

IUM Engineering Congress 2014

SUSTAINABLE TECHNOLOGY FOR THE BETTERMENT OF HUMAN LIFE

Sunway Putra Hotel, Kuala Lumpur, Malaysia

23rd – 25th September 2014

PROGRAMME BOOK

5th International Conference on Computer and Communication Engineering 2014

3rd International Conference on Mathematical Application in Engineering 2014

2nd International Conference on Advances in Manufacturing and Materials Engineering 2014



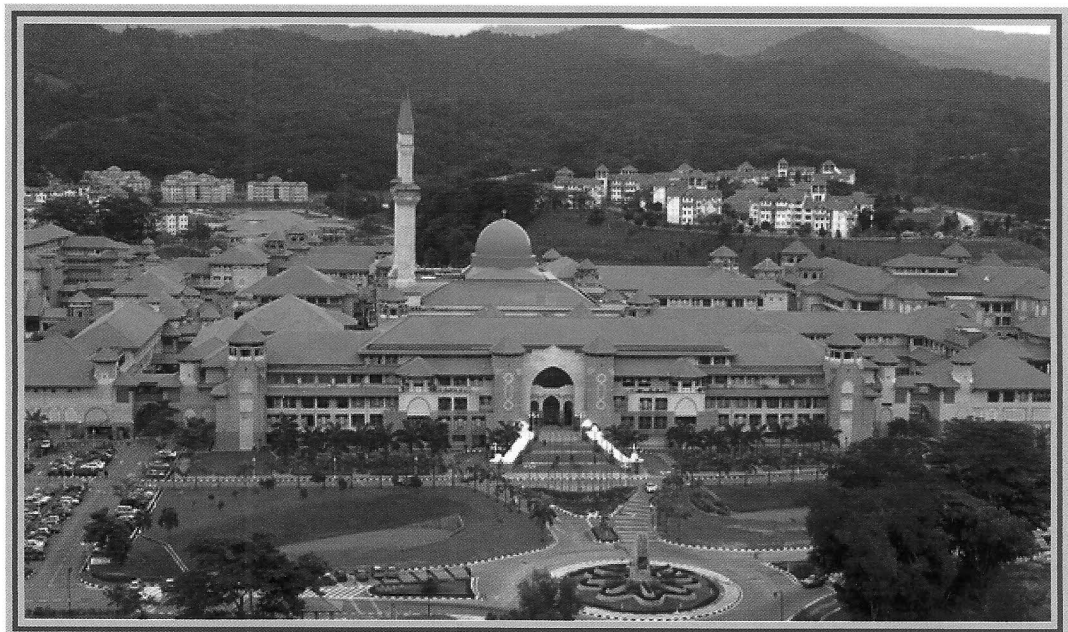
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ICAMME Keynote Sessions, Tuesday 23 September 2014: 09.00 – 10.30	
09.00 – 09.45	09.45 – 10.30
Keynote Session 1&2	
Chairperson: Prof. Dr. A.K.M. Nurul Amin Co-chair: Prof. ErryYulianTriblasAdesta Venue: Ballroom 2	
Dr. Wayne N.P. Hung Advanced Manufacturing Initiatives In the USA	Professor Dr. Rossi Setchi Sustainable Manufacturing

Parallel Technical Sessions I, Tuesday 23 September 2014: 11.00 – 13.00				
11.00 – 11.15	11.15 – 11.30	11.30 – 11.45	11.45 - 12.00	12.00 - 12.15
IA: Modelling and Simulation				
Chairperson: Prof. Dr. Rossi Setchi Co-chair: Dr. Muhammad HasibulHasan Venue: Helang				
Paper ID: 2004 Rapid Prototyping as a tool of fabricating biomodel in Medical applications: Technique and cost evaluation <i>WanYusoff, Emad El-Kashif</i> <i>Malaysia</i>	Paper ID: 2049 Design and Fabrication of a Winged Hybrid Airship Model for IUM-LSWT <i>Anwar UIHaque, NikMohamadAmri Hafiz, S. M. Kashif, WaqarAsrar, Ashraf Ali Omar, Erwin Sulaeman, J. S. Mohamed Ali</i> <i>Malaysia</i>	Paper ID: 2056 Prediction of Crack Growth Propagation of a Super Alloy through ANN Modeling <i>Muhammad H Hasan, SazibMollik, MutazHazza</i> <i>Malaysia</i>	Paper ID: 2152 Finite Element Simulation of Electro-Mechanical Impedance Technique <i>KamyarTahmasebpour, MeftahHrairi, Mohd Sultan I. S. Dawood</i> <i>Malaysia</i>	Paper ID: 2089 Simulation of low velocity impact test on carbon/epoxy composites plates <i>Ziamah B. Buang, S. M. Kashif</i> <i>Malaysia</i>
12.15 – 12.30	12.30-12.45	12.45-13.00		
Paper ID: 2095 Finite Element Modeling of Clinching Process for Joining Dissimilar Materials <i>M. Eshteyah, M. Hrairi, M. S. Dawood, A.K.M Mohiuddin</i> <i>Malaysia</i>	Paper ID: 2101 Surface Roughness prediction in High Speed end milling using Adaptive Neuro-Fuzzy Inference System <i>MuatazHazza F. Al Hazza, Amin M. F. Seder, Erry Y T. Adesta, Muhammad Taufik, Abdul Hadi Bin Idris</i> <i>Malaysia</i>	Paper ID: 2084 Stress and deformation analysis of aircraft's fuel tank under different inertia load cases in addition to a static test pressure using FEA <i>D.Ramana Reddy, M.V. Aditya Nag, M.S.N. Gupta</i> <i>India</i>		

