrepreneurship, as well as provides high-end technology services to the industry.

But instead of researchers or lecturers, the start-up owners are post-graduate students. "UM graduates 600 PhD Science annually for the past three years and we are meeting that target again this year," Rofina Yasmin said. She is also UM's Industry and Community Networks associate vice-chancellor. "But where will the 600 go? Most will leave the country as there are not much opportunity here. SMEs will not hire PhD researchers and multinational companies (MNCs) do not usually have their research functions in Malaysia.

"The option that has not been explored is for post-graduate students to take their research out to the market via start-ups.

"We are looking at this untapped resource to push our next phase of technoprepreneurship programme, a short-term acceleration programme to create start-ups from our research output. "Every year we fund 30 to 40 prototype grants. During the period of prototyping, we provide market access, support for finding clients, costing, etc. At the end of the prototyping period (six months) in the incubation programme, we will have a demo day to showcase the products to potential investors. We have 30 deep-tech companies within the incubator."

On future plans, Rofina Yasmin said the incubator would team up with Standard and Industrial Research Institute of Malaysia for product certification and Global Entrepreneur Movement for packaging. Super Factory Japan — a network of 300 small— and medium-sized Japanese manufacturers, who are world famous for their cutting edge technology in high precision manufacturing — will help with the technical needs or product development of the start-ups.

Original article: https://www.nst.com.my/education/2018/08/399229/taking-university-research-industry-level

UM Start Ups - Making dreams a reality.

MyCro - My Conceptual Robotics

MyCRO started by helping people to make prototypes and products since 2014. Besides being a manufacturer for 3D printers, they also provide training which can be tailor-made to customers' requirements. Ranging from Electronic & Electrical Design, Mechanical Design, Firmware and UI/UX of the product. MyCRO is now one of the companies in Malaysia to offer a massive range of prototyping and bespoke low volume manufacturing solutions all under one roof. MyCRO also actively participate in community engagements. Their product FDM 3D printer called RP Maker has entered the Sri Lanka and Japan market. Their CEO/Founder Mr Darween Reza graduated from University Malaya with a major in CAD and Manufacturing Engineering.

www.mycro.com.my / dreza@mycro.com.my

Hexon Data (Previously U-Bus)

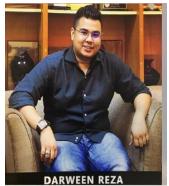
Hexon Data Sdn Bhd (previously U-Bus) is a data company with a focus on public transport. They help clients to increase ridership and non-fare revenues using data. MBPJ has used the apps for its public bus operation. The app - PJ City Bus is downloadable from app store. The application is to solve urban mobility challenges. The CEO Mr Max Lee Chia Chun received his Bachelor of Engineering (Mechanical) from University Malaya. He was Malaysia's top three finalists of the Global Entrepreneur Awards (GSEA) in 2014

https://hexondata.com / max@hexondata.com

Wariscan

Wariscan develops digitalization and tech solutions that help organisations transition to the digital age. We preserve physical objects via high-resolution scanning services, provide custom experience solutions: AR/VR, hologram, projection mapping and mobile apps that are tailor-made to meet customer requirements. In the end, we want to make sure that our customer can amaze and engage their audience - that will, in turn, generate more traffic, conversion, positive feedbacks, and revenue. The CEO, Mr Mohamad Hilman Nordin started his career starting with UM Student Startup under UMCIC with affiliations wth Cradle Fund Sdn Bhd and Teraju grant recipient.

https://wariscan.com / hilman@wariscan.com













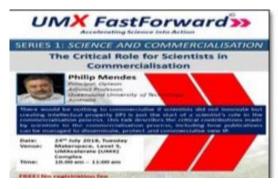
For research and community: https://www.um.edu.my/research-and-community

CEO TECH TALKS@ UM

KNOWLEDGE SHARING BY LEADING INDUSTRIAL PARTNERS

Two leading speakers for CEO Tech Talk this year share valuable Industry insight with our community:

