

# SST *eDigest*



A CLASS ABOVE

Issue 06 | December 2020



**School of Science and Technology**

# Preface



Dear Colleagues and Friends,

It is with great pleasure I am writing my short introductory remark for the final issue of the SST eDigest of 2020. During this challenging year, despite many uncertainties and rapid changes in our everyday lives, new work realities caused by the need to adjust our teaching, research and administration combined with the significantly tougher operation and financial conditions, the School of Science and Technology has performed exceptionally well. It would be right to state that with the high quality of education and service provided to our students, continuing growth in the student population, rising research outputs, triumph in achieving the record number of the received external grants with a very high monetary volume, as well as with growing national and international recognition and reputation, SST has been a true beacon of success across the entire Sunway University in the “stormy seas” of 2020. And the results of the fourth quarter of the year, outlined in this issue of the eDigest, present it in a very convincing and clear way.

Let us join together in celebrating this profound success and congratulating all of us for making it a reality. This success is an excellent New Year present to Sunway University, Sunway Education Group and Jeffrey Cheah Foundation.

Let us also congratulate our colleagues with their well-deserved promotions and celebrate their achievements. I am sure you will join me also in wishing them to reach new heights in their career development through making new important contributions to the education, research and academic citizenship with even greater positive impacts adding to the continuing rise of Sunway University both nationally and on the international scene.

Our next bold goal for the year 2021 is to work hard towards becoming one of the top world’s QS-ranked schools in our areas of academic specialisation. We are already on a right track towards achieving the goal. However, additional energetic actions and focused efforts will be required to be listed among the best in the fields such as Computing, Physics, Material Science, Engineering, Biology, Psychology, and Medicine. The forthcoming introduction of Engineering and Medicine as well as the refining the compositions of the schools at the University will certainly help to drive this important development.

On behalf of the SST, I would like to wish the very best success to our colleagues who are joining the School of Medical and Life Sciences (SMLS). I think we are all sure that this new School will be highly productive and victorious. After all, it is led by Professor Abhi Veerakumarasivam who is the SST alumni (and as we all know, those who worked at SST just cannot fail no matter how difficult tasks are given to them 😊). Besides, the Departments of Biology and Psychology as well as the Centres for Crystalline Materials and Virus and Vaccine Research that will also join SMLS are top-class: they were among true “jewels in the crown” of SST. In addition to that, it is important to strengthen that all the SMLS’s future success will be based on the administrative expertise and valuable know-how that will be implemented by the team of highly-skilled administrative staff who are leaving SST to make the future sensational triumph of SMLS a reality. Again, please join me in presenting them our very best wishes of success.

We, at our new (renamed) School of Engineering and Technology, are looking towards the New Year with confidence and optimism. We are going to expand our academic offerings, enrol new students, further spur our research activities, advance existing and establish new national and international collaborations, and continue to have a very conducive and rewarding social atmosphere. Besides, we are going to welcome a highly productive Research Centre for Applied Physics and Radiation Technologies that is going to join us from the former School of Healthcare and Medical Sciences. All in all, I am very sure that we will continue to be among the most dynamic and successful units of Sunway University while leading the way.

I would like to finish my foreword by sincerely thanking you one more time for all the hard work you have done in 2020 and by wishing you and your families enjoyable Festive Season and safe, healthy, successful, happy and prosperous New Year ahead!

Prof. Serge Demidenko

Dean

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***The SST eDigest Editorial Team:***

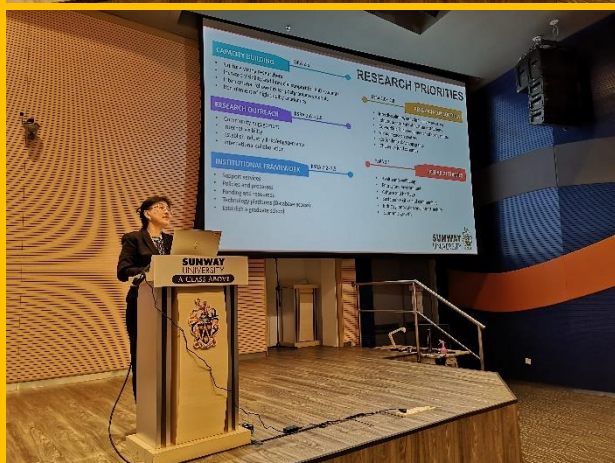
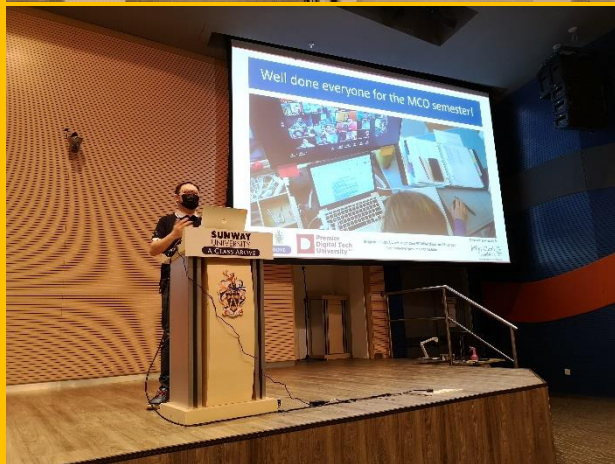
Editor: Jacky Tan

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

# Happening @ SST

## Dean's Communication Session (August 2020 Semester)

The Dean's Communication Session was held on 23<sup>rd</sup> September 2020. Dean shared with the SST team on the SST new appointments, student statistics, academic achievements, new challenges and other important updates. The session followed by Associate Dean, Assoc. Prof. Dr Lau Sian Lun shared on the hybrid teaching and the Covid-19 Student Barometer – Online Learning Analysis, while Associate Dean (Research), Professor Mohamed Kheireddine shared on the SST research achievements, research events and updates. The session followed by the Research Centres' sharing & updates by Professor Poh Chit Laa and Assoc. Prof. Dr Annie Lee See Mun.