Parallel Technical Sessions I, Tuesday 23 September 2014: 11.00 – 13.00				
11.00 – 11.15	11.15 – 11.30	11.30 – 11.45	11.45 – 12.00	12.00 – 12.15
IB: Machining				
Chairperson: Dr. Wayne N.P. Hung Co-chair: Dr. SharifahImihezri Venue: Meeting Room 3				
<p>Paper ID: 2015 Effect of lubrication conditions to the cutting force coefficients in machining process</p> <p><i>Wan MohdAzlanNowalid, Muhammad AdibShaharun and Ahmad RazlanYusoff</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2125 Hybrid Fabrication of Metallic Channel for Microfluidic Application</p> <p><i>Berestovskyi D. and Hung N.P.</i></p> <p><i>United States</i></p>	<p>Paper ID: 2126 Micromist Jet Characterization for Effective Lubrication in Machining</p> <p><i>Lerma I., Jimenez M., Edinbarough I., Krell J., and Hung N.P.</i></p> <p><i>United States</i></p>	<p>Paper ID: 2104 Comparison of Surface Roughness Attained in High Speed End Milling of Soda Lime Glass for Three Different Cutter Diameters</p> <p><i>A.K.M. Nurul Amin, A. A. Che Omar, M. A. Mohammed Kamal, Mahmoud M.A. Nassar, N. F. Mohd Zaib, Muammer D. Arif</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2105 Achievement of Ductile Regime Machining in High Speed End Milling of Soda Lime Glass by Using Tungsten Carbide Tool Insert</p> <p><i>A. K. M. Nurul Amin, A. A. Che Omar, M. A. Mohammed Kamal, Mahmoud M. A. Nassar, N. F. Mohd Zaib, M. D. Arif</i></p> <p><i>Malaysia</i></p>
12.15 – 12.30	12.30-12.45	12.45-13.00		
<p>Paper ID: 2016 Cutting Temperature Behaviours In End Milling of Pocket by Applying Contour-in Tool Path Strategy</p> <p><i>Muhammad Riza, ErryYulianTriblasAdesta, and M. YuhanSuprianto</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2024 Experimental Analysis of Cutter Engagement During High Speed End Milling of H13</p> <p><i>Mohammad Y. Suprianto, Erry Yulian T. Adesta and Muhammad Riza</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2027 Preliminary Study: The Effect Of Tool Engagement And Tool Path Strategy On Cutting Temperature</p> <p><i>R.Hamidon, Erry Y.T Adesta, Muhammad Riza</i></p> <p><i>Malaysia</i></p>		

Parallel Technical Sessions I, Tuesday 23 September 2014: 11.00 – 13.00				
11.00 – 11.15	11.15 – 11.30	11.30 – 11.45	11.45 - 12.00	12.00 - 12.15
IC: Ceramic and Glass Materials Chairperson: Dr. Shahida Begum Co-Chair: Dr. Ahmad Zahirani Venue: Ballroom 2				
Paper ID: 2093 Characterization of doped Titanium oxide varistor powder processed with latex binder <i>Shahida Begum, Ida Rasyada, Arvin Panimeerselvam</i> <i>Malaysia</i>	Paper ID: 2094 Investigation of Low Voltage Varistor using TiO₂ as Base Material and SiO₂, Bi₂O₃ and W₂O₃ as Dopants <i>Shahida Begum, Zarrin Kothadapani, Mokanaraju K. Selvaraj, Mohamed Muntasir</i> <i>Malaysia</i>	Paper ID: 2047 Synthetic Alumina using Aluminum Scrap <i>Abdul Shafiq Khan A. Najib Khan, NurEzzahFaedah Othman, Hadi Purwanto, Hafasihah Abdul Halim, Ahmad Firdaus Shamsul Baharin</i> <i>Malaysia</i>	Paper ID: 2048 Effect of Electron Beam Irradiation on the Morphology of Alumina Ceramic <i>NurEzzahFaedah Othman, Yusof Abdullah, Hadi Purwanto, Khairun Hafizah Zaini</i> <i>Malaysia</i>	Paper ID: 2062 Synthesis of Co-deposited Hexagonal Boron Nitride for thermally-Efficient Tribological Performance <i>Kamilu Adeyemi Bello, Md Abdul Maleque, Zuraida Ahmad and Mirdha S.</i> <i>Malaysia</i>
12.15 – 12.30	12.30-12.45	12.45-13.00	13:00-13:15	
Paper ID: 2120 Wear Characteristics of Multiple Particle Size Silicon Carbide Reinforced Aluminium Composite <i>Adebisi Adetayo Abdulmumin, Md Abdul Maleque, Mohammad Yeakub Ali</i> <i>Malaysia</i>	Paper ID: 2124 Effect of Calcium Carbonate Addition in Concrete <i>Maisarah Ali, Muhd Sufian Abdullah and Siti Asmahani Saad</i> <i>Malaysia</i>	Paper ID: 2133 Effect of Rice Husk Ash (RHA) on Physical and Mechanical Strength of Concrete <i>Maisarah Ali, Mohd Syafiq Fadzil and Siti Asmahani Saad</i> <i>Malaysia</i>	Paper ID: 2122 Effect of Electron Beam Radiation on Water Absorption of Hybrid Kenaf-Glass Unsaturated Polyester Composite <i>Md Abdul Maleque, Atiqah Afdzaluddin and Mahak Fazal</i> <i>Malaysia</i>	

