

# DETAILS OF PARALLEL SESSIONS



**SESSION 1 : 14:00 – 15.30**

**ROOM A – APPLIED MATHEMATICS**

| Time  | Presenter                              | Paper ID | Title   |
|-------|--|----------|---|
| 14:00 | Dr. Iskandar Waini                     | A018     | Flow and Thermal Characteristics of Couple Stress Fluid Over a Stretching Surface with Hybrid Nanoparticles   |
| 14:15 | Mr. Kho Yap Bing                       | A009     | Unsteady Hiemenz Flow of Cu-SiO <sub>2</sub> Hybrid Nanofluid with Heat Generation/Absorption   |
| 14:30 | Dr. Nor Ain Azeany Mohd Nasir          | A012     | Numerical Solution of EMHD GO-Fe <sub>3</sub> O <sub>4</sub> /H <sub>2</sub> O Flow and Heat Transfer over Moving Surface with Thermal Radiation and Heat Absorption/Generation Impacts |
| 14:45 | Mr. Wan Muhammad Hilmi Wan Rosli       | A017     | Convective Boundary Layer Flow of Williamson Hybrid Ferrofluid over a Moving Flat Plate with Viscous Dissipation  |
| 15:00 | Mr. Mohd Usran Alibubin                | A030     | Implementation of the KSOR Method for Solving One-Dimensional Time-Fractional Parabolic Partial Differential Equations with the Caputo Finite Difference Scheme                         |
| 15:15 | Ms. Siti Nurul Aifa Mohd Zainul Abidin | A019     | Mathematical Analysis of Unsteady Solute Dispersion in Herschel-Bulkley Fluid with Interphase Mass Transfer   |

**ROOM B – COMPUTATIONAL MATHEMATICS**

| Time  | Presenter               | Paper ID | Title  |
|-------|-------------------------|----------|--|
| 14:00 | Dr. Suzelawati Zenian   | C012     | Contrast Enhancement Technique for fEEG Image using Interval-Valued Type2 Fuzzy Sets   |
| 14:15 | Ts. Rechar Lee          | C014     | Single-image Non-Blind Motion Deblurring Based on Integrated Structural Edges Enhancement  |
| 14:30 | Dr. Suzelawati Zenian   | C013     | Fuzzy Logic-Based Techniques for Contrast Enhancement  |
| 14:45 | Mr. Ahmad Abubakar Umar | C010     | Convergence and Order of the Extended 2-Point Super Class Block Backward Differentiation Formula with Off-Step Points for Solving Stiff IVPs |
| 15:00 | Mr. Mohamed Faris Laham | A028     | Jumps-Diffusion Modeling for Stock Price Data  |

## ROOM C – OPERATIONAL RESEARCH & ENGINEERING AND INDUSTRIAL APPLICATION

| Time  | Presenter                        | Paper ID | Title  |
|-------|----------------------------------|----------|--|
| 14:00 | Dr. Gopalakrishnan Soundararajan | O001     | SMEs Supply Chain Management Practice: A Study Focus in Oman   |
| 14:15 | Ms. Cristina Bianca Mallari      | O005     | Assessing the Optimality of a Three-Part Pricing Policy for an Asset-Sharing Platform in the Philippines                             |
| 14:30 | Ts. Dr. Fazilatulaili Ali        | O003     | Selection of the Best Students' Leader in UPNM using Analytic Hierarchy Process (AHP) Method   |
| 14:45 | Ms. Hongtao Zhu                  | O006     | Optimising Layout of an Left-Turn Bypass Intersection under Mixed Traffic Flow: A Case Study in Pulau Pinang, Malaysia               |
| 15:00 | Dr. Aminah Ahmad                 | G004     | Microfiber Optical Sensor Analysis Via Sodium Hypochlorite Concentration Sensing Application by Different Wavelength of Light Source |
| 15:15 | Dr. Aminah Ahmad                 | G005     | Cooperative Study for Power Spectral Towards Different Sizes Taper Optical Microfiber for Sensing Purpose                            |