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LET'S DO LIFE!

## ANALYTICS 101: THINGS I WISHED I KNEW BEFORE I DELVED INTO THE WORLD OF ANALYTICS

**Joel Loh**

- BSBA Final Year Student
- Part-Time Product Analyst Intern at HealthMetrics
- General Secretary of Sunway University Student Council
- President of Sunway Social Innovators Club
- Startup Semester at UC Berkeley

Microsoft Teams  
2 October 2020  
6.00 - 7.00 pm

For Members Only!  
Join Us Now!  
<https://tinyurl.com/SAS082020>

Organized by:  
Sunway Analytics Society, Sunway Life, 4th Quarter, Premier Digital Tech University™

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## Analytics 101: Things I Wished I Knew Before I Delved into The World of Analytics

“Analytics 101” was organized to provide the students with a general idea of what data science is all about. The talk was held on 2<sup>nd</sup> October 2020 via Microsoft Teams. The emcee started off the event with a brief opening of the club and the club social media platform. The speaker, Joel Loh then started his engaging and captivating session; sharing about his experience throughout the course, what he has learnt and the extracurricular activities that he was involved in. He included interesting content and visuals so that the students were able to follow as well as enjoyed the session.

## Data Science: Success or Doom? Let me help you decide

“Data Science: Success or Doom? Let me help you decide” was organised to divulge how data science can be used to propose solutions that can make a difference to the people. The talk was held on 8<sup>th</sup> October 2020 via Zoom by 2 guest panellists, the Champion and 2nd Runners Up of the recently concluded ASEAN Data Science Explorer.

Oscar’s Project was about how digital integration was the key to growth, while Nikolas’ Project was about how to reinvigorate the tourism industry through policies and guidelines.

The forum session started with the short opening questions, where the panellists spoke about their backgrounds as well as how they joined the competitions. The panellists then took turns sharing their Storyboards which detailed their thought process, analysis, findings and solutions.

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## Data Science: Success or Doom? Let me Help You Decide.

**Oscar Ling**

- BSc (Hons) Engineering (Electrical-Mechatronics), UTM
- National Champion ASEAN Data Science Explorer
- Finalist of Higher Education Minister Award
- Felo Perdana at Ministry of Transport Malaysia

**Nikolas Adiprasetya**

- BSc (Hons) Accounting & Finance, Sunway University
- 2nd Runner Up ASEAN Data Science Explorer
- 3rd Runner Up HSBC BCC Global 2020
- National Champion HSBC BBC Malaysia 2020

8 October 2020  
6 PM - 7:15 PM

**OPEN to ALL  
Sunway Students**

Organized by:  
Sunway Analytics Society, Sunway Life, 4th Quarter, Premier Digital Tech University™

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## Sunway University to Strengthen Student Entrepreneurship Ecosystem with Startup Foundry's First Intake

School of Science and Technology and Sunway iLabs had started the first intake of the Startup Foundry – the first university elective course of its kind which will bring year two students and above from different schools to build their business ideas while earning academic credits.

“We designed Startup Foundry as a game changing Entrepreneurship course. Different from other courses, there will be no academic lecturers, but a line-up of industry practitioners who have successfully built firms themselves, and who are able to share their stories and failures with the students,” said Assoc. Prof. Dr Lau Sian Lun (Associate Dean & Head, Department of Computing and Information Systems). To guide the students, four Adjunct Professors have been appointed, namely NUS and Insead Faculty Dr Virginia Cha, UC Berkeley Gigi Wang, Scaleup Malaysia Accelerator Senior Partner and Co-Founder Sivapalan Vivekarajah and, Chairman and Co-founder of Gobi Partners Thomas Tsao.



*School of Science and Technology and Sunway iLabs started the first intake of the Startup Foundry*

[Source: <https://www.businesstoday.com.my/2020/10/08/sunway-university-to-strengthen-student-entrepreneurship-ecosystem-with-startup-foundrys-first-intake/> , 8<sup>th</sup> October 2020]



## SST Conference Seminar Series #2

The School of Science and Technology Conference Seminar Series #2 was held on 28<sup>th</sup> October 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.

Dr Kavita Reginald (Department of Biological Sciences), Ms Elaine Yong and Dr Eliza Berezina (Department of Psychology) presented their research papers during the seminar.

**SCHOOL OF SCIENCE AND TECHNOLOGY**  
**SST Conference Seminar Series #2/2020**  
28<sup>th</sup> October 2020, Wednesday | 3.30 PM – 4.35 PM | via Zoom

**SUNWAY UNIVERSITY**  
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**Opening Remark** 3.30 PM – 3.35 PM

**THE SPEAKERS**

**Dr Kavita Reginald**  
**European Academy of Allergy and Clinical Immunology (EAACI)**  
Genome-wide Association Studies on Individuals from Han Chinese Background Reveal Novel Genes as Potential Risk Factors for Allergic Rhinitis.  
<https://university.sunway.edu.my/profiles/sci-tech/dr-kavita-reginald>  
3.35 PM – 3.55 PM

**Elaine Yong**  
**The 4th International Conference on Education and Multimedia Technology (ICEMT 2020)**  
Understanding How eLearning Tools Influence Self-Efficacy and Instructor Connectedness: A Sunway College Preliminary Study.  
<https://university.sunway.edu.my/profiles/sci-tech/elaine-yong>  
3.55 PM – 4.15 PM