Parallel Technical Sessions II, Tuesday 23 September 2014: 14.00 – 15.30				
14.00 – 14.15	14.15 – 14.30	14.30 – 14.45	14.45 - 15.00	15.00 - 15.15
IIA: Control and Automation				
Chairperson:Dr. IrfanHilmy Co-chair:Dr.Israd Hakim JaafarVenue: Helang				
Paper ID: 2066 Active Vehicle Suspension Control using Full State-feedback Controller <i>Musa Mohammed Bello, Amir AkraminShafieand Raisuddin Khan</i> <i>Malaysia</i>	Paper ID: 2068 Development of a Shape Memory Alloy (SMA) based assistive hand <i>Alala M. Ba Hamid, Mohatashem R. Makhdoomi, TanveerSaleh and MoinulBhuiyan</i> <i>Malaysia</i>	Paper ID: 2069 Remote Interior Temperature Control of Parked Vehicles <i>MarsadLatief, MD Azhar Ali, Abdul Mannan, MoinulBhuiyan, MD. Raisuddin Khan, and TanveerSaleh</i> <i>Malaysia</i>	Paper ID: 2114 Derivation of Stress Intensity Factor for a Cracked Plate with an Integrated Piezoelectric Actuator <i>Ahmed Abuzaid, MeftahHrairi, and Mohd Sultan Dawood</i> <i>Malaysia</i>	Paper ID: 2108 Development of an Automatic Plant Monitoring System <i>Tengku Muhammad Afif bin TengkuAzmi, and MoinulBhuiyan</i> <i>Malaysia</i>
15.15 – 15.30				
Paper ID: 2109 Two Degree Of Freedom Plotter Using Robotic Arm <i>Muhammad Muaz Bin Hanafiand MoinulBhuiyan</i> <i>Malaysia</i>				

Parallel Technical Sessions II, Tuesday 23 September 2014: 14.00 – 15.30				
14.00 – 14.15	14.15 – 14.30	14.30 – 14.45	14.45 - 15.00	15.00 - 15.15
IIB: Mechanical Engineering				
Chairperson: Prof. Dr. Mohammad NurulAlamHawlader Co-chair: Dr. RubinaBahar Venue: Meeting Room 3				
Paper ID: 2121 Weld Hardness study of P91 welded pipes with Post Weld Heat Treatment for Elevated Temperature Application in Power Plants <i>Muhammad Sarwar, Mohd Amin Bin AbdMajid</i> <i>Malaysia</i>	Paper ID: 2065 Development Of Catalytic Converter Using Low Cost Metal <i>A.K.M. Mohiuddin</i> <i>Malaysia</i>	Paper ID: 2067 Design And Development Of A Solar Based Air Conditioning Blower System For Vehicle <i>Muhammad Amirul Abdullah, Salmiah Ahmad and SitiFauziahToha</i> <i>Malaysia</i>	Paper ID: 2072 A Higher Order Theory for Cylindrical Bending of Cross Ply Laminated shell under Hygrothermal Loads <i>J.S.Mohamed Ali, SalehAlsubari and YulfianAminanda</i> <i>Malaysia</i>	Paper ID: 2077 A Triangular Double Layer Microchannel Heat Sink: Effect of Parallel and Counter Flow <i>HazliManaf, Shugata Ahmed, Mirghani I. Ahmed, MNA Hawlader</i> <i>Malaysia</i>
15.15 – 15.30	15:30-15:45	15:45-16:00		
Paper ID: 2080 Effect of Coolant Plate Geometry and Material in a Freshwater Production System: An Experimental Study <i>RubinaBahar, Mohammad NurulAlamHawlader, TasnimFirdausAriff</i> <i>Malaysia</i>	Paper ID: 2150 Design, Fabrication and Flight Testing of a Surveillance UAV <i>MoumenIdres, BurhaniMakame, Bala Nabil Ahmad, SalehNaji, Ahmad Safiuddin</i> <i>Malaysia</i>	Paper ID: 2151 Evaluation of Orifice Flow Meter Accuracy under Pulsation Conditions <i>Muhammad Abdullahand MoumenIdres</i> <i>Malaysia</i>		

Parallel Technical Sessions II, Tuesday 23 September 2014: 14.00 – 15.30				
14.00 – 14.15	14.15 – 14.30	14.30 – 14.45	14.45 – 15.00	15.00 – 15.15
IIC: Material Properties & Characterization and Green Materials Chairperson: Assoc. Prof. Dr. Md. Abdul Maleque Co-Chair: Dr. Zahurin Halim Venue: Ballroom 2				
Paper ID: 2021 Facile and Low Cost Synthesis and Characterizations of Metal-Organic Framework (MOF-199) Materials by Nonsurfactant Templating Method <i>N. Mahadi, H. Misran, S. Z. Othman, A. Manap, M. A. Salim, N. N. H. Shah, N. A. A. Razak, N. F. S. Anuar</i> Malaysia	Paper ID: 2103 Effect Copper Concentration on the optical Properties of Cu₂Zn_{0.8}Cd_{0.2}SnS₄ pentary alloy nanostructures <i>A.S. Ibraheam, Y. Al-Douri, U. Hashim</i> Malaysia	Paper ID: 2025 Effect of Tropical Climate Condition to Compressive Strength and Microstructure Properties of High Performance Fibre Reinforced Concrete (HPFRC) <i>Siti Asmahani Saad, Farah Nora Aznieta Abdul Aziz and Maisarah Ali</i> Malaysia	Paper ID: 2110 Green Polyurethane Adhesives for Wood Bonding <i>M. A. F. Amran and Ernie Suzana Ali</i> Malaysia	Paper ID: 2003 The Characterization and Properties of Rattan Waste for Binderless Particleboard Production <i>Maisarah, T., Zuraida, A., Roszalia, A. and Luqman, M.A</i> Malaysia
15.15 – 15.30	15.30-15.45			
Paper ID: 2082 Effect of Fibre Surface Treatment on the Properties of Eco-Core Sandwich Structures <i>Zahurin Halim, Zuraida Ahmad and Syarifah Nur Adilla Syed Taha</i> Malaysia	Paper ID: 2022 Mechanical Properties of Bamboo Fibre Composite Incorporating Pulverized Fuel Ash <i>Maisarah Ali, Siti Asmahani Saad, Noor Farah Elyani Khairuddin, Ammar Hamzi Sidek and Muhammad Faiz Md. Salim</i> Malaysia			

