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OFFICE OF POSTGRADUATE STUDIES





POSTDOCTORAL RESEARCH FELLOWSHIP SCHEME (PDRF)



Eligibility

Candidate must have a doctoral degree from an institution of higher learning that is recognised by the UCSI University Senate and was obtained within five (5) years from the date of application.

For more information, please send your inquiry to Mr Ian Griffin Prawiromurato at ops@ucsiuniversity.edu.my

Content

Messages from the Directors of CERVIE and OPS Featured Researcher Strategic Planning Workshop Piano Pedagogy Conference 2019 Malaysian Research University Network Young Researchers (MY-RGS) 2019 Top Cited Articles in SCOPUS StarTrek Programme CERVIE Activities

UCSI University

MESSAGE FROM THE DIRECTORS OF CERVIE AND OPS



May I welcome you to the first volume of the **Research@UCSI** in year 2020. This newsletter is one of CERVIE's initiatives to develop reearch culture at UCSI University, which serves as a platform to communicate with the UCSI community that comes from all levels. Achievements and highlights of our fellow colleagues and students will be captured and updated in **Research@UCSI**. Through this newsletter we would like to encourage more collaborative multidisciplinary research in the near future. Let us strive for the research excellence of the university!

Professor Dr Hoh Boon Peng Director Centre of Excellence for Research, Value Innovation and Entrepreneurship (CERVIE)

Greetings to everyone.

I would like to welcome all new postgraduate students to UCSI University. As you embark on your exciting postgraduate research journey, the process of getting started along the journey can seem overwhelming with challenges. Nonetheless, our Office of Postgraduate Studies (OPS) together with respective faculty academic staff and supporting staff will always be ready to help you in achieving your goals and defining your future career path. UCSI University has made prominent presence in global rankings as the nation's Best Private University for the second year in a row, according to QS World University Rankings 2020. We believe UCSI University will continue to rise in the world rankings, in line with UCSI University's aim to enhance research and boost postgraduate research students' enrolment in 2020 and years to come. For First-Class Honours students, we have a fast-track PhD Direct Admission programme at UCSI University. In addition, we have launched a Post-Doctoral Research Fellowship Scheme for young PhD holders to enable them to pursue advanced research at UCSI University.



Remember, every postgraduate research journey is different and unique with its research aims, findings, and most importantly, contributing to the body of knowledge as well as to the society. It is important to get involved, try new things and make the most of your time here, while enjoying your research journey, completing it on time and moving on to the next step of your professional career.

We look forward to becoming a part of your "postgraduate journey" at UCSI University.

Associate Professor Dr Yim Hip Seng Director Office of Postgraduate Studies (OPS)



FEATURED RESEARCHER Academician Senior Professor Dato' Dr Khalid Yusoff, FASc



Academician Senior Professor Dato' Dr Khalid Yusoff, FASc

DPSK, PSK, MBBS (Melb.), Doctor of Med Sc (*honoris causa*) (Melb), MRCP (UK), FRCP (Lond.), FRCP (Glasg.), FRCP (Edin.), FACC (USA), Hon. FRACP (Aus.), Hon. FPCP (Phil.), FIAS, FNHAM, FMSA, FAMM **Vice-Chancellor and President UCSI University**

Academician Senior Professor Dato' Dr Khalid Yusoff became Vice-Chancellor and President of UCSI University in September 2013. He was conferred with the Emeritus Professor title by Universiti Teknologi MARA (UiTM) in 2018 for his leadership, astounding achievements and distinguished contribution to the academia, research, service to the profession.

Professor Dato' Dr Khalid began his medical career in the 1970s, as a student in Melbourne, Australia. He was offered a scholarship to pursue his one-year matriculation studies in Australia after graduating from The Malay College Kuala Kangsar (MCKK) in Malaysia. Subsequently, he was a recipient of the Colombo Plan Scholarship, which was awarded to the excellent students with identified potential for future leadership to undertake undergraduate studies at an Australian university. He managed to secure one of the ten places for outstanding international students for the medical degree at Melbourne Medical School at University of Melbourne.

