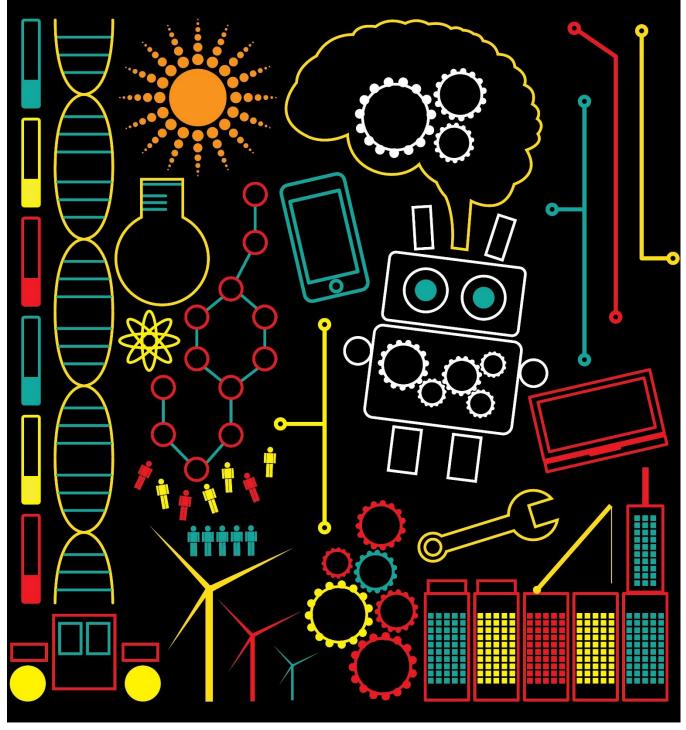




January - September 2019 Issue 01

# School of Science and Technology



# Preface



Dear Colleagues, Collaborators, Students, Visitors and Guests,

It is with great pleasure I welcome you to the inaugural issue of the Bulletin of the School of Science and Technology at Sunway University. For a number of years, our School has been a dynamic and fastgrowing integral part of the University. We have offered contemporary and highly-relevant undergraduate and postgraduate academic programs. At the same time, we have carried out a growing volume of quality research leading to significant top-calibre scholarly outputs. All of this has been ultimately contributing towards advancing our institution to Asia's and world's top university league. Our current strength is based on more than 100 academic and administrative staff, who educate close to 1,700 undergraduate and over 150 postgraduate students, and who are also carried out professional, research and social activities. We are enjoying impressive physical facilities and top-quality equipment.

Such a solid foundation combined with a strong feeling of purpose and backed by the generous financial backing from the Jeffrey Cheah Foundation have enabled us to achieve proven excellence in teaching, supervision, research, and community engagement. With already quite formidable strength as well as national and international recognition, the School has reached a stage where it is essential to establish an additional avenue to communicate our goals, initiatives, plans, new ideas, achievements, problems and observations, constructive criticism, and other items that could help to support our progression while also informing and engaging the School stakeholders. I hope the new Bulletin will be able to play this important role. It is in the capable hands of the Bulletin Editor – Jacky Tan, who will be leading a small team of Co-Editors: Hani Zalehan, Catherine Chan, and Teo Wei Nie. I would like to sincerely congratulate and thank the team for their great efforts and excellent job.

The Bulletin will be produced four times a year. The chosen three-month period is not too long. However, for our relatively large and highly active School, I am sure, there will be more than enough interesting materials, meaningful academic-related and general-interest information, event reports and proposals, photos, worthy new developments, social events, new staff bios, and many more, so to make it packed always. In addition to improving our reporting data collection, work planning, forthcoming events informing, views sharing, etc., I do hope that the Bulletin will also contribute to making us at the School to work better as a team.

Please enjoy reading this first Bulletin issue. The Editorial Team and the School management would also be very grateful to you for providing your feedback on how it can be improved and made more interesting, informative, and overall attractive.

Serge Demidenko

Dean

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# Happening @ SST



#### Sunway University Sets Up Malaysia's First Dedicated 2D Materials Research Lab

- The Lab for the Next Technological Breakthrough in the 4.0 Industry Revolution

KUALA LUMPUR, July 19 (Bernama) -- Along with the national aspiration to fuel Malaysia to be an advanced economy nation through Industry 4.0, Sunway University launched its state-of-the-art Graphene and Advanced 2D Materials Research Lab recently.

The Graphene and Advanced 2D Materials Research Lab which comprises leading-edge equipment and facilities worth RM3.5 million will be the place to synthesise and perform different researches on 2D materials and its analogues for industry application. Currently, the Research Lab houses the developing of a novel graphene nano lubricant for automotive and industrial application as well as new 2D materials for supercapattery and low-cost thermoelectric generators. The Research Group has accrued more than RM4 millions of internal and external grants for these on-going projects. Upholding multidisciplinary research approach, the Research Group has already published at least 50 papers in top quality journals and received a gold award from the 30<sup>th</sup> International Invention, Innovation and Technology Exhibition (ITEX) competition.