Parallel Technical Sessions III, Tuesday 23 September 2014: 16.00 - 17.30				
16.00 - 16.15	16.15 - 16.30	16.30 - 16.45	16.45 - 17.00	17.00 - 17.15
IIIA: Manufacturing and Allied Area				
Chairperson: Prof. Ir. Dr. Md. Yusof Ismail Co-chair: Dr. Abdul Malek Abdul Hamid Venue: Meeting Room 3				
Paper ID: 2006 Fundamental Study of Diesel Engine Performance by Implementing Oil from Tropical Kepayang Seeds (PanglumEdule) <i>Khairil, SulaimanThalibdanTurmizi</i> <i>Indonesia</i>	Paper ID: 2118 Design and Development of a Versatile Ice Clamping System <i>RubinaBahar, NurAdilahYahya, TasnimFirdausAriff</i> <i>Malaysia</i>	Paper ID: 2029 Microelectrode Design for Particle Trapping on Bioanalysis Platform <i>SitiNoorjannah Ibrahimand Maan M Alkaisi</i> <i>Malaysia</i>	Paper ID: 2097 Microelectrode Design for Particle Trapping on Bioanalysis Platform <i>SitiNoorjannah Ibrahim and Maan M Alkaisi</i> <i>Malaysia</i>	Paper ID: 2143 Experimental Investigation on Magnetorheological Damper's characterization <i>Mohammad MeftahulFerdous, Muhammad Mahbubur Rashid and Muhammad HasibulHasan</i> <i>Malaysia</i>

Parallel Technical Sessions III, Tuesday 23 September 2014: 14.00 – 15.30				
16.00 – 16.15	16.15 – 16.30	16.30 – 16.45	16.45 - 17.00	17.00 - 17.15
IIIB: Metallic Materials				
Chairperson: Assoc. Prof. Dr. Hanafi Ani Co-chair: Dr. Noor Azlina Hassan Venue: Helang				
Paper ID: 2119 Effect of Sintering Schedule to the Alloyability of FeCrAl Powder Mix Formed at above Ambient Temperature <i>M. M. Rahman and A. A. A. Talib</i> <i>Malaysia</i>	Paper ID: 2053 Crush Zone Morphology of Epoxy-Glass Fiber-Aluminium Composite Columnar Tube due to Longitudinal Crushing Force <i>Perowansa Paruka, Md Hafizil Mat Yasin, Rizalman Mamat, Md Abdul Maleque and Md Kamal Md Shah</i> <i>Malaysia</i>	Paper ID: 2054 Performance Properties of Hybrid Aluminium-Composite Columnar Tube under Axial Crush Force <i>Perowansa Paruka, Md Hafizil Mat Yasin, Rizalman Mamat, Md Abdul Maleque and Md Kamal Md Shah</i> <i>Malaysia</i>	Paper ID: 2123 Effect of Temperature on the Wear Properties of Alloy Steel under Jatropha Curcas Biodiesel <i>Nurul Ain Shaufe, Md Abdul Maleque and Abu Saleh Ahmed</i> <i>Malaysia</i>	Paper ID: 2039 Effect of Niobium on HAZ Microstructure of HSLA Steels <i>Emad El-Kashif, Wan Yusoff and Toshihiko Koseki</i> <i>Malaysia</i>
17.15 – 17.30	17:30-17:45			
Paper ID: 2045 Fracture Behavior Issues of HSLA Pipeline Steels - A. Review <i>M. H. A. Musa, M. A. Maleque, M. Y. Ali, M. H. Hasan</i> <i>Malaysia</i>	Paper ID: 2012 Wear and corrosion of composite coated AISI 4340 steel exposed to jatropha curcas biodiesel <i>Md Abdul Maleque, Belal Ahmd ghazal, Md Yeakub Ali, Maan Hayyan^b and Abu Saleh Ahmed</i> <i>Malaysia</i>			

Parallel Technical Sessions III, Tuesday 23 September 2014: 14.00 – 15.30				
16.00 – 16.15	16.15 – 16.30	16.30 – 16.45	16.45 – 17.00	17.00 – 17.15
IIIC: Materials for Energy and Smart Materials Chairperson: Assoc. Prof. Dr. Zuraida Ahmad Co-chair: Sr.Norita Hassan Venue: Ballroom 2				
Paper ID: 2112 Compressive Behaviour of Polyacrylonitrile Fibre Reinforced Lightweight Aggregate Concrete Composite <i>Kim Hung Mo, U. JohnsonAlengaram and MohdZaminJumaat</i> Malaysia	Paper ID: 2042 A Piezoelectric Based Energy Harvester With Magnetic Interactions: Modelling And Simulation <i>Dauda Sh. Ibrahim, Asan G.A. Muthalif, TanveerSaleh</i> Malaysia	Paper ID: 2060 Comparative Study Of Spwm And Hepwm Techniques For Photovoltaic Inverter <i>Bendib D, Akel F, Chikh M, Larbes C, Laour M and Mahrane</i> Algeria	Paper ID: 2036 <i>Fabrication And Characterization Of Graphene From Solid Carbon Dioxide</i> <i>A. Arifutzzaman, I. I. Yaacob, M. A. Hawlader and M. A. Maleque</i> Malaysia	Paper ID: 2083 Effects of Piezoelectric Actuation on Delamination in Transversely Loaded Composite Plates <i>N Ghazali, M S I ShaikDawood and S M Kashif</i> Malaysia
17.15 – 17.30	17:30-17:45			
Paper ID: 2153 <i>Thermoelastic Solutions for Flexure of Anisotropic Cylindrical Shells</i> <i>J.S. Mohamed Ali</i> Malaysia	Paper ID: 2099 A Light Material for Wind Turbine Blades <i>Souad A. M. AlBat'hi, YoseFachmi Buys, Muhammad HazwanHadzari, Maizatunlisa Othman</i> Malaysia			

DAY 2, Wednesday 24 September 2014
OPENING CEREMONY: 09.00-11.00
TEA BREAK: 11.00-11.30
CONGRESS KEYNOTE SPEAKER 1: 11.30-12.15 Title: Science to Action (S2A) Dr Mohd Yusoff Sulaiman - President & CEO of MIGHT (Malaysian Industry- Government Group for High Technology)
CONGRESS KEYNOTE SPEAKER 2: 12.15-13.00 Title: Mathematical Modeling in Engineering Dr. Shavkat Allimov- Chief Scientist, MIMOS BHD.