**Dr Eliza Berezina**  
**The 4th International Conference on Education and Multimedia Technology (ICEMT 2020)**  
Exploring Transmedia Storytelling as an Approach Assessment in Problem-Based Learning.  
<https://university.sunway.edu.my/profiles/sci-tech/dr-eliza-berezina>  
4.15 PM – 4.35 PM

**REGISTRATION**

For **STAFF REGISTRATION**, please follow the guideline below:  
eLead > New Application > Open for Registration (In-House Training) > SST Conference Seminar Series #2/2020 > Click Register > Click Submit

For **STUDENT REGISTRATION**, please click the link below:  
<https://forms.office.com/Pages/ShareFormPage.aspx?id=6wgQBUDbSUKezp3z6MP1lBpHGFOeiDxCuah72l9tflLVUNEplUWE84WkzS1BQQjhXtkpBQkdWMTNCWS4u&sharetoken=wYib9OH9uqFbO6q9EoB9> OR scan the QR code.

Scan QR for STUDENT REGISTRATION

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No.5, Jalan Universiti, Bandar Sunway,  
47500 Selangor Darul Ehsan, Malaysia.  
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# Forum: Recent Advancement of Membrane Technology for Water Treatment in Malaysia

Professor Mohamed Kheireddine Aroua [Associate Dean (Research) & Head, Research Centre for Carbon Dioxide Capture and Utilisation] has been invited as a panellist in a forum organised by UCSI focussing on recent advancement of membrane technology for water treatment in Malaysia. The forum was held virtually on 15<sup>th</sup> December 2020. The forum was moderated by Prof. Dato Dr. Ahmad Ibrahim from UCSI, and included the following panellists in addition to Prof. Mohamed Kheireddine Aroua: for the forum discussion:

1. Prof. Datuk Ts. Dr. Ahmad Fauzi Ismail (Deputy Vice-Chancellor (Research and Innovation) of Universiti Teknologi Malaysia, Founder and First Director of Advanced Membrane Technology Research Centre (AMTEC)
2. Ms. Fong See Yin (Managing Director of Oneness Purification Sdn. Bhd.)

The main objectives of the forum were:

- (a) To review the current water issues in Malaysia
- (b) To review the roles of membrane technology in water treatment and its limitation
- (c) To bridge the gap between research and practices in membrane technology

Over 200 participants registered for this event during which Professor Mohamed Kheireddine demonstrated the potential of membrane technology to supply clean water during emergencies and to remote areas in Malaysia.

**Forum: Recent Advancement of Membrane Technology for Water Treatment in Malaysia**  
15<sup>th</sup> December 2020  
10 am - 11:30 am  
Platform: Microsoft Teams

**Panellist**  
Prof. Datuk Dr. Ahmad Fauzi Ismail  
Deputy Vice Chancellor (Research & Innovation), Founder and Head of AMTEC, Professor at School of Chemical & Energy Engineering, Universiti Teknologi Malaysia

Prof. Dr. Mohamed Kheireddine Aroua  
Associate Dean (Research) and Head Centre for Carbon Dioxide Capture and Utilization, School of Science and Technology, Sunway University

Fong See Yin  
Managing Director at Oneness Purification Sdn Bhd.

**Moderator**  
Prof. Dato Dr. Ahmad Bin Ibrahim  
Professor at Department of Chemical & Petroleum Engineering, UCSI University

**Organized by:**  
Faculty of Engineering, Technology & Built Environment (FETBE) UCSI University  
UCSI IEM Student Chapter  
Contact us: [mesa@ucsiuniversity.edu.my](mailto:mesa@ucsiuniversity.edu.my)

**Supported by:**  
UCSI University, IChE, IEM, Sunway University, Jeffrey Cheah Foundation, Universiti Malaya, Lancaster University

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- Spring Water
- Flood Water
- Lake Water
- Rain Water
- Well Water

Automatic smart backwash system  
No Chemical Used  
Solar, Genset, or normal electricity  
Low maintenance cost

Drinking Water  
500-700 L/h

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Our Vision: To be a World Class University

*Forum: Recent Advancement of Membrane Technology for Water Treatment in Malaysia*



## Assoc. Prof. Dr Lau Sian Lun on Bernama Radio

An initiative by MDEC in collaboration with Bernama Radio, Assoc. Prof. Dr Lau Sian Lun (Associate Dean & Head, Department of Computing and Information Systems) was invited to speak on "Achieving Innovation through Education, Collaboration, and Eco-system". The interview session was aired on Bernama Radio on 8<sup>th</sup> December 2020.



Assoc. Prof. Dr Lau Sian Lun was invited to talk about "Achieving Innovation through Education, Collaboration, and Eco-system" on Bernama Radio.

[Source: <https://facebook.com/bernamaradio/> or [bernama.com/radio](https://bernama.com/radio), 8<sup>th</sup> December 2020]

## Book Launch & Panel Discussion: The Science of Feelings

The virtual launch of "The Science of Feelings: What Psychological Research Tells Us About Our Emotions" was held on 24<sup>th</sup> November 2020 via Zoom.

In conjunction with the launch, Dr Eugene Tee, the author held a panel discussion on the topic of emotions and Professor Alvin Ng Lai Oon (Head, Department of Psychology) was one of the guest panelists.

