

SET *eDigest*



SUNWAY
UNIVERSITY

A CLASS ABOVE

Issue 07 | March 2021

Computing



Information Systems

CCDCU

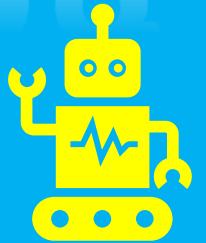
Engineering



CAPRT



RCNMET



GAMRG



HUMAC

School of Engineering and Technology

Preface



Dear Sunway University colleagues and esteemed external partners and friends,

Do you feel that the year 2021 has been surprisingly fast and densely packed with numerous urgent tasks, problems requiring an immediate attention, new initiatives, various reporting and planning actions, good and bad news and many more? I do think that we are now even busier than we were a year ago when on short notice we needed to terminate all face-to-face activities and covert our University work into the online mode while operating on-distance from our homes. Yes, it was a very busy time characterised by an unfamiliar feeling of uncertainty towards the future. It would be fair to say that we worried about our ability to deliver good teaching to our students to secure their study progress, to carry out research, to advance our own professional skills and qualifications, to achieve the expected academic outcomes and assigned financial and other performance indicators, and many more.

This time things are different. Now we already know how to work efficiently and successfully despite all the challenges and restrictions caused by the pandemic. We are significantly more confident, astute, efficient, and experienced to overcome old and new obstacles while continuing our upward progression along the trajectory of success. However, the volume and complexity of tasks as well as expectations are also becoming more challenging and ambitious with the new year. And this ongoing sprinting towards new and moving up targets makes us very busy again. However, the ability to work hard and smart while delivering great outcomes is an integral part of the pedigree and natural mode of operation of the Sunway Education Group with ambitious, successful, creative, and fast-advancing Sunway University being a key part of it. It is important to acknowledge the very valuable continuing support to the University at large and its schools provided by the Jeffrey Cheah Foundation thus firmly backing this steady progression of Sunway University.

Our School has been a research powerhouse of the University as well as a valuable contributor to its educational programs with Computing and Information Systems being among the most successful and continuously progressing areas across the entire institution. Our strategic goals, budgets, key performance indicators, new initiatives and plans have been generally formulated for 2021, and the team and individual planning have been progressed. Our targets may be seen as being too ambitious and based on unrealistic expectations while imposing a too high load on us. Yet great goals will inevitably lead to great results that will make us proud of ourselves when we evaluate our achievements at the end of the year. And, I believe that in a year time we will be looking back at 2021 thinking about it as a year when our professional life was not too demanding and crazy hectic compared to the 2022 expectations. All in all, let us accept that it is a normal life cycle.

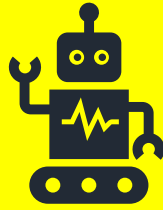
It has been very pleasing to see that our results for the first quarter of 2021 have been already truly outstanding with the fast-growing student numbers in both the intakes, solid research performance, a number of new projects, new pieces of evidence of international recognition of our world-class researchers and academics, leadership in two research University-wide cluster areas, and more (a number of the new achievements are outlined in the issue of the eDigest). I would like to congratulate the School on the very impressive start of the year and to thank everyone who contributed to our success. I would like to encourage all of us to continue and strengthen our teamwork. I would like to invite also our colleagues at other parts of the University as well as from outside it to join us so we could collaborate and advance our progression towards mutual success. As Henry Ford once said: *"Coming together is a beginning. Keeping together is progress. Working together is success."*

With very best regards to you all

Professor Serge Demidenko

Dean

SET Vision and Mission



Vision

*To be among the world's leading schools
in the chosen areas of Engineering and Technology
and favoured choice for students*



Mission

*To provide forward-looking, industry-focused education
and research of proven international quality
to advance regional economic prosperity
and sustainable development*



2021 School Academic Management Team



Dean
*Professor Serge
Demidenko*



**Associate Dean
(Engagement and
Internationalisation)**
Professor Lau Sian Lun



**Associate Dean
(Education)**
Professor Yau Kok Lim



**Associate Dean
(Research and
Postgraduate Studies)**
*Professor Mohamed
Kheireddine*

2021 School Academic Management Team



Head
Department of Computing
and Information Systems
(DCIS)
Professor Yau Kok Lim



