



**THE 8TH INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN MATERIALS,
MINERALS & ENVIRONMENT (RAMM) 2024
27 & 28 November 2024
Raia Hotel Penang, Malaysia
CONFERENCE SCHEDULE**

| TUESDAY 26 NOVEMBER 2024 | |
|-------------------------------------|---------------------------------------------|
| TIME | PROGRAMME |
| 8.00 PM – 10.00 PM | Registration Venue: Dewan Mutiara |

| CONFERENCE DAY 1 WEDNESDAY 27 NOVEMBER 2024 | |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TIME | PROGRAMME |
| 8.00 AM – 8.45 AM | Registration Venue: Dewan Mutiara |
| 8.45 AM – 8.55 AM | Welcoming remarks by Prof. Ir. Dr. Mariatti Jaafar Dean, School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia Chairperson: Dr. Mohamad Danial Shafiq Venue: Dewan Mutiara |
| 8.55 AM – 9.05 AM | Soft Launching Ceremony of the Journal of Minerals and Materials Engineering (JMME) by Prof. Ir. Dr. Mariatti Jaafar Dean, School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia Venue: Dewan Mutiara |
| 9.05 AM – 9.50 AM | Plenary Session I Title: Exploring Graphene/Oxide Junctions & Their Photocatalytic Applications in Energy and Environment Remediation. Prof. Zainovia Lockman Director Research Creativity & Management Office (RCMO) Division of Research & Innovation, Universiti Sains Malaysia Chairperson: Assoc. Prof. Ir. Dr. Nurulakmal Mohd Sharif Venue: Dewan Mutiara |
| 9.50 AM – 10.20 AM | Keynote Session I Title: The Cutting-Edge of Analytical Methods and Monitoring of Macro and Microplastics in the Asia Pacific Region. Prof Yutaka Kameda Department of Environment and Civil Engineering, Chiba Institute of Technology Narashino, Japan |

| | | | | |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------|
| | Chairperson: Assoc. Prof. Ir. Dr. Nurulakmal Mohd Sharif Venue: Dewan Mutiara | | | |
| 10.20 AM – 10.45 AM | PHOTO SESSION & BREAK | | | |
| | SESSION 1 [Sustainable / Advanced Materials] Chairperson: Ts. Dr. Muhamed Abdul Fatah Muhamed Mukhtar Venue: Dewan Mutiara A | | SESSION 2 [Innovation in Polymer] Chairperson: Ts. Dr. Muhamad Sharan Musa Venue: Dewan Mutiara B | |
| | Time | Presenter | Time | Presenter |
| | RAMM2024-0007 | RAMM2024-0006 | | |
| 10.45 AM – 11.00 AM | Flexural Strength Prediction of Zirconia Toughened Alumina (ZTA) Composite Material Based on The Artificial Neural Network (ANN) (Zhwan Sktani) | Impact of hyperbranched polyester polyol and coupling agents on the tensile properties of SiO ₂ -filled epoxy composite (William Yung Ling Lim) | 10.45 AM – 11.00 AM | |
| 11.00 AM – 11.15 AM | RAMM2024-0026 Fabrication of Cu-Al-Ni Shape Memory Alloys via Powder Injection Moulding (Kambiz Rashidi) | RAMM2024-0054 Core-shell poly(n-butyl acrylate)-poly(n-butyl acrylate-co-methyl methacrylate) nanoparticles synthesized via seeded emulsion polymerization for coating applications (Lalietha Kannesan) | 11.00 AM – 11.15 AM | |
| 11.15 AM – 11.30 AM | RAMM2024-0028 Effect of Cetyl Trimethyl Ammonium Bromide on the Protection of Galvanized Surfaces from Corrosion in Sodium Chloride Solution (Mohd Nazri Idris) | RAMM2024-0063 Utilization of Acrylic Acid-Grafted Ground Tire Rubber to Improve the Mechanical Properties of Filled Self-Healing Rubber Composites (Mimi Syahira Masraff) | 11.15 AM – 11.30 AM | |
| 11.30 AM – 11.45 AM | RAMM2024-0064 Synthesis and Utilization of Composite Beads of Bentonite-Alginate as Adsorbent of Manganese Metal Ions (Norinsafrina Mustaffa Kamal) | RAMM2024-0066 Optimization and Analysis of Polyisobutylene Succinimide Dispersant for Carbon Stabilization in Engine Oil (Amir Muhd) | 11.30 AM – 11.45 AM | |
| 11.45 AM – 12.00 PM | RAMM2024-0043 Structural Integrity Analysis of Cracked Weldolets in a Primary Steam Reformer (Abdul Rahim Othman) | RAMM2024-0015 Thermoplastic-polyolefin-reinforced composites: γ -radiation effectiveness on thermo-mechanical properties (Mohammad Zahirul Islam) | 11.45 AM – 12.00 PM | |
| 12.00 PM – 12.15 PM | RAMM2024-0076 Green Synthesized Silver Coated-Natural Rubber Film: Surface Characterization and Antibacterial Efficiency. (Nabil Hayeemasae) | RAMM2024-0060 Poly(n-butyl acrylate-co-methyl methacrylate)/Silica Nanocomposites for Soundproofing Coatings (Siti Nur Aishah Adnan) | 12.00 PM – 12.15 PM | |
| 12.15 PM – 12.30 PM | RAMM2024-0045 Fitness-for-Service Analysis of Localized Dent at Hot Combined Feed Exchanger (Alzakri Ekhwan) | | 12.15 PM – 12.30 PM | |
| 12.30 PM – 2.15 PM | LUNCH BREAK | | | |

