

VIRTUAL CONFERENCE
SAES2021
5 - 8 DECEMBER 2021

9TH INTERNATIONAL SYMPOSIUM ON
APPLIED ENGINEERING AND SCIENCES 2021



UPM
UNIVERSITI PUTRA MALAYSIA
BERILMU BERAKTI



Kyutech
Kyushu Institute of Technology

WELCOME MESSAGE

PROF. DR. MOHD ROSLAN BIN SULAIMAN
VICE CHANCELLOR
UNIVERSITI PUTRA MALAYSIA



Assalaamu'alaikum warahmatullahi wabarakatuh and warm greetings to everyone.

Welcome to the 9th International Symposium on Applied Engineering and Sciences 2021 (SAES2021). Universiti Putra Malaysia (UPM) is indeed honoured to host SAES2021 through virtual platform this year.

SAES, co-organized by UPM and Kyushu Institute of Technology (Kyutech), Japan, has been held as an annual event since 2013. The symposium has become a significant space for us to promote research and innovation in science, knowledge sharing and global networking. In line with UPM's global vision to broaden its international links, SAES serves as an international platform for researchers to meet and be inspired by current and emerging ideas in the area of applied engineering and sciences. From the line-up of renowned keynote speakers and plenary speakers, and the interesting array of topics in the special sessions, oral and poster presentations, SAES2021 promises to provide a stimulating and vibrant research gathering.

The strong connection and mutual alliance between UPM and Kyutech has enabled the exploration of science and technology in many ways. One significant example is the joint research grant under the G-to-G (government-to-government) initiative called the SATREPS, whereby the Japan International Cooperation Agency (JICA) and the Ministry of Higher Education Malaysia co-funded a total of RM15 million. Following this, the collaborative project was further continued by the generous funding from Japan Science and Technology Corporation (JST) under the aXis (Accelerating Social Implementation for SDGs Achievement) research grant, worth RM2.7 million. Currently, UPM and Kyutech are also engaged in the annual Co-Funding Research Programme through a matching grant which aims to achieve high impact academic outcomes. I am proud to say that these are only a few among the many achievements that have been realised through the UPM-Kyutech collaboration.

Finally, I would like to congratulate the organizing committee of SAES2021, headed by Assoc. Prof. Dr Mohd Zulkhairi Mohd Yusoff, for their hard work and effort in organizing this symposium. I believe that all participants will benefit enormously from the scientific deliberations, and will be able to initiate new networks while strengthening current partnerships. To Kyutech participants, *doumo arigatou. Zutto tomadachi ni narimashou.*

Thank you.

"Shared Prosperity Vision 2030"
"With knowledge we serve"

PROF. DR. MOHD ROSLAN BIN SULAIMAN

FOREWORD

ASSOC. PROF. DR. MOHD ZULKHAIRI MOHD YUSOFF
CHAIRMAN OF THE ORGANIZING COMMITTEE
SAES 2021



Assalaamu'alaikum warahmatullahi wabarakatuh and Salam Sejahtera.

In The Name of ALLAH, Most Gracious, Most Merciful.

Alhamdulillah, first and foremost let's praise to ALLAH for His generous favours and blessings on us all. On behalf of the organizing committee, it is my great pleasure to welcome all the delegates to the 9th International Symposium on Applied Engineering and Sciences 2021 (SAES2021), from 5th – 8th December 2021. SAES is an annual symposium organized by UPM and Kyushu Institute of Technology (Kyutech), Japan. Each university takes turn to host the event and this year, SAES2021 is hosted by UPM.

With the safety and well-being of the participants as our top priority, SAES2021 has been converted to a fully virtual symposium. While we regret that the spread of COVID-19 prevented us from holding the symposium physically in UPM, we are excited about the opportunities of holding an innovative virtual symposium. In fact, holding the symposium virtually will be a great opportunity for us to reach a wider audience than a traditional conference can possibly include.

SAES was initiated as a platform to exchange research views and ideas between the two institutions. It is only recently that SAES participation is opened to other universities and agencies, not only from Malaysia and Japan, but also from other countries. Alhamdulillah, I am glad to share that this year SAES2021 has participants from 9 countries, with total number of participants of 471; in which 272 are from Malaysia, 160 are from Japan and 37 from other countries, including Algeria, Nigeria, Pakistan, Indonesia, Thailand, Sri Lanka and India.

We are gratified to have a line-up of renowned speakers for Plenary and Keynote Sessions who will be sharing their expertise and insights in their field of interest. This is also the first time we have speakers from industries; Sime Darby Plantation Research Sdn. Bhd., Hartalega Research Sdn. Bhd. and Research Instruments Sdn. Bhd. to present and exchange breakthrough research and innovations.

Additionally, there will be opportunities for students, researchers and academics to share their latest research outcomes through oral and poster presentations. We offer five technical sessions in these four days of symposium: Engineering & Technology, Applied Biology, Materials Science, Computer Science and Biomedical Sciences which will be conducted in parallel; with five parallel sessions each day. This virtual format allows us to still come together to learn, share and gain insight into the latest innovations. Selected papers from SAES2021 will be invited for publication in *Pertanika Journal of Science & Technology (Pertanika JST)*, a Scopus-cited journal published by UPM.

I am very positive that this four-day symposium will be a great experience for all the delegates. It is my fervent hope that this gathering of researchers, discussing innovations, state-of-the-art technologies and new findings will steer the way forward for more research collaborations.

Finally, I would like to thank and acknowledge the organizing team who have worked hard to make this symposium a truly successful one like it has been in the last 9 years. Thank you very much.

To the participants - sit back, relax and enjoy the symposium, virtually!

ASSOC. PROF. DR. MOHD ZULKHAIRI MOHD YUSOFF

TENTATIVE PROGRAMME OF SAES 2021

5-8 DECEMBER 2021

Day 1 (5 December 2021)						
	Time (Malaysia Time)	Programme				
Registration	8:00-9:00	Participants join Zoom room & e-registration				
Opening ceremony	9:00-9:10	Welcome remarks Doa recitation by Dr Ahmad Muhaimin Roslan				
	9:10-9:25	Speech by Prof. Dr Yuji Oie (President of Kyutech)				
	9:25-9:40	Officiating speech by Prof. Dr Mohd Roslan Sulaiman (Vice Chancellor of UPM)				
	9:40-9:45	Photo Session				
Plenary session <i>Moderator: Assoc. Prof. Dr Zulkhairi Mohd Yusoff</i>	9:45-10:30	Prof. Dr Zamberi Sekawi (UPM) <i>Lesson Learnt from the COVID-19 Pandemic and Way Forward</i>				
	10:30-11:15	Prof. Dr Yoshihito Shirai (Kyutech) <i>Lecture on Our Future's Energy, Economy and the Environment</i>				
Special session <i>Moderator: Assoc. Prof. Dr Yoshito Ando</i>	11:15-12:00	Ts. Dr Mohd Zulfahmi Mohd Yusoff (Sime Darby Plantation Research Sdn Bhd) <i>Value Creation from Mechanisation R&D in the Oil Palm Industry</i>				
	12:00-13:00	Special session by Kyutech and UPM students <i>UPM-KYUTECH Future Sustainable Development Project Collaboration</i>				
	13:00-14:50	Lunch Break				
Parallel session	14:50-15:00	Participants join Zoom breakout rooms for Parallel Session 1				
		ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
		Applied Biology 1	Biomedical Sciences 1	Engineering & Technology 1	Engineering & Technology 2	Materials Science 1
Keynote session	15:00-15:20	Assoc. Prof. Dr Momoko Kumemura (Kyutech, Japan)	Mr. Jeffrey Yap (Research Instruments Sdn Bhd, Malaysia)	Assoc. Prof. Dr Yusuf Hendrawan (Universitas Brawijaya, Indonesia)	Assoc. Prof. Dr Tomohide Yabuki (Kyutech, Japan)	Dr Safarul Mustapha (Hartalega Research Sdn Bhd, Malaysia)
Parallel session 1	15:20-15:35	AB01	BS01	ET01	ET05	MS01
	15:35-15:50	AB02	BS02	ET02	ET06	MS02
	15:50-16:05	AB03	BS03	ET03	ET07	MS03
	16:05-16:20	AB04	BS04	ET04	ET08	MS04

Day 2 (6 December 2021)						
Parallel session	Time (Malaysia Time)	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
		Applied Biology 2	Biomedical Sciences 2	Computer Science 1	Engineering & Technology 3	Materials Science 2
	8.50-9:00	Participants join Zoom breakout rooms for Parallel Session 2 & 3				
2	9:00-9:15	AB05	BS05	CS01	ET09	MS05
	9.15-9.30	AB06	BS06	CS02	ET10	MS06
	9:30-9:45	AB07	BS07	CS03	ET11	MS07
	9.45-10.00	AB08	BS08	CS04	ET12	MS08
	10:10-10:15	AB09	BS09	CS05	ET13	MS09
	10:15-10:30	AB10	BS10	CS06	ET14	MS10
	10:30-10:45	Break Time				
3	10:45-11:00	AB11	BS11	CS07	ET15	MS11
	11:00-11:15	AB12	BS12	CS08	ET16	MS12
	11:15-11:30	AB13	BS13	CS09	ET17	MS13
	11:30-11:45	AB14	BS14	CS10	ET18	MS14
	11:45-12:00	AB15	BS15	CS11	ET19	MS15
	12:00-12:15	AB16	BS16	CS12	ET20	MS16
	12:15-13:50	Lunch Break				
Poster Session & Evaluation 1	13.50-14:00	Participants join Zoom breakout rooms for Poster Session & Evaluation 1				
	14:00-16:00	AB801-AB818	BM801-BM808	CS801-CS809	ET801-ET819	MS801-MS816