Head
Department of Engineering
(DEN)
Professor Lau Sian Lun



Head
Research Centre
for Applied Physics and
Radiation Technologies
(CAPRT)
Distinguished Professor
David Bradley

Head
Research Centre
for Carbon Dioxide
Capture and Utilisation
(CCDCU)
Professor Mohamed
Kheireddine



Head
Research Centre
for Human-Machine
Collaboration
(HUMAC)
Associate Professor
Dr Yap Kian Meng



Head
Research Centre
for Nano-Materials &
Energy Technology
(RCNMET)
Distinguished Professor
Saidur Rahman



Head
Graphene and Advanced
2D Materials
Research Group
(GAMRG)
Professor Mohammad
Khalid

2021 School Committee Chairs



Alternate Chair
School of Board of Studies
Professor Yau Kok Lim



Chair
School of Teaching and Learning
Assoc. Prof. Ir. Aziz Abdul Omar



Chair
School of Research & Enterprise Committee
Professor Mohamed Kheireddine

Sunway University Research Cluster Leaders



Data Science Cluster
Professor Lau Sian Lun



Material Science Cluster
Professor Mohamed Kheireddine

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The SET eDigest Editorial Team:

Editor: Jacky Tan

**Co-Editors: Christine Chong, Koh Lay Ai, Aisha Rozaida
Catherine Chan and Winnie Teo**

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Happening @ SET

New Programmes Launching

PhD in Sustainability Science and Technology

(launched in January 2021)

<https://university.sunway.edu.my/set/phd-sustainability>

Bachelor of Electronic and Electrical Engineering with Honours

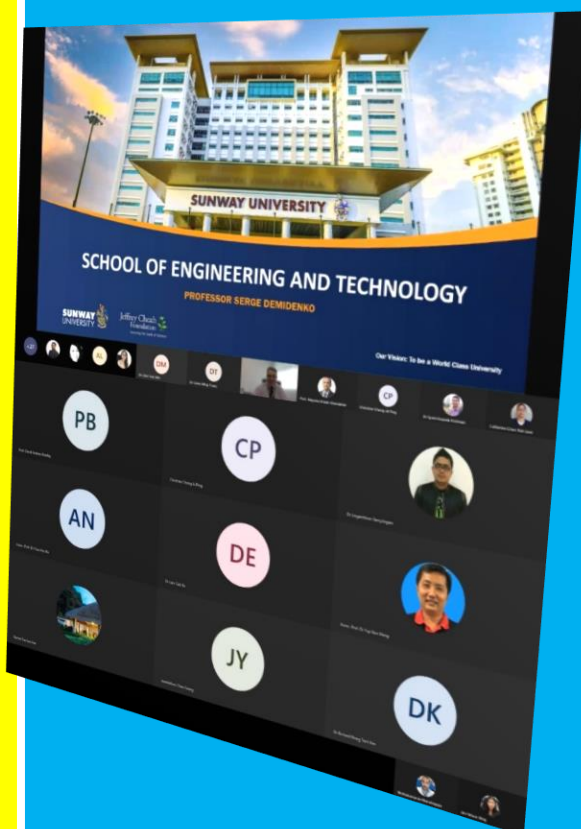
(launch in August 2021)

Bachelor of Chemical Engineering with Honours

(launch in April 2022)

Dean's Communication Session (January 2021 Semester)

The Dean's Communication Session was held on 9th February 2021. Dean shared with School of Engineering and Technology (SET) team on new addition to SET team, new appointments, new programmes, student statistics and other important updates. The session continued by the sharing of Associate Dean (Engagement and Internationalisation), Professor Lau Sian Lun, who was the former Associate Dean (Education). Professor Lau did a wrap up on Teaching and Learning, and also shared on future academic plans while embarking into his new journey as Associate Dean (Engagement and Internationalisation). Associate Dean (Research and Postgraduate Studies), Professor Mohamed Kheireddine then shared on SET Postgraduate Programme Leaders, research statistics, research achievement, research events and updates. Last but not least was the sharing by Professor David Andrew Bradley, latest addition in SET team where he gave an overview on Research Centre for Applied Physics and Radiation Technologies which includes the introduction of the team members, collaborations, active involvements and opportunities.



SET Conference Seminar Series #1/2021

The SET Conference Seminar Series #1/2021 was held on 2nd March 2021 via Zoom.