BOOK LAUNCH & PANEL DISCUSSION  
**The Science of Feelings**  
What Psychological Research Tells Us  
About Our Emotions by Eugene Tee  
24 NOV 2020 | 1PM – 3PM (via ZOOM)



Signed  
copies  
to  
be  
won!\*



Dr Eugene Tee  
Author & Panelist



Dr Alvin Ng Lai Oon  
Sunway University



Dr Ng Wai Sheng  
Growing Space  
Psychology Center



Elaine Fernandez  
HELP University  
(Moderator)

Scan the code  
to register  
<https://bit.ly/34pxtfr>



## Facebook LIVE: “A Positive Mindset in the New Normal”

Covid-19 and the MCO measures in Malaysia have disrupted the way everyone works, study and communicate. Many have tried to adapt to these changes, but this new normal has affected everyone in one way or another. Moderated by Marvin Mah (Sunway Alumni Relations), a Facebook Live session was conducted on 28<sup>th</sup> November 2020 where Professor Alvin Ng Lai Oon (Head, Department of Psychology) and Marisha Barth Ubrani (Psychology alumna) shared on the topic “A Positive Mindset in the New Normal”. They also gave tips on building positive mindset to better manage this new normal.

**SUNWAY**  
*Alumni*

**A Positive Mindset in the New Normal**

#SunwayAlumniCares

Featuring:

  
**Marisha Barth Ubrani**  
Psychology Alumna

  
**Prof. Alvin Ng Lai Oon**  
Head of Psychology Department  
School of Science & Technology  
Sunway University

  
Moderator:  
**Marvin Mah**  
Sunway Alumni Relations



**28 November 2020**  
**3.00 PM - 4.00PM**

## Sunway University Researcher Looks into Genomes and Allergies

Dr Kavita Reginald (Department of Biological Sciences) was featured on QS WOWNEWS for her astounding research on genomes and allergies. Since joining Sunway University 3 years ago, she tries to expose her students to diverse laboratory techniques in allergy research, such as allergy diagnosis or to quantify levels of allergens within the dust. Dr Kavita believes these experiments will help expose students to the practical aspects of her research area. Besides from researching into dust mites, her other notable works include identifying and patenting a novel protein of the bacteria *Staphylococcus aureus* as an initial diagnostic target for atopic dermatitis.



*Dr Kavita Reginald had astounding research on genomes and allergies.*

[Source: <https://qswownews.com/sunway-university-researcher-looks-into-genomes-and-allergies/?fbclid=IwAR28Sop872ldSp9nflvTIMTXXbzuaK5515BQnxikQVGBVyNAlbPnZiOI-Y>, 4<sup>th</sup> November 2020]

## Research Strategy Workshop 2020– Mitigating the Impact of Covid 19 Pandemic

The Centre for Carbon Dioxide Capture and Utilisation conducted its yearly research strategy workshop on 10<sup>th</sup> December 2020. The theme of this year workshop was “Mitigating the Impact of Covid 19 Pandemic”. Due to the extension of the CMCO, the workshop was conducted virtually. The main aim of this workshop was to develop CCDCU strategic research focus areas for 2021 and beyond with emphasis on mitigating the impact of Covid-19.





# International Webinar on Higher Study and Scholarship Challenges and Opportunities

Professor Saidur Rahman (Head, Research Centre for Nano-Materials and Energy Technology) was invited to speak at the International Webinar on Higher Study and Scholarship Challenges and Opportunities. The webinar was held on 2<sup>nd</sup> October 2020 via Zoom.

**LIVE ON**  
zoom

## INTERNATIONAL WEBINAR ON

### Impact of COVID-19 on international higher study and scholarships- challenges and opportunities

**SPEAKERS**

**DR. SAIDUR RAHMAN**  
Distinguished Research Professor and Head of the Research Centre for Nanomaterials and Energy Technology (RCNMET) at Sunway University, Malaysia. Professor at Lancaster University, England. Adjunct Professor at UPM, Malaysia.

**DR. AZHARUL KARIM**  
Associate Professor  
Science and Engineering Faculty  
School of Mechanical Medical & Process Engineering,  
Queensland University of Technology, Australia  
Leader, Energy & Drying Research Group

**MODERATOR**

**DR. MD IMRAN H. KHAN**  
Associate Professor,  
Department of Mechanical Engineering  
Dhaka University of Engineering & Technology, Gazipur.  
Research Fellow, Queensland University of Technology, Australia

**ORGANIZED BY**  
DUET CAREER & RESEARCH CLUB (DUET CRC)

**FRIDAY 02 OCTOBER 2:30 PM BDT**

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*International Webinar on Higher Study and Scholarship Challenges and Opportunities*

# International Virtual Course of Carbon Capture, Utilization and Storage for Asia – Oceania Regions

Dr Mohd Azlan Kassim from Research Centre for Carbon Dioxide Capture and Utilisation has been invited to attend the ITB-IEAGHG CCUS Virtual Course for the Asia-Oceania Region held from 9<sup>th</sup> – 20<sup>th</sup> November 2020.

This virtual course was conducted as a collaboration between Institut Teknologi Bandung (ITB) and The IEA Greenhouse Gas R&D Programme (IEAGHG), started from 17:00 (UTC + 7), from Monday to Friday, and the duration of each daily lecture was 2.5 – 3 hours. The lectures were delivered by ITB faculty staff and by International experts from USA, Canada, Norway, UK, France, Austria, Japan, India, Singapore and Australia.



*International Virtual Course of Carbon Capture, Utilization and Storage for Asia – Oceania Regions*



*Final webinar session by Tim Dixon, General Manager IEAGHG during the ITB-IEAGHG CCUS Virtual Course for the Asia-Oceania Region*

## SST FRGS Experience Sharing Workshop

The SST FRGS Experience Sharing workshop was held on 17<sup>th</sup> December 2020 via Zoom. The principal investigators who were recently successful in securing the FRGS grant shared their journey and experiences through all stages of the application process. They provided valuable advices on the conception of the project, the preparation of all sections of the proposal and addressing reviewers' comments.