Professor Dato' Dr Khalid developed his interest in medicine due to his curiosity in the physiology and pathology of the human body system. He was trained in Cardiology at the University of Newcstle upon Tyne, UK.

On returning to Malaysia, Professor Dato' Dr Khalid built a strong career in academia, bolstered by national and international recognition of his contributions. He served at the Faculty of Medicine, UKM where he began to teach and cultivate the practice and scientific investigation of his specialty. He established the first clinical cardiac electrophysiology laboratory in Malaysia and advocated new techniques such as 3D-echocardiology, endothelial function, pulse wave velocity and heart rate variability assessment. He set up the Heart Centre at Universiti Kebangsaan Malaysia (UKM) and UKM Molecular Biology Institute (UMBI). Later, when appointed as the Foundation Dean of Medicine at Universiti Teknologi MARA (UiTM), he established the Institute for Medical Molecular Biotechnology (IMMB) and the Centre for Translational Research and Epidemiology (The CenTRE), which have fast become substantial research centres in Malaysia.





"Move forward, look into the future." Professor Dato' Dr Khalid Yusoff

Professor Dato' Dr Khalid had previously represented Malaysia as a member of the Global Research Council. As a highly prolific scholar and researcher, Professor Dato' Dr Khalid has published papers in the world's leading journals such as Lancet, New England Journal of Medicine, and Journal of the American Medical Association (JAMA). He also co-authored a few Clinical Practice Guidelines and the Malaysian Guidelines on Good Clinical Practice (GCP) and led in writing the Malaysian Code of Responsible Conduct in Research and Public Research Assets Assessment. In addition he was involved in reviewing several Higher Education Centres of Excellence (HiCOEs) and the impacts of Research Universities. He was a member of the Steering Committee on the set up of Newton Ungku Omar Fund. He is also actively reviewing scientific papers for several journals including the Journal of Hypertension, Saudi Journal of Health Sciences, the British Medical Journal Open and the Journal of Clinical Epidemiology.

Professor Dato' Dr Khalid was accorded the Distinguished Scholar Award by UiTM in 2011 in recognition of his outstanding service and scholastic contribution. He was conferred 'Doctor of Medical Sciences' (*honoris causa*) by University of Melbourne for his 'distinguished eminence in medical science, research and medical education'. He was bestowed the Darjah Kebesaran DiRaja Sultan Kelantan '*Darjah Setia Mahkota Kelantan*' (PSK) and '*Dato' Paduka Setia Mahkota Kelantan*' (DPSK), as a recognition for his relentless pursuit of excellence in research and contributions to education and medical science in the country and abroad.

Professor Dato' Dr Khalid's current research interest in cardiology focuses on determining the effects of socioeconomic development on cardiovascular diseases (PURE and REDISCOVER Study), identifying the causes in the healthcare gap for hypertension among the B40 sector (RESPOND Study), using polypill in the treatment of hypertension (TIPS-3) and other clinical studies (COMPASS, CANVASS-R, ODYSSEY CV Outcomes, HOPE-4). These areas of research were done collaboratively with with fellow scientists from the UK, Canada, Australia and the USA, except for REDISCOVER which was funded by the LRGS (Ministry of Higher Education) and which saw him as either the Lead Researcher, National Leader and/or member of the Steering Committee. The findings were published in top international journals. He is also interested in research focusing on cancer metastasis. He has taken part in the nation's fight to subdue the scourge of cancer through the War-on-Cancer, an initiative of the College of Physicians Malaysia.

Professor Dato' Dr Khalid has inspired many staff and students in making a contribution to our nation. He has led the university in many strategic partnerships and collaborations with academic institutions and industries. He strongly encourages researchers to perform research which could help to address current socioeconomic and environmental issues. He continues to inspire UCSI staff and students to **'Go beyond; Be profound: Make a difference'.**



STRATEGIC PLANNING WORKSHOP

On 18 January 2020, the Office of Deputy Vice-Chancellor (Research and Postgraduate), together with CERVIE and OPS have organised a Strategic Planning Workshop. Deans, deputy deans, heads of research, senior professors and academicians were invited to join this workshop. The workshop aimed to determine UCSI University's niche research areas, setting up targets to increase research deliverables and strategies to achieve these targets.