Day 3 (7 December 2021)						
Parallel session	Time (Malaysia Time)	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
		Applied Biology 3	Biomedical Sciences 3	Computer Science 2	Engineering & Technology 4	Materials Science 3
	8.50-9:00	Participants join Zoom breakout rooms for Parallel Session 4 & 5				
4	9:00-9:15	AB17	BS17	CS13	ET21	MS17
	9.15-9.30	AB18	BS18	CS14	ET22	MS18
	9.30-9.45	AB19	BS19	CS15	ET23	MS19
	9.45-10.00	AB20	BS20	CS16	ET24	MS20
	10:00-10:15	AB21	BS21	CS17	ET25	MS21
	10:15-10:30	AB22	BS22	CS18	ET26	MS22
	10:30-10:45	AB23	BS23	CS19	ET27	MS23
	10:45-11:00	Break Time				
5	11:00-11:15	AB24		CS20	ET28	MS24
	11:15-11:30	AB25		CS21	ET29	MS25
	11:30-11:45	AB26		CS22	ET30	MS26
	11:45-12:00	AB27		CS23	ET31	MS27
	12: 00-12.15	AB28		CS24	ET32	MS28
	12:15-12:30	AB29		CS25	ET33	MS29
	12:30-12:45	AB30		CS26	ET34	MS30
	12:45-13:00	AB31			ET35	MS31
	13:00-13:50	Lunch Break				
Poster Session & Evaluation 2	13.50-14:00	Participants join Zoom breakout rooms for Poster Session & Evaluation 2				
	14:00-16:00	AB819-AB837	BM810-BM818	CS810-CS817	ET820-ET835	MS817-MS833

Day 4 (8th December 2021)						
Parallel session	Time (Malaysia Time)	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
		Engineering & Technology 5	Engineering & Technology 6	Engineering & Technology 7	Materials Science 4	Materials Science 5
	8.50-9:00	Participants join Zoom breakout rooms for Parallel Session 6 & 7				
6	9:00-9:15	ET36	ET49	ET62	MS32	MS45
	9:15-9:30	ET37	ET50	ET63	MS33	MS46
	9:30-9:45	ET38	ET51	ET64	MS34	MS47
	9:45-10:00	ET39	ET52	ET65	MS35	MS48
	10:00-10:15	ET40	ET53	ET66	MS36	MS49
	10:15-10:30	ET41	ET54	ET67	MS37	MS50
	10:30-10:45	ET42	ET55	ET68	MS38	MS51
	10:45-11:00	Break Time				
7	11:00-11:15	ET43	ET56	ET69	MS39	
	11:15-11:30	ET44	ET57	ET70	MS40	
	11:30-11:45	ET45	ET58	ET71	MS41	
	11:45-12:00	ET46	ET59	ET72	MS42	
	12:00-12:15	ET47	ET60	ET73	MS43	
	12:15-12:30	ET48	ET61	ET74	MS44	
	12:30-14:50	Lunch Break				
Closing Ceremony	14:50-15:00	Participants join Zoom room for Closing Ceremony				
	15:00-15:20	Sharing session by Prof. Dato' Dr Mohd Ali Hassan <i>Lessons Learnt from My Research Journey</i>				
	15:20-15:30	Address by Prof. Dr Yasunori Mitani, Executive Vice President (Research and Industrial Academic Alliance) Kyutech				
	15:30-15:40	Closing address by Prof. Ts. Dr M. Iqbal Saripan Deputy Vice-Chancellor (Academic and International) UPM				
	15:40-16:00	Award giving ceremony & photo session				

PLENARY SPEAKERS



PROF. DR. ZAMBERI SEKAWI
Dean, Faculty of Medicine and Health Sciences, UPM
"Lesson Learnt from the COVID-19 Pandemic and Way Forward"



PROF. DR. YOSHIHITO SHIRAI
Senior Advisor, MSSC, UPM-KYUTECH
"Lecture on Our Future's Energy, Economy and the Environment"



TS. DR. MOHD ZULFAHMI MOHD YUSOFF
Chief Engineer II, Sime Darby Plantation Research Sdn. Bhd.
"Value Creation from Mechanisation R&D in the Oil Palm Industry"

KEYNOTE SPEAKERS



ASSOC. PROF. DR. MOMOKO KUMEMURA
*Graduate School of Life Science and Systems
Engineering, Kyushu Institute of Technology*
**"Stiffness measurements of suspended/adherent cell with
MEMS tweezers"**



DR. SAFARUL MUSTAPHA
Senior Reseacher, Hartalega Research Sdn Bhd
**"Covalent Incorporation of Cellulose Nanofibre (CNF) Into
Polyurethanes Elastomer and the Effect on Mechanical
Properties"**

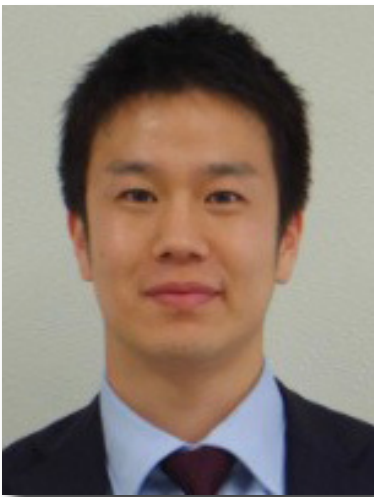


JEFFREY YAP
Account Manager, Research Instruments Sdn Bhd
"Twist Bioscience - #Writing the Future"

KEYNOTE SPEAKERS



ASSC. PROF. DR. YUSUF HENDRAWAN
Associate Professor, Universitas Brawijaya
**"The Role of Artificial Intelligence in The Development of Plant
Factory and Agricultural Product Processing "**



ASSC. PROF. DR. TOMOHIDE YABUKI
*Department of Mechanical and Control Engineering,
Kyushu Institute of Technology*
**"Observation of heat transfer mechanisms in nucleate boiling of
water by high-speed infrared thermometry"**

APPLIED BIOLOGY

ORAL PRESENTATION

Presentation Code	Designation	Name	Title of Presentation
Keynote AB	Assoc. Prof. Dr	Momoko Kumemura	Stiffness measurements of suspended/adherent cell with MEMS tweezers
AB01	Mr.	Kota Mano	Interaction of NDI derivatives bearing β -cyclodextrin with g-quadruplex in SARS-COV-2 RNA
AB02	Miss	Noorzaileen Eileen Zaidi	The anti-cancer effects and inflammatory response of palmitic and oleic acid-induced murine macrophages on 4T1 breast cancer cells
AB03	Miss	Amel Khitam Benali	Functional characterization of <i>Haslea ostrearia</i> terpenoid synthase through synthetic biology approach in the model diatom species <i>Phaeodactylum tricornutum</i>
AB04	Assoc. Prof. Dr	Mariatulqabiah Abdul Razak	Prevalence of avian <i>Papillomavirus</i> in bird species and different sample materials: A systematic review and meta-analysis
AB05	Mr.	Muhamad Aidilfitri Mohamad Roslan	P- and k-solubilizing <i>Enterobacter</i> sp. enhances the growth performance, productivity, and transform rhizosphere bacterial assemblages of okra
AB06	Madam	Sarah Idris	Hydrocyanic acid (HCN) content of cassava (<i>Manihot esculenta</i> , crantz) leaves as influenced by different variety and maturity
AB07	Madam	Yuli Haryani	Characterization and antibiotic resistance patterns of lactic acid bacteria isolated from Malaysian yogurts
AB08	Dr	Izwan Bharudin	Identification of volatile organic compounds from <i>Streptomyces</i> sp. with antifungal activity against oil palm pathogen <i>Ganoderma boninense</i>
AB09	Miss	Hani Hafeeza Halim	Ergogenic study of coconut (<i>Cocos nucifera</i> L.) water using aging model of Sprague Dawley rats
AB10	Madam	Selvia Dewi Pohan	Morpho-physiological dan molecular analysis of submergence tolerance of several superior and local rice varieties from West Sumatra
AB11	Mr.	Mohsen Emamjomeh	Bacterial community on the surface of aluminum tray following contact with beef, chicken, and pork
AB12	Prof. Dr	Chee Kong Yap	Mussel watch: A practical monitoring potentially toxic metals pollution tool from 1970 to beyond 2070
AB13	Miss	Izzati Sabri	Whole-genome sequencing of a phenol-degrader bacterium, <i>Kosakonia oryzae</i> strain S10
AB14	Miss	Nadeesha Dilani Hettige	Variation of water quality status at upstream and downstream of the Selangor river, Malaysia
AB15	Madam	Siti Suhailah Sharuddin	Promoting sustainable palm oil industry: bacterial biomarker genes as bioindicators of POME final discharge pollution in river water