The workshop started off with the Welcome Remarks by Dean of School of Science and Technology, Professor Serge Demidenko, followed by Introduction to the Workshop and FRGS Assessment Criteria by Associate Dean (Research), Professor Mohamed Kheireddine Aroua. The principal investigators presented in this workshop were Dr Mohd Ishtiaq Anasir (Centre for Virus and Vaccine Research), Dr Jane Gew Lai Ti (Department of Biological Sciences), Assoc. Prof. Dr Adarsh Kumar Pandey (Research Centre for Nano-materials and Energy Technology), Dr Low Yeh Ching (Department of Computing and Information Systems), Dr Wu Shin Ling (Department of Psychology), and Professor Mohammad Khalid (Graphene and Advanced 2D Materials Research Group).

The interactive workshop aimed to encourage and to prepare SST researchers in applying the FRGS in 2021. There was a total of 42 participants attended the workshop.





# Research Collaboration &

# Winning Research Grants

## Research Collaboration

Staff name	Department/ Centre/Group	Partner Institution / Company	Validity	Purpose/Scope
Dr Richard Wong Teck Ken	Department of Computing and Information Systems (DCIS)	Sunway Construction Sdn Bhd	17 <sup>th</sup> August 2020 - 17 <sup>th</sup> August 2021	(a) To improve cooperation between both Parties in the field of Research; (b) To support Parties' research agenda which are to develop expertise, to highlight research, to create knowledge and to build closer relationship between university and industry; (c) To provide opportunities for Sun-U students to engage with real-world problem and provide practical and valuable solutions; (d) To speed-up information technology adoption rate and process innovation in SunCon and its subsidiaries.
Prof Poh Chit Laa	Centre for Virus and Vaccine Research (CVVR)	Selayang Hospital	19 <sup>th</sup> October 2020 - 19 <sup>th</sup> October 2022	(a) To obtain dengue infected blood samples (n=200) and healthy donors (n=100) from Selayang Hospital. This will enable the isolation of peripheral blood mononuclear cells (PBMCs) and to perform ex-vivo stimulation of PBMCs by selected peptides; (b) Once the immunogenic epitopes represented by selected peptides are identified, peptide strands containing the epitopes will be synthesized and evaluated in mice for their immunogenicity and safety as vaccines; (c) The immunogenic peptide strands will be used as experimental vaccines to immunize humans in clinical trials.
Assoc. Prof. Dr. Yap Kian Meng	Research Centre for Human-Machine Collaboration (HUMAC)	Deng Kai Sdn Bhd	13 <sup>th</sup> November 2020 - 13 <sup>th</sup> August 2021	(a) An online production monitoring system that has the feature to provide real-time production output data. The data will be analyzed and subsequently used to boost production output; (b) A hybrid electronic and IT system utilizing image processing and weight detection techniques to count Printed Circuit Boards Assembly (PCBA) modules and finished products.

## 2020 Fundamental Research Grant Scheme (FRGS)

Principal Investigator	Department/Centre/Group	Project Title	Approved Amount (RM)
Prof Mohammad Khalid	Graphene and 2D Advanced Materials Research Group (GAMRG)	Investigating thermoelectric energy harvester based on hybrid graphene/bismuth sulphide/recycled carbon fibre nanocomposite for sub-watt iot applications	167,120
Prof Jeff Tan Kuan Onn	Department of Biological Sciences (DBS)	Anti-tumor therapeutics mediated by Adeno-MBRM and NANO-ACTD nanoparticles	163,000
Dr Mohd Ishtiaq Bin Anasir	Centre for Virus and Vaccine Research (CVVR)	Structure-guided development of novel antiviral peptides against the four dengue serotypes	150,400
Assoc. Prof. Dr Adarsh Kumar Pandey	Research Centre for Nano-materials and Energy Technology (RCNMET)	Electron kinetics within semiconductor nano-architecture of flexible Dye Sensitized Solar Cells and perspective role of sintering aids	148,800
Prof Mohamed Kheireddine Ben Taieb Aroua	Research Centre for Carbon Dioxide Capture and Utilisation (CCDCU)	Unraveling the mechanism of CO <sub>2</sub> reaction with novel adsorbents composed of egg white immobilized on palm shell activated carbon	132,903
Dr Jane Gew Lai Ti	Department of Biological Sciences (DBS)	Glycerol as a sustainable solvent in the extraction of bioactive compounds from Thanaka bark as natural sunscreens	130,784
Dr Wu Shin Ling	Department of Psychology (DPSY)	Investigating the underlying mechanism that affects parental discipline and adolescents? Mental health in Malaysia	105,000
Ms Woo Pei Jun	Department of Psychology (DPSY)	A naturalistic observation of early mother-infant interactions	103,577
Dr Selina Low Yeh Ching	Department of Computing and Information Systems (DCIS)	A new family of regression models for correlated count data with cubic variance function	99,800
Dr Audrey Lim Wei Ling	Department of Biological Sciences (DBS)	Neuroprotective potential of Polygonum minus (daun kesum) extracts against glutamate-induced toxicity and neurodegeneration in vitro	98,351

## 2020 Sunway R&D Industry Projects

Project Lead	Department/Centre/Group	Project Title
Professor Alvin Ng Lai Oon	Department of Psychology (DPSY)	Webinar - Mental Health Literacy
Dr Chen Jit Ern	Department of Biological Sciences (DBS)	Antiviral Protein Research & Development
Professor Mohammad Khalid	Graphene and 2D Advanced Materials Research Group (GAMRG)	High Energy Density Air Battery Research & Development
Dr Richard Wong	Department of Computing and Information Systems (DCIS)	Delivery and Fleet Management System for An Enterprise
Assoc. Prof. Dr Yap Kian Meng	Department of Computing and Information Systems (DCIS)	Public-Private Research Network Grant

### **Assoc. Prof. Dr Lau Sian Lun awarded with Grant worth USD 82,000 from U.S. Army International Technology Center Pacific**

Associate Dean & Head, Department of Computing and Information Systems, Assoc. Prof. Dr Lau Sian Lun and Adjunct Senior Research Fellow, Dr Peter Ho have been awarded a research grant from the U.S. Army International Technology Center Pacific amounting to USD 82,000 to conduct fundamental research on deep learning approaches for the purpose of processing images captured during liquid atomization experiments. The project, named DeepSpray+, is a 2 years project aiming to investigate improvement of CNN model in applying state of the art solution for more generalised application of the DeepSpray model. Another aim of the project is to investigate explainability of the generated model.



