

PROGRAM **SCHEDULE**

Pre-Conference Workshop

Date : 24 November 2025 (Tuesday)

Venue : Opero Hotel Southkey, Johor Bahru, Malaysia

Time : 1.30 pm – 6.00 pm

Time	Activities
1:30 PM	: Registration
2:00 PM	: Opening remark
2:10 PM	: Module 1: Dr. Loh long Ying from Park Systems <i>Introduction to Nanoscale Imaging and Characterization</i>
2:40 PM	: Module 2: Assoc. Prof. Dr. William Chong from UTM <i>Seeing Friction at the Molecular Scale</i>
3:10 PM	: Module 3: Chok Xun Hao from Park Systems <i>Beyond AFM</i>
3:40 PM	: Tea break
4:00 PM	: Module 4: Dr. Loh long Ying, Application Scientist <i>Hands-on with AFM</i>
5:30 PM	: Closing speech by SCMSM2025

PROGRAM **SCHEDULE DAY 1** *Conference*

Date : 25 November 2025 (Tuesday)

Venue: Opero Hotel Southkey, Johor Bahru, Malaysia

Time : 8.00 AM - 5.00 PM

Time	Activities
8.00 AM	: Registration
9:00 AM	: Welcoming Remarks by Chairman of SCMSM 2025 Opening Remarks by Dean, Faculty of Mechanical Engineering, UTM Photo Session
9:30 AM	: Plenary Speaker 1 Dr. Md Azman Bin PKM Seeni Mohamed Senior Director, Advanced Material Research Centre (AMREC) SIRIM Industrial Research <i>AI for Micro World: From Pixels to Perception</i>
10.15 AM	: Tea break
10:45 AM	: Invited Speaker 1 ~ Interscience Sdn. Bhd Dr. Nie Xin Senior Product Specialist, APAC Electron Microscopy for Life Science <i>AI Powered Electron Microscopy for Translational Biomedicine Advancing Therapeutics and Vaccines</i>
11:15 AM	: Keynote Speaker 1 Assoc. Prof. Ts. ChM Dr. Nik Ahmad Nizam bin Nik Malek Deputy Dean (Research, Development & Innovation), Faculty of Science, Universiti Teknologi Malaysia (UTM) <i>Microscopic Evaluation on Bacterial Morphology Post-Treatment with Silver Nanocomposites</i>
11:45 AM	: Invited Speaker 2 ~ Hi-tech Instruments Sdn. Bhd. Mr. Tay Khoo Yang Managing Director <i>Aberration-corrected TEM / STEM / SEM for both static (HV) and (in-situ) atomic-scale studies</i>
12:30 PM	: Keynote Speaker 2 Mr. Afdzal Syahadat Husni bin Husin CEO of MIMOS Technology MIMOS Berhad, Kuala Lumpur <i>MIMOS' Role and Capabilities in Advancing Microscopy and Materials Characterisation in Malaysia</i>
1:00 PM	: Lunch
2:00 PM	: Parallel Session 1
3.30 PM	: Parallel Session 2 & Poster Evaluation
5.00 PM	: Refreshments

PROGRAM **SCHEDULE DAY 1**

Conference Dinner-GCMGM 2025

Date : 25 November 2025 (Tuesday)

Venue: Main Ballroom

Time : 8:00 PM – 10:00 PM

Attire/Theme : Smart casual

Time	Activities
8:00 PM	: Arrival & Registration
8:30 PM	: SCMSM Opening remark
8:30 PM	: Dinner is Served <i>1st Performance</i>
8:35 PM	: Award Ceremony Award - Travel Grant (5 paper)
8:45 PM	: <i>2nd Performance</i>
9:00 PM	: Lucky Draw 1
9:10 PM	: <i>3rd Performance</i>
9:25 PM	: Token of Appreciation to Sponsors & Exhibitors MSM announcement
9:45 PM	: <i>4th Performance</i>
10:00 PM	: Lucky Draw 2
10:10 PM	: <i>5th Performance</i>
10:25 PM	: Networking & Dinner end

PROGRAM

SCHEDULE DAY 2

Conference

Date : 26 November 2025 (Wednesday)

Venue : Opero Hotel Southkey, Johor Bahru, Malaysia

Time : 8.30 am - 5.15 pm

Time Activities

8.30 AM : Plenary Speaker 2

Prof. Ts. Dr. Mohd Hafiz Dzarfan bin Othman
Chair of Frontier Materials Research Alliance,
Universiti Teknologi Malaysia (UTM)
From Microstructure to Impact : Membrane Technologies for Environmental Sustainability