The Graphene and Advanced 2D Materials Research Lab was launched by the Vice-Chancellor of Sunway University, Professor Graeme Wilkinson together with the CEO of NanoMalaysia Bhd., Dr. Rezal Khairi Ahmad. During the launch, Sunway University and NanoMalaysia Bhd., which is the Lead Agency to execute the National Graphene Action Plan 2020, also inked a strategic Memorandum of Understanding (MoU) to strengthen their collaboration in the field of graphene. Professor Wilkinson said "This lab has come about because we were fortunate to be able to attract Professor Khalid to Sunway University a few years ago. He is a true expert in the field of nanomaterials and graphene in particular. He has built an impressive Research Group with co-researchers with multidisciplinary expertise who between them are well-suited to driving advanced research into the use of advanced 2D materials".

"I would also like to express my sincere thanks to NanoMalaysia for joining with us and helping our Research Group take their work to the next level in terms of commercialisation. This kind of partnership is excellent and can help academia engage more fruitfully with high tech industries from which the whole country can benefit," added Professor Wilkinson.

Dr. Rezal Khairi said "Malaysia's first Graphene Research Lab at Sunway University aligns to the country's National Graphene Action Plan and Fourth Industrial Revolution aspirations. It provides a cost-effective platform for Malaysia's small and medium enterprises to innovate high value graphene-based products for sustainable business growth thus supporting the newly launched National Entrepreneurship Policy."

"2D materials are the wonder materials of 21<sup>st</sup> century, it is like a deck of cards that could be tailored to fit into any desired applications ranging from electronics to energy storage. These Smart materials will play a pivotal role in manufacturing smart devices that are going to drive the industry 4.0" added Professor Mohammed Khalid, the Head of the Graphene and Advanced 2D Materials Research Group.

The event was attended by about 15 companies ranging from large corporations to small and medium enterprises across different industries.

"We strongly believe that collaboration with industry is an important precursor of national innovation system, particularly in today's fast moving and knowledge intensive global markets," said Matthijs Van Leeuwen, Director of Sunway R&D Sdn. Bhd. The Sunway R&D is a wholly owned subsidiary of Sunway University, and it aims to promote university–industry collaboration through contract research and consultancy, in the following 5 key areas: health and wellbeing, transformative and advanced material sciences, digital living, data and cyber security, and sustainable future.

Over the years, Sunway University has strategically invested in cutting-edge facilities and equipment to drive high impact research programmes, for the development of technologies that address the world's most pressing issues. In addition to its academic schools, Sunway University owns leading research network that scales across nine research centres, namely: Centre of Biomedical Physics, Centre of Research-Creation in Digital Media, Centre for Virus and Vaccine Research, Research Centre for Carbon Dioxide Capture and Utilisation, Research Centre for Crystalline Materials, Research Centre on Sustainability Development, and Jeffrey Cheah Institute of South East Asia. Sunway University is also engaged in global research collaborations with the world's top 10 universities such as Harvard University, University of Oxford and University of Cambridge.

[Source: http://mrem.bernama.com/viewsm.php?idm=35043]



#### SST Staff Retreat 2019

The 2019 SST staff retreat was held on 6 & 7 July in the Grand Ion Delemen Hotel at Genting Highlands. It was a great opportunity for academic and administrative staff from the department and research centres/group to get together for networking and bonding.





#### **Dean's Communication Session (August 2019 Semester)**

The Dean's Communication Session was held on 24 September 2019. Dean shared with the SST team on the SST student & staff statistics, followed by the new appointment, student barometer results, staff & students' academic achievements and other school updates. Associate Dean (Research), Professor Kheireddine shared on the SST research output statistics, staff & students' research achievements, research opportunities & collaboration and other research updates. The Session ended with the staff lunch gathering.



#### 1st Euro-Asia Conference on CO<sub>2</sub> Capture and Utilisation (EACCO<sub>2</sub>CU'2019)

Research Centre for Carbon Dioxide Capture and Utilisation in collaboration with Lancaster University, Queen's University Belfast, University Malaysia Perlis (UNIMAP), University of Malaya (UM), and International Islamic University Malaysia (IIUM) were organising the 1st Euro-Asia Conference on CO<sub>2</sub> Capture and Utilisation (EACCO<sub>2</sub>CU'2019) on 6 - 8 August 2019 in Sunway University. The event was launched by our very own Vice-Chancellor of Sunway University, Professor Graeme Wilkinson. Presenting the welcome remarks for the event was Professor Mohamed Kheireddine Aroua, Chairman of EACCO2CU 2019. This conference was the 1st of its kind and a joint-collaboration between universities from Asia as well as Europe that discuss on CO2 capture and utilisation.

#### Public Seminar: Advanced Multiplex Elisa Technique

Centre for Virus and Vaccine Research organized a Public Seminar by Dr. Thuan D. Bui [PhD, MBA; CEO of i-DNA Biotechnology] on 31 July 2019. The topic is "Advanced Multiplex Elisa Technique", introducing ELISA which is the gold standard technique for direct quantitative measurement of protein concentration in biological samples. It is a commonly used laboratory technique in a wide range of industries, including medical, biotechnology, foods & beverage and etc.