AB16	Dr	Sharifah Norkhadajah Syed Ismail	The impact of COVID-19 pandemic on the municipal solid waste (MSW) generation in Malaysia and the potential environmental health risks
AB17	Miss	Sarah Safwah Md Sabidi	Autoinducer 2 quorum quenching improves methane production in anaerobic digestion of waste activated sludge
AB18	Miss	Sowmiya. S	Application of lipase produced from <i>Penicillium citrinum</i> and <i>Bacillus cereus</i> for the degradation of low density polyethylene (LDPE)
AB19	Miss	Nadeesha Dilani Hettige	Determination of primary productivity in Puttalam Lagoon, Sri Lanka
AB20	Mr.	Yuki Hoshiko	Methanogenic archaea vs. bacteria as social cheaters in anaerobic digestion using sewage sludge
AB21	Dr	Farah Nadia Omar	Oil palm biomass delignification by enhanced laccase production and its techno-economic feasibility process
AB22	Dr	Nazlina Haiza Mohd Yasin	Microalgae utilization as a feedstock for aquaculture feed application
AB23	Madam	Fatini Mat Arisah	Chromium hexavalent resistance in <i>Pseudomonas aeruginosa</i> RW9 as a potential candidate for bioremediation
AB24	Mr.	Lim Si Jie	Emerging virulence factors in <i>Meyerozyma guilliermondii</i> : keys to candidiasis
AB25	Miss	Akhtar Mahmuda	Lactose as a time-dependent promising inducer in response to the efficient expression of insecticidal crystal protein by late embryogenesis abundant peptide co-expression system in <i>Bacillus thuringiensis</i>
AB26	Mr.	Mohamad Azzam Mohd Sayuti	Aquatic animal health and therapeutics laboratory (aquahealth), Institute of Bioscience, Universiti Putra Malaysia
AB27	Miss	Nur Syazwana Sahira Abdul Ghani	Antioxidant and in vitro antidiabetic activity of <i>Cynometra cauliflora</i> fruit
AB28	Miss	Sarannia Thanganathan	The characterization of <i>Carica papaya</i> WRKY transcription factors in response to salinity stress
AB29	Mr.	Md Shirajum Monir	Development of feed-based bivalent vaccine and its immunoprotective ability against <i>Streptococcosis</i> and <i>Aeromonas</i> in red hybrid Tilapia (<i>Oreochromis</i> spp.)
AB30	Miss	Wu Yinghan	Protection of ferulic acid against ultraviolet radiation by cyclic peptide
AB31	Madam	Roshariza Haris	Group B <i>Streptococcus</i> (GBS) rib gene identification in high vaginal swab (HVS) samples and evolutionary genetic relationship between different streptococcal species and hosts

APPLIED BIOLOGY

POSTER PRESENTER

AB801	Mr.	Mohd Hairul Mohd Salleh	A novel NGS metabarcoding reveals faecal bacterial community diversity of southern river terrapin, <i>Batagur affinis</i>
AB802	Mr.	Mohamad Faisal Ni Aznan	Growth kinetics evaluation using different mathematical models for microalgae <i>Characium</i> sp. UKM1, <i>Chlorella</i> sp. UKM2 and <i>Coelastrella</i> sp. UKM4
AB803	Miss	Nurhidayah Ramlee	Potential of <i>Bacillus licheniformis</i> 2D55 and <i>Bacillus xiamenensis</i> Y7 in biodegradation of kitchen waste
AB804	Miss	Huang Zhen Ni	The role of nutrients and environmental stressors towards enriching superoxide dismutase (SOD) antioxidant in local microalga <i>Tetraselmis chuii</i> biomass as potential novel food
AB805	Miss	Siti Nur Bahiyah Azli	Metagenomics insights into the microbial diversity of influent and effluent water
AB806	Mr.	Katsuya Abe	Lysine and arginine essential to promote the predatory activity of <i>Bdellovibrio bacteriovorus</i> act the prey bacteria
AB807	Mr.	Tomonori Kai	Role of hydrogenases for persistence in <i>Escherichia coli</i>
AB808	Mr.	Hiroto Tashiro	Decomposition of new composite plastics by a complex microbial system
AB809	Mr.	Eiji Tanaka	Enhanced sludge reduction by an electrical cultivation system
AB810	Miss	Nabihah Azhary	Rhamnolipid production by biosurfactant-producing bacteria with yeast extract amendment
AB811	Miss	Ong Shir Nee	Alcohol-stable lipase as potential biocatalyst in enzyme-mediated transesterification
AB812	Mr.	Is Aizat Samsuri	Biogas production from food waste via anaerobic digestion for sustainable waste management
AB813	Miss	Nik Noor Alia Nik Zakiah Din	Effect of tank coloration on body color intensity of seahorse (<i>Hippocampus barbouri</i>)
AB814	Miss	Nadirah Abu Nor	Efficiency of formalin-inactivated whole-cell bacterins of <i>vibrio harveyi</i> (fkvh) vaccine in preventing vibriosis in marine red hybrid Tilapia (<i>Oreochromis</i> spp.)
AB815	Miss	Nurul Farahana Ahmad Jefferi	Visualization of expression data on OshKT1;1 and OSHKT1;3 genes in different tissues and in response to salinity of rice plants
AB816	Mr.	Muhammad Asyraf Haja Maideen	Visualisation of expression patterns on two potential genes associated with drought response in rice

AB817	Mr.	Abdul Malik Abdul Razak	Characterization of carotenoids from <i>Pantoea ananatis</i> and its potential as biological control agent against <i>Burkholderia glumae</i>
AB818	Miss	Nadhirah Sh Salleh	Isolation and characterization of phosphofungi as a potential biofertilizer
AB819	Miss	Nur Hafizatul Ramlan	Compost production from banana stem and spent mushroom
AB820	Miss	Athirah Mohd Bakri	The mitochondrial COI gene reveals the genetic diversity and phylogenetic relationship of captive asian seabass (<i>Lates calcarifer</i>) in Peninsular Malaysia
AB821	Dr	Noor Azira Abdul Mutalib	A systematic review: <i>Salmonella</i> biofilm on food contact surfaces and the efficacy of chemical disinfectants
AB822	Miss	Noor Aniza Abdul Rahim	<i>Bacillus cereus</i> hand carriage among night market's food handlers in Northern Perak and its association with their sociodemographic characteristic.
AB823	Miss	Sangary A/P Ravindran	Induced breeding and embryonic development of Malaysia mahseer (<i>Tor Tambroides</i>) in Malaysia
AB824	Miss	Abid Ghania	Influence of smoking habit, alcohol intake, and sunlight exposure on the distribution of ACE I/D (rs1799752) gene polymorphism associated with neovascular age related macular degeneration susceptibility in a sample of Algerian population
AB825	Dr	Meriem Djarmouni	Anti-lipid peroxidative activity of <i>Santolina chamaecyparissus</i> aerial part.
AB826	Dr	Meriem Djarmouni	Evaluation of biomarkers oxidative stress in liver of mice treated by <i>Santolina chamaecyparissus</i> methanolic extract
AB827	Dr.	Meriem Djarmouni	Plasma antioxidant capacity of <i>Santolina chamaecyparissus</i> methanolic extract
AB828	Miss	Chong Chi Kwan	Identification of skin bacterial profiles of early deceased bodies
AB829	Miss	Asmaa Azzoune	Investigation of the involvement of SNP rs30187c>T of the ERAP1 gene in susceptibility to ankylosing spondylitis in a sample of the population of Western Algeria
AB830	Miss	Benaissa Asma	Antifungal effect of essential oil of thymus on candida species responsible for urinary tract infections
AB831	Mr.	Hayato Nakamura	Improvement of UV resistance in <i>Escherichia coli</i> by expression of mutant LEA peptide
AB832	Dr	Moufida Adjadj	Anti-inflammatory effect of <i>Paronychia argentea</i> methanolic extract against acetic acid-induced ulcerative colitis in mice

AB833	Miss	Nur Aliyah Mohd Azrin	Understanding the effect of mutation at high affinity Ca ²⁺ coordinating surface loop to rand protease via molecular dynamic simulation
AB834	Dr	Meriem Djarmouni	Evaluation of anticoagulant activity of <i>Santolina chamaecypaissus</i> extracts using clotting time
AB835	Dr	Meriem Djarmouni	Effect of <i>Santolina chamaecypaissus</i> fractions on in vitro anticoagulant activity using activated cephaline time
AB836	Mr.	Daiki Tsuchimoto	Evaluation of salt stress tolerance of mutant LEA peptide expressing <i>Arabidopsis thaliana</i>
AB837	Dr	Noordiana Nordin	Prevalence of campylobacter along the chicken production chain