It is organised 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.

The seminar started off with the Welcome Remarks and Introduction by School Dean, Professor Serge Demidenko and Associate Dean (Research and Postgraduate Studies), Professor Mohamed Kheireddine Aroua. Dr Mohammad Dabbagh, Dr Matthew Teow Yok Wooi, Ms Charis Kwan Shwu Chen and Ms Lim Woan Ling from the Department of Computing and Information Systems presented their conference papers to the seminar participants.





SUNWAY UNIVERSITY
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SCHOOL OF ENGINEERING AND TECHNOLOGY
SET Conference Seminar Series #1/2021
 2nd March 2021, Tuesday | 10.00 AM – 11.25 AM | via Zoom

	Opening Remark		10.00 AM – 10.05 AM
THE SPEAKERS			
	 2nd International Conference on Artificial Intelligence in Engineering and Technology (IICAET 2020) Performance Analysis of Blockchain Platforms : Empirical Evaluation of Hyperledger Fabric and Ethereum https://university.sunway.edu.my/profiles/sci-tech/mohammad-dabbagh		10.05 AM – 10.25 AM
	 2nd International Conference on Artificial Intelligence in Engineering and Technology (IICAET 2020) Experimenting Deep Convolutional Visual Feature Learning using Compositional Subspace Representation and Fashion - MNIST https://university.sunway.edu.my/profiles/sci-tech/Dr-Matthew-Teow		10.25 AM – 10.45 AM
	 International Conference on Interdisciplinary Computer Science and Engineering (ICICSE 2020) A Comparison Study Between Content-Based and Popularity-Based Filtering via Implementing a Book Recommendation System https://university.sunway.edu.my/profiles/sci-tech/charis-kwan		10.45 AM – 11.05 AM
	 4th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT) Design of a Mobile Augmented Reality-based Indoor Navigation System https://university.sunway.edu.my/profiles/sci-tech/woan-ling		11.05 AM – 11.25 AM

REGISTRATION
 For STAFF REGISTRATION, please click [Register and Submit here](#)
 For STUDENT REGISTRATION, please click [here](#) OR scan the QR Code

Sunway University
 A member of the Sunway Education Group
 No. 5, Jalan Universiti, Bandar Sunway,
 47500 Selangor Darul Ehsan, Malaysia.
university.sunway.edu.my



Scan QR Code for STUDENT REGISTRATION ONLY

ALL ARE INVITED

Owned and governed by the
Jeffrey Cheah Foundation
Supporting the quest for wisdom

STAY → SAFE → TOGETHER

3rd International Forum on Advances in Radiation Physics

The 3rd International Forum on Advances in Radiation Physics, 24th- 25th February 2021 was a focused virtual event of the Centre for Applied Physics and Radiation Technologies at Sunway University and the Department of Physics University of Melbourne, in part also allowing us to celebrate the Memorandum of Understanding recently signed between the two Universities, promoting our working together in areas of mutual interest. There were participants from 21 countries.

Organizing Committee

- a. Sunway University Committee (Centre for Applied Physics Radiation Technologies, School of Engineering and Technology)
 - i. Professor David A. Bradley
 - ii. Professor Mayeen Khandaker
 - iii. Dr Ming Tsuey Chew
 - iv. Dr Siok Ee Lam
 - v. Aisha Rozaida Mohd Ridzuan
- b. University of Melbourne, Swinburne University and La Trobe University, Melbourne, Australia
 - i. Professor Christopher T. Chantler, University of Melbourne
 - ii. Professor Feng Wang, Swinburne University
 - iii. Dr Chanh Tran, La Trobe University
 - iv. Mr Jonathan Dean, University of Melbourne
 - v. Mr Daniel Sier, University of Melbourne
 - vi. Mr Nicholas Tran, University of Melbourne

3rd International Forum on Advances in Radiation Physics



IRPS is a society in its 35th year of existence, brought into being as a result of arrangements first agreed in Penang in 1982 at the 2nd International Symposium on Radiation Physics (ISRP-2); our meetings have since circled the globe, triennial events being held in all of the inhabited continents (ISRP-15 will see the Symposium revisiting Malaysia later this year, to be held at Sunway University, 6th- 10th December 2021).