*Assoc. Prof. Dr Dr Lau Sian Lun (left) and Dr Peter Ho (right) awarded with research grant worth USD 82,000 from U.S. Army International Technology Center Pacific*



# Awards & Achievements

## Sunway University Researchers in Stanford University-List of Top World's 2% Scientists

Stanford University has recently released a list that represents the top 2% of the most-cited scientists in various disciplines. We are pleased to share that six Sunway University researchers had been listed in this list of Top World's 2% Scientists.

In career-long **Stanford University List of Top World's 2% Scientists**, there are four researchers:

1. Professor Edward Tiekink (Research Centre for Crystalline Materials)
2. Professor Saidur Rahman (Research Centre for Nano-Materials and Energy Technology)
3. Professor Mohamed Kheireddine (Research Centre for Carbon Dioxide Capture and Utilisation)
4. Professor Sibrandes Poppema (Directorate)

In **Stanford University List of Top World's 2% Scientists for Year 2019 impact**, there are five researchers:

1. Professor Edward Tiekink (Research Centre for Crystalline Materials)
2. Professor Saidur Rahman (Research Centre for Nano-Materials and Energy Technology)
3. Professor Mohamed Kheireddine (Research Centre for Carbon Dioxide Capture and Utilisation)
4. Assoc. Prof. Dr Adarsh Kumar Pandey (Research Centre for Nano-Materials and Energy Technology)
5. Professor Yau Kok Lim (Department of Computing and Information Systems)



*From left: Professor Edward Tiekink, Professor Saidur Rahman, Professor Mohamed Kheireddine, Professor Sibrandes Poppema, Assoc. Prof. Dr Adarsh Kumar Pandey and Professor Yau Kok Lim*

## **Professor Mohamed Kheireddine Aroua Appointed as MyRA Lead Auditor (Sunway)**

Professor Mohamed Kheireddine Aroua [Associate Dean (Research) & Head, Research Centre for Carbon Dioxide Capture and Utilisation] had received official appointment as MyRA's Lead Auditor for Sunway University for year 2021-2023.

The appointment is based on the recommendation by the institution as well as confidence in the Internal Audit team in ensuring the planning and audit process of MyRA at the institution can be implemented well.

## **Best Paper for Special Issue "Crystal Chemistry of Zinc, Cadmium and Mercury"**

Distinguished Professor & Head, Research Centre for Crystalline Materials, Professor Edward Tiekink had his paper "Perplexing Coordination Behaviour of Potentially Bridging Bipyridyl-Type Ligands in the Coordination Chemistry of Zinc and Cadmium 1,1-Dithiolate Compounds" selected as the best paper of Special Issue "Crystal Chemistry of Zinc, Cadmium and Mercury". The paper was further promoted on social media LinkedIn and Twitter:

[https://www.linkedin.com/posts/crystals-mdpi\\_crystals-coordination-polymers-activity-6720570684898201600-YGi3/](https://www.linkedin.com/posts/crystals-mdpi_crystals-coordination-polymers-activity-6720570684898201600-YGi3/)

[https://twitter.com/Crystals\\_MDPI/status/1314784619582164995](https://twitter.com/Crystals_MDPI/status/1314784619582164995)

In addition, Professor Edward is once again, been invited to contribute a comprehensive review to their journal which bring in the opportunity of more publication.



*Professor Mohamed Kheireddine Aroua appointed as MyRA Lead Auditor (Sunway)*



*Professor Edward Tiekink's paper was selected as Best Paper for Special Issue "Crystal Chemistry of Zinc, Cadmium and Mercury".*

## Professor Edward Tiekink's Latest Book "Inverse Coordination – A Novel Chemical Concept" co-authored with Professor Haiduc (Romania)

An early contribution to the Sunway University Press stable of books, is now available in e-form at Amazon, Barnes & Noble, Kobo, Apple Books, Google Play, Vivlio, Smashwords and E-Sentral. This is Prof. Tiekink' second book since joining Sunway University, the first being "Multi-Component Crystals. Synthesis, Concepts, Function (2017)" with J. Zukerman-Schpector (Brazil) published by De Gruyter.

## Frontiers in Supramolecular Chemistry

Professor Edward Tiekink authoritative review of secondary Se...O interaction, of relevance to biological systems, drug mechanisms of action, catalysis, etc. has appeared in the January issue of Coordination Chemistry Reviews, consistently ranked the number 1 Journal in "inorganic and nuclear chemistry". This is the fourth such article published since Prof. Tiekink commenced at Sunway University.