9.15 AM : Keynote Speaker 3

Assoc. Prof. Ir. Ts. Dr. Muhammad Azizi Mat Yajid
Deputy Dean (Research, Innovation and Development),
Faculty of Mechanical Engineering,
Universiti Teknologi Malaysia (UTM)
Aerogel Composites and Coatings: Enhancing Performance Through Nanostructured Materials

9.45 AM : Invited Speaker 3 ~ Interscience Sdn. Bhd.

Dr. Shawn Yu Shu Hearn
Product Specialist
Thermo Fisher Scientific
Modern TEM for Materials Research: Advancements from Talos F200 (atomic resolution) to Spectra 300 (sub-Å) and Iliad (integrated EELS)

10.15 AM : Tea break

10.45 AM : Invited Speaker 4 ~ JEOL (Malaysia) Sdn. Bhd.

Dr. Rizuan Mohd Rosnan
Application engineer
Empowering Nanoscale Research: The Versatility of JEOL F200/F2 TEM

11.15 AM : Invited Speaker 5 ~ CIQTEK Sdn. Bhd.

Mr. Wu Liang
Laboratory Manager & Solution Engineer
The Innovation Path of CIQTEK's Ultra-High-Resolution Electron Microscope and Integrated Solutions

11.45 AM : Invited Speaker 6 ~ Oxford Instruments

Mr Simon Fong
Territory Sales Engineer
Correlative Raman-SEM-EDX Study on Lithium-Ion Battery Degradation with RISE Microscopy

12.15 AM : Invited Speaker 7 ~ Matrix Optics Sdn. Bhd.

Dr. Lim Fang Sheng
Product Application Specialists
Exploring the Frontiers of Microscopy: Integrating SEM, FIB-SEM, Micro-CT, and 4D-STEM with TESCAN Technologies

12.45 PM : Lunch

2.00 PM : **Parallel Session 3**

3.30 PM : Award Presentation & Closing Ceremony

4.15 PM : Refreshments

PARTICIPANT GUIDELINES



Registration / Helpdesk

The registration will be held as follow:

Date: **24 - 26 November 2025**

Time: **8.00 am**

Venue: Opero Hotel Southkey, Johor Bahru, Malaysia

At registration, you will be given conference kit, including the detailed program tentative schedule. Staff will be available at the registration desk located in front of session room to answer any enquiry.

Presentation Instructions

The room are equipped with a laptop and a projector. Presenters must provide the presentation slides in PPT (PowerPoint) format on a USB memory stick. This must be done before each session started. Chairpersons are requested to keep the session on the schedule.

Papers should be presented in the order they are listed in the program for convenience of attendees. IT teams will be available during the conference to be contacted in case of arising problems.

Meals and Refreshments

Tea breaks

Coffee breaks will be served according to the program and they will be served at the Grand Florius Hall.

Buffet lunch

Buffet lunch will be served at the Olive Cafe.

INTRODUCTION TO ATOMIC FORCE MICROSCOPY (AFM) HALF-DAY WORKSHOP

Park Systems Pte.Ltd. www.parksystems.com

10 Science Park Rd, #01-03, TheAlpha, Science Park 2, Singapore 117684

UEN/GST Reg. No.201218101E Tel. +65-6634-7470



PRE-CONFERENCE WORKSHOP

Date : 24 November 2025 (Monday)

Time : 1.00 pm – 6.00 pm

Venue : Opéro Hotel Southkey, Johor Bahru, Malaysia

Overview

This half-day workshop provides a concise yet comprehensive introduction to Atomic Force Microscopy (AFM), a powerful and versatile nanotechnology tool for surface analysis. Participants will gain a foundational understanding of AFM principles, operational modes, and its diverse applications across various scientific disciplines.

Workshop Objectives

Upon completion of this workshop, participants will be able to:

- Understand the fundamental principles behind AFM operation.
- Identify and differentiate between common AFM imaging modes
- Recognize the capabilities and limitations of AFM for surface characterization.
- Appreciate the diverse applications of AFM in various fields.
- Understand basic considerations for sample preparation and data interpretation.