University of Melbourne and Sunway University, Malaysia sign MOU

The University of Melbourne and Sunway University, Malaysia, recently celebrated signing a Memorandum of Understanding between the two Universities, promoting in working together in areas of mutual interest. This celebration took place during the 3rd International Forum on Advances in Radiation Physics (IFARP-3), which ran online from 24th – 25th February 2021 and featured participants from 21 different countries.

Professor Moira O'Bryan, Dean of Science, spoke at the event to congratulate the universities on the new MOU, particularly noting how impressive this signing was having happened despite the restrictions of COVID-19. She is pictured here with Professor Christopher Chantler of the School of Physics.



Professor Christopher Chantler and Professor Moira O'Bryan

[Source:

<https://physics.unimelb.edu.au/news/university-of-melbourne-and-sunway-university,-malaysia-sign-mou>, 9th March 2021].

Exploiting the Power of AI and IoT for Intelligent Transportation Systems

Online seminar entitled “Exploiting the Power of AI and IoT for Intelligent Transportation Systems” was held on 8th March 2021. The seminar was jointly organised by AISC, USM, Sunway University, Royal Academy of Engineering, SmartCT, IET and Women in Big Data. Professor Yau Kok Lim, Associate Dean (Education) was one of the keynote speakers.



FIRESIDE CHAT

EXPLOITING THE POWER OF AI AND IOT FOR INTELLIGENT TRANSPORTATION SYSTEMS

Join us

Date: 8 March 2021, 1600 (GMT+8)

Venue: Online

Registration link:

<http://bit.ly/aiscnetwork2>



Professor Yau Kok Lim was one of the keynote speakers for the online seminar.

Plenary talk by Professor Mohamed Kheireddine at The Fourth International Symposium on Analytical Chemistry for a Sustainable Development (ACSD 2021)

The fourth International Symposium on Analytical Chemistry for a Sustainable Development was organizing in a hybrid mode at Mohammedia, Morocco on 9th - 11th March, 2021. Professor Mohamed Kheireddine Aroua (Associate Dean, Research and Postgraduate Studies) was among the invited international speakers. He delivered a plenary talk based on his award-winning water project entitled "Science and Technology Contribution to Sustainable Development Goals - Membrane Processes for Clean Water Supply to Remote Areas (SDG 6)". In this talk, he discussed how membrane technology is impacting communities during disasters and contributing in providing remote areas with access to clean and safe water. He shared his team experience during flood relief missions in Malaysia, and highlighted the challenges faced by the team to bring a research from laboratory to the field in a very short time.

The image shows a presentation slide for a mobile ultrafiltration unit. At the top, there is an aerial photograph of Sunway University, a large modern building with a green lawn in front. Below the photo, the slide title is "Science and Technology Contribution to Sustainable Development Goals - Membrane Processes for Clean Water Supply to Remote Areas (SDG 6)". The presenter is identified as Mohamed Kheireddine Aroua, Associate Dean (Research), Head Centre for Carbon Dioxide Capture and Utilization (CCDCU), School of Engineering and Technology, Sunway University, Malaysia. He is also listed as Professor, Department of Engineering, Lancaster University, UK and Honorary Professor, University of Malaya, Malaysia. Logos for Sunway University, Jeffrey Cheah Foundation, Lancaster University, and Universiti Malaya are displayed. The slide features a diagram of the "MOBILE ULTRAFILTRATION UNIT" which takes various water sources (Spring, Flood, Lake, Rain, Well) and produces drinking water at a rate of 500-700 L/h. The unit is described as having an automatic smart backwash system, no chemical use, and low maintenance cost. It is powered by solar, genset, or normal electricity. A photograph shows the unit in a field setting, and another shows a group of people receiving water. The slide concludes with the university's vision: "Our Vision: To be a World Class University".

Science and Technology Contribution to Sustainable Development Goals - Membrane Processes for Clean Water Supply to Remote Areas (SDG 6)

Mohamed Kheireddine Aroua
Associate Dean (Research), Head Centre for Carbon Dioxide Capture and Utilization (CCDCU), School of Engineering and Technology, Sunway University, Malaysia
Professor, Department of Engineering, Lancaster University, UK
Honorary Professor, University of Malaya, Malaysia

MOBILE ULTRAFILTRATION UNIT

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

Drinking Water
500-700 L/h

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

Our Vision: To be a World Class University

Chief Guest and Expert Talks by Associate Professor Dr Adarsh Kumar

Assoc. Prof. Dr. Adarsh Kumar Pandey attended **Department of Science and Technology, Govt. of Gujrat, India sponsored one-week online STTP on "Futuristic Innovations on Solar Energy Technologies** during 8th-12th February 2021 organized by GEC Patan, India as a **Chief Guest**. Eleven eminent speakers from industry and academia (different IITs, Tantra University Egypt) etc. delivered the lecture on Solar energy technologies and its efficient adaptation for sustainable development.



