

Programme Schedule

05 July 2021 (Monday)

| Time (MYT) | Event |
|------------|---|
| 09:30 | Welcoming remarks by MYTRIBOS President |
| 09:45 | Opening remarks by MITC202ONE Chairman |
| 10:00 | MITC202ONE montage |
| 10:15 | Parallel session A (Oral 1, Oral 2, Oral 3) |
| 12:30 | Break |
| 14:30 | Keynote speech : Prof. Dr. W Mark Rainforth |
| 15:00 | Keynote speech : Prof. Dr.-Ing. Carsten Gachot |
| 15:45 | Parallel session B (Oral 4, Oral 5, Oral 6, Oral 7) |
| 17:30 | End of day 1 |

06 July 2021 (Tuesday)

| Time (MYT) | Event |
|------------|--|
| 09:00 | Keynote speech : Prof. Dr. Koshi Adachi |
| 09:30 | Keynote speech : Prof. Dr. Hyung-Kyu Kim |
| 10:15 | Parallel session C (Oral 8, Oral 9, Oral 10) |
| 12:30 | Closing remarks by MITC202ONE Chairman |
| 13:00 | End of conference |

Leading Host / Chairperson: Mohd Fadzli Bin Abdollah (Universiti Teknikal Malaysia Melaka)

| Parallel session | Theme | Host / Chairperson | Date / Time (MYT) |
|------------------|--------------------------|---|---------------------------------------|
| Oral 01 | Lubrication 01 | Mohamad Ali Ahmad (Universiti Teknologi MARA) | 05 July 2021 (Mon) / 10:15 - 12:15 |
| Oral 02 | Dry Friction and Wear 01 | Mimi Azlina Abu Bakar (Universiti Teknologi MARA) | 05 July 2021 (Mon) / 10:15 - 12:15 |
| Oral 03 | Surface Engineering 01 | Fazira Suriani Mohamed Fadzil (Sirim Berhad) | 05 July 2021 (Mon) / 10:15 - 12:15 |
| Oral 04 | Dry Friction and Wear 02 | Nik Roselina Nik Roseley (Universiti Teknologi MARA) | 05 July 2021 (Mon) / 15:45 - 17:30 |
| Oral 05 | Surface Engineering 02 | Mariyam Jameelah Ghazali (Universiti Kebangsaan Malaysia) | 05 July 2021 (Mon) / 15:45 - 17:30 |
| Oral 06 | Lubrication 02 | Nurin Wahidah Mohd Zulkifli (Universiti Malaya) | 05 July 2021 (Mon) / 15:45 - 17:30 |
| Oral 07 | Lubrication 03 | Hilmi Amiruddin (Universiti Teknikal Malaysia Melaka) | 05 July 2021 (Mon) / 15:45 - 17:30 |
| Oral 08 | Surface Engineering 03 | Shahira Liza Kamis (Universiti Teknologi Malaysia) | 06 July 2021 (Tue) / 10:15 - 12:15 |
| Oral 09 | Lubrication 04 | Mohd Hafis Sulaiman (Universiti Islam Antarabangsa Malaysia) | 06 July 2021 (Tue) / 10:15 - 12:15 |
| Oral 10 | Lubrication 05 | Jaharah A. Ghani (Universiti Kebangsaan Malaysia) | 06 July 2021 (Tue) / 10:15 - 12:15 |

| Keynote session | Keynote Speaker | Host / Chairperson | Date / Time (MYT) |
|-----------------|-------------------------------|---|---------------------------------------|
| Keynote 01 | Prof. Dr. W Mark Rainforth | Salmiah Kasolang (Universiti Teknologi MARA) | 05 July 2021 (Mon) / 14:30 - 15:00 |
| Keynote 02 | Prof. Dr.-Ing. Carsten Gachot | Syahrullail Samion (Universiti Teknologi Malaysia) | 05 July 2021 (Mon) / 15:00 - 15:30 |
| Keynote 03 | Prof. Dr. Koshi Adachi | Mohd Fadzli Bin Abdollah (Universiti Teknikal Malaysia Melaka) | 06 July 2021 (Tue) / 09:00 - 09:30 |
| Keynote 04 | Prof. Dr. Hyung-Kyu Kim | Tee Boon Tuan (Universiti Teknikal Malaysia Melaka) | 06 July 2021 (Tue) / 09:30 - 10:00 |

Oral 01

Lubrication 01

Date/Day: 05 July 2021 (Monday)