| | | | | |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.15 PM – 2.30 PM | Industry Session I Dr. Ahmad Kamil Fakhruddin Senior Product Specialist, Atomic Solution Sdn. Bhd. Chairperson: Assoc. Prof. Ir. Dr. Nurulakmal Mohd Sharif Venue: Dewan Mutiara | | | |
| 2.30 PM – 4.15 PM | SESSION 3 [Plastic recycling and degradation of plastic] (AUN/SEED-Net Consortium) Chairperson: Prof. Ir. Dr. Mariatti Jaafar Venue: Dewan Mutiara A | | SESSION 4 [Sustainable Mining & Mineral Processing] Chairperson: Ts. Dr. Ku Esyra Hani Ku Ishak Venue: Dewan Mutiara B | |
| | Time | Presenter | Time | Presenter |
| | 2.30 PM – 2.45 PM | RAMM2024-0039 Isolation and properties of cellulose nanocrystals derived from ramie fibers via hydrochloric acid hydrolysis (Prof. Kusmono) | 2.30 PM – 2.45 PM | Invited Session I Sustainable Mining in Malaysia: Innovations and Challenges in Building a Low-Carbon Future (Salehuddin Mohamad) |
| | 2.45 PM – 3.00 PM | RAMM2024-0057 Plant fiber-based sustainable composite materials: A need of the hour. (Prof. Inderdeep Singh) | 2.45 PM – 3.00 PM | RAMM2024-0005 Compressive Strength Analysis of Mining Roads Using Fly Ash & Bottom Ash as Pavement Material Mixtures at Bara Energi Lestari Ltd., Indonesia (Ir. Pocut Nurul Alam) |
| | 3.00 PM – 3.15 PM | RAMM2024-0009 Effect of Types of PVC Waste and Wood Short Fibers Loading on Mechanical Properties of Recycled PVC Composites (Izz Riyadh) | 3.00 PM – 3.15 PM | RAMM2024-0011 Geotechnical properties of Laterite-Bentonite Mixture at Extended Compaction Energy (Ros Nadiah Rosli) |
| | 3.15 PM – 3.30 PM | RAMM2024-0048 Mechanical & Thermal Properties of Flexible Poly (1, 4 butylene terephthalate) (PBAT) / Poly(3-Hydroxybutyrate-co-3-Hydroxyvalerate) (PHBV) blend for 3D-Printing Applications (Assoc. Prof. Dr. Zuratul Ain Abdul Hamid) | 3.15 PM – 3.30 PM | RAMM2024-0022 Impact Assessment of Blasting Dust and Air Overpressure from a Quarry Mining Blasting (Dr. Syamsul Hidayat) |
| | 3.30 PM – 3.45 PM | RAMM2024-0041 Preliminary study on the interaction between degraded polypropylene microplastics in a simulated seawater environment (Dr. Mohamad Danial Shafiq) | 3.30 PM – 3.45 PM | RAMM2024-0004 Integrated Use of FABA and Phytoremediation for Effective Acid Mine Drainage Neutralization on Mine Haul Roads: A Preliminary Study (Izzan Nur Aslam) |
| | 3.45 PM – 4.00 PM | RAMM2024-0052 Effect on vinyl acetate content and Graphene Nanoplatelet on Shape Memory and Properties of Poly (Lactic Acid) (PLA)/Ethylene Vinyl Acetate (EVA) Blends (Dr. Arjulizan Rusli) | 3.45 PM – 4.00 PM | RAMM2024-0068 Comparison study of bearing capacity from floordeck and multipleks as structural formwork (Hafiz Hamdani) |