#### **Monoclonal Antibody Workshop 2019**

Centre for Virus and Vaccine Research has invited Associate Professor Paul MacAry, Director of Immunology Programme, Life Science Institute, from the National University of Singapore to give four lectures on 15 & 16 August 2019, on "Understanding the principles and advanced applications of monoclonal antibodies against Dengue and Cancers." The objectives of the 2 days hands-on workshop were as follows:

- To screen the mAbs secreted by hybridomas against DENV by ELISA
- To evaluate the antibody dependent enhancing (ADE) activity of mAbs in vitro
- To understand the purification of mAbs from Hybridoma
- To conduct plaque reduction neutralization test (PRNT)

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Professor Wilson delivered his seminar talk to SST staff and postgraduate students.



Dean of SST, Prof. Serge Demidenko presented a token of appreciation to Prof. Mark Wilson.

#### Research Seminar by Professor Mark Wilson

Professor Mark Wilson from Department of Chemistry, Physical and Theoretical Chemistry Laboratory, University of Oxford, England visited Sunway University on 23-27 September. He delivered a seminar talk on 26 September to SST staff and postgraduate students, with the title "Computer Simulation of Materials. Why bother?".



#### Steering towards a Digital World: Research and Innovation in Artificial Intelligence

Sunway University and the UK Science & Innovation Network, British High Commission in Malaysia organized a public session called "Steering Towards a Digital World: Role of Research and Innovation in Artificial Intelligence" from 3.00pm to 5:45pm on 11 September 2019 at Auditorium JC2, Sunway University. The event was run by a number of staff from The Department of Computing and Information Systems, namely Assoc. Prof. Dr Lau Sian Lun, Dr Ling Mee Hong, Dr Low Yeh Ching, Dr Richard Wong Teck Ken, Dr. Mohammad Tahir, and Prof. Yau Kok Lim.

The public session was graced by a welcome speech by Prof. Serge Demidenko, Dean of the School of Science and Technology. The session features talks entitled "Glimpse into UK's AI Research and Innovation: Scope and Opportunities for International Collaboration" by Professor Dame Wendy Hall (University of Southampton), "UK – International Research and Innovation Strategy: A Review" by Nicola Willey (Regional Director SEA Science and Innovation), "Application of satellite imagery to map slavery from space" by Professor Doreen S. Boyd (University of Nottingham, UK), and a number of interesting presentations featuring artificial intelligence from Sunway University, Nottingham University Malaysia campus, and University of Malaya. The session had successfully brought together around 150 researchers, academics, and postgraduate students from Malaysian higher learning institutions, research institutions, and relevant public and private organizations to learn about and explore research collaboration opportunities on various aspects of artificial intelligence.



#### **Google IO Extended KL 2019**

Department of Computing and Information Systems and Sunway Tech Club were co-organizing the Google IO Extended KL 2019 with Google Developer Group KL on 16 June 2019. It was a success and there were more than 500 participants attended the event!



#### 2019 Test Design Competition

The 2019 Test Design Competition was organized by the Malaysian Software Testing Board, and hosted by the Department of Computing and Information Systems on 20 & 21 July 2019. There was a total of 19 groups from 14 universities participated in the competition (university category), to develop the best possible Test Architecture and Design for a given Test Object in a (hypothetical) Real-world Test Environment.



Assoc Prof. Dr. Alvin Ng speaking to an almost packed JC1 hall.

#### Sunway Psychology Day 2019 a Huge Success!

On 8 August 2019, the Department of Psychology, with help from the Sunway Education Group Department of Marketing organised the Sunway Psychology Day 2019. This event included a talk, two workshops, laboratory tours as well as student showcases of psychological experiments and mind games, all between 1.30pm and 4.00pm.

Associate Professor Dr. Alvin Ng started the event with a talk on "How does #SocialMedia affect our #MentalHealth & #Relationships?" His usual interactive style engaged an audience of about more than 400 people, with college students making up a vast majority, while the rest were parents with interest in psychology.

After the talk, many visitors packed the two psychology laboratories: The Human Development Lab and the Human Performance Lab to find out more about the research activities there. Dr. Yong Min Hooi and Ms. Woo Pei Jun led the lab tours for the Human Performance Lab and the Human Development Lab, respectively.



Dr. Yong Min Hooi explaining the eye-tracker device and its related research projects to the visitors at the Human Performance Lab.



Many of the visitors were fascinated by the lab equipment in both laboratories and had many questions for both Dr. Yong and Ms. Woo. The two research academics had to field non-stop groups of visitors in shifts into their respective laboratories. They were assisted by their research assistants. The Human Performance Lab has the electroencephalograph (EEG) machine within a Faraday cage and a TOBII eye-tracker device, while the Human Development Lab houses the Sunway Baby Lab (https://university.sunway.edu.my/sci-tech/facilities/sunway-baby-lab).



Research Assistant Ms. Ng J-Wen, describing procedures of the Sunway Baby Lab to the visitors.