Chairperson/Host: Mohamad Ali Ahmad (Universiti Teknologi MARA)

| Time (MYT) | ID | Presenter | Affiliation | Title |
|------------|-----|--------------------------|---|--|
| 10:15 | 17 | T V V L N Rao | Madanapalle Institute of Technology & Science | Analysis of Slider and Journal Bearing with Partial Slip Texture Geometries Using Gauss Quadrature Method |
| 10:30 | 20 | William Chong | Universiti Teknologi Malaysia | Simulating Thermo-Hydrodynamic Lubrication of Turbocharger Journal Bearing |
| 10:45 | 77 | Chin-Chung Wei | National Formosa University | The Study of Transmission Performances of a Vertical Translation Ball-Screw Under Different Grease Injecting Conditions |
| 11:00 | 116 | Sung Ho Hong | Dongguk University -Gyeongju | CFD Analysis of Trap Effect of Grooves in Sliding Bearing |
| 11:15 | 124 | Kei Somaya | Daido University | Experimental Investigation of the High-Speed Instability of Aerodynamic Foil Journal Bearings Supported by Straight Spring Beams |
| 11:30 | 129 | Mohammad Tauviquirrahman | Diponegoro University | Thermohydrodynamic Analysis of a Hydrophobic Rayleigh Step Bearing Considering Cavitation: Effect of Hydrophobic Coating Arrangement |
| 11:45 | 185 | Rajesh P | BMS college of Engineering | Comparison of Leakage Flow Performance Analysis of Newly Designed Finger Seal with Radial Wedge |
| 12:00 | 188 | Sharana Basavaraja J | BMS college of Engineering | Experimental Analysis for Leakage Flow in a Newly Designed Finger Seal with Axial Wedge |

Oral 02

Dry Friction and Wear 01

Date/Day: 05 July 2021 (Monday)

Chairperson/Host: Mimi Azlina Abu Bakar (Universiti Teknologi MARA)

| Time (MYT) | ID | Presenter | Affiliation | Title |
|------------|-----|--------------------------------|---|--|
| 10:15 | 3 | Ahmad Kifli Che Aziz | Universiti Teknologi Malaysia | Friction Properties of Epoxidised Natural Rubber Based Tyre Treads |
| 10:30 | 22 | Anis Sfuza Azhar | Universiti Teknikal Malaysia Melaka | Effect of Magnesia on the Wear Performance of Zirconia Toughened Alumina Cutting Tools |
| 10:45 | 28 | Jeng-Haur Horng | National Formosa University | Effect of Three-Body Dry Contact on Surface asperity and Particle Contact Temperature |
| 11:00 | 38 | Tomoharu Akagaki | National Institute of Technology, Hachinohe College | Tribological Properties of a Medical Mouthguard Material in Reciprocating Rotation Sliding |
| 11:15 | 47 | Ahmad Afiq Pauzi | TNB Research Sdn Bhd | Wear Debris Analyses of Nimonic 263 Under High Temperature Fretting Condition |
| 11:30 | 71 | Kanae Hirao | The University of Electro-Communications | Moire Pattern Reflects Contact Area at Nanofrictional Graphene/Graphite interface |
| 11:45 | 84 | Maisarah Kursus @ Othman | Universiti Teknikal Malaysia Melaka | Characteristic of Quarry Dust Suspension as Coolant for Machining |
| 12:00 | 217 | Siti Norbahiyah Mohamad Badari | Universiti Islam Antarabangsa Malaysia | Effects of Hybridization and Stacking Configuration on Tribological Properties of Kenaf/Carbon Composite |

Oral 03

Surface Engineering 01

Date/Day: 05 July 2021 (Monday)

Chairperson/Host: Fazira Suriani Mohamed Fadzil (Sirim Berhad)

| Time (MYT) | ID | Presenter | Affiliation | Title |
|------------|-----|------------------------------|----------------------------------|--|
| 10:15 | 11 | Salmi Mohd Yunus @ Abd Wahid | TNB Research Sdn Bhd | Water Droplet Erosion and Solid Particle Erosion on Uncoated Gas Turbine Compressor Blades |
| 10:30 | 83 | Mohd Kamel Wan Ibrahim | Universiti Malaysia Sabah | Contact Measurement of Loaded Rubber Seal |
| 10:45 | 179 | Noor Syahadah Yussoff | Universiti Teknologi MARA | Corrosion and Wear Resistance Behaviour of Co-Ni-Fe Coating |
| 11:00 | 206 | Salmi Mohd Yunus @ Abd Wahid | TNB Research Sdn Bhd | The Effects of Solid Particles to the Compressor Blade and Turbine Blade of Industrial Gas Turbine |
| 11:15 | 211 | Nor Ashwani Bt Abd Rahim | Universiti Teknologi Malaysia | Tribological Characterization of Bio-inspired Textured Carbon Steel by Photochemical Texturing |
| 11:30 | 218 | Ai Nurhayati | Sekolah Tinggi Teknologi Bandung | Biomimetic Comparison of Animals and Plants |
| 11:45 | 221 | Mohd Kameil Abdul Hamid | Universiti Teknologi Malaysia | The Effect of Circle Dimple Surface Texture on Tribology Performance Under Lubricated Line Contact Condition |
| 12:00 | 227 | Wan Afiqah Adlina | Universiti Teknologi MARA | Skin Characteristics Analysis Using 3D Skin Analyzer: Pores & Sebum |