## ROOM D – STATISTICS

| Time  | Presenter                               | Paper ID | Title   |
|-------|---|----------|---|
| 14:00 | Dr. Muhammad Jaffri Mohd Nasir          | S001     | Adaptive LASSO with Coordinate Gradient Descent Algorithm for M-BEKK-ARCH( $q$ )  |
| 14:15 | Dr. Siti Rohani Mohd Nor                | S019     | Modelling and Forecasting the COVID-19 Mortality Rates in Malaysia by using ARIMA Model                                       |
| 14:30 | Mrs. Siti Aishah @ Tsamienah binti Taib | S010     | The Implementation of Long-Short Term Memory in Tourism Industry in Malaysia  |
| 14:45 | Mr. Muhammad Naeim Mohd Aris            | S024     | Developing New Covariance Function of Gaussian Process Regression for Modelling Marine Controlled-Source Electromagnetic Data |
| 15:00 | Dr. Noryanti Muhammad                   | S012     | Predictive Modelling on Competitor Analysis Performance by using Generalised Linear Models and Machine Learning Approach      |

## SESSION 2 : 16:00 – 17.30

### ROOM A – STATISTICS

| Time  | Presenter                        | Paper ID | Title  |
|-------|----------------------------------|----------|--|
| 16:00 | Dr. Adie Safian Ton<br>Mohamed   | S016     | Hanning's Performance in 4253HT Smoother on Four Signals of Different Noise Levels                 |
| 16:15 | Dr. Siti Mariam<br>Norrulashikin | S020     | Climate and Teen Mortality: Exploring the Linkages   |
| 16:30 | Dr. Adie Safian Ton<br>Mohamed   | S017     | Integration of 4253HT Smoother using Holt-Winters Forecasting Model on Short-Term Electricity Data |
| 16:45 | Dr. Adie Safian Ton<br>Mohamed   | S018     | Modifications of 4253HT Smoother in Extracting Signal from Noise                                   |
| 17:00 | Mrs. Nur Syahirah Zulkipli       | S022     | Abnormalities Detection in Apert Syndrome using Hierarchical Clustering Algorithms                 |
| 17:15 | Dr. Sarimah Surianshah           | S027     | The Effect of Green Technology Policy on Climate Change Awareness of Youth in Sabah, Malaysia      |

### ROOM B – DATA SCIENCE & STATISTICS

| Time  | Presenter                                  | Paper ID | Title  |
|-------|--|----------|--|
| 16:00 | Dr Aisyah Mat Jasin                        | D013     | Predictive Analytics of Train Delays using Facebook Prophet  |
| 16:15 | Dr. Alabi Waheed Banjoko                   | D010     | A Sequential-Based Optimization Algorithm for Efficient Feature Selection and Classification in Big Data Analysis                |
| 16:30 | Assoc. Prof. Dr.<br>Shamshuritawati Sharif | S021     | Performance Evaluation of Hierarchical Clustering Algorithm using Simulated Data   |
| 16:45 | Dr. Amala Nirmal Doss                      | D012     | Tadakhul – An Online Platform for Integrating Learning Analytics with MOOC Through Data Mining                                   |
| 17:00 | Dr. Abubakar Usman                         | S008     | Assessing the Survival Time and Prognostic Factors for Cervical Cancer: A Case Study of National Hospital Abuja, Nigeria         |
| 17:15 | Dr. Yisa Yakubu                            | S002     | Comparison of Prediction Variance Performance for Variations of Response Surface Designs in the Presence of Missing Observations |

## ROOM C – APPLIED MATHEMATICS

| Time  | Presenter                   | Paper ID | Title   |
|-------|-----------------------------|----------|---|
| 16:00 | Dr. Najiyah Safwa Khashi'ie | A001     | Response Surface Methodology of the Unsteady Axisymmetric Magnetic Hybrid Nanofluid Flow Subject to a Shrinking Disk                                    |
| 16:15 | Dr. Nurul Amira Zainal      | A005     | Stability Analysis of Unsteady Flow and Heat Transfer of Rear Stagnation Point in Hybrid Nanofluids with Magnetic Impact                                |
| 16:30 | Mr. Tijjani Lawal Hassan    | A025     | A Comparative Analysis on Single and Two Phase Casson Fluid under Aligned Magnetic Field Effect and Newtonian Heating                                   |
| 16:45 | Dr. Nurul Amira Zainal      | A004     | Analysis of Solution Stability in $Al_2O_3-Cu/H_2O$ Over a Stretching/Shrinking Wedge   |
| 17:00 | Ms. Siti Hanani Mat Yasin   | A029     | Micropolar Ferrofluid Flow and Heat Transfer at the Stagnation Point on a Horizontal Flat Plate in the Presence of Magnetic Field and Thermal Radiation |
| 17:15 | Mrs. Farahanie Fauzi        | A039     | The Thematic Review on Convective Heat Transfer of Nanofluid over Horizontal Circular Cylinder  |