Visitors also participated in workshops given by Dr. Priyadarshini Moharkonda Srinivasan and Ms. Elaine Yong, who ran two sessions of workshops each. Dr. Priyadarshini ran workshops on managing stress, while Ms. Yong ran workshops on understanding children's world. Both workshops were very well attended.



Visitors also got to try their hand at some psychology experiments organised by the Sunway Psychology Club overseen by Dr. Elizaveta Berezina. These brief experiments gave visitors some insight into applied psychology methods in studying about human behavioural and cognitive functioning.

All in all, the Sunway Psychology Day was a very successful event in that initial venues had to be moved to larger venues to accommodate the large number of visitors who were interested in psychology. This year's event had a significant increase in participants compared to the one in 2018. This success has prompted the organisers to have this event as an annual one given the strong interest in the field of psychology.

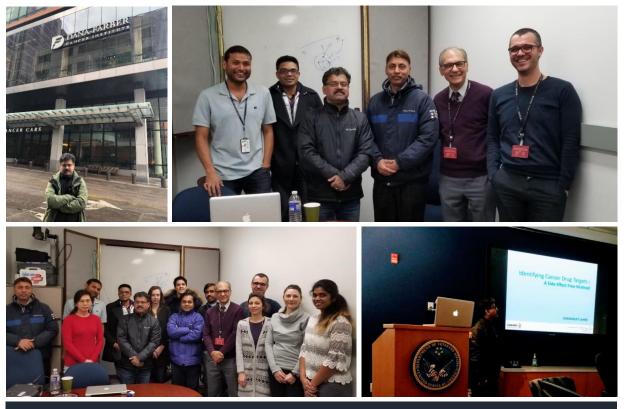
[Source: https://university.sunway.edu.my/blog/sunway-psychology-day-2019-huge-success]



#### Farewell of Profs. Naveed and Ruqaiyyah

A tea appreciation was held on the 20 August 2019 to celebrate the contributions of and gratitude towards Profs. Naveed and Ruqaiyyah's to the School of Science and Technology and the Department of Biological Science in particular. A tea party with SST members included heartwarming speeches by the Dean, Prof Serge, the interim Head of Biological Science, Prof. Abhi, and some faculty members from DBS. After a group photo session, Prof. Naveed addressed the staff and expressed his thanks to the members for a good working environment as well as his hopes and aspirations for the department and the university in general.

Thank you, Profs. Naveed, and Ruqaiyyah for your contribution to the department and the university. Best wishes for your future endeavours!



#### Jeffrey Cheah Travel Grant on South-East Asia Studies at Harvard

Dr. Chandrajit Lahiri of the Department of Biological Sciences visited Dana Farber Cancer Institute and VA Boston Medical Centre of Harvard Medical School, Boston, US for 3 weeks during February-March, 2019. His visit was supported by the Jeffrey Cheah Travel Grant on South-East Asia Studies at Harvard. The main aim of this travel was to seek collaboration to explore further his research in the field of network biology. He was welcomed by Dr. Nikhil C. Munshi and Dr. Masood Shammas, of DFCI, HMS, US to present his work on developing a side effect free method of identifying cancer drug targets and was appreciated for the effort put forward for the novel thought. Furthermore, he was keen to gain insight on the genomic instability leading to cancer multidrug resistance and for extrapolating his ideas from network biology to help develop precision cancer medicine with little or no side-effects. He believes that, essentially, this venture of him could serve the purpose of aligning with the 17 global goals for sustainable development of the United Nations, of which Sunway is also a part.

# **Research Collaboration**

STAFF NAME	DEPARTMENT/ CENTRE	PARTNER INSTITUTION	VALIDITY	PURPOSE / SCOPE
Dr. Chandrajit Lahiri	Department of Biological Sciences	JSS Academy of Higher Education and Research	August 2019 to July 2022	Establish agreement to jointly conduct collaborative research activity on System Biology.
Prof. Saidur Rahman	Research Centre for Nano- Materials and Energy Technology	Dhaka University of Engineering & Technology, Gazipur	July 2019 to June 2022	Establish research, publication and postgraduate supervision collaboration.
Dr. Syed Shahabuddin	Research Centre for Nano- Materials and Energy Technology	Universiti Teknologi MARA, Kuala Pilah	September 2019 to August 2022	<ol> <li>Staff mobility program within both Parties through outbound / inbound program or other suitable medium.</li> <li>Training for academic enhancement or research related activities to student and staff of both parties.</li> <li>Student mobility program for academic and research- based activities.</li> <li>Technical collaboration in scientific committee, in symposia, conference, short course or research meetings organized by the Parties.</li> <li>Knowledge exchange in teaching, career development and research opportunities.</li> <li>Cooperation in any other areas as agreed by the Parties from time to time.</li> </ol>
Dr. Abdul Khaliq Rasheed	Graphene and Advanced 2D Materials Research Group	SRM Institute of Science and Technology, India	September 2019 to August 2022	<ol> <li>Develop academic interchange in area if research and development.</li> <li>Faculty and student exchange.</li> <li>Exchange of scholarly materials and information.</li> <li>Participation in joint or collaborative research projects and grants.</li> </ol>