## Front Cover in Zeitschrift für Kristallographie – New Crystal Structures for 2020

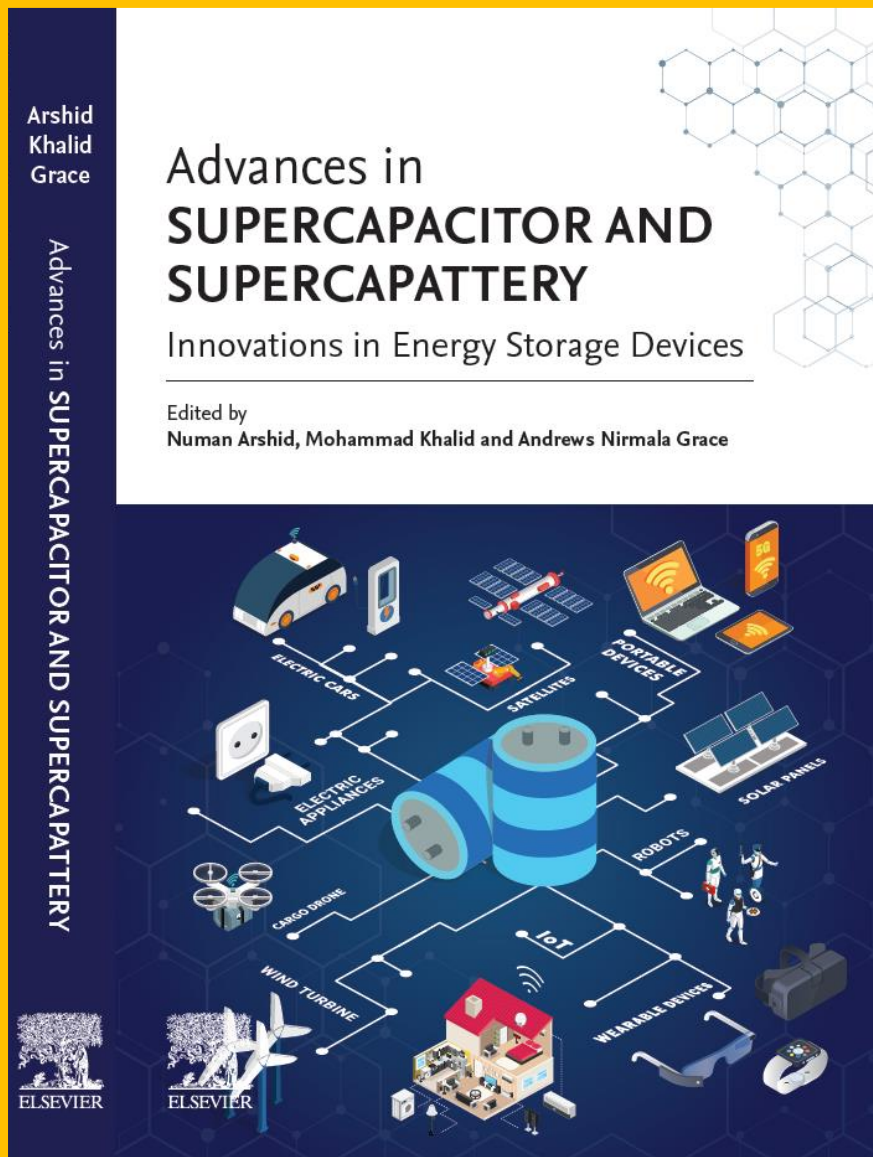
Research Centre for Crystalline Material's research work was featured in the Front Cover of issue 4 and issue 6 of "Zeitschrift für Kristallographie – New Crystal Structures".





# Professor Khalid's Book "Advances in Supercapacitor and Supercapattery: An Innovation in Energy Storage Devices"

Advances in Supercapacitor and Supercapattery: An Innovation in Energy Storage Devices provides an in-depth overview of the present status of the rapidly growing field of electrochemical energy storage systems. This book covers the fundamentals, the latest developments, and innovative materials used for the hybrid electrochemical energy storage systems as well as their potential for the latest technological energy storage applications. Currently, the literature available to boost the performance of supercapacitors is scattered. Moreover, there are some misperceptions between the concepts for the pseudocapacitive and battery grade materials. This book comprehensively covers the synthesis strategies to enhance the overall performance of the supercapacitor device. The misleading concepts will be explained in detail based on electrochemical reactions and their corresponding electrochemical signatures.



## Sunway University and University of Cambridge Collaborate for COVID-19 Vaccine Delivery

Sunway University researchers are collaborating with University of Cambridge on a novel approach for COVID-19 vaccine delivery. This research could result in a vaccine that can be more quickly distributed around the world. Head of the Centre for Virus and Vaccine Research, Distinguished Professor Poh Chit Laa explains more on this monumental development in the link below.

[https://qswownews.com/sunway-university-and-university-of-cambridge-collaborate-for-covid-19-vaccine-delivery/?fbclid=IwAR1CR-BSYkrQ1ZrJtLqeX\\_EwRUcicC3asSyLCAPsSjPZiTV9WRaINVcG9-8](https://qswownews.com/sunway-university-and-university-of-cambridge-collaborate-for-covid-19-vaccine-delivery/?fbclid=IwAR1CR-BSYkrQ1ZrJtLqeX_EwRUcicC3asSyLCAPsSjPZiTV9WRaINVcG9-8)



*Professor Poh Chit Laa (first left; standing) successfully completed the first step of her design of the SARS-CoV-2 vaccine*

# SST Staff WON in KSS Contests!

Congratulations to ALL SST Winners in the contests organized by Kelab Sosial Sunway (KSS)!