24th July 2018: Mr Philip Mendes, Principal of Opteon Proprietary Limited, Brisbane, Australia; an Adjunct Professor at Queensland University of Technology shared his ideas on The Critical Role for Scientists in Commercialization. His talk focused on giving exposure on the importance of the knowhow in identifying opportunities, commercial partners, intellectual properties and management. http://www.opteon.com.au/





25th July 2018: YM Tunku Alizakri Raja Muhammad Alias, the then Deputy CEO of Employees Provident Fund (EPF), Malaysia, gave an inspiring and insightful speech on The Future of Work. His shared on the function of EPF, understanding the evolution of human activities over the century, the fundamentals of running a business, success factors and emergence of new industries from the combination of multiple technologies. He also cited the need for organizations to adopt new practices and for individuals to prepare for the future in line with the National 4th Industrial Revolution (IR4.0). http://www.kwsp.gov.my/portal/en/about-epf/overview-of-the-epf

UM would like to take this opportunity to congratulate YM Tunku on his appointment as CEO of EPF and we look forward to building more collaborations in 2019.





EYE ON CEO TECH TALK

Sharing Current Industry Trends

Since the advent of the CEO Tech Talks in 2014. top industry have been players invited to impart their knowledge and wisdom the university to community. This platform was created for benefit the participants and partners where the unique experiences of speakers could be shared and for industry the to understand the current progress and updates in higher education scene. Mooted by Prof Dr this Rofina Yasmin, quarterly event has featured more than 20 C-Suite speakers and 2019 will see many exciting talks. more Watch this space! And write to us if you wish to be on our mailing list pncjim@um.edu.my

The Annual *Anugerah Cemerlang Universiti Malaya* is UM's signature award event recognizing excellence in Academic performance and contributions by individuals and institutions to advancing the University's Mission and Vision. This includes contribution by Industry and Community partners. This years awards was graced by UM Chancelor His Royal Highness Sultan Dr. Nazrin Muizzuddin Shah Ibni Almarhum Sultan Azlan Muhibbuddin Shah Al-Maghfullah



AWARD FOR CORPORATE PARTNER IN HUMAN CAPITAL DEVELOPMENT:

MALAYSIA DIGITAL ECONOMY CORPORATION SDN BHD (MDEC)

REPRESENTED BY THE DIRECTOR OF TALENT & DIGITAL ENTREPRENEURSHI PN SITI NORLIZA MOHD SAHAR

AWARD FOR CORPORATE PARTNER IN RESEARCH:

OSRAM OPTO SEMICONDUCTORS (M) SDN BHD - REPRESENTED BY THE MANAGING DIRECTOR DR ROLAND MUELLER







INDUSTRY PARTNER

SPECIAL FEATURE

OLEON SDN BHD

Oleon S/B was selected as the winner of University of Malaya's Excellence Awards in 2017 under the category of Corporate Partner in Research. This was mainly based on the successful cooperation between Oleon and The Nanotechnology and Catalyst Research Centre (Nanocat, UM) on a collaborative research on a bio-ester lubricant refrigerant system. The award was presented by the honorable UM Chancellor, HRH Sultan Nazrin Muizzuddin Shah to the Managing Director (Asia) of Oleon, James de Caluwe & Research & Development Engineer Lai Yew Chong.





An MOA was signed between University of Malaya and Oleon on the 16th of April 2016 and covered cooperation on collaborative research, technology solutions and talent development in Green Chemistry and Nanotechnology.