Workshop Outline (4 hours). 2.00– 6.00 pm

Module 1: Dr. Loh long Ying from Park Systems (30 minutes)

- Introduction to Nanoscale Imaging and Characterization
- Basic Principle of AFM: Cantilever, Tip, and Sample Interaction
- How AFM Works: Deflection, Feedback Loop, and Image Formation
- Key Components of an AFM System
- Contact Mode AFM: Principles, Advantages, and Disadvantages
- Tapping Mode AFM (Intermittent Contact Mode): Principles, Advantages, and Disadvantages
- Non-Contact Mode AFM: Principles and Niche Applications
- Introduction to Advanced AFM Modes (e.g., Phase Imaging, Force Spectroscopy - overview)

Module 2: Assoc. Prof. Dr. William Chong from UTM (30 minutes)

- Seeing Friction at the Molecular Scale: Lateral Force Microscopy for Understanding Boundary Lubricity in Sustainable Lubricants

Module 3: Chok Xun Hao from Park Systems (30 minutes)

- Beyond AFM - New Characterization Techniques For Film Thickness and Nanometrology Analysis

Module 4: Hands on with AFM (1 hour 30 minutes)

- Basic operation of AFM (cantilever exchange, laser alignment, sample placement).
- Live demo of different imaging modes (Contact, non-contact, tapping)
- Demonstration of advanced modes (KPFM, C-AFM, PinPoint NanoMechanical)
- Common Artifacts and Troubleshooting Tips
- Data Interpretation Basics

Instructor

Dr. Loh long Ying, Application Scientist (Park Systems Singapore)

PARALLEL SESSION 1

TUESDAY, 25 NOVEMBER 2025, 2:00 PM – 3:30 PM

BREAKOUT ROOM	PAPER ID, TITTLE, PRESENTER NAME
<p>Venue: Grand Florius Ballroom</p> <p>Theme: Materials</p> <p>Session Chair & Jury Dr. Yazid Yaakob (UPM)</p> <p>Jury: Dr. Md Azman Seeni Mohamed (SIRIM)</p> <p>Time Keeper: Mr. Muhammad Afiq Irfan Mohd Shumiri</p> <p>*2.00 - 3.15 pm</p>	<p>UTM07 Effects of Sintering Temperature on The Microstructures and Adhesion Strength of Slurry Sprayed Functionally Graded-Thermal Barrier Coating <i>Fadzlan Nadrah Mohd Sharuddin, Muhammad Azizi Mat Yajid</i></p>
	<p>UTEM02 Influence of Ball Milling Speed on the Structural and Hardness Properties of Eggshell-Derived Hydroxyapatite for Biomedical Applications <i>Zhi Xian Woon, Adibah Haneem Mohammad Dom, Toibah Ab Rahim, Zurina Shamsuddin, Fatma Zehra Koçak</i></p>
	<p>UTHM04 Utilization of Natural Silica from Rice Husk Ash to Improve Electrical Conductivity Of SDC-Based IT-SOFC Electrolyte <i>Zolhafizi Jaidi, Mohd Azham Azmi & Hamimah Abd Rahman</i></p>
	<p>UTHM01 Sustainable Recovery and Classification Recovered Materials of Electric Vehicle (EV) Discarded Battery <i>Zolhafizi Jaidi, Mohd Azham Azmi, Siti Nordiana Binti Jamil, Nurul Farahin Mohd Zulkafli</i></p>