## ROOM D – APPLIED MATHEMATICS

| Time  | Presenter                            | Paper ID | Title   |
|-------|--------------------------------------|----------|---|
| 16:00 | Ts. Dr. Khairum Hamzah               | A002     | Stress Intensity Factors for Thermoelectric Bonded Materials Weakened by an Inclined Crack                                |
| 16:15 | Mr. Muhammad Haziq Iqmal Mohd Nordin | A003     | Numerical Solution for a Curvilinear Crack Phenomenon in Thermoelectric Bonded Materials Subjected to Mechanical Loadings |
| 16:30 | Dr. Paul Timothy Lim                 | A011     | Information Dynamics of a Two-Candidate Election Campaign   |
| 16:45 | Ms. Anis Sulaikha Samiun             | A006     | Solitons in a One-Dimensional Discrete System with External Potential   |
| 17:00 | Ms. Siti Nabilah Yusof               | A008     | A Novel Condition in Ensuring the Security of a Proposed Bivariate Polynomial Reconstruction Problem Cryptosystem         |
| 17:15 | Mrs. Kamilah Abdullah                | A040     | Novel Weak Multivariate Quadratic Structures Detected within Macaulay Matrix  |

SESSION 3 : 10:30 – 13.00

ROOM A – PURE MATHEMATICS

| Time  | Presenter                         | Paper ID | Title   |
|-------|-----------------------------------|----------|---|
| 10:30 | Professor Dr. Nor Haniza Sarmin   | P002     | Sombor Index and Sombor Polynomial of the Non-Commuting Graph Associated to Some Finite Groups  |
| 10:45 | Mrs. Fozaiyah Ayed Alhubairah     | P003     | The Topological Indices of the $p$ -Subgroup Graph of Dihedral Groups   |
| 11:00 | Mrs. Alshammari Maryam Fahd A     | P005     | The Power Cayley Graph for Dihedral Groups of Certain Order   |
| 11:15 | Ms. Nur Atikah Aziz               | P007     | Optimising Diabetes Cupping Point from View of Graph Colouring  |
| 11:30 | Mrs. Nooradelena Mohd Ruslim      | P008     | Characterize Type of Splicing Languages via Directed Splicing Graph   |
| 11:45 | Ms. Siti Hajar Mohd Khairuddin    | P010     | Classification of $n$ -th Order Limit Language in Formal Language Classes   |
| 12:00 | Mrs. Masnira Ramli                | P011     | Review on Pattern Recognition: Image Processing of Tudung Saji Pattern into Zero-One Matrix   |
| 12:15 | Dr. Siti Norziahidayu Amzee Zamri | P012     | Some Energy of a Line Graph of Prime Graph  |
| 12:30 | Dr. Musthafa Ibrahim              | P013     | $(p, q)$ -Chebyshev Polynomial and Their Applications to a Certain Family of Bi-Univalent Functions of Sălăgean Differential Operator |

## ROOM B – STATISTICS & DATA SCIENCE

| Time  | Presenter                              | Paper ID | Title  |
|-------|--|----------|--|
| 10:30 | Professor Ts. Dr. Mohd Rashid Ab Hamid | S011     | Multivariate Analysis using Maximum Likelihood and Partial Least Squares Technique in Model Estimation: Robustness of Parameter Estimates    |
| 10:45 | Dr. Clark Kendrick Go                  | D005     | Modeling Pooled Procurement of Philippine Department of Health Drugs and Medicines using Regression  |
| 11:00 | Ms. Naqibah Aminuddin Jafry            | S014     | Modeling the Dependency Structure of Four-Dimensional Flood Variables using the Copula Approach  |
| 11:15 | Dr. Clark Kendrick Go                  | D006     | Dynamic Portfolio Optimization According to Market States and Diversification using Hierarchical Clustering                                  |
| 11:30 | Dr. Clark Kendrick Go                  | D008     | What do Filipino Children Eat: Applying Market Basket Analysis on the Meals of School-aged Children in the Philippines                       |
| 11:45 | Mrs. Iszuanie Syafidza Che Ilias       | S028     | Comparison Between Parametric and Nonparametric Estimation for Annual Precipitation in Kuala Lumpur  |
| 12:00 | Mr. Carlo Gabriel Pastor               | D004     | Applying XGBoost, Neural Networks, and Oversampling in the Undernutrition Classification of School-Aged Children in the Philippines          |
| 12:15 | Mr. Joachim Regalado                   | D007     | Binary Classification of Glomeruli using Convolutional Neural Networks   |
| 12:30 | Mr. Nahamizun Maamor                   | D011     | A Comparative Study on the Performance of Covariance Functions in Gaussian Process Regression Model: Application to Global Wheat Price       |
| 12:45 | Dr. Sayed Kushairi Sayed Nordin        | S005     | Testing Environmental Kuznets Curve (EKC) Hypothesis in ASEAN Countries: Evidence Based on STIRPAT Framework with Cross-Sectional Dependency |