Dr Adarsh has also delivered an **Expert Talk in One-week Workshop on "Renewable Energy & Sustainable Development"** organized by National Institute of Technology, Utrakhand, India during 1st-5th March, 2021. Expert from renowned institutions delivered the talk and was attended by more than 200 participants of India.

During 15th-19th March 2021, Dr Adarsh has attended an **online Faculty Development Program (FDP) on "Green & Sustainable Energy Technology"** under AICTE - ATAL Scheme organized by School of Energy & Environment Management (SoEEM), Rajiv Gandhi Technological University (RGPV), Bhopal(MP)-India as **Chief Guest** and also delivered the expert talk. The workshop witnessed the participants and speakers from academia as well as industries working in the area of Green and Sustainable Energy Technology.

Upcoming Event

Date(s)	Event
6 th – 10 th December 2021	Hybrid Symposium: ISRP-15 International Symposium on Radiation Physics

Winning Research Grants

International Research Networks Grant Scheme (IRNGS) 2021

No.	Project Leader	Project Title	Awarded Amount (RM)
1	Assoc. Prof. Dr Adarsh Kumar Pandey	Promoting Sunway-Asian Countries Research Collaborations on Phase Change Materials as Thermal Energy Storage and its Potential Solar Energy Applications	43,329
2	Assoc. Prof. Dr Angela Lee Siew Hoong	Cyber Security Analytics Maturity Research	45,000
3	Professor David Andrew Bradley	Asian-Oceanic Forum on Advances in Radiation Physics and Radiation Technologies	45,000
4	Professor Mohamed Kheireddine Aroua	EuroAsia Carbon Dioxide Capture and Utilisation Network - EACO2CUNet	50,000
5	Professor Mohammad Khalid	Advanced NanoMaterials for Clean Energy & Water Technology	45,000
TOTAL			228,329

Kick-Start Grant Scheme (KSGS) 2021

No.	Project Leader	Project Title
1	Dr Chin Teck Min	Predicting the adoption of Big Data Cybersecurity analytics for SME organizations
2	Dr Lingenthiran A/L Samylingam	Efficiency Improvement of Nitrate based Ternary Molten Salt's Thermal Stability and Lower Melting Point Induced with Emerging Nanomaterial
3	Dr Muhammed Basheer Jasser	An Optimized Dragonfly Algorithm for Enhanced Effectiveness and Efficiency in Low Exploitation Problem

Individual Research Grant (IRG) 2021

No.	Project Leader	Project Title
1	Assoc. Prof Dr Adarsh Kumar Pandey	Composite Preparation and Characterization of Carbon Based Nano Dispersed Phase Change Materials
		Analysis of Thermophysical Properties and Characterization of Metallic Based Nano Dispersed Phase Change Materials
2	Assoc. Prof. Dr Angela Lee Siew Hoong	Health Monitoring through Smart Wearable for Older Adults: A User Acceptance Model
		Analytics Prediction Model: A Case Study of COVID-19 Confinement on Students' Performance at Higher Education Focusing on Computing Students
		Detection of Depression among Higher Education Students with the Aid of Wearable Sensor and Machine Learning
		Privacy and Senior Citizen Intention to Adopt Smart Home Technology in Residential Care Facilities
		Behavioural Intention to use Pervasive Technology in Higher Education: Integration of TTF, TAM model and SAMR model
3	Assoc. Prof. Dr Lee Yun Li	Semi-Annotation of Ocular Soft Biometrics for Recognition in the Wild
4	Assoc. Prof. Ir Abdul Aziz Omar	Treatment of Oil Sludge and Wastewater Sludge using Biodegradable Plant Based-Surfactant and Ultrasonic Irradiation to Recover Oil
		Sustainable Elucidation of Tacca Leontopetaloides as the Alternative Precursor for Biopolymer
		Marine Debris (especially plastics and oil residues) Study to Establish Baseline for Monitoring Programme of Malaysia Mangrove Ecosystem
5	Assoc. Prof. Dr Teh Phoey Lee Heard	GoVegan: Exploring Motives and Opinions from Tweets
		Zero-Plastic Movement: Change and Commitment for Online and Groceries Shoppers
		Part 1 - Sitting Posture and Chair Break in Home Environment: Association with Back Pain Part 2 - Back Pain issues: What people talk about in Twitter - Sentiment Analysis
		Online Shopping Behavior during Pandemic
		Part 1: Student Requirement Process and Guideline (With external partner) Part 2: Novel - A Concept to Control the Recruitment Process
6	Assoc. Prof. Dr Yap Kian Meng	Towards a Platform of Haptic, Audio and Olfactory Sensory-Based Online Shopping