	<p>UTM16 Thermal treatment-driven evolution of deformation geometry and yield strength in Zn-Mn alloys <i>Kar Fei Chan, Cong Li Ng, Batrisyia Balqis, Yazid Yaakob, Hidetoshi Miyazaki, Masaki Tanemura, Mohd Zamri Mohd Yusop</i></p>
<p>Venue: OMNIA I Hall</p> <p>Theme: Nanotechnology</p> <p>Session Chair & Jury: PM Ts. ChM Dr. Nik Ahmad Nizam Nik Malek (UTM)</p> <p>Jury: Prof Dr. Ismail Zainol (UPSI)</p> <p>Time Keeper: Miss Nur Diyana Nadhah Norhasrul Hadi</p>	<p>UNITEN01 UiO-66 Nanocrystals: Modulated Synthesis and Multi-Technique Characterizations <i>Azeyanti Nurain Azmin, Fei Ling Pua@Grace Pua, Halina Misran</i></p>
	<p>UPM01 Anodic Aluminum Oxide Composite Coatings Reinforced with Carbon Nanotubes and Graphene Nanoplatelets: Surface Morphology and Corrosion Resistance <i>Nik Hafizuddin Effandi Nazila, Tan Sin Tee, Md Shuhazilly Mamat, Shahira Liza, and Yazid Yaakob</i></p>
	<p>UTM12 Phase Stability and High-Temperature Oxidation Mechanism Divergence in Al30Cr15Ni15Si10Ti30 High-Entropy Alloy at 1000 °C <i>Mudassar Hussain, Junsen Wang, Abdillah Sani Mohd Najib, Nor Akmal Fadil, Jing Liu, and Tuty Asma Abu Bakar</i></p>
	<p>VEN01 Advanced Applications of Atomic Force Microscope <i>long, Ying, Loh</i></p>
	<p>UTEM12 Correlations between Porosity, Thermal Conductivity and Mechanical Strength in Bi-layered Ceramics with Different Pressing Pressure <i>Mohamed Lokman Jalaluddin, Umar Al-Amani Azlan, Mohd Warikh Abd Rashid, Norfauzi Tamin and Muchlis</i></p>
<p>Venue: OMNIA II Hall</p> <p>Theme: Engineering</p> <p>Session Chair & Jury: Dr. Abdul Hakim bin Md Yusop (UTM)</p> <p>Jury: Prof. Dr. Maizlinda Izwana Idris (UTHM)</p> <p>Time keeper: Cik Nurul Syafiqah Tapak</p>	<p>UMP01 Characterization and Analysis of Surface Morphology in Ti-6Al-4V Components Fabricated via Selective Laser Melting <i>Mohd Faizal Sadaji, Syahir Amzar Zulkifli, Mohd Yusrizal Mohd Yusoo, Mahadzir Ishak, Mohamad Zaki Hassan</i></p>
	<p>USM01 Chemically Activated Sunflower Seed Shell Based Activated Carbon for Allopurinol Removal: Isotherm, Kinetics and Regeneration Studies <i>Siti Zawiyah Baharom, Azrina Aziz, Erniza Mohd Johan Jaya, and Mohd Azmier Ahmad</i></p>
	<p>UTEM05 Mechanical and Microstructural Comparison of FDM-Printed and SLS-Printed for Additive Manufacturing of Rehabilitation Devices <i>Ruzy Haryati Hambali, Vinna Chia, Siti Hajar Binti Sheikh Md Fadzullah</i></p>
	<p>UTEM08 Effect of Pulse Frequency on TiC Nanocomposite Coating Fabricated by TIG Torch Melting <i>Alin Qistina Shamsuri, Lailatul Harina Pajjan, Aslam Hadi Hamzah, Mohd Fauzi Mamat, Shahira Liza Kamis</i></p>