Parallel Technical Sessions IV, Wednesday 24 September 2014: 14.00 - 15.30				
14.00 - 14.15	14.15 - 14.30	14.30 - 14.45	14.45 - 15.00	15.00 - 15.15
IVA: Machining				
Chairperson: Prof. Dr. Mustafizul Karim Co-chair: Sr. Nor Khairusshima Khairussaleh Venue: Meeting Room 3				
Paper ID: 2127 Effect of Tool Coatings on High-Aspect-Ratio Microdrilling <i>S. Mohanty, S. Wells, and N.P. Hung</i> <i>United States</i>	Paper ID: 2128 Through-Mask Electrochemical Machining <i>Feng Z., Hung N.P, and Granda E.</i> <i>United States</i>	Paper ID: 2146 Surface Roughness in Drilled Carbon Fiber Reinforced Polymer (CFRP) Composite Using Diamond Coated Ball-nose Drills <i>Mohamed Konneh, Izman Sudin, Atiah Abdullah Sidek and Muhammad Salahuddin Salleh</i> <i>Malaysia</i>	Paper ID: 2132 Effect of Microwave Sintering Treatment to The Flank Wear of Titanium Carbide Tools in Milling Operations <i>Mohammad Iqbal, Tasnim Firdaus Ariff, Mohd Shahrul Fahmi Bin Mat Roseh, Muataz Hazza Faizi Al-Hazza, Irfan Hilmy and Suryanto</i> <i>Malaysia</i>	Paper ID: 2091 Investigation of Surface Roughness and Material Removal Rate for High Speed Micro End Milling on PMMA <i>Nur Atiqah Abdul Rahman Azmil</i> <i>Malaysia</i>
15.15 - 15.30				
Paper ID: 2087 Investigation of MRR in Micro-EDM of Non-Conductive Ceramic <i>B. Asfana, M.Y. Ali and A.R. Mohamed</i> <i>Malaysia</i>				

Parallel Technical Sessions IV, Wednesday 24 September 2014: 14.00 – 15.30				
14.00 – 14.15	14.15 – 14.30	14.30 – 14.45	14.45 - 15.00	15.00 - 15.15
IVB: Coatings				
Chairperson: Dr. Zahurin Halim Co-chair: Dr. Noorasikin Samat Venue: Helang				
<p>Paper ID: 2076</p> <p>Production of Carbon via Electrochemical Conversion of CO₂ in Carbonates Based Molten Salt</p> <p><i>Miron Gakim, Lam Munkhong, Jidon Janaun, Willey Liew Yun Hsien and Nancy Julius Siambun</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2034</p> <p>Formation of Hydrophobic Surface Using 2 Stages Electrodeposition Method</p> <p><i>Mohd Hanafi Ani, Nor Shahirah Ramli, Wan Ahmad Yusmawiza Wan Yusoff, Yasir Mohd Mustafah and Raihan Othman</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2035</p> <p>Surface Features Of Tig Melting Coated Cp-Titanium</p> <p><i>S.A. Adeleke and M.A. Maleque</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2144</p> <p>Physical Properties of Electroless Nickel-Tungsten Coating On Mild Steels Obtained from Acetic Bath</p> <p><i>Mahmood, M.H., Harun, N.M, Suryanto</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2145</p> <p>Effects Of Surfactant On Corrosion Behavior Of Carbon Steel In Simulated Eor Crude Oil</p> <p><i>Zakaria, M. I., Suryanto and Ani, M.H.</i></p> <p><i>Malaysia</i></p>
15.15 – 15.30				
<p>Paper ID: 2155</p> <p>Effect of Temperature on the Optical and Morphological Properties of Zinc Oxide Thin Films Prepared by RF Magnetron Sputtering</p> <p><i>Souad A. M. Al-Bat'hi and Maizatunisa Othman</i></p> <p><i>Malaysia</i></p>				

Parallel Technical Sessions IV, Wednesday 24 September 2014: 14.00 - 15.30				
14.00 - 14.15	14.15 - 14.30	14.30 - 14.45	14.45 - 15.00	15.00 - 15.15
IVC: Polymer				
Chairperson: Assoc. Prof. Ir. Dr. Maisarah Ali		Co-chair: Dr.YoseFachmi		Venue: Ballroom 2
<p>Paper ID: 2106</p> <p>Numerical and Experimental Investigation of Tensile Properties of Natural-Sand Reinforced Polypropylene</p> <p><i>Ahmed N. Oumer, Idris Mat Sahat, Muhammad AmmarNikMu'tasim, and TediKurniawan</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2064</p> <p>Physical & Mechanical Properties Of Waste Sawdust Polymer Composite For Marine Application</p> <p><i>Muhammad AbdMun'aimMohdIdrus, MohamadFadhilSafy Othman</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2075</p> <p>A Study on the Mechanical and Thermal properties of ENR filled with Dual Fillers</p> <p><i>MohdKhairulnizaMansor, DayangHabibahAbangIsmaawiHassim</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2026</p> <p>Mechanical and Physical Properties of Sago Starch/HalloysiteNanocomposite Film</p> <p><i>Zuraida HazwanYatimiHermain NurHumairah Abdul Razak</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2073</p> <p>SEM Analysis of Kenaf Sandwich Panel</p> <p><i>ZahurinHalim, Maizatunisa Othman and SitiKhadijah Abdul Rahman</i></p> <p><i>Malaysia</i></p>
15:15-15:30				
<p>Paper ID: 2159</p> <p>Conductive Polymer Composites from Polylactic Acid / Natural Rubber Filled with Carbon Black</p> <p><i>YoseFachmi Buys and Nor AfizaSyafinaLokman</i></p> <p><i>Malaysia</i></p>				