7	Dr Chew Ming Tsuey	Study to Ascertain the Predictive Positive Value for Fecal Immunochemical Test
8	Dr Eu Kok Seng	Library Book Finder Robot
9	Dr Farihahusnah Hussin	Preparation of Novel Meso-Microporous Carbon from Low Cost Material for Superior CO ₂ Adsorption Performance
10	Dr Ling Mee Hong	Application of Artificial Intelligence to Mitigate E-Cheating in Education
11	Dr Low Yeh Ching	Bayesian Inference for Count Response Regression
12	Dr Mohammad Dabbagh	Investigating the Application of Blockchain for Big Data
		Big Data Analytics for Sustainable Development
		Automated Water Quality Measuring System using IoT
		Application of Machine Learning in Software Engineering: A Scientometric Analysis
13	Dr Mohammad Tahir	Improving Energy Efficiency in 5G Ultra Dense Networks using Game Theory and Machine Learning
		Review and Analysis of Autonomous Behaviour in Internet of Thing Network
		Enhancing Security in Internet of Thing using Machine Learning
14	Dr Mohd Azlan Kassim	Synthesis of 2(methylamino)ethanol (2-MAE) Based Deep Eutectic Solvents for CO ₂ Capture
15	Dr Muhammad Aman Sheikh	A New Non-Invasive Sensor-less Method for Detection of Unbalanced Voltage Supply in Three Phase Induction Motor
		A New Conceptual IoT Based Prototype and Frame Work to Remotely Diagnose Motors faults
16	Dr Priyanka R Jagadish	In-situ Synthesis of Flexible Sulfide Based Chalcogenide Films for Thermoelectric Applications
17	Dr Syam Gopala Krishnan	Tuning the Porosity of Activated Carbon Synthesized from Biowastes using Self-Activation Technique
18	Lim Woan Ning	How Do We See the Weight in Virtual Environment? An Enhanced Pseudo-Haptic Model for Weight Perception in Virtual Reality
		Improving the Dynamics of Virtual Piano with Electromyography (EMG) Sensor and Leap Motion Controller
19	Muthukumaran Maruthappa	Prediction of Fetus Health from Ultrasound Images using Deep Learning
20	Professor Angela Amphawan	Mode Diversity Free-Space Optical Transceiver for Sensing
		Optimization of Channel Impulse Response from Few Mode Fiber