PARALLEL SESSION 2

TUESDAY, 25 NOVEMBER 2025, 3:30 PM – 5:00 PM

BREAKOUT ROOM	PAPER ID, TITTLE, PRESENTER NAME
<p>Venue: Grand Florius Ballroom</p> <p>Theme: Materials</p> <p>Session Chair & Jury: Prof. Dr. Nur Izan Syahriah Hussein (UTEM)</p> <p>Jury: PM Ts. Dr. Che Nor Aiza Jaafar (UPM)</p> <p>Time keeper: Pn. Fadzlan Nadrah Mohd Sharuddin</p> <p>*3.15 - 4.30 pm</p>	<p>UTHM03 Impact of Calcination Temperature (600 – 750°C) On SRCO₃ Formation and Microstructural–Thermal Properties Of SSC–SDCC Cathodes for Low–Temperature Solid Oxide Fuel Cells <i>Sufizar Ahmad, Umira Asyikin Yusop, Siti Fairus Mohammad, Hamimah Abd Rahman, Mohd Azham Azmi</i></p>
	<p>UTM10 Development of Thermal Insulating Paint: Influence of Aerogel Slurry Loading on Dispersion Stability, Surface Wettability and Thermal Performance <i>Rozalina Amran, Hong Ling Chuan, Nuhairi Alias, Muhamad Azizi Mat Yajid, Zaiton Abdul Majid, Abdillan Sani Mohd Najib, Nuha Awang, Zulhelmi Alif Abdul Halim</i></p>
	<p>UTM09 Microstructures and Physicochemical Evaluations of Mg–Fe Anodes for Implantable Battery Applications <i>Gonga Sutradhar, Abdul Hakim Md Yusop</i></p>
	<p>GOV03 Evaluating The Effect of Precipitated Calcium Carbonate (PCC) Morphologies on Paper Coating Using FESEM Imaging <i>Siti Noorzidah Mohd Sabri, Rohaya Othman, Zawawi Mahim, and Emea Marina Salleh</i></p>
<p>Venue: OMNIA I Hall</p> <p>Theme: Applied Sciences</p> <p>Session Chair & Jury: Dr. Siti Salwa Alias (UTM)</p> <p>Jury: PM Dr. Intan Shameha Abdul Razak (UPM)</p> <p>Time keeper: En. Mudassar Hussain</p>	<p>UTM06 The Corrosion Behaviour of Zn–Al Alloys in Alkaline Environment: Influence of Composition, Cooling Rate, And Heat Treatment <i>Nur Diyana Nadhah Norhasrul Hadi, Abdillan Sani Mohd Najib, Nor Akmal Fadil</i></p>
	<p>GOV01 The Utilization of Local Silica Sand for the Production of Decorative Coloured Glass <i>Nabihah Othman, Mohd Idham Mustaffar, Syarifah Aminah Ismail and Mohd Hakim Ibrahim</i></p>
	<p>UTM08 Effect of Surface Laser Shock Peening on the Tensile Properties and Hardness of Selective Laser Melted (SLMed) A357 Alloy <i>Agbaye Ignatius Uyabemem, Tuty Asma Abu Bakar, Aini Zuhra</i></p>
	<p>UTHM05 Effect of Calcination on Crayfish Shells <i>Saraswathy A/P Vellaitham, Hasan Zuhudi Abdullah, Muhammad Abdul Latiff Abu Bakar, Maizlinda Izwana Idris</i></p>
	<p>UTHM06 Effect of Calcination Temperature on Hydroxyapatite from Tilapia Fish Bone for Biomedical Application <i>Mohamad Hashim Mohd Sabirin, Maizlinda Izwana Idris, Hasan Zuhudi Abdullah</i></p>
	<p>UNIKL01 Temperature–Modified Biochar Enhances Methane Yield and Process Stability in Anaerobic Digestion of Palm Oil Mill Effluent <i>Stasha Eleanor Rosland Abel, Soh Kheang Loh, Robert Thomas Bachmann, Amelia Md Som</i></p>
<p>Venue: OMNIA II Hall</p> <p>Theme: Materials / Applied Sciences / Life Science</p> <p>Session Chair & Jury: Dr. Najlaa Nazihah Mas'ood (UTM)</p> <p>Jury: Dr. Syahriza Ismail (UTEM)</p> <p>Time keeper: Cik Nurul Syafiqah Tapak</p>	<p>UTM15 Effect of Load and Counterpart Ball on The Friction and Wear Behavior Of DLC–Flake–Reinforced Composite Oxide Films <i>Nur Aszreen Zulkifli, Shahira Liza, Kanao Fukuda, Yazid Yaakob, Hiroki Akasaka</i></p>
	<p>UTHM10 Fabrication and Characterisation of Microcapsule from Sunflower Oil for Self–Healing Applications <i>Norwahdah Rahmat, Z. Baharom, *Hassan Zuhudi Abdullah, M. I. Idris, and Nor Adrian Nor Salim</i></p>
	<p>UTM18 Effect of Addition of Pr–Sb on Microstructural and Mechanical Properties of Al–15%Mg2Si Composite <i>Alif Fajar Putrawan, Nor Akmal Fadil, Tuty Asma Abu Bakar, Hamidreza Ghandvar, Shazarel Shamsudin</i></p>
	<p>UTEM22 Engineering by Nature: Scanning Electron Microscopy–Based Structural Analysis and Surface Wettability Assessment of Tropical Foliage for Biomimetic Applications <i>Hans Ezechiel A/L Henry, Aiman Roslizar</i></p>
	<p>UTHM07 Fabrication of Wound Healing Materials from Fish Gelatin and Chitosan <i>Noor Athirah Aida Noor Rizan @ Noor Jehan, Maizlinda Izwana Idris</i></p>
	<p>LUCM01 The Translational Imperative: Microscopic and Spectroscopic Blueprint of Optimized Fucosylated Chondroitin Sulfate Scaffolds for Craniomaxillofacial Regeneration <i>Farid Che Ghazali, Rasheed Abu Salam</i></p>