Oral 04

Dry Friction and Wear 02

Date/Day: 05 July 2021 (Monday)

Chairperson/Host: Nik Roselina Nik Roseley (Universiti Teknologi MARA)

| Time (MYT) | ID | Presenter | Affiliation | Title |
|------------|-----|----------------------------|--|---|
| 15:45 | 91 | Razali Samin | Universiti Putra Malaysia | Engine Break-in Running Hours on the Characteristics and Wear Rate of the Cylinder Bore |
| 16:00 | 119 | Mohd Fairuz Mohd Rashid | Universiti Teknikal Malaysia Melaka | Analysis of Mechanical Properties and Wear Performance of 22MNB5 Boron Steel in Tribology and Machining Trials |
| 16:15 | 120 | Virgil Florescu | Technical University of Civil Engineering of Bucharest | Finishing Mode of the Taper of the Femoral Stem Trunnion and Its Influence on the Fretting Wear of the Taper Junction with the Femoral Head of the Total Hip Prostheses |
| 16:30 | 127 | Tuty Asma Abu Bakar | Universiti Teknologi Malaysia | Effect of Load and Velocity on Dry Sliding Wear Behavior of Al-15%Mg2Si-5%B4C Hybrid Metal Matrix Composite |
| 16:45 | 143 | Nur Amanina Damira Muhalim | Universiti Teknologi Malaysia | Tribological Characterization of Treated Oil Palm Empty Fruit Bunch Fiber Reinforced Polyoxymethylene Composite Material for Bearing Application |
| 17:00 | 146 | Shih-Chen Shi | National Cheng Kung University | Improvement of Hydrophobicity and Macro-Scale Tribological Performance of Cellulose Composite Films with Stearic Acid |
| 17:15 | 192 | Yoshinori Sawae | Kyushu University | Tribological Characteristics of PTFE Composites with Different Types of Carbon Fibre in Hydrogen |

Oral 05

Surface Engineering 02

Date/Day: 05 July 2021 (Monday)

Chairperson/Host: Mariyam Jameelah Ghazali (Universiti Kebangsaan Malaysia)

| Time (MYT) | ID | Presenter | Affiliation | Title |
|------------|-----|-------------------|--|---|
| 15:45 | 49 | Yusliza Yusuf | Universiti Teknikal Malaysia Melaka | Effect of Surface Texturing on the Microstructure and Wettability Properties of Plasma Sprayed TiO ₂ Coating |
| 16:00 | 89 | Halina Misran | Universiti Tenaga National | Nanohardness Properties of MOF-199 Synthesized Using Facile Method as Bulk Adsorbents and Screen-Printed Thin-Film |
| 16:15 | 105 | Kenji Yanagisawa | National Institute of Technology, Nagano College | Basic Evaluation for Sliding Behavior of Silicone Sheet with Surface Topography Using Equation of Motion |
| 16:30 | 155 | Liguo Qin | Xi'an Jiaotong university | Bioinspired Surface for Cell Overlay and the Tribological Performances |
| 16:45 | 170 | Iasonas Zekos | University of Strathclyde | Erosion-Corrosion Performance of Pipeline Materials in CO ₂ Rich Aqueous Environments |
| 17:00 | 176 | Frantisek Lofaj | Institute of Materials Research of SAS | The Effect of Humidity on Friction Behavior of Hydrogenated Hipims W-C:H Coatings |
| 17:15 | 191 | Magdalena Lepicka | Bialystok University of Technology | Recurrence Quantification Analysis (RQA) and Principal Component Analysis (PCA) as the Tools for Identification of Wear Phenomena that Occur in Surface-Coated Tribosystems |

Oral 06

Lubrication 02

Date/Day: 05 July 2021 (Monday)