LEMBAGA TABUNG HAJI MALAYSIA

Lembaga Tabung Haji (TH) was also the recipient of University of Malaya's Excellence Awards under Corporate Partner in Research for the study of Middle East Respiratory Coronavirus (MERS-CoV). This long-term collaboration (3 years) between TH

and UM's Tropical Infectious Diseases Research & Education Centre (TIDREC) since 2016 has resulted in a successful ongoing monitoring of Malaysian pilgrims' serological findings and the assessment on the risk of exposure to MERS-CoV (and antibodies) in the Middle East for pre and post pilgrimage. The commitment of TH to



give access of their infrastructure and enabling sampling stations to be set up by the UM researchers deserved a high recognition.



https://www.um.edu.my/docs/default-source/about-um_document/media-centre/annual-report/ltum17-lowres1.pdf?sfvrsn=4

http://www.oleon.com/news/um-and-oleon-sign-moa-on-bio-lubricant-research http://www.oleon.com/sites/default/files/Oleon CSR Report2017 finalversion.pdf

UM RESEARCH CARNIVAL 15th-17th NOVEMBER 201



YB FAHMI FADZIL

15th -16th November

University of Malaya held its Biannual Research Carnival with the theme "RESEARCH PARTNERSHIP FOR SOCIETAL IMPACT" which saw three days of exciting events highlighting research outputs, partnerships and sharing of knowledge and opinions. Among the events held included:

- A Keynote Speech on Society and University Symbiosis by YB Fahmi Fadzil, Member of Parliament for Lembah Pantai
- Forum on Roles in Research Sustainability & Societal Impact Panellists: Honorary Prof Dr Rajah Rasiah (Distinguished Professor 2017), Dato' Abdul Latif Hj Abu Seman, Dato Goh Pik Pin & Dato Azlam Shah Alias (Forum was moderated by Honorary Prof Datuk Dr Harith Ahmad
- Meet the Icons UM Alumni Sharing Session on The Journey: Aspire to be Inspired, YM Tan Sri Dr Tengku Mahaleel Tengku Ariff, Mr Mohd Azlin Kamarulzaman, Mr Izham Ismail, Dr Nurhidayah Roslan, Dr Azura Hashim, Ms Yasmin Rasyid, Dr Firdaus Hariri
- Industry & Academia Forum: Two Worlds Apart or Two Halves of A Pod Moderated by Associate Prof Dr Ivy Chung with panellists, Mr Chong Kim Foon (Oleon – Managing Director), Madam Balqais Yusoff (EPF – Head of Strategy), Mr John Kang (CJ Bio Malaysia - CEO)
- Research Pitch Projects Challenge RM30k research grant prize for 4 top winners
- Research Aesthetics Exhibition of UM Products
- UMRC Run 2018 Exciting Duathlon (Running and Cycling) 17th November 2018

Thank you to all that attended, contributed and shared to create the best outcome from our research and development programmes



MEET THE ICON – UM ALUMNI



ROLES IN RESEARCH SUSTAINABILITY & SOCIETAL IMPACT 15 NOV 2018



MODERATOR: HONORARY PROF DATUK DR HARITH AHMAD

Distinguished Professor of Physics at Faculty of Science University of Malaya

https://umconference.um.edu.my/umrc2018

Promotional Video : https://drive.google.com/file/d/1DcQbXsRMachE-h m1S6CCgvHnP4Z81is/view

For more information :

https://umconference.um.edu.my/umrc2018 https://www.facebook.com/Universiti.Malaya.Research/posts/2195077634082829

FORGING LINKS WITH INDUSTRY



15th Aug 2018 - Dewan Tunku Canselor, University of Malaya

A forum entitled "IR4.0 in Sustainable Education: Challenges and Direction" was held as part of the Expo on University Research Invention, Creation & Innovation (EUREKA) 2018. The panellists were Low Ngai Yuen, Executive Director, Global Entrepreneurship Movement (GEM), Prof. Dr. Rofina Yasmin Othman, Director of UMCIC and Dr. Norazmi Alias, Senior Vice President, Research Management, CREST. The forum was moderated by Dr. Mohd Rozi Ismail, Deputy Director of Institut Pendidikan Guru Malaysia (IPGM). #UniversitiMalaya #UMCIC



13TH Sept 2018 - UMCIC received a working visit by a delegation from Mimos Berhad this morning. The MIMOS delegation led by Mr. Zamri Ismail of Business Development & Commercialisation (University Engagement & Government Liaison), also included Pupp Bayura Abdul Rabim and Dr. Han Hack Woon, Discussion

Puan Bazura Abdul Rahim and Dr. Hon Hock Woon. Discussion focused on exploring new collaboration opportunities between UM and MIMOS. The delegation was also taken to a tour of the UMXcelerate (UMX) Complex

and @sandboxcafe.my. #UniversitiMalaya #UMCIC #UMX

(Photo credits: UMCIC and Mr. Zamri Ismail).