PARALLEL SESSION 3

WEDNESDAY, 26 NOVEMBER 2025, 2:00 PM – 3:30 PM

BREAKOUT ROOM	PAPER ID, TITTLE, PRESENTER NAME
<p>Venue: Grand Florius Ballroom</p> <p>Theme: Materials</p> <p>Session Chair & Jury: Dr. Aizuddin Supee (UTM)</p> <p>Jury: Ir. Ts. Dr. Wan Fahmin Faiz (UTM)</p> <p>Time keeper: Cik Nur Diyana Nadhah Norhasrul Hadi</p>	<p>UTM02 Electrochemical Performance of Antimony-Modified Porous Lamellar Zinc Alloy Anode in Alkaline Aqueous Electrolyte <i>Muhammad Afiq Irfan Mohd Shumiri, Abdilllah Sani Mohd Najib, Hikari Sakaebe, Nor Akmal Fadil</i></p>
	<p>GOV02 Development of Creamed Ammonia-Free Deproteinized Natural Rubber Latex for the Cottage Industry <i>Azman Sampol, Ahmad Syaheer Abu Aswad, Siti Shuhada Shuib, Roslim Ramli, Nurulhuda Abdullah</i></p>
	<p>UMT01 Synthesis and Characterization of Cobalt-Doped Zinc Silicate Via Thermal Treatment Method <i>Engku Abd Ghapur Engku Ali, Annas Farha Barkat Ali, Mohd Al Amin Muhamad Nor, Mohd Sabri Mohd Ghazali</i></p>
	<p>UTM01 Effect of Zinc Oxide/ Calcium Carbonate hybrid nanoparticles on wear properties of nanocoating on carbon steel <i>Nurul Nabila Mohd Din, Norhasnidawani Johari, Mohd Aidy Faizal Johari, Noor Azlina Hassan, Abd Halim Md Ali, Rizal Arifin</i></p>
<p>Venue: OMNIA I Hall</p> <p>Theme: Nanotechnology</p> <p>Session Chair & Jury: PM Ir. Ts. Dr. Muhammad Azizi Mat Yajid (UTM)</p> <p>Jury: PM Dr. Jeefferie Abd Razak (UTEM)</p> <p>Time keeper: En. Muhammad Afiq Irfan Mohd Shumiri</p>	<p>UNITEN02 Structural Evaluation of MXenes Synthesized Using Environmental-Friendly Approach for Flexible Energy Storage <i>Halina Misran, Nurul Atiqah Izzati Md Ishak, Siti Zubaidah Othman, Azieyanti Nurain Azmin, Fazliyana 'Izzati Za'abar and Ahmad Wafi Mahmmod Zuhdi</i></p>
	<p>UTEM10 Effect of TiO₂/ZnO Composition on the Properties of Plasma Spray Feedstock Powders <i>Muhamad Akmal bin Mohd Sanj, Yusliza binti Yusuf, Jariah binti Mohamad Juoi, Azhar Shah Bin Abu Hassan, Sarita Morakul</i></p>
	<p>UTM14 Hybrid Gold Nanoparticles: Sample Preparation for Scanning Electron Microscopy Imaging <i>Khairunnisa Mohd Paad, Adibah Shakri, Norazalina Saad, Izzat Fahimuddin Mohamed Suffian</i></p>
	<p>VEN02 Nanomechanical Testing in Extreme Environments: High Strain Rate Nanoindentation at High Temperatures <i>Viola Paul, Nicholas Randall, Renato Pero, Jean-Marc. Breguet</i></p>
	<p>UTEM09 Martensitic Features of WAAM-Deposited Stainless Steel 410 in As-Deposited and Heat-Treated Conditions <i>Nur Izzan Syahriah Hussein, Ahmad Amirul Aizad Samsuri, Mohd Rizal Alkahari, Nor Ana Rosli, Abd Rahman Dullah, Syahrul Azwan Suandi, Mohamad Nizam Ayof, Azril Dahari Johari, Salmi Mohd Yunus</i></p>
<p>Venue: OMNIA II Hall</p> <p>Theme: Engineering / Nanotechnology</p> <p>Session Chair & Jury: Ir. Ts. Dr. Wan Rosmiza Zana Wan Dagang (UTM)</p> <p>Jury: Dr. Mohd Shukri Baba (IIUM)</p> <p>Time Keeper: Pn. Rozalina Amran</p>	<p>UTM05 High Entropy Alloy Anodes for Solid Oxide Fuel Cells: A Critical Review of Structural Stability and Carbon Coking Resistance under Hydrocarbon Fuel <i>Nurul Syafiqah Tapak, Nor Akmal Fadil, Mohd Hafiz Dzarfan Othman, Mohd Zamri Mohd Yusop</i></p>
	<p>UTM11 Influence of Titanium Dioxide on the Microstructure, Porosity and Corrosion Performance of Magnesium Phosphate Ceramic <i>Muhammad Faiz Bin Ibrahim, Abdilllah Sani Mohd Najib</i></p>
	<p>UMP02 Fatigue Damage Evolution in Glass Fibre Reinforced Polymer: Insights from Fractographic Examination <i>Miminorazeansuhaila Loman, Mohd Hafizi Zohari & Fauziana Lamin</i></p>
	<p>UTEM06 Effect using Vacuum Clamp on End Mill Process of Acrylic Towards Surface Integrity under Microscope <i>Norfariza binti Ab Wahab</i></p>
	<p>UTM19 Engineered Microporosity: Tailoring Thermoplastic Films Through Phase Separation <i>Zurina Binti Mohamad, Norhayani Binti Othman, Vitali Lipik</i></p>