Top: Briefing by Professor Phang Bottom: Breakout sessions for discussion

48 members of the faculties have attended this workshop where they were given briefings by the Deputy Vice-Chancellor, Professor Dr Phang Siew Moi, and Director of CERVIE, Professor Dr Hoh Boon Peng, on the aims and targets of the workshop. The briefings were followed by breakout groups discussion where faculty members discussed the strengths and limitations of the research based on their respective faculties in the university. Their discussions led to the identification of possible research niche areas and expertise available in the university.

Strategies and action plans were proposed to maximise the strengths and opportunities available while mitigating possible risks and threats in the pursuit to increase the research deliverables and outputs. The younger faculty members benefitted from the breakout session via the knowledge and experience shared by the senior members. This strategic planning workshop will be one of the important milestones for UCSI University to promote research, value innovation and entrepreneurship as one of the University's core drivers.



Participants of the Strategic Planning Workshop



PIANO PEDAGOGY CONFERENCE 2019

"Music Expressions Through Technique"

UCSI Institute of Music hosted its second piano pedagogy conference at the UCSI University (South Wing) on 11 to 12 November 2019. The success of their first conference in 2017 rested upon a variety of platforms that include pre-conference workshops, masterclasses, and paper presentations. Participants found themselves immersed in an intellectually-stimulating environment, acquiring many up-to-date pedagogical tips that were ready for application in their private teaching. The conference was also graced by two highly-respected piano pedagogues serving as keynote speakers, namely Professor Emeritus Dr Michael Campbell who hailed from the USA and celebrated Malaysian jazz pianist Michael Veerapen.



We were honoured to have Vice-Chancellor Senior Professor Dato' Dr Khalid Yusoff, FASc to provide the opening speech, as well as Professor Dr P'ng Tean Hwa, Director of IMus, welcoming everyone to the event. For the 2019 conference, UCSI Institute of Music proudly presented two outstanding piano pedagogues who have continued to make remarkable contributions to the field of piano studies – Dr Murray McLachlan (Royal Northern College of Music in England) and Dr Denny Euprasert (Dean of Rangsit University Conservatory of Music in Thailand). As keynote speakers, Dr McLachlan provided new insights to classical piano playing by examining the interconnectivity between music expressions and technique; while Dr Euprasert's speech explored a pertinent topic in jazz studies by unraveling the intricate procedures in teaching jazz improvisation.

UCSI Institute of Music was pleased that the 2019 conference had attracted close to 120 participants that include academics, professional musicians, private teachers, and students. The strength of the conference was made apparent by the broad range of relevant topics covered by all 13 presenters with diverse backgrounds, who came from the surrounding region and beyond, such as Australia, New Zealand, the USA, to as far as Finland. Naturally, a conference of such dimension would not have been made possible without the strong support from UCSI University, the Piano Pedagogy Conference Organising Committee, and our industrial associates and sponsors from near and far. UCSI Institute of Music would like to express its deepest gratitude to them all.





Key Speakers

Dr Murray McLachlan – Chair of the UK section of the European Piano Teachers' Association (EPTA UK), is the Head of Keyboard at Chetham's School of Music and a senior tutor at the Royal Northern College of Music in Manchester, England. Dr McLachlan has made over 40 commercial recordings which have consistently received outstanding reviews, including "key recording" and "rosette" status in the Penguin Guide to CDs. He has often been associated with Russian and British Music, recording the complete sonatas of Myaskovsky, Prokofiev, and Khatchaturian as well as the complete piano music of Erik Chisholm and John McLeod. As a soloist, he has performed across all five continents. As a teacher, many of his students have gone on to win competitions and have successful careers. Dr McLachlan enjoys giving masterclasses all over the world and has also been active as a juror for international piano competitions.