Chairperson/Host: Nurin Wahidah Mohd Zulkifli (Universiti Malaya)

| Time (MYT) | ID | Presenter | Affiliation | Title |
|------------|-----|-------------------------------|-------------------------------------|--|
| 15:45 | 4 | Nurul Farhanah Azman | Universiti Teknologi Malaysia | The Growth of Tribofilm Formation Mechanism of MoS ₂ Nanolubricant in Boundary Lubrication Regime |
| 16:00 | 51 | Izatul Hamimi Abdul Razak | Universiti Teknologi MARA | The Tribological Effect of Antiwear Additives on Palm Oil Biogrease |
| 16:15 | 69 | Kazuma Aono | Nagoya University | Development of a Low-Friction Lubrication Method Using Dielectric Migrated High Viscos-Oil-Droplet in Low Viscos-Lubricant |
| 16:30 | 88 | Naoya Hashizume | Nagoya University | Clarification of the Effect of Tribofilm Derived from MODTC Additives in PAO4 Lubricant on Low Friction By In-Situ Reflectance Observation |
| 16:45 | 169 | Zuraidah Rasep | Universiti Teknologi Malaysia | Study of Dependency of Temperature on Kinematic Viscosity for Different Types of Oil in Journal Bearing by Using CFD |
| 17:00 | 196 | Haseeb Yaqoob | Univesiti Sains Malaysia | Friction and Wear Characteristics of Tire Pyrolysis Oil |
| 17:15 | 213 | Mohd Hafidzal Bin Mohd Hanafi | Universiti Teknikal Malaysia Melaka | The Effects of an Organic Zingiber officinale to Soot Emmisions and Time Taken for Extinguishing from Candle Combustion |

Oral 07

Lubrication 03

Date/Day: 05 July 2021 (Monday)

Chairperson/Host: Hilmi Amiruddin (Universiti Teknikal Malaysia Melaka)

| Time (MYT) | ID | Presenter | Affiliation | Title |
|------------|-----|--------------------------|--------------------------------|---|
| 15:45 | 110 | Toshiaki Wakabayashi | Kagawa University | Effects of MODTC Combined with Phosphorus-including Compounds on Tribological Properties of Various Detergents |
| 16:00 | 150 | Mustafa Yilmaz | Gear Research Centre | Gear and Bearing Losses Under Minimum Quantity Lubrication |
| 16:15 | 184 | Hiroshi Nishikawa | Kyushu Institute of Technology | Sliding Behaviour of Entrapped Grease Film |
| 16:30 | 189 | M. Jamshaid | Universiti Malaya | Effect of Graphene-Oxide Nano-Particles as Fuel Additives on Tribological Properties of Cottonseed Oil Methyl Ester |
| 16:45 | 201 | Damien Khoo | Bruker Malaysia Sdn Bhd | An Overview of Tribological Components and Lubrications in Electric Vehicle industry for Sustainable Development |
| 17:00 | 205 | Anthony Chukwunonso Opia | Universiti Teknologi Malaysia | Effect of Material Surface Texture on the Tribological Performance of Organic Nanoparticles as Lubricant Additive on a Sliding Conditions |
| 17:15 | 207 | Haizum Aimi Zaharin | Universiti Kebangsaan Malaysia | Tribological Performance of Hybrid Ti3C2/Graphene Additive on Outboard Engine Oil |

Oral 08

Surface Engineering 03

Date/Day: 06 July 2021 (Tuesday)

Chairperson/Host: Shahira Liza Kamis (Universiti Teknologi Malaysia)

| Time (MYT) | ID | Presenter | Affiliation | Title |
|------------|-----|---------------------------------------|---|---|
| 10:15 | 26 | Yoshitaka Nakanishi | Kumamoto University | Micro-Abrasive Surface for Producing Microplastics for Testing |
| 10:30 | 42 | Noritsugu Umehara | Nagoya University | Effect of Hard Carbonaceous Coatings on Friction and Wear Properties for Aluminium Alloy Slide Bearings |
| 10:45 | 50 | Yuuki Tokuta | Tokyo Metropolitan Industrial Technology Research Institute | The Investigation About Formation Mechanism of Tribofilm Induces Super-Lubricity of DLC Films Sliding Against ZrO ₂ in Vaporized Ethanol Environment |
| 11:00 | 111 | Muhamad Ammar Farhan Maula Mohd. Azam | Universiti Teknikal Malaysia Melaka | Improved Tribological Properties Using Malaysian Quarry Dust as Reinforcement in Nickel Composite Coating |
| 11:15 | 112 | Intan Sharhida Othman | Universiti Teknikal Malaysia Melaka | Wear Scar Characteristics of Malaysian Fly Ash Reinforced Nickel Matrix Composite Coating |
| 11:30 | 197 | Shahira Liza Kamis | Universiti Teknologi Malaysia | Dry Sliding Tribological Properties of Composite Oxide Coating |
| 11:45 | 214 | Koay Mei Hyie | Universiti Teknologi MARA | Effect of Activator Pre-Treatment to the Cobalt Alloys Coating Performance |
| 12:00 | 215 | Koay Mei Hyie | Universiti Teknologi MARA | Compatibility Study on Cobalt Alloys Coating Due to Different Current Distribution in Electroplating |