21	Professor David Andrew @ Mohammed Daud Bradley	Measuring the Auger Electron Avalanche Effect Due to Platinum in Irradiated Tumour Cells
22	Professor Lee Chien Sing	Perceptions Towards Sustainable Transportation Systems and Recommendations: A Survey Case Study in Jakarta, Indonesia
		AR/VR Leap Motion Game Development (2 Capstone Projects)
		Malaysians' Perceptions Towards COVID-19 Initiatives
		To Investigate the Use of Social Media on Organizations' Business Strategies and Processes on Pandemic Outbreaks
23	Professor Mayeen Uddin Khandaker	Cyclotron Production of Gallium-68 via Light-Charged-Particle Irradiation on Zinc Target
		Structural and Dosimetric Study Reactor Grade Graphite Media by Neutron Irradiation
		Studies of Radiation Degradation and Cross-linking of Natural Polymers for Application in Healthcare, Agriculture and Environmental Remediation
24	Professor Mohamed Kheireddine Aroua	Converting Plastic Waste to Novel Solvents for CO2 Capture
25	Professor Mohammad Khalid	Computational Predictions of Energy Nanomaterials Using Density Functional Theory (DFT)
		Tailoring the Lithium ion Energy Storage of 2D rGO- ternary Metal Cobaltite Nanocomposites using Microwave Synthesis Platform
26	Professor Saidur Rahman	Synthesis and Hybridization of MXene for Heat Transfer and Energy Storage Applications
		Heat Transfer and Energy Storage performance of MXene and Hybridized MXene
27	Professor Serge Demidenko	Multi-Layer Hyperledger Fabric Blockchain-Based Security Architecture for Internet of Things
		Device-free In-door Human Localization and Fall Detection using Visible Light and Capacitive Sensing Floor
		Statistical Machine Learning and Near-Infrared Hyperspectral Reflectance Imaging for Plant Classification
		Automatic Markerless Sign Language Gesture Tracking and Recognition
		Hybrid (Visual and Acoustic) Grape Yield Estimation System (Industry-Sponsored Project)
		Family of Low-Cost Semiconductor Testers for Engineering Education
28	Professor Yau Kok Lim	An Expert and Stakeholder Survey of Augmented Intelligence

Awards & Achievements

Highly Cited Researchers 2020 by Clarivate

Professor Saidur Rahman (Distinguished Research Professor and Head, Research Centre for Nano-Materials and Energy Technology) has been recognized as 2020 Highly Cited Researcher.

The highly anticipated annual list of "Highly Cited Researchers 2020" identifies researchers who have demonstrated significant and broad influence in their field of expertise through the publication of highly cited papers during the last decade.

These highly cited papers rank in the top 1% by citations for their respected field and publication year in the Web of Science citation index. Of the world's population of scientists and social scientists, Highly Cited Researchers are 1 in 1,000.



Professor Saidur Rahman is recognized as Highly Cited Researchers 2020 by Clarivate.

Researchers from Sunway University have Demonstrated an Effective Means for Post-nuclear Accident Radiation Dose Reconstruction

Researchers from Research Centre for Applied Physics and Radiation Technologies (CAPRT) have demonstrated an easy and unique process on the reconstruction/assessment (retrospectively) of radiation dose to the public and environment, if there is any natural or unplanned nuclear accident. The demonstrated technique is suitable to assess the dose, even after 4 weeks of the accident, which can help to take the remedial actions.

The use of car windscreen for this purpose is reported for the first time in the world.

Detailed information is available at <https://doi.org/10.3390/app10207127>

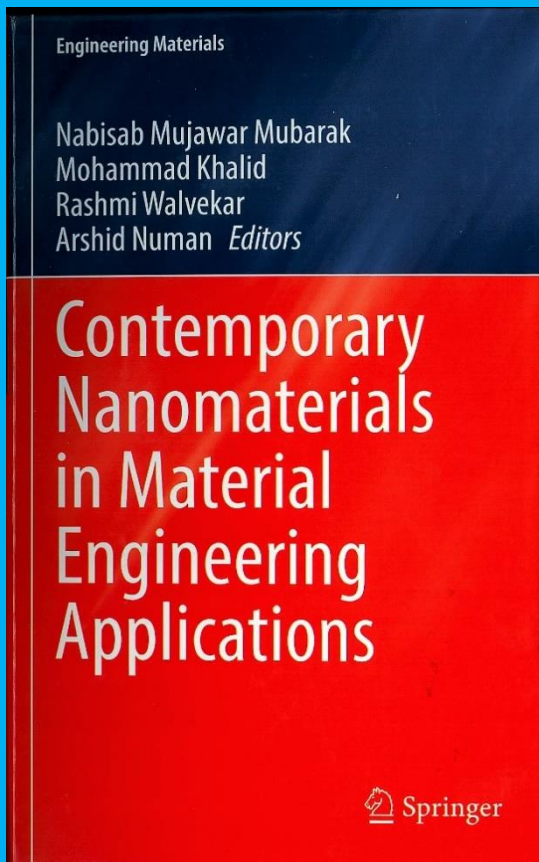


Professor Mayeen Khandaker recent publication on demonstrating an easy and unique process on the reconstruction/ assessment (retrospectively) of radiation dose to the public and environment.

