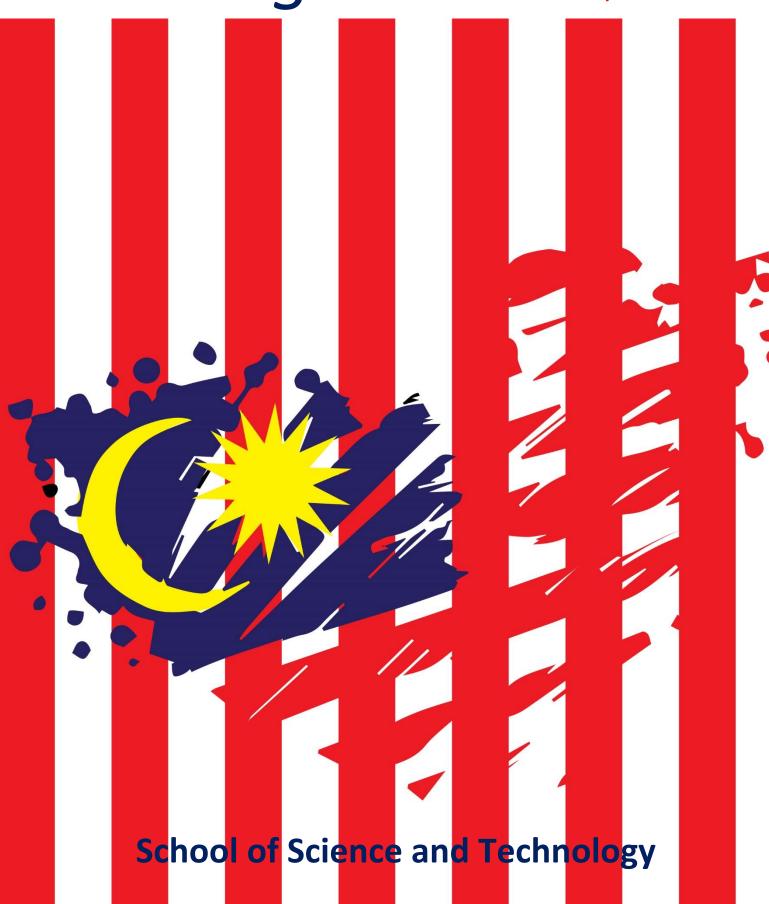




Issue 05 | September 2020



Preface



Dear Colleagues at the School of Science and Technology,

Today I am writing my introductory remark primarily to you even though our eDigest could be read by a wider audience. This issue of the bulletin covers the third quarter of the year. It was arguably the most crucial part determining achieving the School objectives for 2020. And that is why I would like to start with the warmest congratulations to all of you, dear Colleagues at the School of Science and Technology (also known as just SST (3)), with the achievement of our main performance targets in this period of such a challenging year.

During the third quarter, SST has significantly advanced on all the fronts. We have to be proud of our new higher enrolment counts and rise in the overall student numbers, growing quality of the delivery of our academic programs, successful on-going development and introduction of new undergraduate and postgraduate qualifications, solid and steady increasing publication research output and external grant applications, closer teamwork of our staff and cooperation with colleagues from other schools and external partners, efficient on-going interaction with our students, prudence and financial discipline that enabled us to operate at practically full capacity despite the tighter budget conditions, strict compliance to all internal and external regulations, excellent participation of our staff and students in the university life, and overall friendly social and working environment despite the COVID-19-imposed misfortunes while operating under MCO restrictions. With these very positive results, it wouldn't be an overestimation to say that 2020 is going to be another very successful year for our School despite being difficult and often very uncertain. Yes, we have done it again! And this success would further cement our advanced position within the University and beyond it. We can look forward to the last quarter of the year with optimism and confidence, so to be merry and celebrate our success in December. I do dream that there will be a chance to do it - let us hope that the coronavirus will be defeated then (or at least will be taken under the harsh extermination control). Meanwhile, please continue your excellent work while keeping yourself and your families safe and well!