Parallel Technical Sessions V, Wednesday 24 September 2014: 16.00 – 17.30				
16.00 – 16.15	16.15 – 16.30	16.30 – 16.45	16.45 – 17.00	17.00 – 17.15
VA: Optimization Chairperson: Prof. Dr. Ahsan Ali Khan Co-chair: Dr. Mohamed Abdul Rahman Venue: Helang				
Paper ID: 2032 Energy cost Optimization In High Speed Hard Turning Using Simulated Annealing Algorithm <i>MuatazHazza F. Al Hazza, Erry Y T. Adesta, Muhammad H HasanNorhashimahShaffiar</i> <i>Malaysia</i>	Paper ID: 2033 Using the Desirability Function as an effective Tool in Target costing model <i>MuatazHazza F. Al Hazza, Mohamed Konneh, Mohammad Iqbal, Assem HatemTaha, Muhammad H Hasan</i> <i>Malaysia</i>	Paper ID: 2102 Multi objective Optimisation for High Speed End Milling using Simulated Annealing Algorithm <i>MuatazHazza F. Al Hazza , Amin M. F. Seder , Erry Y T. Adesta , Mohammad Riza, N.M. Shaffiar</i> <i>Malaysia</i>	Paper ID: 2071 Transfer Function Prediction of a Lithium Iron Phosphate Battery with Ant Colony Optimisation <i>SitiFauziahToha</i> <i>Malaysia</i>	Paper ID: 2130 Optimization of Tool Wear Using Coupled RSM-GA Approach in Turning of Stainless Steel AISI 304 with Magnetic Damping of Tool Shank <i>A.K.M. Nurul Amin, SitiAminatuzzuhriyah B. Haji Subir, and Muammer D. Arif</i> <i>Malaysia</i>
17.15 – 17.30	17:30-17:45			
Paper ID: 2135 Clustering Using Genetic Algorithm-Based Self Organising Map <i>Azmi Hassan, Muhammad RidwanAndiPurnomo and PutriDwiAnnisa</i> <i>Malaysia</i>	Paper ID: 2134 Parameter Optimization of VMI system in a Manufacturer and Multi Retailer using Genetic Algorithm <i>Azmi Hassan , ChairulSaleh , Baba MdDeros, MohdNizamAbRahman , RadenAchmadChairdinoLeuveano, AndraAdiyoga</i> <i>Malaysia</i>			

Parallel Technical Sessions V, Wednesday 24 September 2014: 14.00 – 15.30				
16.00 – 16.15	16.15 – 16.30	16.30 – 16.45	16.45 – 17.00	17.00 – 17.15
VB: Manufacturing and Allied Area Chairperson: Dr. Mohd. RadziCheDaud Co-chair: Sr. Atiah AbdullahSidek Venue: Meeting Room 3				
Paper ID: 2161 Performance Analysis of Heat Pipe Heat Exchanger for Solar Hybrid Desiccant Air-Conditioning System <i>ZurainiMohdEnggsa, ArfidianRachman ,Lisa Nesti, Sohif Mat, KamaruzzamanSopian</i> <i>Malaysia</i>	Paper ID: 2055 Mini-ATX Computer System In Vehicle <i>Muhammad Sami and Akram M. Zeki</i> <i>Malaysia</i>	Paper ID: 2113 Development of Design Structure Matrix of a Product Architecture. Case Study: Multi Purpose CNC Router <i>IrfanHilmy,ErryYulian T. Adesta, Nur'atiyahNajwaBintiSamsulBahrim,AiniNurrasyidahBintiAzhar, Siti Fatimah BintiMohdShahar</i> <i>Malaysia</i>	Paper ID: 2088 Formulation of an IP-based model for reactive flow-shop scheduling problem subject to arrival of new orders <i>M. Abdesselam, A. N. M. Karim, H. M. EmrulKays, M. A. Rahman</i> <i>Malaysia</i>	Paper ID: 2096 Ranking of Manufacturing Attributes Affecting Bread Quality: Application of Analytic Hierarchy Process <i>M. N. B. A. Nazri, M. Haque, A. N. M. Karim, Fatima. B. Muhamad</i> <i>Malaysia</i>