| | | | | |
|-------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | 4.00 PM – 4.15 PM | RAMM2024-0053 Exploring the Willingness of Malaysians and Indonesians Toward Recycling and Sustainable Waste Management (Siti Rahyla Rahmat) | 4.00 PM – 4.15 PM | RAMM2024-0071 Evaluating the Use of Granite Waste in Eco-Friendly Cement Production: Insights into Mineralogical Properties (Mohammadnabi Kianpour) |
| 4.15 PM – 5.45 PM | TEA BREAK | | | |
| | POSTER SESSION (JUDGING) Venue: Dewan Mutiara | | | |
| 5.45 PM | END OF DAY 1 | | | |
| 8.00 PM | GALA DINNER Venue: Dewan Mutiara | | | |

| CONFERENCE DAY 2 THURSDAY 28 NOVEMBER 2024 | | | | |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| TIME | PROGRAMME | | | |
| 8.45 AM – 9.30 AM | Plenary Session II Title: Advanced Materials for Sustainable Solutions in Oil & Gas Industry Dr Muzdalifah Zakaria Materials, Corrosion & Inspection (MCI), Group Technical Solutions (GTS), Project Delivery & Techology (PD&T), PETRONAS Chairperson: Assoc. Prof. Dr. Raa Khimi Shuib Venue: Dewan Mutiara | | | |
| 9.30 AM – 10.00 AM | Keynote Session II Title: The Perception of Eco-Green-Safe Materials and Minerals-based Industries Prof. Dr. Samir Afifi International Relation – Project Coordinator Environmental Engineering, Faculty of Engineering, Sakarya University, Turkiye. Chairperson: Assoc. Prof. Dr. Raa Khimi Shuib Venue: Dewan Mutiara | | | |
| 10.00 AM – 10.20 AM | Industry Session II Ms. Seow Siew Siew R&D Application Head, Hi-Tech Instruments Sdn. Bhd. Chairperson: Assoc. Prof. Dr. Raa Khimi Shuib Venue: Dewan Mutiara | | | |
| 10.20 AM – 10.45 AM | BREAK | | | |
| 10.45 AM – 12.30 PM | SESSION 5 [Environment & Sustainable Materials] Chairperson: Ir. Dr. Mohamad Riduwan Ramli Venue: Dewan Mutiara A | | SESSION 6 [Recycling Waste & Sustainable Materials] Chairperson: Dr. Suhaina Ismail Venue: Dewan Mutiara B | |
| | Time | Presenter | Time | Presenter |
| | 10.45 AM – 11.00 AM | Invited Session II Distribution of Macro and Microplastics in Environmental Waters in the Asia-Pacific Region: A Case Study from the Philippines (Emiko Fujita) | 10.45 AM – 11.00 AM | Invited Session III Coke to Graphene Technology: Transforming Waste into Sustainable Material (Dr. Norariza Ahmad) |