STAFF NAME	DEPARTMENT/ CENTRE	PARTNER INSTITUTION	VALIDITY	PURPOSE / SCOPE
				5. Establishment of arrangement for students to complete their course of study and graduate at the partners' institution, provided all conditions and standards for admission and respective programmes are fulfilled.
Prof. Mohammad Khalid	Graphene and Advanced 2D Materials Research Group	Universiti Teknologi Malaysia	September 2019 to August 2024	<ol> <li>Develop academic interchange in area if research and development.</li> <li>Faculty and student exchange.</li> <li>Exchange of scholarly materials and information.</li> <li>Participation in joint or collaborative research projects and grants.</li> <li>Establishment of arrangement for students to complete their course of study and graduate at the partners' institution, provided all conditions and standards for admission and respective programmes are fulfilled.</li> </ol>

# Awards & Achievements



#### FRGS Grants (Phase 1/2019) Winners

Project Leader	Project Title	Awarded (RM)
Assoc. Prof. Dr. Chua Hui Na	A Stakeholder Interaction Model to Understand Data Protection Regulations in the Globalized Digital Age.	66,600
Prof. Yau Kok Lim	A Novel Clustering Algorithm based on Reinforcement Learning for the Optimization of Global and Local Network Performances in Mobile Networks.	57,200
Dr. Yong Min Hooi	The adult neuroplasticity model: Age-related decline in executive function.	100,200
Dr. Yow Yoon Yen	Investigation of cellular and molecular mechanisms of Gracilaria manilaensis-mediated functional recovery enhancement following peripheral nerve injury in an in vivo model.	118,800

#### Student Appreciation of Teaching Awards during the Teaching Appreciation Day on 29 July 2019

Prof. Abhimanyu A/L Veerakumarasivam
Ms. Lim Woan Ning
Dr. Low Yeh Ching
Dr. Mohsen Kakavand
Assoc. Prof. Dr. Shyamala Ratnayeke
Prof. Yau Kok Lim
Dr. Yow Yoon Yen

#### Sunway University Collaborative Research Fund: T20 & MRU 2019

Principal Investigator	T20/MRU Institution	Project	Amount (RM)
Dr. Adarsh Kumar Pandey	University of Malaya	Investigation on thermophysical properties of nano-enhanced phase change materials for concentrated photovoltaic thermal (CPVT) systems.	212,000
Dr. Chen Jit Ern	University of Cambridge	Experimental evolution and retrotransposon-mediated genetic engineering of the coral endosymbiont alga Symbiodinium to develop increased tolerance to higher water temperatures.	245,000
Dr. Kavita Reginald	National University of Singapore	Characterization of the major house dust mite allergen, Der p 22.	196,010
Prof. Mohamed Kheireddine Aroua	University of Malaya	Development of Novel CO2 Capturing Agents from Natural Resources.	25,000
Prof. Mohammad Khalid	University of Malaya	Conductive Matrix Supported Metal Phosphate Nano Frameworks Based Solid State Supercapattery for Electric Vehicles.	250,000
Prof. Poh Chit Laa	The Jenner Institute, University of Oxford	Development of an oral universal peptide-based influenza A vaccine by using PLGA-AI (OH)3 nano- adjuvant as a potential carrier.	212,500
Prof. Saidur Rahman	Nanyang Technological University	Improving specific heat capacity and thermal conductivity of molten salt based nano-fluids for solar energy harvesting in concentrated solar power systems.	212,500

#### Sunway University Internal Grants

Principal Investigator	Project	Amount (RM)
Dr. Abdul Khaliq Rasheed	Investigation of Wetting Characteristics and Performance of MXene-graphene based Marine Nanolubricant	47,500
Dr. Ayaz Anwar	Development of nanotheranostic probe against Acanthamoeba infections	38,000
Dr. Farihahusnah Hussin	Carbon Dioxide Adsorption Using Biomass-Based Activated Carbon Functionalised with Deep Eutectic Solvents	47,500
Assoc. Prof. Dr. Gopalasamy Reuben Clements	Direct and indirect effects of insecticide fogging on urban biodiversity	47,500
Dr. Kavita Reginald	Functional Characterization of Key Genetic Markers involved in Allergic Diseases	47,500
Assoc. Prof. Dr. Lau Sian Lun	Driver Attention Management for Onroad Safety using IoT and Context-Awareness	47,500
Dr. Michelle Lee Chin Chin	Towards a conceptual framework on workplace harassment: A multilevel perspective	47,500
Prof. Mohamed Kheireddine Aroua	Novel Chemical Reactive Alkanolamine Based Nanofluids for CO2 Capture	47,500
Prof. Naveed Ahmed Khan	Naegleria fowleri interactions with the nasal epithelium: a primary step in parasite invasion of the central nervous system	47,500
Prof. Ruqaiyyah Siddiqui	Carbohydrate analysis of cysts of brain-eating amoebae	47,500
Dr. Syed Shahabuddin	MXene/Conducting Polymers-Based Nanocomposites as Photocatalyst for Waste Water Treatment	47,500
Dr. Yong Min Hooi	Born to cry: Are mechanisms underlying crying and caregiver responses shared across mammals?	47,500
Dr. Yow Yoon Yen	In vitro Antidepressant effect of Malaysian brown seaweed Padina australis through its neuroprotective potential	47,500
Woo Pei Jun	Early discrimination of lexical tones: Effects of age, native language, and acoustic similarity	47,500