Parallel Technical Sessions V, Wednesday 24 September 2014: 14.00 – 15.30				
16.00 – 16.15	16.15 – 16.30	16.30 – 16.45	16.45 - 17.00	17.00 - 17.15
VC: Polymer Chairperson: Prof. Dr. IisSopyan Co-chair: Dr.Souad A. Mohamad Venue:Ballroom 2				
Paper ID: 2009 Polyhydroxybutyrate Filled Clamshells Biofiller: Effect of Polyvinylpyrrolidone <i>Mohd Yusoff Hashim, Maizatunisa Othman, Nor Azowa Ibrahim Khalisanni Khalid ,Souad A. Mohamad</i> <i>Malaysia</i>	Paper ID: 2040 Effect of Clamshells Filler Loading on the Properties of Polyhydroxybutyrate <i>Mohd Yusoff Hashim, Maizatunisa Othman, Nor Azowa Ibrahim , Khalisanni Khalid, Souad A. Mohamad</i> <i>Malaysia</i>	Paper ID: 2139 Morphology and Mechanical Properties of MIM Feedstock Using TPNR Backbone Binder <i>Norita Hassan, Sahrim Ahmad, NorhamidiMuhamad, MohdAfian Omar, Noor Azlina Hassan</i> <i>Malaysia</i>	Paper ID: 2138 The Effects of Various TPNR Binder Compositions on Feedstock Preparation for MIM Process <i>Norita Hassan , Sahrim Ahmad ,NorhamidiMuhamad , MohdAfian Omar, Noor Azlina Hassan</i> <i>Malaysia</i>	Paper ID: 2140 Mechanical Properties of Kenaf Core Sandwich Panel Toughened with Modified Epoxy <i>J.N.Hasnidawani, H.N.Azlina, H.Norita, H. Zahurin, A. Zuraida</i> <i>Malaysia</i>
17:15-17:30				
Paper ID: 2141 Thermal Analysis of Kenaf core Sandwich Panel toughened with modified epoxy <i>J.N.Hasnidawani, H.N.Azlina, H.Norita, H. Zahurin, A. Zuraida</i> <i>Malaysia</i>				

Parallel Technical Sessions VI, Thursday 25 September 2014: 09.00 – 10.30				
09.00 – 09.15	09.15 – 09.30	09.30 – 09.45	09.45 - 10.00	10.00 - 10.15
VIA: Manufacturing and Allied Area Chairperson: Dr. MuatazHazza Co-chair: Sr. `AtiahAbdullah Sidek Venue:Helang				
Paper ID: 2162 Trans-esterification of Crude Palm Oil Liquid Waste to Blodlesel <i>Harmiwatiand DedyRahmad</i> <i>Malaysia</i>	Paper ID: 2090 Tensile and statistical analysis of sisal fibers for natural fiber composite manufacture <i>Md. Masudur R Abir, S. M. Kashif, M. S. I. ShaikDawood, and Md. AbdurRazzak</i> <i>Malaysia</i>	Paper ID: 2136 Adoption And Adaptation Of Japanese Manufacturing Management: A Case Study Of An Automotive Company In Malaysia <i>A.K.M. Mohiuddin, Mohamed A. Rahman and Julia Bt Haji A. Jabar</i> <i>Malaysia</i>	Paper ID: 2046 IIUM CubeSat Structural Subsystem Design <i>Siti Sarah Isharuddin, Mohamed Okasha and Mohd Sultan Ibrahim</i> <i>Malaysia</i>	Paper ID: 2107 Finite Element Analysis of Tensile Test for HDPEEPR-MMT Nanocomposite <i>N.M. Shaffiar, M.K.A. Halim, H. Anuar and M.A.H.A. Majid</i> <i>Malaysia</i>
10:15-10:30				
Paper ID: 2111 Finite Element Analysis of HDPE/EPR-CNT Nanocomposite under Tensile Loading <i>N.M. Shaffiar, M.A. Hasnan, H. Anuar and MuatazHazza F. Al Hazza</i> <i>Malaysia</i>				

Parallel Technical Sessions VI, Thursday 25 September 2014: 9.00 – 10.30				
09.00 – 09.15	09.15 – 09.30	09.30 – 09.45	09.45 - 10.00	10.00 - 10.15
VIB: Manufacturing and Allied Area Chairperson: Dr. Israd Hakim Jaafar Co-chair: Dr. Mohammad Iqbal Venue: Meeting Room 3				
Paper ID: 2156 Six Sigma Approach to Improve the Painting Process: A Case Study of A Malaysian Vehicle Assembly Company <i>Mohamed A. Rahman, A.K.M. MohiuddinMdYahya and Hanani Abdullah</i> <i>Malaysia</i>	Paper ID: 2005 Cost Analysis of Using Hybrid Microwave Post-Sintered Silicon Nitride Inserts <i>TasnimFirdausAriff, MohamadIqbal and RubinaBahar</i> <i>Malaysia</i>	Paper ID: 2163 Production and Chemical Compounds of Gaharu Extract by Using Supercritical Fluid Extraction (SFE) Of UnsoakedGaharu at Different Pressure <i>Mohd Radzi Haji Che Daud, Huzaifah Hamdan</i> <i>Malaysia</i>	Paper ID: 2157 Magnetic Damping In Turning of Stainless Steel AISI 304 for the Reduction of Machining Vibration and Tool Wear <i>A.K.M. Nurul Amin, Muamer D. Arif, SitiAminatuzzuhriyahSubir and Fawaz Mohsen Abdullah</i> <i>Malaysia</i>	Paper ID: 2158 Effect of Organic Loading Rate (OLR) of Slurry On Biogas Production Quality <i>Maizirwan Mel, NadiahMohdSuhuli, Avicenna, SanylzanIhsan, Ahmad Faris Ismail and SarifahYaacob</i> <i>Malaysia</i>
10:15-10:30				
Paper ID: 2050 A Case Study on Business and Operation Environmental Assessment in Malaysia and UK Metal and Fabrication SMEs <i>Atiah Abdullah Sidek, Atikah Abdullah and Chris J. Backhouse</i> <i>Malaysia</i>				