When talking about the forthcoming last quarter of the year, there are still a number of important actions to take and targets to reach. Among them, there are those important to you personally such us your results reporting and performance review, promotion applications, planning your new goals for the year to come, your personal professional development, and, of course, your well-deserved rest through the annual leave utilisation. There are also tasks that will lay the foundation for our progression in the year ahead, including planning and development of new programs as well as an application for their approval, completion of the on-going semester while concurrently developing new teaching materials that will be employed in our adopted "hybrid" mode teaching, application for innovative research initiatives and grants, development of new reputable collaborations and partnerships, strategic alignment of our efforts so to focus teaching, research and publishing efforts on the areas where we could achieve the highest impact and recognition as well as high international ranking in all the disciplines presented at the School.

I should honestly say that today (which is exactly two years since my joining Sunway University and being at the helm of our School) I am very optimistic that by working together hard and smart we will be able to overcome all the challenges and problems ahead. You are the heroes who have made it happened. And I am very grateful to all and every one of you - please accept my sincere thanks.

With very best regards

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The SST eDigest Editorial Team:

Editor: Jacky Tan

Co-Editors: Hani Zalehan, Catherine Chan, Christine Chong and Winnie Teo

Happening @ SST

Sunway University Researchers Work to Advance World's First Holistic and Comprehensive Index on COVID-19

Sunway University is collaborating with PEMANDU Associates and Ministry of Science, Technology and Innovation (MOSTI) Malaysia on the Global COVID-19 Index (GCI), a method to consolidate data on the pandemic from verified sources of 184 countries into a comprehensive index which governments, businesses, and communities can refer to.

With the GCI, countries will be able to compare their performance with that of other countries that are performing better to identify best practices and efforts during the Covid-19 pandemic. Updated daily, the GCI includes data on the rate of recovery, active cases, and the number of tests conducted. The GCI also considers countries' previously evaluated ability to detect, respond, and treat infections of any epidemic based on the publicly available Global Health Security Index published in October 2019. The GCI can be used to track recoveries in countries of neighbouring regions, monitor when restrictions can be relaxed for possible easing of border restrictions.



Professor Peh Suat Cheng, Sunway University



Professor Serge Demidenko, Sunway University



Woody Ang, PEMANDU Associates

Professor Serge Demidenko (Dean, School of Science and Technology) and Professor Peh Suat Cheng (Professor of Pathology and Dean, School of Healthcare and Medical Sciences) are working closely with Woody Ang (Executive Vice President at PEMANDU Associates) to identify and draw relevant data for the index.

Professor Serge said SST researchers have been interested to provide specialist support in Computer Database Technologies and application of Artificial Intelligence (AI) to Data Analytics aiming to not just analyze past data, but also forecast and model future trends. During this Covid-19 time, AI and Analytics will allow us to use available data to understand the impact of the pandemic better and thus to assist to propose appropriate solutions. SST academics are available to team up with collaborators both locally and internationally to explore new recovery solutions for the post- COVID-19 world.

[Source: https://news.sunway.edu.my/articles/university/sunway-university-researchers-work-advance-worlds-first-holistic-and]

New Programme Launch - Doctor of Philosophy in Sustainability Science and Technology

The **NEW** Doctor of Philosophy in Sustainability Science and Technology programme is launched in September 2020 Intake. The Programme Leader is Assoc. Prof. Dr Adarsh Kumar (adarshp@sunway.edu.my). The programme information is available at https://university.sunway.edu.my/sci-tech/phd-sustainability.





NEW Programme Launch!

Doctor of Philosophy in Sustainability Science and Technology



September 2020 Intake



Full Time / Part Time



Programme info:

https://university.sunway.edu.my/sci-tech/phd-sustainability

Scholarship info:

https://sunway.edu.my/scholarships/scholarships-awards/sunway-university-postgraduateresearch-scholarship

For enquiries, please contact Assoc. Prof. Dr Adarsh, Programme Leader (adarshp@sunway.edu.my)







Owned and governed by the



Nurturing the Seeds of Wisdon

SST Conference Seminar Series #1

The 1st SST Conference Seminar Series was organized on 28th August 2020 via Zoom. The SST Conference Seminar Series is organized as part of the post-conference requirement that staff who had attended conference will need to present their paper or an overview of the conference at a seminar or similar event at Sunway University, attended by other members of academic staff and students.