BIOMEDICAL SCIENCES ORAL PRESENTATION

Keynote BS	Mr.	Jeffrey Yap	Twist bioscience - #writing the future
BS01	Dr	Nurul Hayati Mohamad Zainal	Proteomic identification of salivary proteins is associated with subsequent childhood allergic diseases
BS02	Mr.	Farhood Yoosefi Looyeh	A systematic review on the effect of human genomic variation on the effectivity of crispr/cas system in neurodegenerative disorders
BS03	Assoc. Prof. Dr	Radiyah Abdul Ghani	Effect of <i>Momordica carantia</i> (bitter mellon) extracts on human adenocarcinoma cells proliferation and apoptosis
BS04	Madam	Sharifah Nurfadhlin Syed Azhar	Preliminary studies on extraction, characterisation and biological activities of <i>Mitragyna speciosa</i> (Korth.) Havil. leaves for wound healing preparation
BS05	Mr.	Mohammed Fadzil Sulaiman	Deciphering the role of <i>Citrullus lanatus</i> as a natural anti-inflammatory agent for gastric cancer using metabolomics, molecular networking, and computational approaches
BS06	Madam	Noor Izzah Abd Rahman	Hexane fraction from <i>Ardisia crispa</i> root and its benzoquinonoid compound hinders tumor angiogenesis and metastasis, in vitro
BS07	Mr.	Chen Aolin	Numerical study of thrombus and pannus formation on blood flow around mechanical heart valves
BS08	Mr.	Airiel Daniel Daud	Assay guided isolation of antibacterial compounds from <i>Clausena excavata</i> (Rutaceae) against MRSA
BS09	Miss	Sivasni A/P Krishnan	Bioassay guided isolation and identification of antibacterial active compound from <i>Melicope latifolia</i>
BS10	Miss	Noor Adyanti Rusdi	Elucidation of antioxidant activity of encapsulated flexirubin pigment from <i>Chryseobacterium artocarpi</i> CECT 8497

BS11	Mr.	Hiroto Ota	Development of device insertion simulator for endovascular treatment (parametric study)
BS12	Miss	Yu Chai Xin	Quantitative structure-activity relationship (QSAR) and molecular docking analysis of α -keto-[1,2,4]-oxadiazoles for human β -tryptase inhibition
BS13	Mr.	Yudai Murakami	Development of standing-up support device to encourage the use of residual ability
BS14	Mr.	Mohd Nurhadi Hamsar	Preliminary studies on the identification of chemical compounds as potential probes to detect porcine thermostable peptide AQ1
BS15	Mr.	Tetsuya Yoneda	Remote vascular dilatation by nitric monoxide generated by acupuncture/moxibustion stimulation
BS16	Mr.	Yoshiki Yanagita	Establishment of standardized CAD model for carotid artery and effect of various geometrical properties on the flow by CFD analysis
BS17	Madam	Shafinah Ahmad Suhaimi	In vitro analysis of matrix metalloproteinase 3 coding single nucleotide polymorphisms on breast cancer invasiveness
BS18	Mr.	Xuxiang Jiang	Effective simulation method to evaluate falling down impact
BS19	Mr.	Rintaro Obana	Effects of shock wave on neutrophil and its propulsion
BS20	Miss	Chan Yee Han	2,4,6-trihydroxy-3-geranyl acetophenone attenuates down-regulation of junctional protein expression at gene level in lipopolysaccharide-induced endothelial hyperpermeability via inactivation of MLC and ERK MAPK
BS21	Miss	Shazleen Sofea Abdullah	Inhibitory mechanism of lawsone on proinflammatory cytokine, TNF-alpha via in silico methods
BS22	Dr	Norazalina Saad	Anticancer activity of citral on breast cancer stem cell-enriched spheroids
BS23	Madam	Amirah Haziyah Ishak	Acute oral toxicity of iron oxide-chitosan encapsulated tea polyphenols nanoparticles (IO-chit-nanoTP) in Sprague-dawley rats

BIOMEDICAL SCIENCES

POSTER PRESENTER

BS801	Mr.	Muhammad Farhan Nazarudin	Preliminary screening of cytotoxic potential of fucoidan extract from sea cucumber, <i>Holothuria leucospilota</i> and brown seaweed, <i>Sargassum binderi</i>
BS802	Miss	Nur Aima Hafiza Shazali	VP3: is it safe against M1 macrophages?
BS803	Mr.	Takanori Yoshida	Human location estimation using a monocular camera for the support of the visually impaired
BS804	Miss	Nao Kawakami	Evaluation of elastase activity by newly designed substrate peptides containing unnatural branched chain amino acid
BS805	Miss	Stella A/P Ganapathy Pillay	Ribosomal RNA gene sequencing for the direct detection of pathogens from peritoneal fluid of CAPD patients at Hospital Kuala Lumpur
BS806	Mr.	Ahmad Safiyu'd-din Hisamuddin	Acute and subacute toxicological assessment of ethanolic extract of <i>Ipomoea batatas</i> (L.) Lam (purple sweet potato) leaves in Sprague Dawley rats.
BS807	Mr.	Khairul Aiman Manan	Toxicity assessment of ethanolic extract of <i>Ipomoea batatas</i> (sweet potato) leaves, petioles and tubers on zebrafish (<i>Danio rerio</i>) embryo
BS808	Mr.	Tanaka Ryoya	Measurement of gait parameters using a stereo camera
BS810	Mr.	Sho Sasaki	Classification of causes of falls using machine learning in pre-impact fall state
BS811	Mr.	Yuma Akinaga	Tactile tile detection method by RGB channels exchanging
BS812	Miss	Meena A/P Selvanayagam	Antioxidant properties of hot water extracts from <i>Crescentia cujete</i> leaf, bark and fruit
BS813	Mr.	Kaoru Kinoshita	Study on ground reaction force estimation using 2D image information
BS815	Dr	Siti Farah Md Tohid	Inhibitory analysis of lawsone on TNF- α and IL-17 cytokines: potential application for skin inflammatory conditions
BS816	Mr.	Ryusei Maeda	Involvement of high-frequency oscillation in the generation of carbachol-induced β oscillation in rat hippocampal slices
BS817	Dr	Dilmi Abdelkader	Synthesis and characterization of a superabsorbent hydrogel based on functionalized natural alfa fibers and its application as a water reservoir in agriculture
BS818	Dr	Ahmad Rasul Radzali	In vitro evaluation of animal-based platelet rich plasma lysate for wound healing

COMPUTER SCIENCE

ORAL PRESENTATION

CS01	Dr	Maslina Zolkepli	Dynamic force directed graph with weighted relationship for scholar network visualization
CS02	Mr.	Muhammad Alif Syaquir Mahadzar	Integrating internet of things based in aquaponics: A mini-review
CS03	Mr.	Ahmad Alfian Hidayat Ahmad Khalili	The factors affecting cloud computing adoption by small and medium enterprises (SMEs): The TOE framework
CS04	Mr.	Keita Nonaka	Neural machine translation using subword segmentation with probabilistic locally consistent parsing
CS05	Mr.	Naoki Osumi	CSI-based human detection system using semi-supervised learning
CS06	Mr.	Ryuichi Takakura	Switching execution between vertex-centric computation and block-centric computation for distributed large-graph processing
CS07	Mr.	Masaki Shigekuni	Converting RLBWT to LZ77 in smaller space
CS08	Mr.	Lim Bumun	Functional safety of AI accelerators with hardware defects
CS09	Mr.	Jun Takata	Evaluating the execution time of an efficient multiparty sorting protocol on TFHE
CS10	Mr.	Mohamed Aly Bouke	A comparison of modern open-source python-based features selection libraries for classification and regression trees
CS11	Mr.	Hassan Mansur Hussien Al-abadi	Blockchain-aided multi-authority attribute-based signcryption scheme to secure data sharing in fog computing
CS13	Mr.	Shohei Ochi	Hardware design of wireless video transmission using JSCC
CS14	Mr.	Hiroki Sugino	Transfer learning-based camera viewpoint identification for assistive system to bus-waiting visually impaired
CS15	Miss	Wen-li Seow	Usefulness of FoodAlyzer application in advocating food safety education
CS16	Mr.	Ryosuke Yoshii	Automatic generation of test cases from natural language specifications extraction of functional tests from specifications containing charts and integration of quality tests
CS17	Mr.	Mohd Hirzi Adnan	Securing data transmission in IoT devices using advanced HMAC authentication with shuffling algorithm
CS18	Dr	Shigemoto Masaya	Development of the system detecting the shift of circadian rhythm using neural network of hippocampal brain wave
CS19	Miss	Noureen Fatima	To classify the botanical origin of Pakistani honey through its physicochemical properties; a novel machine learning method