#### **Research Centre Grant Scheme**

Principal Investigator	Department/ Research Centre/ Research Group	Amount (RM)
Prof. Edward Tiekink	Research Centre for Crystalline Materials	1,000,000
Prof. Mohammad Khalid	Graphene & Advanced 2D Materials Research Group	1,000,000
Prof. Saidur Rahman	Research Centre for Nano-Materials and Energy Technology	600,000

#### **Other Grant Scheme**

Principal Investigator	Scheme	Project	Amount
Dr. Elizaveta Berezina	Stockholm University	Cross-Cultural study of meta-norms	EURO 1000
Dr. Jane Gew Lai Ti	My Pair Hibiscus	Conversion of glycerol to value-added products through biocatalysis reaction using microreactor	RM 66,000
Dr. Yong Min Hooi (DPSY) Assoc. Prof. Dr. Lau Sian Lun (DCIS) Assoc. Prof. Dr. Hwang Jung Shan (SHMS) Dr. Clarissa Lee (JSCSD)	UK Grant	ProtoPolicyAsia: empowering local communities and Government in Malaysia in addressing social issues in ageing and disabilities.	-
Dr. Yong Min Hooi	Arts Humanities Research Communities (AHRC)	Employing speculative design in enabling governments and community groups to imagine the future implications of health policy initiatives in creative ways	£ 40,778

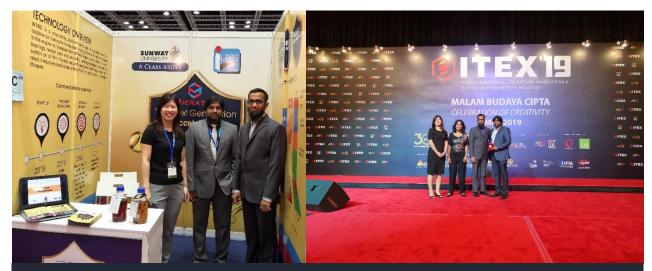
IgE Reactivity and Co s-Reactivity of Group 2 C Allergens 76-1 MAS

1st Prize, Poster Presentation at Malaysian Allergy Congress 2019

Dr. Kavita Reginald, a lecturer in the Department of Biological Sciences here at Sunway University recently took part as a delegate in the 19th Malaysian Congress and Exhibition on Allergy and Immunology incorporating the GA2LEN-MSAI Allergy School & World Allergy Week 2019. The three-day event was organized by the Malaysian Society of Allergy and Immunology and held at the Le Meridien Hotel in Kuala Lumpur from the 5th-7th April 2019. The congress was attended by approximately 600 researchers and medical practitioners from Malaysia and other Asia Pacific countries, as well as Europe. Dr Kavita won the first prize for her poster presentation with the title "IgE Reactivity and Cross-Reactivity of Group 2 Dust Mite Allergens".

# Certified Professional in Requirement Engineering (CPRE) Foundation Level Certification

Three (3) of Bachelor of Software Engineering (Hons) students: Aw Eumund, Koh Mei Quen and Tan Tze Hong, have been awarded the Certified Professional in Requirements Engineering (CPRE) Foundation Level certification. Congratulations on their achievement!



# Gold Medal, 30th International Invention, Innovation and Technology Exhibition (ITEX) 2019

Congratulations to Professor Mohammad Khalid and Dr. Abdul Khaliq Rasheed from Graphene and Advanced 2D Materials Research Group (GAMRG), who have won a GOLD medal at the 30th International Invention, Innovation and Technology Exhibition (ITEX) held from 2-4 May in KLCC!

The gold medal was awarded to "Micratto Technologies", a research initiative that aims to commercialise IN1901 (also known as Infinoil), which is a proprietary platform technology of engineered graphene sheets (additives) for lubricant formulations that possesses significant improvement on automotive, marine and aerospace application.

Micratto Technologies is one of technology-enabled enterprises that is being incubated by Sunway Innovation Labs, which offers one-on-one business mentoring sessions, market validation sand box, as well as networking opportunity with potential investors for capital financing. Micratto Technologies was also one of the finalists (from an initial over 200 over applications) of Sunway iLabs Accelerator Programme that was launched in January 2018.

# 

#### **`Outstanding Woman in Science' Award 2019**

Dr. Yow Yoon Yen have been awarded the 'OUTSTANDING WOMAN IN SCIENCE' (Major Area of Study -Biotechnology) 2019 by the Venus International Foundation. This award is established in 2016 and conferred to a dedicated woman professional working in the field of science and technology who possesses exceptional record of significant contributions to the institute (the 'Best - Brightest - Inspirational -Talented Woman' who demonstrated courage, creativity, excellence, originality and endurance in Science and Technology).

#### Start-up Semester UC Berkeley in August 2019 Semester

Two students from the Department of Computing and Information Systems have been selected to attend the Start-up Semester UC Berkeley in the coming August 2019 semester.