22nd Oct 2018 – Social Innovation : How the Different Sector Players Influence the Ecosystem

(A Dialogue Programme at Perdana Hall, MIDA Central organized by Agensi Inovasi Malaysia (AIM). Moderated by Dr Melissa Foo, the forum discussed on the Role of Public, Private, People and Professionals (4Ps) in Malaysia's Social Economy was held to discuss on understanding social innovation and harnessing the collective power of innovation from the public, private, people and professional sector to deliver better social services. The event was launched by YB Sen Tuan Waytha Moorthy Ponnusamy, Minister of National Unity and Social Wellbeing. Opening speech was given by CEO of AIM, Mr Naser Jaafar. The Panel speakers were Pn Sri Maimon Ariff Patail, Director of CSR Hap Seng Consolidated Bhd, Prof Dr Rofina Yasmin Othman, Director of UMCIC, Ir Amran Mahzan, Exec Director of MERCY Malaysia and Mr Mohd Firdaus Azharuddin CEO of INSKEN (Institut Keusahawanan Negara). The aim was to encourage the nation to participate in seeking new solutions and inculcate creative problem solving for real life community issues - social intervention that complement Government efforts for positive impact to the nation. #SIX2018



On 3rd of July 2018, UMCIC was honoured to receive a working visit by Mr. Michael Milo and Mrs. Flordeliza Dayrit, of Milo Productions Inc., a Canadian company specialising in production of children's television series. The meeting focused on exploring collaborations for @muslimkids.tv , an internationally-renowned interactive platform of educational videos, games and educational resources. Also present were members of @wariscanproject , UM student start-up.

(Wariscan is featured in page 3) #UniversitiMalaya #UMCIC

Visit by Milo Productions Incorporated

IP Commercialization Overview



THE 9th INTERNATIONAL GREENTECH & ECO PRODUCTS EXHIBITION & CONFERENCE MALAYSIA (IGEM): 17th - 20th of Oct 2018





IGEM is the biggest flagship event organised annually by the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC) to create a platform for solution providers and green energy businesses to tap into the fast expanding ASEAN market by showcasing the latest innovations to policy makers, government organisations, investors and mass market. UMCIC was on board to in promoting **UM's Living Lab Programmes** and **UM ready-to-go research products and technologies** by researchers. This was a perfect platform to meet investors or link with strategic partners for collaborations. The event was launched by the Minister, YB Yeo Bee Yin. The University of Malaya joins in on the efforts in providing solutions for sustainable, green technology, renewable energy, environmental remediation and flood mitigation among others. For more information please contact UMCIC at https://umcic.um.edu.my or https://umcic.um.edu.my or https://www.facebook.com/TTO.UMCIC/

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2. UMCentre for Innovation & Commercialisation (UMCIC)

Level 5, Research Management & Innovation Complex, University of Malaya, Lingkaran Wawasan, 50603 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur

Tel: 03-7967 7351 Faks: 03-7967 6291 Website: http://umcic.um.edu.my

3. UM Community & Sustainability Centre (UMCARES)

Level 6, Research Management & Innovation Complex, University of Malaya, Lingkaran Wawasan, 50603 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur

Tel: 03-7967 7357/7358/7360 Faks: 03-7967 7949 Website: http://umcares.um.edu.my

4. UM Consultancy Unit (UPUM)

Level 6, Research Management & Innovation Complex, University of Malaya, Lingkaran Wawasan, 50603 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur

Tel: 03-7967 3556/3557 Faks: 03-7958 7061 Website: http://upum.um.edu.my