CS20	Mr.	Neo Teck Yoong	A real-time text detection with feature pyramid network and low Vapnik-Chervonenkis complexity using deep learning method
CS21	Mr.	Shiling Shi	GPU-accelerated prediction and targeted mitigation of IR-drop hot-spots in scan testing
CS22	Mr.	Akihiro Kuwahara	Optimal blink detection system to predict eye fatigue using face images
CS23	Dr	Ruijun Ma	STAHL: A novel scan-test-aware hardened latch
CS24	Miss	Nur Farahi Maidin	Optimisation technique for software product line: systematic literature review
CS25	Mr.	Garba Muhammad	Energy aware krill herd scheduling algorithm for virtual machines allocation in cloud data centers
CS26	Assoc. Prof. Dr	Norhayati Mohd Ali	MC4MD: A metamodel critic tool for checking metamodel design

COMPUTER SCIENCE POSTER PRESENTER

CS801	Mr.	Kenta Kageyama	Estimating spectral absorption coefficient from hyperspectral images
CS802	Mr.	Kazuya Fujita	Outdoor shadow classification with visible and thermal images
CS803	Mr.	Tsubasa Sonoda	A distributed video database system with cameras as nodes
CS804	Mr.	Kotaro Hidaka	Article selection method with user preference and diversity
CS805	Mr.	Haruka Enomoto	Common sense reasoning about events using a generation model
CS806	Mr.	Yusuke Hoji	Analysis of children's behavior in group discussions using inverse reinforcement learning
CS807	Mr.	Yukiya Fukuda	An edge-preserving regularizer of convolutional neural network for impulse noise removal
CS808	Mr.	Hirochika Tanikawa	Selecting optimal light source directions for photometric stereo
CS809	Mr.	Guo Liyong	Systematic review of few shot image classification by using semantic information : coherent taxonomy, motivations, open challenges and recommendations
CS810	Miss	Annur Izzah Binti Ahmad Zambri	Malaysia medicinal plants pattern recognition and classification (HerbsNet)

CS811	Mr.	Ryosuke Ueno	FPGA simulation of spiking neural network using no-leaky integrated-and-fire model
CS812	Mr.	Yugo Nakamura	FPGA implementation of reservoir computing using chaotic Boltzmann machine
CS813	Mr.	Hiroki Yamaguchi	Group topic estimation using topic model in children's group discussion
CS814	Mr.	Kotaro Hidaka	Article selection method with user preference and diversity
CS815	Mr.	Ryogo Takemoto	A study on hardware implementation of GMM-MRCoHOG features
CS816	Mr.	Ryogo Iida	Discrepancy between estimated muscle activity and muscle activity of erector spinae muscles during wheelchair transfer
CS817	Mr.	Nobuhiro Kimura	A proposal of guidance system to the building entrance for the visually impaired

MATERIALS SCIENCE

ORAL PRESENTATION

Keynote	Dr	Safarul Mustapha	Covalent incorporation of cellulose nanofibre (CNF) into polyurethanes elastomer and the effect on mechanical properties
MS01	Mr.	Shah Faisal Khan Sherwani	Mechanical properties of sugar palm (<i>Arenga pinnata</i> (wurmb.) Merr) /poly(lactic acid) composites and acrylonitrile butadiene styrene (ABS) plastic: A review
MS02	Madam	Juraina Md Yusof	The properties of zinc oxide nanostructures growth on green carbon nanotubes cotton
MS03	Miss	Momoka Hayashida	Investigation of iridium oxide Ca5Ir3O12 using synchrotron infrared spectroscopy
MS04	Miss	Nur Hanani Hasana	Removal of methyl orange dye from aqueous solution by acid-base treatment of palm kernel shell (PKS) biochar
MS05	Mr.	Aaron Hong Kai Jeat	Interfacial charge transfer dynamics of metal halide-inorganic nanowires incorporated P3HT:PC61BM based photoactive layer
MS06	Miss	Nesrine Hasnaoui	Contribution of nanomaterials in medical applications
MS07	Miss	Suraya Shaban	Influence of mixed dye and bilayer dye adsorption on the performance of bifacial dye-sensitized solar cells
MS08	Dr	Ellie Teo Yi Lih	Fabrication of graphene modified carbon felt/graphite felt for vanadium redox flow battery: A brief review
MS09	Madam	Iffah Syazana Rusli	Preparation and evaluation of in-vitro release and cytotoxicity study of <i>Indigofera zollingeriana</i> leaves crude extract-loaded nanoemulsion
MS10	Miss	Aiza Farhani Zakaria	Sodium alginate immobilized β -cyclodextrin/multi-walled carbon nanotubes as a hybrid hydrogel adsorbent for perfluorinated compounds removal
MS11	Miss	Rawdah Abduh Ghaleb Whba	Potential of in-situ UV cured acrylonitrile grafted epoxidized natural rubber (ENR-g-ACN) doped litfsi as electrolyte system
MS12	Miss	Nur Diyana Ahmad Fazil	Characterization of miswak (<i>Salvadora persica</i>) fiber reinforced polylactic acid prepared by twin screw extrusion method
MS13	Dr	Izzudin Ibrahim	Effect of combined hydrothermal and superheated steam treatment on biomass-based cellulose properties
MS14	Miss	Fathyah Abduh Ghaleb Whba	The crystalline structure of gadolinium oxide nanoparticles (Gd2O3-NPs) synthesized at different temperatures via x-ray diffraction (XRD) technique
MS15	Prof. Dr	Khalina Abdan	Effect of three woven fiber reinforcements on the flexural and compression properties of blended bio-epoxy resin

MS16	Miss	Nur Fattima' Al-zahara' Tuan Mohamood	Optimization of cationic cellulose from extracted cellulose of oil palm empty fruit bunch using statistical approach
MS17	Mr.	Aliyu Isah	Effect of reinforcements on mechanical characteristics of aluminium A2009 metal matrix composites: A short review
MS18	Dr	Alvin Lim Teik Zheng	Preparation of electrically conductive photopolymer film from graphene-based materials
MS19	Mr.	Lawrence Ng Yee Foong	Addition of nanobiochar for improved thermal and mechanical properties of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate)
MS20	Madam	Fang Yujie	Preparation of lignosulfonate - chitosan film and its application to cherry tomato preservation
MS21	Madam	Nor Izaida Ibrahim	Comparison of isolation method from bamboo nanocellulose
MS22	Mr.	Waleed Ali Murshed Hasan Alhadadi	Characterization of the binary blend of poly(lactic acid) (PLA)/polyoxymethylene (POM) nanocomposites
MS23	Miss	Dharshini Perumal	Green synthesis of reduced graphene oxide using <i>Clinacanthus nutans</i>
MS24	Assoc. Prof. Dr	Che Azurahaman Che Abdullah	Nanomaterial as emerging trend for dental applications: opportunities and challenges
MS25	Mr.	Tarique Jamal	Arrowroot (<i>Maranta arundinacea</i>) starch based edible and biodegradable biopolymer films: A review
MS27	Mr.	Daiki Manago	Structural analysis of swift heavy ion irradiated Sc ₄ Hf ₃ O ₁₂ and Sc ₄ Zr ₃ O ₁₂
MS28	Miss	Akane Yamada	Efficient synthetic reactions utilizing hybrid catalysts composed of lipases and inorganic nanosheets
MS29	Miss	Nur Amilah Fadlina Basri	Preparation and characterization of p-sulphonated calix[4]arene functionalized cellulose acetate nanofiber and its preliminary adsorption study towards removal of methylene blue
MS30	Miss	Emmellie Laura Albert	The biogenic synthesis of reduced graphene oxide using hibiscus <i>Sabdariffa L.</i> as natural precursor
MS31	Dr	Mohd Hafiz Mohd Zaid	Effect of Gd ₂ O ₃ in the ZnO-Al ₂ O ₃ -B ₂ O ₃ -SiO ₂ glass system
MS32	Miss	Nur Elmira Melissa Himi Rizal	Effect of nickel chloride concentration on the structural, optical and morphological properties of P3HT: PC61BM active material-based hybrid solar cell
MS33	Miss	Nur'izzah Md Nasir	Optimization and characterization of cationic sago starch hydrogel
MS34	Mr.	Masaya Hakoshima	In-materio reservoir computing performance in hematite/metal-doped titanium(IV) oxide composite
MS35	Mr.	Lim Jun Yan	Effects of electrolyte selection on the energy storage performance of MnO ₂ -based supercapacitor electrodes