The two students are:

- 1. Tan Guan King BSc (Hons) in Computer Science
- 2. Joel Loh Hwei Yung BSc (Hons) in Information Systems (Business Analytics)





#### Premier Digital Tech University Award 2019-2021

Sunway University's commitment and focus towards developing digital ready graduates was reaffirmed with the latest Premier Digital Tech University award (2019-2021). Retaining the status since 2017, the Premier Digital Tech Institutions initiative is a jointly developed award by the Ministry of Higher Education Malaysia and Malaysia Digital Economy Corporation (MDEC), to produce top talents and future leaders not only in digital tech, but other industries such as manufacturing and agriculture.

The Premier Digital Tech Institutions initiative is strongly supported by the industry, featuring eight strategic industry partners, namely Amazon Web Services, CISCO, Intel, JobStreet, Microsoft, Oracle Academy, RunCloud and SAS. This will enable Sunway University students to acquire key knowledge and skills relevant to the industry directly from leading technology companies, ensuring that they will be industry ready upon graduation.

Present to receive the award at the Malaysian Global Innovation and Creativity Centre (MaGIC) was Dr. Elizabeth Lee (Chief Executive Officer, Sunway Education Group) and witnessed by Prof. Graeme Wilkinson (Vice-Chancellor, Sunway University), Prof. Serge Demidenko (Dean, School of Science and Technology, Sunway University), Assoc. Prof. Dr. Lau Sian Lun (Associate Dean & Head, Department of Computing & Information Systems, Sunway University) and Patrick McVeigh (Director of Branding, Sunway Education Group).

[Source: https://university.sunway.edu.my/blog/premier-digital-tech-university-2019-2021]





#### Psychology Alumna Glenneze Ong accepted into the very competitive Doctor of Clinical Psychology Programme at University of East Anglia, UK

It is with great pleasure for the Department of Psychology at the School of Science and Technology, Sunway University to announce that its alumna and research assistant at the Sunway Baby Lab, Glenneze Ong Sze Chyen has successfully gained a place on the very competitive Doctoral Programme in Clinical Psychology at the Norwich Medical School, University of East Anglia, UK. This is a very good achievement not just for Sunway University as an alma mater, but also for the whole country where Glenneze will contribute to increasing the number of clinical psychologists in the health system.

Glenneze Ong is one of top students from her batch, graduating with a Bachelor of Science (Honours) in Psychology with First Class Honours in 2016. She went on to be a research assistant for Woo Pei Jun at the Sunway Baby Lab, conducting various studies on babies' cognitive functioning.

The Doctoral Programme in Clinical Psychology in the Faculty of Medicine and Health Sciences in Norwich Medical School, University of East Anglia is a large, well-established and highly-respected training programme in the UK. Each year UEA accepts a small number of international students onto the Doctoral Clinical Psychology Training programme at UEA with Malaysian students forming the highest percentage of international students on the programme (around 40%). Glenneze will be starting the Programme in October 2019. We wish her all the best on her pursuit to be a clinical psychologist.

[Source: https://university.sunway.edu.my/blog/psychology-alumna-glenneze-ong-accepted-very-competitive-doctor-clinical-psychology-programme]



#### Second Prize in the Alibaba's GET Digital Entrepreneurship & Innovation Challenge

Congratulations to BSc (Hons) in Computer Science students (Team Snuffles), who won the Second Prize in the Alibaba's GET Digital Entrepreneurship & Innovation Challenge organized by Alibaba in Guizhou China on 21 July 2019. This places Sunway University Team above all the other Malaysian teams taking part in the competition.

- Tan Haolun [Sunway University, BSc (Hons) in Computer Science student]
- Ng Wei Shyang [Sunway University, BSc (Hons) in Computer Science student]
- Lim Shi-Hern [Sunway University, BSc (Hons) in Computer Science student]
- Jeremy Tan [San Francisco State University, Computer Science student]

#### Best Paper Award - Assoc. Prof. Dr Angela Lee

Assoc. Prof. Dr Angela Lee of Department of Computing and Information Systems, School of Science and Technology has won the Best Paper Award at the 5<sup>th</sup> International Conference on Soft Computing in Data Science (SDCS) 2019. The conference is organised by Kyushu Institute of Technology in Lizuka, Fukuoka, Japan on 28 & 29 August 2019, and the theme of the conference is Science in Analytics: Harnessing Data and Simplifying Solutions. The paper title is "Decision Tree customer churn analysis for a loyalty program using data mining algorithm".

#### Best Presenter Award – Dr. Abdul Khaliq Rasheed

Dr. Abdul Khaliq Rasheed of Graphene and Advanced 2D Materials Research Group (GAMRG) has won Best Presenter Award at the 6<sup>th</sup> International Conference on Advances in Mechanical Engineering (ICAME 2019). The conference was held at the The Pacific Sutera Hotel, Kota Kinabalu, Sabah on 14 - 16 August 2019. Dr. Abdul Khaliq's paper title is "MXene-Graphene hybrid nanoflakes as friction modifiers for outboard engine oil".