Professor Serge Demidenko (SST Dean), Professor Alvin Ng Lai Oon (Head, Department of Psychology), Assoc. Prof. Dr Adarsh Kumar Pandey (Research Centre for Nano-Materials and Energy Technology), and Assoc. Prof. Dr Teh Phoey Lee Heard (Department of Computing and Information Systems) presented their research papers during the seminar.



e-Workshop on Strategies to Publish in High Impact Journals & Improving Citations Impact

Research Centre for Nano-Materials and Energy Technology organized the e-Workshop on Strategies to Publish in High Impact Journals & Improving Citations Impact on 5th & 6th August 2020. The workshop aimed to mentor participants in preparing their research findings for publication in an international journal that may ensure better impact. The seminar also highlighted on improving citation impact while following publication ethics. It helped academics to know what to publish, where to publish and how to publish to excel and support the University's mission and vision.

The highly cited researchers, Distinguished Professor Saidur Rahman (Head, Research Centre for Nano-Materials and Energy Technology) and Professor Mohamed Kheireddine Aroua (Associate Dean of Research and Head, Research Centre for Carbon Dioxide Capture and Utilization) were the main speakers during the e-Workshop.



Talk by Sunway Computing Alumna – My Journey as an International Student in Malaysia

Nafisa Bello Issa, who completed her BSc (Hons) Information Systems with First Class Honours was invited by Student Life to share her journey as an international student in Malaysia, on 11th July 2020 via Instagram LIVE. Nafisa shared that she had an eye-opening experience studying in Sunway as an international student and she believed that university life is more than just books. She also shared the tips and tricks on how international students can adapt well with local life and stereotypes that often occur on campus.



Talk by Sunway Psychology Alumnus - Survival during the **Covid Crisis**

BSc (Hons) Psychology Alumnus, William Chew was invited by Student Life to give a talk about his journey in becoming an entrepreneur in the United Kingdom, on 28th July 2020 via Zoom. After he graduated from Sunway University, he went on to complete a Master in Music Therapy in the UK and then further venture into a chili paste business in the UK. He was also on the BBC hit series, Dragons' Den and won investment funds for his business.







SURVIVAL during the Covid Crisis

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series explor





28 JULY 2020 [TUES]
4PM - 5PM via ZOOM

Register via the link or QR code latest by 26 JULY 2020



bit.ly/e-Exploretalk28thJuly

In collaboration with Department of Psychology, School of Science & Technology



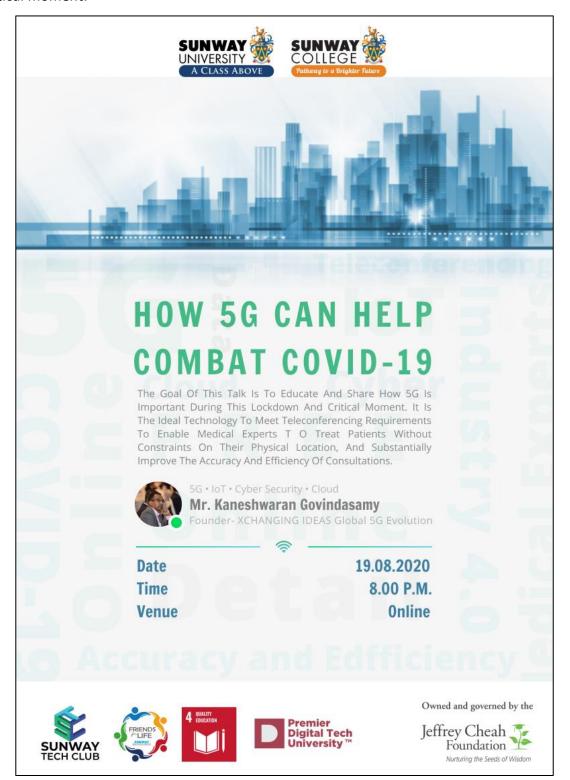






Talk on How 5G Can Help Combat COVID-19

Department of Computing and Information Systems and Sunway Tech Club jointly organized the online talk by Mr Kaneshwaran Govindasamy on 19th August 2020, to share on 5G and its importance during the time of COVID-19. Mr Kaneshwaran has 23 years' experience in the telecommunications field with areas of expertise including 5G, IoT, Cyber Security and Cloud. The objective of this talk is to educate and share how 5G is important during the lockdown and critical moment.