MS36	Miss	Siti Nadiah Zulkifli	Synthesis, characterization and toxicity studies of gold nanoparticles as potential biocompatible carrier for colon cancer treatment
MS37	Miss	Ashreen Norman	Carbon dots from cocoa pod husks as fungicides
MS38	Dr	Lau Kam Sheng	Flow synthesis of silver/silver oxide-reduced graphene oxide nanocomposites for antibacterial application
MS39	Mr.	Kar Fei Chan	Thermal conductivity of carbon nanotubes enhanced zinc silicate ceramic composite
MS40	Miss	Desu Moulika	Investigation on molecular orientation of BZC-DPP based organic conjugated polymer for organic electronic devices
MS41	Miss	Nafeesa Mohd Kanafi	Hydrogel nanofibers from carboxymethyl sago pulp and its controlled release studies as a methylene blue drug carrier
MS42	Mr.	Izzuddin Mohd Zaharuddin	Effect of growth time on structural, electrical and morphological properties of MnO ₂ nanowires
MS43	Miss	Salis Sajidah Othman	Recent development and application of immobilized laccase biosensor for detection of tyramine: A review
MS44	Mr.	Obey Gotore	Engineering development of corn cob derived biochar for fluoroquinolones-fqs removal in least developed countries
MS45	Mr.	Hiroki Tsumura	Thermodynamic analysis of phase equilibria in the Ni-P binary system
MS46	Mr.	Saffrullah Iqham Khan	Exploring the potential of sago waste as a precursor for graphene oxide
MS47	Miss	Choon Si Lin	Synthesis and characterization of deficit perovskite
MS48	Miss	Rathnasekara Kuruppu Arachchige Amali	A hybrid of silver nanoparticles-modified Cu-based metal-organic framework as an electrocatalyst for nitrate detection in water samples
MS49	Miss	Farah Nabila Mhd Idris	Characteristics of unbleached oil palm empty fruit bunch paper incorporated with lignocellulose nanofibrils
MS50	Dr	Norizah Abdul Rahman	Sago starch-based hydrogel film and hydrogel nanofiber via citric acid cross-linking for controlled release application
MS51	Mr.	Naoki Matsumoto	Thermodynamic calculation of phase equilibria in the Al-Fe-Zn-O quaternary system

MATERIALS SCIENCE POSTER PRESENTER

MS801	Dr	Fouzia Benoudjit	Formulation and evaluation of skin cream containing herbal extract
MS802	Mr.	Rabah Delfouf	Study and modeling of the dielectric behavior of a ternary composite (epoxy-calcium titanate (CaTiO ₃) - ferrite) in the rang [DC-30GHz]
MS803	Dr	Mohd Hayrie Mohd Hatta	Synthesis and characterization of titanium catalyst containing polystyrene composites for epoxidation of 1-octene
MS804	Miss	Bouhlala Aicha	Effects of pd substitution on the electronic structure and magnetic properties of CeO ₂ oxide
MS805	Assoc. Prof. Dr	Shahrul Ainiah Alang Ahmad	Bioinspired MP20 mimicking uricase nanozyme in ZIF-8: metal ion dependent for controllable activity
MS806	Miss	Anis Kharul Nada Mohd Yusuf	One-dimensional bis(dipyrinato)zinc(ii)-linked porphyrinatozinc(ii) polymer: synthesis, exfoliation into single wires, and photofunctionality
MS807	Dr	Merzougui Moufida	An environment friendly approach construction of a new oxovanadium material based on an unsymmetrical heterocyclic di-imine ligand
MS808	Dr	Benghorieb Soulef	Hot-spots in different metal pointed nanostructures
MS809	Mr.	Shubham Sharma	Fabrication & characterization of high performance OFETs utilizing oriented thin films of DPP-TTT conjugated organic copolymer
MS810	Mr.	Ryunosuke Sato	Convolutional neural network with transition algorithm for analysis of inhomogeneous TEM images
MS811	Assist. Prof. Dr	Suguru Motokucho	Hydrolysis of polyurethane by carbonic acid
MS812	Mr.	Yuki Kurokawa	Facile fabrication and characterization of solid-state dye-sensitized solar cells utilizing iodine-based redox electrolyte
MS813	Mr.	Yoshihiro Sakuno	Electrocatalytic properties of metal-complex crystals for oxygen reduction in acidic condition
MS814	Mr.	Naoki Ishibashi	Carbon dioxide reduction reaction using pyrochlore type oxide electrocatalyst
MS815	Mr.	Masashi Wada	Cobalt-tungsten carbide as a bifunctional oxygen electrocatalyst
MS816	Mr.	Takaaki Kuga	Wet-chemical synthesis of trivalent-cation doped Li ₄ Zn(PO ₄) ₂ lithium-ion conducting solid electrolyte
MS817	Mr.	Sho Takenouchi	Construction of partial discharge measurement system under bipolar repetitive impulse voltage application
MS818	Dr	Boucherabine Djihed	Oxovanadium (IV) schiff base complex from unsymmetrical tetradentate schiff base ligand as catalysts for oxidation of cyclohexene

MS819	Miss	Jacqueline Lease	Surface modification of cellulose through mechanochemical method
MS820	Mr.	Mohd Adib Tajuddin Ahmad	Preparation and characterization of highly porous polyacrylonitrile electrospun nanofibers using lignin as soft template via selective chemical dissolution technique
MS821	Mr.	Takamu Nozaki	Thickness dependence of polarized raman spectra in topological insulator Bi ₂ Se ₃ epitaxial films
MS822	Mr.	Muhammad Naziff Ahamad Said	Green synthesis and photocatalytic of zinc oxide nanoparticles (ZnONPs) by using plants extract
MS823	Mr.	Kazuki Yamato	Growth of β -FeSi ₂ /Si modulation-doped heterostructures
MS824	Mr.	Wang Ruozhu	Design of thermoplastic materials using cellulose as a base matrix
MS825	Miss	Boucekine Ikram	A new oxovanadium complex of an unsymmetrical tetradentate di-azomethine ligand: cristal structure and electrochemical properties
MS826	Mr.	Oussama Zaidi	MAX phases as precursor of MXenes: a review
MS827	Miss	Norihan Abdullah	Effects of plasticizer on the mechanical and thermal properties of wood flour/recycled polyamide composites
MS828	Mr.	Takaaki Matsuki	AC electrical breakdown characteristics of hydrocarbon-based thermosetting resin in low temperature environment
MS829	Miss	Subathra Muniandy	A comparison of the performance of MaPbI ₃ and MASnI ₃ as an inverted perovskite structure through numerical GPVDM simulation
MS830	Miss	Linjun Tang	Development of novel NIR fluorescent probe for the sensing applications under high acidic media
MS831	Mr.	Moustafa Alaa Ibrahim Moustafa	Kenaf fiber reinforced composites and its suitability for 3D printing: A review
MS832	Assoc. Prof. Dr	Che Azurahaman Che Abdullah	Biogenic zinc oxide nanoparticles revolutionize Malaysian crop plants
MS833	Mr.	Kousuke Saiki	Photocatalytic degradation of an anion dye in niobate–clay binary nanosheet colloids

ENGINEERING AND TECHNOLOGY

ORAL PRESENTATION

Keynote ET 1	Assoc. Prof. Dr	Yusuf Hendrawan	The role of artificial intelligence in the development of plant factory and agricultural product processing
ET01	Mr.	Pang Chuan Kian	Optimization of influential process parameters of ozonation process in detergent wastewater treatment
ET02	Miss	Puteri Nurain Megat Ahmad Azman	Evaluation of kinetics behaviour of electrocoagulation process for the changes in turbidity and pH from white pepper wastewater
ET03	Dr	Flemmy Samuel Oye	Drinking water sludge (DWS) dewatering in simple dehydration method: A dewatering method by installing rope in DWS.
ET04	Dr	Shi Shenjie	Numerical modeling of solute transport in vertical cutoff walls for MSW landfills
Keynote ET 2	Assoc. Prof. Dr	Tomohide Yabuki	Observation of heat transfer mechanisms in nucleate boiling of water by high-speed infrared thermometry
ET05	Miss	Pawita Bunme	GIS-based solar power assessment for distribution system model
ET06	Mr.	Mohd Ali Mat Nong	Natural dye for increasing DSSC efficiency
ET07	Mr.	Eddy Elfiano	Investigation of the effect of boundary layer thickness on the surface of solar panels on the performance of solar panels with forced convection systems
ET08	Mr.	Haruki Onoue	Control method of storage battery system for the residence for effective utilization of photovoltaic generation for local production and consumption
ET09	Mr.	Muhammad Imran Shaukat	Optimization of methylene blue dye removal from aqueous solution by acid-base modified biochar
ET10	Madam	Nur Amanina Damira Muhalim	Effect of interfacial bonding strength on the tribological performances of alkaline treated oil palm empty fruit bunch fibre reinforced polyoxymethylene composite
ET11	Mr.	Muhamad Sharul Nizam Awang	Effect of plastic pyrolytic oil and waste cooking biodiesel on tribological characteristics of palm biodiesel-diesel fuel blends
ET12	Mr.	Mohammed Abdulqawi Ahmed Mohammed	Ultrasonic assisted demulsified solvent extraction for oil recovery from oily sludge
ET13	Dr	Soumia Ferarsa	Using the organic fraction of industrial wastes to produce an alternative liquid fuel for transportation
ET14	Dr Ts.	Asnor Juraiza Ishak	Modelling of a knee rehabilitation device with PID controller
ET15	Mr.	Abdulrahman Taha Mohammed Mohammed	High sensitivity of optical sensor array for the prosthetic hand controller
ET16	Mr.	Hazeem Ikhwan Mazlan	Electromagnetic interference shielding performance of hybrid rGO/Fe ₃ O ₄ chitosan polymer composite