Oral 09

Lubrication 04

Date/Day: 06 July 2021 (Tuesday)

Chairperson/Host: Mohd Hafis Sulaiman (Universiti Islam Antarabangsa Malaysia)

| Time (MYT) | ID | Presenter | Affiliation | Title |
|------------|-----|--------------------------|--|---|
| 10:15 | 21 | Chiew Tin Lee | Universiti Teknologi Malaysia | Nano-Frictional investigation on Boundary Lubricity of Trimethylolpropane Oleate (TMPE-O) |
| 10:30 | 23 | Mustabshirha Gul | Universiti Malaya | Comparison of Tribological Characteristics of TMP Based Cotton-Biolubricant and Commercial Lubricant for Cylinder Liner-Piston Ring Combination |
| 10:45 | 61 | Ahmad Aliff Syakir Azman | Universiti Kebangsaan Malaysia | A Review on Coating and Finite Element Analysis for Optimization Gas Turbine |
| 11:00 | 141 | Aiman Yahaya | Universiti Teknologi Malaysia | Tribological Performance of Palm Olein with Additive Using Linear Reciprocating Tribotester |
| 11:15 | 219 | Ibrahim Sadiq | Universiti Teknologi Malaysia | Improving Thermal and Tribological Properties of Enhanced Biolubricant with Graphene and Maghemite Nano-Additives |
| 11:30 | 224 | Nona Merry Merpati Mitan | Universitas Pertamina | Palm Kernel Oil Based Lubricant: The Role of Fe Modified on Y-Zeolite During Synthesis |
| 11:45 | 225 | Nona Merry Merpati Mitan | Universitas Pertamina | Performance of Bayah Natrual Zeolit in Biolubricant Synthesis of Palm Kernel Oil |
| 12:00 | 228 | Faiz Syazwan Mohamad | Universiti Islam Antarabangsa Malaysia | Numerical Analysis on Deformation Behavior of High Entropy Alloy (HEA) Under Compression Test |

Oral 10

Lubrication 05

Date/Day: 06 July 2021 (Tuesday)

Chairperson/Host: Jaharah A. Ghani (Universiti Kebangsaan Malaysia)

| Time (MYT) | ID | Presenter | Affiliation | Title |
|------------|-----|-----------------------------|--|--|
| 10:15 | 12 | Faarih Farhan Mohd Nasir | Universiti Kebangsaan Malaysia | Characteristics of Dimple Structure on Aluminium Silicon Alloy Fabricated Using Turning Machine |
| 10:30 | 54 | Aqilah Ahsana Ahmad | Universiti Kebangsaan Malaysia | Effect of Cutting Parameters on Tool Life During High-Speed Milling of AISI 4340 Under MQL Condition |
| 10:45 | 73 | Salina Budin | Universiti Teknologi MARA | The Effect of Rotational Speed in Weldability of Friction Stir Welded Copper C10200 Using Conventional Milling Machine |
| 11:00 | 87 | Ahmad Razlan Yusoff | Universiti Malaysia Pahang | Effect of Rake Angle and Feed Rate on Wear and Surface Quality in Machining Carbon Steel |
| 11:15 | 106 | Nur Husnina Najeah Husshini | Universiti Teknikal Malaysia Melaka | Current Summary of Surface Integrity When Machining Inconel 718 Under Different Cooling and Lubrication Strategies |
| 11:30 | 113 | Norfazillah Talib | Universiti Tun Hussein Onn Malaysia | Effect of Vegetable-Based Nanofluid Enriched with Nanoparticles as Metalworking Fluids During Orthogonal Cutting Process |
| 11:45 | 172 | Mohd Shahir Kasim | Universiti Teknikal Malaysia Melaka | The Accuracy Analysis of the Roundness Measurement with Rotational Datum Method Under Abrasive Waterjet Turning |
| 12:00 | 208 | Siti Fatirah Ramli | Universiti Islam Antarabangsa Malaysia | Optimization of Machining Parameters During Milling of Carbon Fibre Reinforced Plastics |