Dr Denny Euprasert – Dean of Rangsit University Conservatory of Music and the Director of RSU Jazz Orchestra has earned a Doctor of Arts degree in Music Theory and Composition with a secondary emphasis on Jazz Pedagogy from the University of Northern Colorado, a Master of Music degree in Jazz Studies from the University of North Texas, and a Bachelor of Fine Arts degree in Jazz Piano Performance from Cornish College of the Arts. Previously, he has taught at Mahidol University and was a visiting scholar at Washington and Lee University.



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MALAYSIAN RESEARCH UNIVERSITY NETWORK YOUNG RESEARCHERS (MY-RGS)



Title: A dual-pronged approach to increase production of farmed tilapia using lactococcal-based vaccination and enzybiotic.

Tilapia is the second most farmed fish in the world due to its high consumer demand, ease in farming and rapid growth rate. Unfortunately, one of the most problematic issues affecting farmed tilapia is Streptococcus agalactiae, a pathogen which infects both animals and humans. This project will result in development of functional fish feed containing lactococcal cultures capable of producing a prophylactic vaccine and a therapeutic enzybiotic to protect tilapia against S. agalactiae infections. This strategy can potentially be extrapolated to a wide range of different pathogens in different animals by customising the proteins expressed by L. lactis. In the future, other probiotic strains with different probiotic properties can also be engineered to produce the vaccine and enzybiotic, thus extending the probiotic potential of the feed.

This project proposes a strategy to increase tilapia survivability, productivity, and prevent food borne streptococcosis, thereby addressing the food security and safety call whilst combating the AMR challenge. It uses a non-invasive approach and its use can be extended to other animals and diseases. It will also help us gain a better understanding on current fish farmers practice and to educate fish farmers on the AMR problems and provide them alternatives to antibiotics which can help them sustain their business. The output of this comprehensive study is expected to enhance the aquaculture production productivity through antibiotic-free health measures and assist the achievement of the food security agenda outlined in the Malaysia National Agro-Food Policy 2011-2020.



MALAYSIAN RESEARCH UNIVERSITY NETWORK YOUNG RESEARCHERS (MY-RGS)



Title: Performance evaluation of agile solar roof tile smart HVAC technology

The energy demand for heating, ventilation and air conditioning (HVAC) systems is increasing rapidly due to population growth and more frequent occurrence of extreme weather conditions. A sustainable future supply of energy for HVAC is therefore of direct interest especially to the public, technology investors/industries and the authorities/government. At present, HVAC system is driven entirely by renewable energy emerges as a modern and cutting-edge technology solutions to overcome those energy and environmental challenges. This is due to the extensive energy demand imposed by the conventional HVAC system that subsequently contributes to the anthropogenic emissions of greenhouse gases. However, only scare study has been performed in exploring the opportunity of smart green HVAC technology in Asian region, which thus confirmed the presence of a project gap. The objective of this project is to develop and evaluate the performance of an agile solar roof tile smart HVAC technology through computational approach (via artificial intelligent and big data analytics) coupled with prototype design and testing with the focal objective being to collect solar energy to produce hot water and aid in cooling by producing comfort air.

Its unique sustainable design comes from the integration of adsorption technology with phase change material (PCM) as solar energy storage mechanism for night operation, eliminating the requirement for conventional hot water storage tanks and auxiliary heating, thus reducing cost, space and carbon footprint. Latent heat storage in PCM is attractive because of its high energy storage capacity in small volume and charging and discharging heat at constant temperature. This innovative technology can be a game changer for future HVAC applications because of its practicality coupled with maximised solar energy utilisation. Its simple features, long life and its application as an independent energy technology with/without off-grid situations means it can be easily adopted for residential application and hospitality industry (resort and hotel) especially in developing countries thus creating significant social impact. This project involves bottom to top (downstream to upstream) research phases, which include the preparation of nanomaterial-based PCM composite as a thermal energy storage until the applicability and feasibility (test rig) of an agile solar roof tile smart HVAC system to be in-line with contemporary renewable energy incentives offered by the Malaysian Government. This proposed project is highly relevant to the National policy on Industry 4.0 that subsequently provides significant contribution towards achieving the UN Sustainable Development Goals (SDGs); namely SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action) respectively.