ET17	Mr.	Muhammad Khairul Azri Khairul Annuar	Hydrogen gas sensor based on carbon nanotube (CNT)-TiO ₂ on a flexible substrate
ET18	Miss	Nur Afieqah Md. Ghazazi	Effect of pulse anodizing on the structure and mechanical properties of composite oxide film
ET19	Miss	Nur Amira Ibrahim	Effect of iron space in-between segmented permanent magnet on the performance of magnetic gear
ET20	Dr	Halimatun Saadiah Hafid	Cellulose extraction from rice husk and its potential application as packaging materials
ET21	Miss	Nur Aszreen Zulkifli	Tribological performance of composite anodic coating reinforced diamond-like carbon-coated Cu particles
ET22	Mr.	Muhammad Amirul Fiqri Abdullah	Evolutionary neurocontrol-based optimization of earth-mars trajectories: A solar sail demonstration
ET23	Miss	Rania Majda Himeur	Performance prediction of cross-flow fans using loss correlations
ET24	Miss	Mami Toyoshima	Deformation effect of solar-sail spacecraft on attitude
ET25	Miss	Spoorthi Singh	Experimental investigation of motor driven quick return mechanism for flapping actuation
ET26	Mr.	Shintaro Kasai	The effectiveness of force measurement system by using programmable actuators for 3D printed compliant mechanisms
ET27	Dr	Muhammad Hadi Ibrahim	Investigation of excessive wear of Ashaka coal mill riser duct and identifying the optimum solution
ET28	Dr.	Shuhei Yamamoto	Fuel cell cogeneration system controls for controlling voltage fluctuation due to photovoltaic power in distribution system
ET29	Mr.	Yuki Hayashi	Effect evaluation of power system stabilizer in power system inertia estimation using phase and power flow information
ET30	Mr.	Teruhito Kawano	Power system stability evaluation by power angle curve using phasor and power flow information
ET31	Mr.	Toshiki Nishitani	Switching control method of virtual synchronous generator after the disturbance in low inertia power system
ET32	Mr.	Ahmad Hafiz Mohd Hashim	Relationship between acoustic emission and partial discharge in mineral oil
ET33	Mr.	Kai Takagi	Theoretical analysis of the gate-noise voltage in an IGBT with the reverse-recovery current of a PIN diode
ET34	Mr.	Mohammad Zohrul Islam	Sparrow search algorithm to minimize the fuel cost in power systems
ET35	Mr.	Ahmed Sahib Hammadi Tukkee	Optimal design and energy management of an off-grid hybrid microgrid with economic analysis using HOMER pro
ET36	Mr.	Gollapudi Srikanth	Influence of maximum cutoff energy of neutron spectrum on SEB failure rate

ET37	Mr.	Soma Fukunaga	Basic study of sensor-less monitoring of LCL filter for grid-connected inverter
ET38	Mr.	Shuntaro Nakayama	The verification of the relationship between JEPX spot price and the population-weighted temperature data using GIS
ET39	Mr.	Yugo Matsumoto	TEG design for improving withstanding voltage of diamond power devices
ET40	Mr.	Shogo Otsuka	Classified cost analysis and effects of CO2 reduction for an electricity retailer
ET41	Mr.	Ahmed Fareed Japar	Autonomous oil palm loose fruit detection system
ET42	Mr.	Tomoki Nakashima	Interference reduction method in asynchronous multi-link operation
ET43	Dr	Mohd Amiruddin Abd Rahman	Analysis of a low-cost wireless based fire monitoring and detection system
ET44	Mr.	Kanta Moriyama	Secure computing of eigenvalues and eigenvectors using fully homomorphic encryption
ET45	Miss	Lehka A/P Subramaniam	Identifying the factors of emergent properties occurrence in sos
ET46	Mr.	Mohammed Ahmed	Application of reaching law for parabolic antenna control
ET47	Dr	Temuge Batpurev	Real-time robotic arm teleoperation through 3D hand pose estimation
ET48	Mr.	Lai Jin Wern	Autonomous oil palm mature fresh fruit bunch detection system
ET49	Mr.	Masaki Fujiwara	Effect of droplet size on evaporation behavior
ET50	Miss	Brahma Kenza	Nanoparticles effects on laminar vortex breakdown in spherical gap geometry
ET51	Dr	Siti Zulaika Razali	Role of CNT cotton nanoparticles in high-density ester-based drilling fluid at HPHT condition
ET52	Dr	Noor Ayuma Mat Tahir	Self-lubricating performance of composite anodic coating on aluminium alloy
ET53	Miss	Al-ghazali Noor Abbas	Mechanical properties of natural fibre reinforced geopolymer composites: A review
ET54	Miss	Amirah Basir	Tribological behavior of multi-patterned surfaces under boundary lubrication condition
ET55	Mr.	Wentao Chen	Contribution of interfacial thermal resonance to phonon heat transfer across a subnanometer vacuum gap
ET56	Mr.	Shinji Eto	Low-light image enhancement for camera-based assistive device of the visually impaired
ET57	Mr.	John Noel Victorino	Development of a multimodal conversation agent in assessing quality of life among schizophrenic patients
ET58	Mr.	Mohammed Ahmed	Optimization of pulse electric field parameters for wound healing: A brief review

ET59	Madam	Umi Kalsom Mohamad Yusof	Effectiveness of super-resolution approach to enhance low dimensional bone marrow image in classification of ph-negative MPN
ET60	Mr.	Mohammed Ahmed	Reducing the effect of spasm during restored sit-to-stand
ET61	Assist. Prof. Dr	Saleh Yusuf	Insect detection/monitoring in farm and trend in its technologies: A survey
ET62	Mr.	Syirrazie Che Soh @ Shaari	Non-linear problem-solving of optimal chiller loading by using integer linear programming
ET63	Dr	Hongbin Chen	Study on optimization of arch parameters for initial support of super-large section tunnel
ET64	Mr.	Yuki Kinjo	Analysis of harmonic resonance under the presence of multiple harmonics sources
ET65	Mr.	Katsuya Chiguchi	Spiking neural network model encoding the position of others for spatial observational learning
ET66	Mr.	Rui Kitahara	Person recognition considering multiple possession positions and behavior using smartphone accelerometer
ET67	Mr.	Muhammad Akmal Mohd Zawawi	Knowledge mapping trends of internet of things (IoT) in plant disease and insect pest study: A visual analysis
ET68	Mr.	Mohammed Abbas Mousa	A pre-process enhanced digital image correlation approach for structural applications
ET69	Miss	Rahimah Abdul Rafar	Experimental verification of interfacial slip generation for shrink-fitted bimetallic work roll by using miniature roll
ET70	Madam	Dong Huizhen	Study on pipeline transportation characteristics of different cementing materials in CPB
ET71	Assist. Prof. Dr	Saleh Yusuf	Modeling reliability for predictive maintenance of underwater pipeline through vi-bro-acoustics using wireless sensor network (WSN)
ET72	Mr.	Ufuoma Joseph Udi	Experimental results of environmental stresses on the degradation behavior of laminated glass panes- A review
ET73	Miss	Rahimah Abdul Rafar	Fatigue fracture evaluation of shrink-fitted bimetallic sleeve roll by considering the slip damage
ET74	Mr.	Baoxin Liu	Evaluation equation on global buckling load for cylindrical single-layer and 1.5-layer space frames

ENGINEERING AND TECHNOLOGY POSTER PRESENTER

ET801	Dr	Zia Ullah	Segmentation of liver tumor in CT scan images using ResU-Net
ET802	Dr	Dekar Souad	Selective catalytic oxidation of olefines Substrate employing mononuclear oxovanadium(iv) catalyst with environment friendly H ₂ O ₂
ET803	Miss	Kawthar Abdul Rahman	Improving fall detection device by monitoring balance instability: development of a fall prevention device for older persons
ET804	Mr.	Junnosuke Isobe	Drying characteristics of porous films: effect of photo-induced phase separation
ET805	Mr.	Taichi Ishiyama	Research on angle estimation accuracy improvement method of 3D position and orientation estimation device using AR marker
ET806	Mr.	Messabhia Abdeslam	Chemical synthesis of polyaniline doped by SDS as efficient corrosion inhibitors for zinc, influence of prolonged immersion
ET807	Miss	Saranyah A/P Palani	Investigation of chitosan / ZnO mixture as photoanode for dye-sensitized solar cell application
ET808	Miss	Asmida Ismail	An autonomous platform for contactless delivery using apritag detection for elderly care
ET809	Mr.	Ryuichiro Oue	Measuring the displacement of balls using laser mouse sensors
ET810	Mr.	Kyouhei Hamasuna	Proposal of a method for identifying internal and external partial discharge occurrence on resin substrates by simultaneous measurement of light emission and current
ET811	Miss	Merir Roufaida	Preparation of mesalazine microspheres for colon targeted drug delivery system
ET812	Mr.	Houdai Akito	Development and verification of partial discharge measurement system using power line communication and ferrite cores
ET813	Mr.	Ayumu Yamamoto	Generation and control of femtosecond laser-induced underwater micro shock wave and micro bubble at laser-focal area for developing regenerative medical system
ET814	Mr.	Yuki Zenda	Repetitive partial discharge inception voltage of enamel twisted pair in high temperature environment
ET815	Mr.	Kenji Akimoto	Stress application method in power cycling test
ET816	Mr.	Kohei Kawazoe	Design of a VLSI circuit with non-volatile analog memory for reinforcement learning using reservoir computing
ET817	Mr.	Ryuhei Harada	Stress analysis method for power semiconductor short circuits using an infrared camera