#### Best Paper Award - BSc (Hons) in Computer Science graduate

The BSc (Hons) in Computer Science graduate, Aye Chan Zay Hta has won the Best Paper Award at International Conference on Culture Technology on 13 - 16 August 2019, organized by Kasetsart University and NECTEC, Pattaya Thailand. The paper title is "Designing and Developing an Interactive Projection Mapping AR Book on Cultural Heritage of Myanmar". Also, congratulations to Assoc. Prof. Dr Lee Yun Li who was the graduate's final year project supervisor. Aye Chan is now pursuing his MSc in Computer Science (by Research) under Dr. Lee's supervision.

#### 2019 Jeffrey Cheah Scholars-in-Resident at Gonville & Caius College, University of Cambridge

Associate Professor Dr. Lau Sian Lun, Associate Dean of School of Science and Technology and Head of Department of Computing and Information Systems has been awarded the 2019 Jeffrey Cheah Scholars-in-Resident at Gonville & Caius College, University of Cambridge. Dr. Lau is admitted as Scholar-in-Residence from 5 September to 3 October 2019.



# Dr. Jane Gew and Prof. Kheireddine won the Hubert Curien Partnership – Hibiscus Grant

Dr. Jane Gew of Department of Biological Sciences (DBS) and Prof. Mohammed Kheireddine Aroua of Research Centre for Carbon Dioxide Capture and Utilisation (CCDCU), together with Prof. Patrick Cognet and Yolande Peres of National Institute Polytechnic of Toulouse have received a grant from Hubert Curien Partnership – Hibiscus (PHC-Hibiscus) initiated by the Ministry of Education (MOE) in collaboration with the Ministry of Europe and Foreign Affairs (MEAE) and the Ministry of National Education, Higher Education and Research (MESRI), France. Their project title is "Conversion of glycerol to value-added products through biocatalysis reaction using microreactor". The project is a collaboration between Sunway University and National Institute Polytechnic of Toulouse.

In conjunction with this grant, Dr. Jane received SSHN Scholarship for young researcher (SSHN: High Level Scientific Stay) from Malaysia France University Centre (MFUC), Embassy of France. Dr. Jane will be working with the researchers in University of Avignon, France, from 16 November to 15 December 2019.

#### Dr. Jane receives travel grant by American Chemical Society (ACS)

Dr. Jane Gew Lai Ti received 2 travel grants (amounting of RM 3, 200 including accommodation, return air tickets and meal allowance) from American Chemical Society (ACS) Malaysia Chapter and Sandia National Laboratories, respectively, to attend 2 workshops in Universiti Sains Malaysia, Penang. These workshops were the Chemical Security Training Workshop (29 - 31 July 2019) and the Chemical Supply Chain Security Workshop (31 July – 2 August 2019).



#### **Best Presenter and Best Paper at SIET 2019**

Dr. Adarsh Kumar Pandey of Research Centre for Nano-Materials and Energy Technology (RCNMET), School of Science and Technology received 2 awards, Best Presenter and Best Paper at "The 1st 2019 International Conference on Sustainable Innovation in Engineering and Technology (SIET 2019)". The conference was organised by Asia Pacific University of Technology & Innovation (APU), Kuala Lumpur, Malaysia on 24 – 25 September 2019.

Dr. Adarsh won the 2 awards for the paper with the titles "Investigation on the suitability of Polyaniline (PANI) based composite Phase Change Material for Low Concentration Photovoltaic Thermal Application" (Best Presenter award) and "Thermal performance study of the Single slope evacuated tube integrated desalination system" (Best Paper Award).

# 2019 New Appointment



# Professor Mohamed Kheireddine Associate Dean (Research)

**Research Centre for Carbon Dioxide Capture and Utilisation** 



# Professor Abhi Veerakumarasivam Interim Head

**Department of Biological Sciences** 

# Welcome New SST Members



**Dr. Matthew Teow Senior Lecturer Department of Computing** & Information Systems



Lecturer **Department of Computing** & Information Systems



Dr. Muhammad Aman Dr. Muhammed Basheer Lecturer **Department of Computing** & Information Systems



Dr. Lee Ai-Suan Lecturer **Department of Psychology** 



Dr. Wu Shin Ling Lecturer **Department of Psychology** 



Dr. Malihe Masomian Senior Research Fellow **Centre for Virus and Vaccine** 

Research



**Dr. Seved Davoud Senior Research** Fellow **Centre for Virus and Vaccine** Research



Janelle Low **Senior Executive** SST Admin



Norul Hazizah Lab Executive **Research Centre for Carbon Dioxide Capture and Utilisation** 

# **October – December 2019 Events**

Dates	Event
3rd - 4th Oct 2019	IEEE International Symposium on Haptic Audio-Visual Environments & Games
3rd - 5th Oct 2019	Break Up Exhibition 2.0
15th Nov 2019	SST Year-End Fun Teambuilding 2019
16th - 17th Nov 2019	1st International Symposium on Applied Behaviour Analysis
9th - 10th Dec 2019	ASEAN Emerging Researchers Conference (AERC) 2019 (KL Edition)