2019 TOP CITED ARTICLES IN SCOPUS

Artif Intell Rev https://doi.org/10.1007/s10462-017-9596-9



Pythagorean fuzzy set: state of the art and future directions

Xindong Peng¹ · Ganeshsree Selvachandran²

Associate Professor Dr Ganeshsree A/P Selvachandran

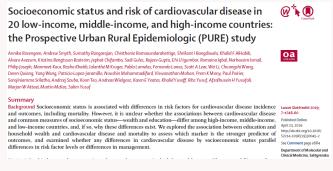
Faculty of Business and Information Science

Predictive model assessment in PLS-SEM: guidelines for using PLSpredict



Associate Professor Dr Hiram Ting

Faculty of Hospitality and Tourism Management



Academician Senior Professor Dato' Dr Khalid Yusoff

Faculty of Medicine and Health Sciences



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ABSTRACT

The emergences of Web 2.0 and cloud computing have contributed greatly to the prevalence of electronic Word-of-Mouth (eWoM). Unlike most of the existing

Professor Dr Ooi Keng Boon

Faculty of Business and Information Science



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Production, structure and morphology of exopolysaccharides yielded by submerged fermentation of *Antrodia cinnamomea*

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Faculty of Applied Sciences



Faculty of Engineering, Technology and Built Environment

Note:

The publications are selected based on their number of citations recorded in the SCOPUS as per 31 January 2020.



STARTREK PROGRAMME

Faculty of Pharmaceutical Sciences University of Chicago, USA



Left picture: Lee Shuo Yu and Eugene with Professor Dr Jerry Yeo (2nd from left) and his pharmacogenomics research team members.

Two of our Bachelor of Pharmacy students, Lee Shuo Yu and Eugene Low Yi Ming were given the opportunity to pursue their pharmacogenomics research attachment at Clinical Pharmacogenomics Laboratory within the basement of Mitchell Hospital, University of Chicago Medicine during the semester break. Eugene was working on the detection of Single Nucleotide Polymorphisms (SNPs) for important genes in DNA. Shuo Yu was working on participatory genomic test associated with CYP2D6 enzyme, translation of genotype into phenotype and their correlations with clinically important drugs therapy.

University of British Columbia, Canada



Left picture: (from left) Sim Lih Sheng, Poh Huey Sze, Ng Demi, Chong Lih Yoong, Eng Wee Kie and Lim Ji Hong with the project manager, Ms Ginette Vallee (4th from left) from University of British Columbia.

Six of our Bachelor of Pharmacy students were given the opportunity to participate in the student attachment programme at University of British Columbia, Canada between July and August 2019. They have participated in the learning modules including "Making Better Medicines", "The Discovery of New Medicines" and "Personalising Medicines with Genomics and Biotechnology". It was an enriching experience for them to be able to enhance their knowledge in pharmaceutical and personalised medicines.



CERVIE Activities



FRGS Workshop

The workshop was held on 31 January 2020 and attended by 49 researchers. Associate Professor Dr Zahari Ishak (UM) and Associate Professor Dr Kalavathy (UiTM) were invited to give talks on the tips and tricks of writing grant application proposals including the performing patent search, initiating industrial collaboration and others.

FRGS Training Workshop

A series of workshops were conducted in January 2020 to assist academic staff in preparing their FRGS research proposals. The workshops were attended by 47 academic staff with 33 FRGS proposals being in progress of preparation.



Editorial Board

Assistant Professor Dr Chew Yik Ling Dr Jonathan Yong Chung Ee Ms Nursyafiqah Ramli Dr Thung Wei Eng Dr Hong Sok Lai

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