ET818	Miss	Nur Hadirah Mohd Rasul	Herbs recognition system
ET819	Mr.	Akinobu Mizutani	A data collection system for home environment adaptation of service robots
ET820	Mr.	Yoshihisa Mizuta	Analysis of waveform distortion for 9 level asymmetrical modular multilevel inverter
ET821	Mr.	Tomoya Shiba	Object retrieval by searching and displacing in cluttered shelf
ET822	Miss	Hartinie Marbawi	An evaluation on the key factors affecting biosorption of glyphosate from natural river water matrices onto coconut shell-based granular activated carbon
ET823	Dr	Safyanu Bashir Danjuma	Review of battery technological trend and advancement for optimal applications in solar-powered aircraft (UAV)
ET824	Dr	Farah Adilah Jamaludin	Analysis of electrical characteristics of polluted polymer insulator with lightning impulse condition
ET825	Mr.	Yusuke Sato	Low-cost tactile sensing technology using conductive sponges
ET826	Mr.	Kenta Tsukamoto	Tensegrity manipulator redundantly driven by 20 pneumatic cylinders
ET827	Mr.	Yoshida Takanori	Switched capacitor topology comparison
ET828	Dr	Saddam Hussain	An experimental study on spring constants of structural glass panel joints under in-plane loading
ET829	Mr.	Tang Haohuan	Examination of self-estimation accuracy improvement method in line drawing robot
ET830	Mr.	Yoshifumi Sakai	Picking up clothes from a hanger rack using voice recognition by a mobile manipulator
ET831	Mr.	Rikuo Kawamoto	Development of a compact wireless walking assist device for parkinson's disease patients
ET832	Miss	Moeno Anraku	Proposal of a 3D hand pointing method considering tremor in parkinson's disease patients
ET833	Dr	Bahah Salah	Liquid-liquid extraction of copper from an aqueous solution by three types of non-polar solvents
ET834	Mr.	Gaoyuan Lyu	Centrifuge modelling of rockfalls and its analysis by the MPS method on slope surface material constants
ET835	Mr.	Daiju Kanaoka	Open set recognition using hotelling's T2 focusing on multidimensional feature space in deep neural networks

E-MOBILITY PROGRAMME 2021

DAY 1 (DEC 5TH 2021; 12:00 - 13:00)

SPECIAL SESSION BY KYUTECH AND UPM STUDENTS

UPM-KYUTECH FUTURE SUSTAINABLE DEVELOPMENT PROJECT COLLABORATION

UPM UNIVERSITI PUTRA MALAYSIA
KSP KOLEJ SRI RAJANG
KPZ KOLEJ PUTRA MALAYSIA
Kyutech Kyushu Institute of Technology

UNIVERSITI PUTRA MALAYSIA
IN COLLABORATION WITH
KYUSHU INSTITUTE OF TECHNOLOGY (KYUTECH)

Fourth series
E-MOBILITY PROGRAMME
MALAYSIA
- JAPAN

2
0
2
1
November
9-22

ORGANIZED BY KOLEJ SRI RAJANG
Platform: Zoom Meeting

@Kolejsrirajang @KolejSriRajang.UPMKB

レコーディング... NAKAMURA Hayato の画面を表示しています オプションを表示

Slack | general | Mobility Progr... Launch Meeting - Zoom E Group
<https://sway.office.com/c09l2jPPpy1zn11>

Sway
 ストーリーライン デザイン

E Group

Current status of food problems due to global warming and the expansion of COVID-19

E team
 Haruki Onoue
 Yugo Matsumoto

ミュート解除 ビデオの停止 セキュリティ 参加者 49 チャット 画面の共有 投票 レコーディングを一時停止/停止 プレイアウトルーム リアクション 詳細 終了

1/2

Syifa' Ul-hanani Mat Ail Y. ANDO Kyutech NAKAMURA Hayato Shinya IKENO UPM_NUR ALYA SYAFIQAH

ROSIDAH BINTI BASIR / BTU HASHIMOTO Toru MATSUMOTO Yuya KINJO Yuki UPM_RYAN NYELANG

Ichiro omura UPM_ALDRICK Syazwani MSSC WATANABE Masayuki (Kyutech) MUHAMMAD AZLI YUSOF BIN NOR AZMA...

UPM_HESKEY NGADAN Haruki Onoue Hanada Tetsuro Kei TAKAYAMA Toshiaki Nishitani

UPM_MARSHALL RAMY Ryuhei Harada HAYASHI Yuki MATSUO Chikara Shafiq Johar

MOBILITY PROGRAMME 2019



ORGANIZING COMMITTEE

Patron	Vice Chancellor
Advisors	Deputy Vice Chancellor (Academic and International), Dean, FBSB
Chairman	Assoc. Prof. Dr. Mohd Zulkhairi Mohd Yusoff
Vice Chairman	Ts Dr. Iskandar Ishak
Secretary	Assoc. Prof. Dr. Norhayati Ramli
Finance	Assoc. Prof. Dr. Noor Baity Saidi Ms. Nur Adilah Zahidin
Secretariat	Dr. Ezyana Kamal Bahrin (L)

Registration

Assoc. Prof. Dr. Siti Nurbaya Oslan
Mrs. Syazwani Abd Khalid (MSSC)
Mr. Ahmad Suhaib Mohd Ali (MSSC)

Event Team

Dr. Noor Dina Muhd Noor (L)
Dr. Nadiya Akmal Baharum
Dr. Nor Hafizah Ahmad Kamarudin
Mr. Muhammad Zuhair Ali

Protocol

Assoc. Prof. Dr. Mariatulqabtiah Abdul Razak

Scientific Committee	Dr. Siti Nurulain Mohd Rum (L) Dr. Norizah Abdul Rahman (Material Sciences) Assoc. Prof. Dr. Mohd Rafein Zakaria (Applied Biology) Prof. Dr. Syafinaz Amin Nordin (Biomedical Sciences) Prof. Dr. Norhisam Misron (Engineering & Technology) Assoc. Prof. Dr. Fakhrol Zaman Rokhani (Engineering & Technology) Assoc. Prof. Dr. Nor Fazlida Mohd Sani (Computer Science) Dr. Raihani Mohamed (Computer Science) Dr. Hazlina Hamdan (Computer Science) Dr. Norhasnida Zawawi (Applied Biology)
-----------------------------	--

Technical & Logistic Dr. Erzam Marlisah (L)
 Dr. Muhammad Daniel Hafiz Abdullah
 Assoc. Prof. Dr. Azrul Hazri Jantan
 Assoc. Prof. Dr. Fatimah Sidi
 Dr. Ahmad Muhaimin Roslan
 Mr. Mohamad Hafiz Mohamad Zamri
 Mr. Mohammad Rafizan Ramliy

Publicity Dr. Maslina Zolkepli (L)
 Assoc. Prof. Dr. Lilly Suriani Affendey
 Ms. Fatimah Suria Mohd Shafie

Faculty/ Institute Representative

Faculty of Biotechnology & Biomolecular Sciences Prof. Dr. Hidayah Ariffin
 Faculty of Science Dr. Norhazlin Zainuddin
 Faculty of Engineering Prof. Dr. Wan Zuha Wan Hasan
 Dr. Mus'ab Abdul Razak
 Faculty of Computer Science & Information
 Technology Dr. Raihani Mohamed
 Faculty of Medicine & Health Sciences (FMHS) Dr. Nurul Husna Shafie
 Faculty of Food Science & Technology (FFST) Dr. Nurul Shazini Ramli
 ITMA Prof. Dr. Mohd Zobir Hussein
 INTROP Dr. Lee Seng Hua
 IPPM MyAgeing Assoc. Prof. Dr. Hayati Kadir@Shahar

Kyutech

Executive Director/Senior Executive Vice President Prof. Dr. Yasunori Mitani
 Vice Executive Director Prof. Dr. Ichiro Omura
 Director of MSSC Assoc. Prof. Dr. Yoshito Ando
 Deputy Dean of Engineering Prof. Dr. Yoshihisa Nakato
 Deputy Dean of Computer Science and Systems
 Engineering Prof. Dr. Keisuke Suzuki
 Deputy Dean of Life Science and Systems
 Engineering Prof. Dr. Kiyohisa Natsume

EDITORIAL TEAM

Assoc. Prof. Dr. Mohd Zulhairi Mohd Yusoff
Dr. Noor Dina Muhd Noor
Mr. Muhammad Zuhair Ali
Dr. Nadiya Akmal Baharum
Dr. Nor Hafizah Ahmad Kamarudin

VIRTUAL CONFERENCE
SAES2021



UPM
UNIVERSITI PUTRA MALAYSIA
BERILMU BERAKTI



Kyutech
Kyushu Institute of Technology