## ROOM C – ENGINEERING AND INDUSTRIAL APPLICATION & MATHEMATICS EDUCATION

| Time  | Presenter                                     | Paper ID | Title   |
|-------|---|----------|---|
| 10:30 | Dr. Siti Aisyah Tumiran                       | G010     | Modularity Density Based-Edge Betweenness Method for Catchment Classification in a Small Region   |
| 10:45 | Ms. Sufinah Dahari                            | G002     | Robust Control Chart Application in Semiconductor Manufacturing Process   |
| 11:00 | Ms. Sufinah Dahari                            | G003     | Modified Levey-Jennings Chart with Robust Estimator: A Case of Semiconductor Manufacturing Process  |
| 11:15 | Mr. Mohd Ikhsan Md Raus                       | G007     | Sirs Case Study – Idle Processing QoS Studies RDBMS   |
| 11:30 | Mr. Musa Yusup Lada                           | G008     | Evaluation of Conventional Inverter and Multilevel Inverter in Shunt Active Power Filter  |
| 11:45 | Mr. Wan Mohd Eqhwan Iskandar Wan Saiful Bahri | G009     | Impact Properties of Ground Rubber Powder/Polyethylene Composite  |
| 12:00 | Professor Teoh Sian Hoon                      | E004     | The Relationship between Achievement Goal Orientation and Academic Buoyancy in Mathematics among FELDA Secondary School Students: Implications for Workforce Skills |
| 12:15 | Dr. Roselah Osman                             | E002     | Images of Mathematics Held by Indigenous Primary School Pupils  |
| 12:30 | Dr. Mohd Rustam Mohd Rameli                   | E003     | Relationship between Self-regulated Learning with Academic Buoyancy: A Case Study among Malaysia FELDA Secondary School Students                                    |
| 12:45 | Mrs. Nur Raidah Salim                         | E005     | Motivated Strategies for Learning and Students' Expectation on Learning Analytics: A Person-Centered Approach   |



**ROOM D – APPLIED MATHEMATICS**

| Time  | Presenter                          | Paper ID | Title   |
|-------|------------------------------------|----------|---|
| 10:30 | Dr. Anuar Jamaludin                | A043     | Impact of Thermal Radiation, Joule Heating and Thermal Slip on MHD Hybrid Nanofluid Flow  |
| 10:45 | Mrs. Masyfu'ah Mokhtar             | A037     | Combined Convective Transport of Williamson Hybrid Nanofluid over a Shrinking Sheet   |
| 11:00 | Ts. Ahlam Aljabali                 | A035     | Eyring-Powell Hybrid Nanofluid with Radiative Heat Flux: Case over a Shrinking Sheet  |
| 11:15 | Dr. Muhammad Khairul Anuar Mohamed | A038     | MHD Natural Convection Flow of Casson Ferrofluid over a Vertical Truncated Cone   |
| 11:30 | Ms. Dhia Azeem Khairil Anwar       | A020     | Numerical Solution of Falkner-Skan Equation for a Moving Wedge in Hybrid Nanofluids   |
| 11:45 | Ms. Nur Aisyah Aminuddin           | A007     | Analysis of GO-MoS <sub>2</sub> /EG Transportation in Stagnation Point Flow and Heat Transfer over Moving Surface                         |
| 12:00 | Dr. Ahmad Qushairi Mohamad         | A042     | Mathematical Solutions of Free Convection Flow of Casson Fluid in Channel with Accelerated Plate  |
| 12:15 | Dr. Noor Azzah Awang               | A015     | Rough Neutrosophic Shapley Weighted Einstein Averaging Aggregation Operator and its Application in Multi-Criteria Decision-Making Problem |
| 12:30 | Dr. Hazwani Hashim                 | A016     | Bipolar Neutrosophic Dombi Shapley Weighted Average Aggregation Operator and Its Application in Decision-Making Problem                   |