Research Collaboration

Staff name	Department/ Centre/Group	Partner Institution	Validity	Purpose/Scope
Professor Mohammad Khalid	Graphene and Advanced 2D Materials Research Group (GAMRG)	University of Malaya	February 2020 - February 2022	1. To synthesise and functionalize graphene oxide/CNTs/Conducting polymer. 2. To synthesise, optimize and characterise (binary) metal phosphate nanoparticles supported on carbon/polymeric matrix. 3. To synthesise hydrogel based conductive electrolytes. 4. To fabricate supercapattery using binary nanocomposite electrodes together with hydrogel electrolyte and examine its potential energy storage application.
Professor Mohammad Khalid	Graphene and Advanced 2D Materials Research Group (GAMRG)	NanoMalaysia Berhad	May 2020 - November 2020	storage application. 1. To develop a synthesis route including functionalization methods to obtain superhydrophobic graphene powder stable in group I - IV base stocks and API SN formulations at high temperature and shear. 2. To establish proof of longterm stability against high temperature and shear. 3. To perform standard lubricant tests and produce a report comprising physical properties, anti-wear, weld load, etc. 4. To produce superhydrophobic graphene additive in a quantity which is sufficient to produce 50,000 litres of finished lubricant. 5. To assist Micratto Technologies Sdn Bhd during engine tests, field trials and perform used oil analysis. 6. To deliver a Final report.

Awards & Achievements

PhD in Computing Student Won Best Paper

PhD in Computing student, Muhammad Fahad supervised by Professor Yau Kok Lim, won the Best Paper Award at the 10th IEEE International Conference on Control Systems, Computing and Engineering (ICCSCE) 2020. The conference is jointly organized by IEEE Control Systems Society (Malaysia Section Chapter) and Universiti Teknologi MARA (UiTM) from 21st & 22nd August 2020. The title of the paper is Route Selection in 5G-based Flying Ad-hoc Networks using Reinforcement Learning. Muhammad Fahad's research work have also been published in high-impact journals, such as Elsevier Journal of Network and Computer Applications.



Muhammad Fahad (PhD in Computing student) and Professor Yau Kok Lim won the Best Paper Award in the 10th IEEE International Conference on Control Systems, Computing and Engineering (ICCSCE) 2020.

Research Work covered by PV Magazine International

Recent collaborative published work in Solar Energy Journal by Assoc. Prof. Dr Adarsh Kumar Pandey and the team from the University of Malaya, Peking University China and SMVD University India has been covered by the PV Magazine International.

[Source: https://www.pv-
magazine.com/2020/06/23/self-cleaning-pv-system-
with-active-cooling-tech/]



MSc in Computer Science (By Research) Student Won First Prize in Al Hackathon

MSc in Computer Science (By Research) student, Rehan Shahid, won the First Prize representing Sunway University, in the AI Hackathon for building AI solution to combat COVID-19 pandemic organized by Skymind, Malaysia.



Rehan Shahid [MSc in Computer Science (By Research) student] (second from left) won First Prize in Al Hackathon.

Computing Students were selected to MMSA 2020 Program

Bachelor of Science (Honours) Information Systems (Business Analytics) students, Chan Wei Chee, Chan Wei & Ho Wen Lin, and Bachelor of Information Systems (Honours) in Mobile Computing with Entrepreneurship student, Lai Zemin Bryan were selected to participate in the Microsoft Malaysia Student Accelerator (MMSA) 2020 Program.