## Clubs & Society Recognition E-Awards 2020

SST students' achievement received high visibility in the recent C&S Recognition E-Awards 2020. The awards include:

### Commitment to Service Awards

Lai Zhong Xun (Sunway University Ensemble) - **BSc (Hons) Psychology**

### Outstanding Leadership Awards

Muhammad Esmirrafil Helmi (Sunway Biological Society) - **BSc (Hons) Medical Biotechnology**

Ding Nick Hong (Sunway Tech Club) – **Bachelor of Software Engineering (Hons)**

Abdul Ahad (Sunway Cricket Club) – **Doctor of Philosophy (Computing)**

### Commitment to Service & Outstanding Leadership Awards

Lim Kwok Foong (Sunway AIESEC) – **BSc (HONS) Medical Biotechnology**

Jagathish Rao Madhavan (Sunway Rotaract Club) - **BSc (Hons) Information Systems (Business Analytics)**

And not to forget were the Outstanding Club Awards where **Sunway Biological Society (SBios)** is one of the recipients for Uprising Club Awards and **Sunway Tech Club (STC)** is in the 1<sup>st</sup> place for Resilient Club Awards (Non-Sports Category).





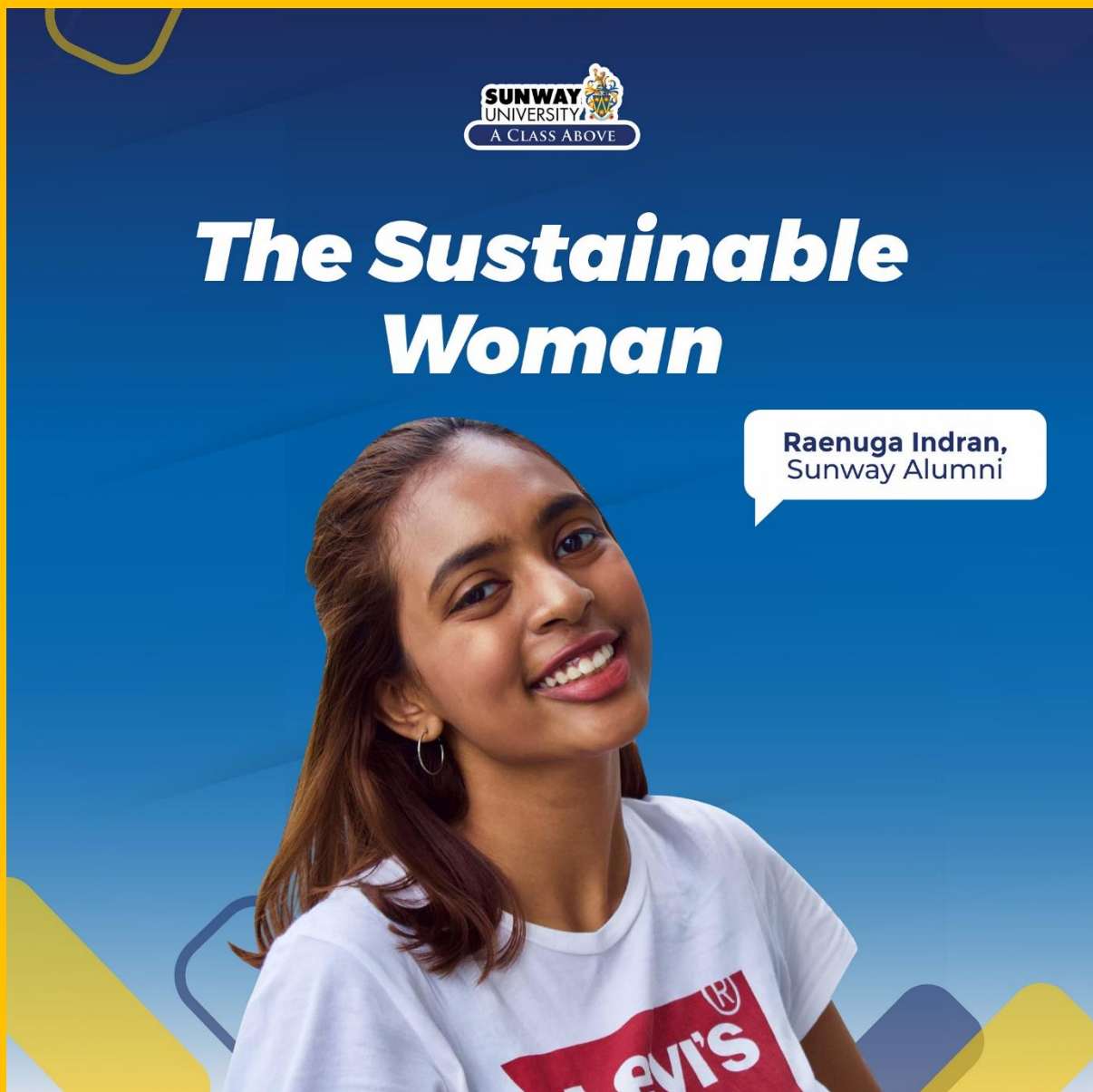
## #SunwayStories Series -

### Scholars Today, Nation Builders Tomorrow

BSc (Hons) Psychology alumni, Raenuga Indran is often dubbed as "The Sustainable Woman" due to her fervent enthusiasm and continuous involvement in community service projects at the #MostHappeningCampus.

Zoom in on how her childhood has inspired her voyage towards reshaping the landscape of mental health and education in Malaysia at the link below:

<https://www.sunway.com.my/stories/scholars-today-nation-builders-tomorrow-3/>



*Raenuga Indran, graduand of BSc (Hons) Psychology*

# 2021 Academic Staff Promotion

Staff Name	Promoted Position
Assoc. Prof. Dr Lau Sian Lun	Professor
Assoc. Prof. Dr Gopalasamy Reuben Clements	Professor
Dr Audrey Lim Wei Ling	Associate Professor
Dr Tommy Tong Yuh Koon	Associate Professor
Elaine Yong	Senior Teaching Fellow
Dr Farihahusnah Hussin	Senior Research Fellow
Dr Priyanka R Jagadish	Senior Research Fellow