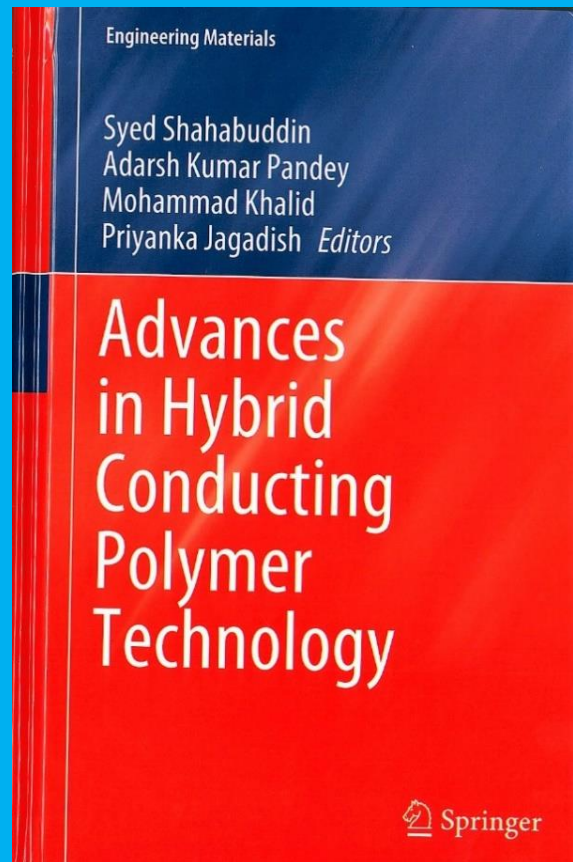
Books Published by Professor Mohammad Khalid and Team

Contemporary Nanomaterials in Material Engineering Applications

The book covers remarkable contemporary nanomaterials such as carbon nanomaterials, nanoclays, quantum dots, MXene, and metal-organic frameworks. Each chapter discusses the synthesis techniques, characterization methods, properties, and the nanomaterials' use in different aspects of biomedical, energy, polymers, material construction, biosensors, coatings, and catalysis. Moreover, commercialization challenges and environmental risks of nanomaterials are also covered in depth. The book provides an understanding of the fundamental properties, limitations and challenges in nanomaterials synthesis, serving as a valuable resource for researchers, graduate students, academicians, and consultants working with nanomaterials for engineering applications.



Editors: Mubarak, N.M., Khalid, M., Walvekar, R., Numan, A. (Eds.)



Editors: Editors: Shahabuddin, S., Pandey, A.K., Khalid, M., Jagadish, P. (Eds.)

Advances in Hybrid Conducting Polymer Technology

The book presents synthesis methods, characterization techniques, properties and applications of hybrid conducting polymers. Special emphasis is given to the applications of hybrid conductive polymers, with chapters ranging from electronic devices, environmental remediation, and sensors to medical applications.

Professor David Bradley conferred the title of Honorary Professor of University College London

David Bradley, Distinguished Professor and Head of the Centre for Applied Physics and Radiation Technologies at the School of Engineering and Technology has recently been conferred the title of Honorary Professor of University College London. David will be collaborating with members of the UCL Department of Medical Physics & Biomedical Engineering, a department that has a distinguished history, dating from 1896, when the first X-ray device began operating at the nearby Middlesex Hospital. The radiation research activities at UCL are strongly aligned with David's own interests, developing novel quantitative systems for X-, gamma-ray and particle sources to ensure that maximum benefit is extracted during radiotherapy, imaging and other forms of radiation medicine analysis. His own investigations of diseased tissues using synchrotron sources and x-ray phase contrast analysis have been pioneering in offering structural and compositional detail at unprecedented levels. Moreover, his work on glassy and graphitic systems, aimed towards developing robust radiation dose sensitive sensors of exceptionally high dynamic range, have enabled measurements to be made in a variety of challenging situations from the environmental through to levels that alter the structure of media. Application areas of current interest to him include early breast cancer diagnosis, radiation hormesis, border security, new sensors that can map mixed photon/neutron fields in space vehicles, damage in composite materials and deterioration of the bone-cartilage interface arising during the development of osteoarthritis.



David Bradley, Distinguished Professor and Head of the Centre for Applied Physics and Radiation Technologies at the School of Engineering and Technology has recently been conferred the title of Honorary Professor of University College London.

SET Staff WON in KSS Contest!

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