## SESSION 4 : 14:00 – 15.30

### ROOM B – COMPUTATIONAL MATHEMATICS

| Time  | Presenter                               | Paper ID | Title  |
|-------|---|----------|--|
| 14:00 | Assoc. Prof. Dr Ibrahim Faye            | C004     | Artificial Neural Networks Solutions of Differential Equations: A Focus and an Example for Flow of Viscoelastic Fluid with Microrotation |
| 14:15 | Mr. Abdul Rahman Farhan Sabdin          | C011     | Multistep Reduced Differential Transform Method in Solving Nonlinear Schrodinger Equations   |
| 14:30 | Assoc. Prof. Dr. Ahmad Lutfi Amri Ramli | C007     | Comparison of Geometric-based Travel Time Prediction between Cars and Trucks   |
| 14:45 | Dr. Nadirah Mohd Nasir                  | C005     | Numerical Computation for Solving Multipoint Boundary Value Problems using Direct Multistep Block Method                                 |
| 15:00 | Dr. Jackel Vui Lung Chew                | C008     | Modified Fractional Explicit Group with SOR Iterative Method for Nonlinear Fractional Diffusion in a Porous Medium                       |
| 15:15 | Dr. Suliman Khan                        | C015     | On Numerical Computation of Oscillatory Bessel and Hankel Integrals  |

### ROOM C – OPERATIONAL RESEARCH

| Time  | Presenter                           | Paper ID | Title  |
|-------|-------------------------------------|----------|--|
| 14:00 | Dr. Ruzanna Mat Jusoh               | O007     | Preliminary Study: A Principal Component Analysis-Based Approach for Link Selection in Traffic Monitoring              |
| 14:15 | Mrs. Nur Sabrina Mansor             | O008     | A Review on School Network Problem with Zone Dependent Fixed Cost and Inventory Cost                                   |
| 14:30 | Mrs. Syazwani Zainal Abidin         | O009     | Decision Making Support in Vehicle Routing Problems: A Review of Recent Literatures                                    |
| 14:45 | Ms. Nurul Akmal Mohamed Ramli       | O011     | A Hybrid PRP-DY Conjugate Gradient with Strong Wolfe-Powell Line Search for Solving Unconstrained Optimization Problem |
| 15:00 | Mr. Muhammad Akram Ramadhan Ibrahim | O010     | A Trade-Off Ranking Method: Case of Extreme Solutions Redundancy   |

## ROOM D – APPLIED MATHEMATICS

| Time  | Presenter                  | Paper ID | Title   |
|-------|----------------------------|----------|---|
| 14:00 | Dr. Hafizah Bahaludin      | A041     | Analyzing Malaysian Technology Sector during COVID-19: A Minimum Spanning Tree Approach   |
| 14:15 | Mrs. Nur Syahidah Nordin   | A036     | The Mathematical Model of Reiner-Philippoff Embedded with $Al_2O_3$ and Cu Particles over a Shrinking Sheet with Mixed Convection and Mass Flux Effect            |
| 14:30 | Dr. Nurul Anis Abdul Satar | A024     | Performance of Linear and Stochastic Cell-Growth Model of Ductal Carcinoma In Situ (DCIS)   |
| 14:45 | Mr. Graygorry Brayone Ekal | A032     | Numerical Solution of the Porous Medium Equation with Source Terms using the Four-Point Newton-EGKSOR Iterative Method Combined with Wave Variable Transformation |
| 15:00 | Mr. Jethro Cullen Sia      | A010     | Validity of Asset Pricing Models in the Philippine Stock Exchange   |
| 15:15 | Dr. Siti Aisyah Tumiran    | A034     | Community Detection using Modularity Optimization Method for Catchment Classification   |

**THURSDAY, AUGUST 24**

### Excursion

**Free and easy activities**

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