| | | | | |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | 11.00 AM – 11.15 AM | RAMM2024-0024 Effects of Drying Temperature on Resistive Switching Characteristics of Natural Rubber-based Memory Device (Prof. Ir. Dr. Cheong Kuan Yew) | 11.00 AM – 11.15 AM | RAMM2024-0035 Enhancement of Mechanical Properties in Waste Polypropylene Bumper Reinforced with Bio-derived Rice Husk Nanosilica (Assoc. Prof. Ts. Dr. Huei Ruey Ong) |
| | 11.15 AM – 11.30 AM | RAMM2024-0058 Influence of Hole Making Techniques on Open-Hole Tensile Behaviour of Sustainable Composite Laminates (Binaz Varikkadinmel) | 11.15 AM – 11.30 AM | RAMM2024-0074 Thermal Properties and Flammability of Self-healing Natural Rubber based on Acid Treated Halloysite Nanotubes (Abdul Rehman) |
| | 11.30 AM – 11.45 AM | RAMM2024-0051 Evaluation of Graphene Growth on Different Cathode Materials and Configurations (Aimi Syairah Safaruddin) | 11.30 AM – 11.45 AM | RAMM2024-0046 Fracture Toughness of Austenitic Stainless-Steel subjected to Polythionic Acid Stress Corrosion Cracking (PTASCC) (Abdul Rahim Othman) |
| | 11.45 AM – 12.00 PM | RAMM2024-0038 Effect of Carbon Black and Hollow Phenolic Microspheres on the Mechanical and Fire Properties of Inorganic Water Glass-Based Intumescent Coatings (Dr. Aslina Anjang Ab Rahman) | 11.45 AM – 12.00 PM | RAMM2024-0059 Enhancing the Efficiency of Plastic Injection Molding Parameters to Minimize Warpage and Shrinkage in Plastic Parts (Ts. Dr. Muhamed Abdul Fatah Muhamed Mukhtar) |
| | 12.00 PM – 12.15 PM | RAMM2024-0075 Corrosion Behaviour of Stainless Steel and Aluminium in Hydrogen Chloride-Containing Environments. (Ahmad Zaki Abas) | 12.00 PM – 12.15 PM | RAMM2024-0061 Effect of Sintering Process on the Decomposition of Calcium Compounds in Graphene Materials for Purification Purposes (Nurul Athirah Ismail) |
| | 12.15 PM – 12.30 PM | RAMM2024-0062 Impact of Graphene Loading and Mixing Process to the Performance of Graphene-based Additive in Composite Overwrapped Tubular Structures (Zulkifli Ahamid) | 12.15 PM – 12.30 PM | RAMM2024-0042 Silicide Coatings for Future Surface Protection of High-Temperature Alloys – A Short Review (Syamimi Abu Kassim) |
| 12.30 PM – 2.15 PM | LUNCH BREAK | | | |
| 2.15 PM – 3.45 PM | SESSION 7 [Sustainable / Advanced Materials] Chairperson: Dr. Syazana Ahmad Zubir Venue: Dewan Mutiara A | | SESSION 8 [Sustainable Mining & Mineral Processing] Chairperson: Dr. Muhammad Irman Khalif Ahmad Aminuddin Venue: Dewan Mutiara B | |
| | Time | Presenter | Time | Presenter |
| | 2.15 PM – 2.30 PM | RAMM2024-0010 The Effect of Nitinol Additive to the Hardness and Fracture Toughness of the ZTA Ceramic Cutting Tool (Raqibah Najwa Mudzaffar) | 2.15 PM – 2.30 PM | RAMM2024-0003 Enrichment of Cassiterite (SnO ₂) by Extracting Siderite (FeCO ₃) from Primary Tin Ore via Dry and Wet Magnetic Separation Methods (Ts. Costantine Joannes) |

| | | | | |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | 2.30 PM – 2.45 PM | RAMM2024-0047 Dependency of filler loading on the epoxy underfill performance for electronic packaging application (Ir. Dr. Mohamad Riduwan Ramli) | 2.30 PM – 2.45 PM | RAMM2024-0025 Identification of subsurface using One-dimensional Resistivity Method in Jatimulyo Village, Kulonprogo, Yogyakarta (Melinda Dwi Erintina) |
| | 2.45 PM – 3.00 PM | RAMM2024-0020 Fabrication of bimodal stainless steel 316L/zirconia bi-materials via two-component micro-powder injection moulding process. (Dr. Al Basir) | 2.45 PM – 3.00 PM | RAMM2024-0073 Evaluation of the physical properties of granite rock from selected area for dimension stone application (Dr. Zakaria Endut) |
| 3.00 PM – 3.30 PM | CLOSING CEREMONY Prof. Ir. Dr. Mariatti Jaafar Dean, School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia Chairperson: Dr. Mohamad Danial Shafiq Venue: Dewan Mutiara | | | |