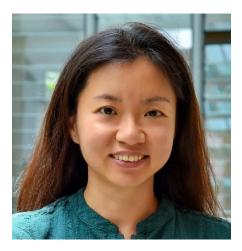
The MMSA is a 6-month initiative by Women @ Microsoft Malaysia and Malaysia Digital Economy Corporation (MDEC) that aims to equip university undergraduates with digital skills and equivalent technology industry exposure.

This pilot program will consist of a series of targeted virtual learning programs, guided learning paths, virtual live workshops as well as opportunities to get work placements with Microsoft partners and opportunities to participate in Microsoft Hackathons.



MMSA 2020 Program is initiated by Women @ Microsoft Malaysia and MDEC.

Assoc. Prof. Dr Yong Min Hooi's Research Featured in Business Today



Assoc. Prof. Dr Yong Min Hooi (Department of Psychology) was featured in Business Today, on her research finding of the effects of smartphone on learning and memory.

Business Today on 20th August 2020 reported research outcomes indicating that smartphone presence has negative effects on learning and memory. This study was carried out by Department of Psychology undergraduate student, Ms Clarissa Tanil and supervised by Assoc. Prof. Dr Yong Min Hooi.

Recently published in PLOS One, a high impact journal, this study on undergraduate students found detrimental effects of high smartphone usage. Implications show that smartphones can be disruptive to the learning process, and therefore there is a need for students to better manage their smartphone usage to improve their learning performance.

The full article can be accessed via this link:

https://www.businesstoday.com.my/2020/08/20/sunway-university-researchers-find-smartphone-presence-has-negative-effects-on-learning-and-memory/

Paper Published in Journal Impact Factor of 12.11 ranks #1 in its Category

Recent collaborative review paper by Assoc. Prof. Dr Adarsh Kumar Pandey and the team from the University Malaysia Pahang and Shri Mata Vaishno Devi (SMVD) University titled "Phase change materials and nano-enhanced phase change materials for thermal energy storage in photovoltaic thermal systems: A futuristic approach and its technical challenges" has been published in Journal "Renewable and Sustainable Energy Reviews (RSER)" having impact factor of 12.11 and it ranks #1 in its category.

[Source: https://www.sciencedirect.com/science/article/abs/pii/S1364032120306298]



Winning Research Grant

Professor Saidur Rahman Secured RM600,000 Research Funding with Universiti Putra Malaysia

Distinguished Professor Saidur Rahman from Research Centre for Nano-Materials and Energy Technology (RCNMET), secured RM600,000 as a Co-PI with Universiti Putra Malaysia (UPM) for a project entitled "Heat transfer and energy storage performance of MXene based nanocomposites/nanofluids" for a period of three years. This will be utilized to recruit postgraduate students, develop lab set up, purchase consumables/chemicals. This is a great support during this difficult situation due to COVID-19. Both Sunway University and UPM will be benefited in research, publication, joint supervision and future external funding applications through this funding.



Professor Saidur Rahman secured RM600,000 Research Funding with UPM.

Assoc. Prof. Dr Yap Kian Meng and Team Won PPRN Grant

Assoc. Prof. Dr Yap Kian Meng (Chief Researcher) and Deng Kai Sdn Bhd won Public-Private Research Network (PPRN) Grant of RM35,642, with the project title "A Real time Counting Application of Printed Circuit Boards Assembly (PCBA) using Image Processing and Weight Detection Techniques".



Research Centre Grant Scheme 2020

Research Centre / Group	Amount
Centre for Virus and Vaccine Research (CVVR)	RM75,000
Graphene and Advanced 2D Materials Research Group (GAMRG)	RM70,000
Research Centre for Carbon Dioxide Capture and Utilisation (CCDCU)	RM70,000
Research Centre for Crystalline Materials (RCCM)	RM100,000
Research Centre for Human-Machine Collaboration (HUMAC)	RM65,000
Research Centre for Nano-Materials and Energy Technology (RCNMET)	RM100,000

SST 2021 New Appointment



Assoc. Prof. Dr Lau Sian LunAssociate Dean (International)

Welcome New SST Member



Syed Tawab Shah

Research Fellow

Graphene and Advanced 2D Materials

Research Group