Parallel Technical Sessions VI, Thursday 25 September 2014: 9.00 – 10.30				
09.00 – 09.15	09.15 – 09.30	09.30 – 09.45	09.45 - 10.00	10.00 - 10.15
VIC: Nanomaterials				
Chairperson: Assoc. Prof. Dr. Suryanto		Co-chair: Sr. Norita Hassan		Venue: Ballroom 2
<p>Paper ID: 2002</p> <p>Characterization and Preparation of Sago Starch Based Reinforced with Silver Nanoparticle</p> <p><i>Zuraida, A., Ahmad Ulwi, A.K., Maisarah, T., Maisarah, A</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2019</p> <p>Effect of Dispersants on Microstructures of Nano Alpha Alumina Developed from Aluminium Dross Waste</p> <p><i>S. Anis Sofia , N. Samat and M. S. MeorYusoff</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2037</p> <p>Effect of voltage on colloidal gold (Au) nanoparticles produced using electro-dissolution-reduction method</p> <p><i>H. Haiza, I.I Yaacob, Ahmad Zahirani Ahmad Azhar</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2038</p> <p>Gamma Irradlated Starch Based Hydrogel Impregnated With Silver Nanoparticle</p> <p><i>FayezehEslami, ZuraidaAhmad and NurHumairahAbdulRazak</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2081</p> <p>The Effects of Coupling Agent on the Flame Retardant Properties of PP/ATH Nanocomposites</p> <p><i>Fatimah A'thiyahSabaruddin, N. Samat, And A.I.H DayangHabibah</i></p> <p><i>Malaysia</i></p>
10.15 – 10.30	10:30-10:45			
<p>Paper ID: 2098</p> <p>Morphology Of Cnt-Al Nanocomposite Under Different Ball Milling Parameters</p> <p><i>M. A. Maleque, U. Abdullahi and M. Y. Ali</i></p> <p><i>Malaysia</i></p>	<p>Paper ID: 2086</p> <p>Effect of Nanofiller on Flexing Mechanism of HDPE/EPR Nanocomposite for Sport Shoe Sole Application</p> <p><i>HusniyahAliyahLutpi, HazleenAnuar, NorhashimahMohdShaffiar</i></p> <p><i>Malaysia</i></p>			

Parallel Technical Sessions VI, Thursday 25 September 2014: 11.00 – 12.00				
11.00 – 11.15	11.15 – 11.30	11.30 – 11.45	11.45 – 12.00	
VIIA: Machining				
Chairperson: Dr. Tasnim Firdaus Ariff		Co-chair: Dr. Sharifah Imihezri Venue: Helang		
Paper ID: 2030 The effects of Sliding Parameters on Dry Wear Characteristics of Ti-6Al-4V Alloy <i>Mohammed Baba Ndaliman Malaysia</i>	Paper ID: 2116 Investigation Of Silicon Wafer Thinning Operation Method Result And Analysis <i>M.A. Safaruddin, S.F.M. Shaharb, I.H. Jaafar Malaysia</i>	Paper ID: 2164 LEADME : An Educational Software for Composite Laminate Analysis and Design <i>J.S.Mohamed Ali, Abeid Abeid Rubeya Malaysia</i>	Paper ID: 2137 Tool Wear During Milling Laminated Carbon Fibre Reinforced Plastic <i>M.K. Nor Khairusshima, A.K.M Amin, C.H. Che Hassan , A.G. Jaharah Malaysia</i>	

Parallel Technical Sessions VI, Thursday 25 September 2014: 11.00 – 12.00				
11.00 – 11.15	11.15 – 11.30	11.30 – 11.45	11.45 – 12.00	
VIIB: EDM				
Chairperson: Assoc. Prof. Dr. Mohamed Konneh		Co-chair: Dr. Abdul Malek Abdul Hamid		Venue: Meeting Room 3
Paper ID: 2010 Effect Of Powder Concentration On Edm Performance During Machining Mild Steel <i>Ahsan Ali Khan, Nurfarah Wahid Azmi, Mohd Azim Odenanand Zakatia Mohd Zain Malaysia</i>	Paper ID: 2011 Surface Quality Produced In EDM with Tungsten Carbide and Copper Compacted Electrodes <i>Ahsan Ali Khan, Mohammed Baba Ndaliman, Ummu Atiqah Khairiyah Binti Mohamad, Nurul Farhana Binti Sulong And Zakaria Mohd Zain Malaysia</i>	Paper ID: 2014 Effect of Gap voltage and Pulse-On time on Material Removal Rate for Electrical Discharge Machining of Al₂O₃ <i>M.A. Moudood Malaysia</i>	Paper ID: 2092 Investigation of Surface Roughness In Micro-EDM of Nonconductive ZrO₂ Ceramic with Powder Mixed Dielectric Fluid <i>Abdus Sabur Malaysia</i>	

Parallel Technical Sessions VI, Thursday 25 September 2014: 11.00 – 12.00				
11.00 – 11.15	11.15 – 11.30	11.30 – 11.45	11.45 – 12.00	
VIIC: Biomaterials				
Chairperson: Dr. Noorasikin Samat		Co-chair: Dr. Yose Fachmi		Venue: Ballroom 2
Paper ID: 2057 Structural applications and emerging trends of nano- and biocomposites: a review <i>Sazib Mollik, Irum Tariq, Muhammad H Hasan</i> <i>Malaysia</i>	Paper ID: 2058 Sol-Gel Derived Zinc doped Calcium Phosphate Bioceramics Prepared via Different Sintering Strategies <i>Gunawan and I. Sopyan</i> <i>Malaysia</i>	Paper ID: 2059 Thermal Analysis of the Dehydroxylation of a Sol-Gel Derived Zinc doped Calcium Phosphate Powders <i>Gunawan and I. Sopyan</i> <i>Malaysia</i>	Paper ID: 2129 The Glass Transition Temperature of Iron and Titanium Containing Phosphate Based Glasses <i>S.I.S. Shaharuddin, I. Ahmed, D. Furniss, A.J. Parsons, C.D. Rudd,</i> <i>Malaysia</i>	

ICAMME Keynote Sessions, Thursday 25 September 2014: 12.00 – 12.45	
12.00 – 12.45	
Keynote Session 3	
Chairperson: Prof. Dr. Iskandar Idris Yaakob	Co-chair: Assoc. Prof. Dr. Hadi Purwanto
Assoc. Prof. Dr. Md Abdul Maleque Contemporary Light Weight Composite Material: Milestone towards Automotive Brake Rotor Application	