POSTER SESSION**TUESDAY, 25 NOVEMBER 2025, 10.00 AM – 12:30 PM**

PAPER CATEGORY: PHYSICAL SCIENCE		
1	UTHM11 Dr. Fazimah Binti Mat Noor	Effects of Mixing Time on the Properties of Hydroxyapatite Foam Prepared by Space Holder Method
2	UTEM03 Assoc. Prof. Dr. Siti Hajar Sheikh Md Fadzullah	Dynamic behaviour of biodegradable pineapple leaf fibre (PALF) composites for protective packaging applications
3	UTEM04 Assoc. Prof. Dr. Zaleha Mustafa	Weibull analysis of the fatigue behaviour of self-reinforced PLA composites with different filler sizes under high stress conditions for bone fixation applications
4	UTEM07 Dr. Syahriza Ismail	Characterization of modified titanium dioxide nanotubes by anodization
5	UiTM01 Norhafini Hambali	Solvent extraction of rubber seed oil as a feedstock for epoxidation process via mixed solvent system: Optimization of extraction parameters
6	UTHM12 Tew Heng Yao	SEM morphology and EDX analysis of refractory insulators exposed to high-temperature petrochemical environments
7	UTHM14 Nursyazwani Zulkefli	Comparative evaluation of calcination temperature for cockle shell-derived hydroxyapatite in polylactic acid composites
8	UTEM14 Hazril Hisham Hussin	Microscopic insights into the morphological and electrical behaviour of GNP hybrid ink under cyclic bending
9	UTEM18 Norashikin Shari	Electrical and morphological evaluation of graphene nanoplatelet/silver hybrid conductive ink on various substrates under moisture stress
10	UTHM15 Prof. Dr. Hasan Zuhudi Abdullah	Influence of Carbon Filler on The Properties and Performance of Starch-Based Carbon Foams
11	UTM03 Ir. Ts. Dr. Wan Fahmin Faiz Wan Ali	Stimuli-Responsive Nanoporous Alumina Carrier for Magnetically Regulated Release
12	UTHM09 Nurul Farhana Abdul Rahman	Electrochemical Performance Properties of Planar Solid Oxide Fuel Cells: A Review of Methods Employed in Fabricating Electrodes and Electrolyte Components
13	UTM17 Dr. Richard	PVD Nano-Columnar DLC Coating on Cutting Tool for High Speed Drilling Application
14	UTM20 Assoc. Prof. Dr. Mohd Fairus Mohd Yasin	Thermo-Fluidizing Analysis for Scalable CNT Growth in Flame Chemical Vapor Deposition (FCVD) with Fluidized Bed

POSTER SESSION

TUESDAY, 25 NOVEMBER 2025, 10.00 AM – 12:30 PM

PAPER CATEGORY: LIFE SCIENCE		
1	UKM01 Ts. Nur Nasuha Zolkifli	FESEM-based morphological profiling of animal hair and skin for halal certification: A comparative study
2	UNIMAP01 Assoc. Prof. Dr. Sam Sung Ting	Elucidating the antifungal mechanism and properties of fungal chitosan-nanocrystalline cellulose composites for food packaging applications