

Final Programme of imec – APCOMS 2015

Wednesday, 11th November 2015)

Registration

03:00 – 07:00 PM

Day 1 (Thursday, 12th November 2015)

Registration: 08:30 – 09:00 AM

Opening Ceremony & Keynote Address 1: 09:00 – 10:30AM

Officiated by: YB Datuk Dr. Abu Bakar Mohamad Diah, Deputy Minister of Science, Technology and Innovation Malaysia

Keynote 1: Prof. B.S. Murty

Topic: Nanomaterials with Exceptional Properties Synthesized through Top Down Approach

Venue: Grand Hibiscus Ballroom

Refreshments: 10:30 – 11:00 AM

Keynote Address 2: 11:00 – 11:45 AM

Keynote 2: Prof. Ir. Dr. Dradjad Irianto

Topic: Collaborative Manufacturing for Small-medium Enterprises

Venue: Grand Hibiscus Ballroom

Session 1: 11:45 – 01:00 PM							
1A		1B		1C		1D	
Topic: Materials Venue: Hibiscus 1 Chair: Dr. Mervin Herbert Co-Chair: Dr. Akm Asif Iqbal Iqbal		Topic: Manufacturing Processes Venue: Hibiscus 2 Chair: Dr. Kushendarsyah Saptaji Co-Chair: Ms. Suraya Sulaiman		Topic: Manufacturing Systems Venue: Lotus 1 Chair: Dr. Faiz Mohd Turan Co-Chair: Dr. Wisnu Aribowo		Topic: Manufacturing Automation Venue: Lotus 2 Chair: Dr. Abdo Hashem Co-Chair: Dr. Md. Aizzat Bin Zakaria	
ID	Title	ID	Title	ID	Title	ID	Title
12	Influence of Repetitive corrugation and straightening process on Al-3Mg and Al-3Mg-0.25Sc alloys	176	Evaluation of molten area in micro-welding of monocrystalline silicon and glass	160	Marketing Information System Online Design for Craftsmen Small Medium Enterprises (Case Study: AC)	81	Open source hardware and software platform for robotics and artificial intelligence
9	A comparative study on macro/micro structure and mechanical properties of cast, forged and heat treated A356 alloy with minor additions of Ti, B and/or Sr	73	Effects of Al ₂ O ₃ nanolubricant with Sodium Dodecylbenzene Sulfonate (SDBS) on surface roughness and tool wear under MQL during turning of Ti-6AL-4T	188	The Route Analysis Based On the Flight Plan	83	The One Universal Graph -- a free and open graph database
195	Development of Axial Continuous Metal Expeller for melt conditioning of alloys	50	Dry Machining Process of Milling Machine using Axiomatic Green Methodology	187	Investigation of the prominent barriers to lean manufacturing implementation in Malaysian food and beverages industry using Rasch Model	48	An Intelligent Active Force Control Algorithm to Control an Upper Extremity Exoskeleton for Motor Recovery
206	Cladding of Mg alloy with Zr based BMG Alloy	169	Resistance Spot Welding of AA5052 Sheet Metal of Dissimilar Thickness	189	Carbon Dioxide Emission Prediction Using Support Vector Machine	39	A hybrid task based controller for an upper extremity exoskeleton
215	Numerical Fracture Analysis of Cryogenically Treated Alloy Steel Weldments	139	Development of Keropok Keping Drying Machine for Small Medium Enterprises (SMEs)	33	An FMS Dynamic Production Scheduling Model Considering Cutting Tool Failure and Cutting Tool Life	69	Modelling of Photovoltaic Module Using Matlab Simulink
Lunch Break: 01:00 – 02:15 PM							

Session 2: 02:15 – 03:45 PM							
2A		2B		2C		2D	
Topic: Materials Venue: Hibiscus 1 Chair: Dr. Ram Naresh Rai Co-Chair: Dr. Noor Mazni Ismail		Topic: Manufacturing Processes Venue: Hibiscus 2 Chair: Dr. Zamzuri Hamedon Co-Chair: Dr. Md. Nafis Osman Zahid		Topic: Manufacturing Systems Venue: Lotus 1 Chair: Dr. Muchamad Oktaviandri Co-Chair: Dr. Ari Samadhi		Topic: Manufacturing Automation Venue: Lotus 2 Chair: Dr. Arshed Abd. Oudah Co-Chair: Dr. Liang Shing Ng	
ID	Title	ID	Title	ID	Title	ID	Title
147	Investigation on microstructure and mechanical properties of Friction Stir Welded AA6061-4.5Cu-10SiC composite	135	Design Improvements in Underground Watering System For Small Local Farming Industries	185	A Hybrid Genetic Algorithm Implementation For Vehicle Routing Problem With Time Windows	70	Fuzzy Logic Controlled Solar Module for Driving Three-Phase Induction Motor
17	Sliding Wear Response of Beryl Reinforced Aluminum Composite – A Factorial Design Approach	74	Coated carbide drill performance under vegetable oil-based lubricant and nanoparticle enhanced MQL in drilling AISI P20	190	Evaluation of B2C Website based on the Usability Factors by using Fuzzy AHP & Hierarchical Fuzzy TOPSIS	181	RFID-Based Automatic Bus Ticketing: Features and Trends
23	Al-TiH ₂ Composite Foams Magnesium Alloy	20	Finite Element Analysis of ECAP, TCAP, RUE and CGP Processes	52	Sustainable Supply Chain Strategy – A modern application of Lean and Agile methodologies	121	Generation of Look-Up table for Scheduling Rules
89	Effect of sputtering target's grain size on the sputtering yield, particle size and coercivity (H _c) of Ni and Ni ₂₀ Al thin films	21	A laboratory investigation on contact pressure distribution during the polishing process of ceramic tiles	61	Performance evaluation of different types of particle representation procedures of Particle Swarm Optimization in Job-shop Scheduling Problems	80	Comparative Study of Coupling Architectures for Hybrid Piezoelectric-Electromagnetic Vibration Energy Harvester
88	Measurement of Interfacial Profiles of Wavy Film Flow on Inclined Wall	22	Study the effect of elevated dies temperature on aluminum and steel round deep drawing cup	62	Comparison of Quality Engineering Practices in Malaysian and Indonesian Automotive Related Companies	212	Development of a Working Hovercraft Model
186	Influence of particle size on Cutting Forces and Surface Roughness in Machining of B4Cp - 6061 Aluminium Matrix Composites	24	Tool breakage detection from 2D workpiece profile using vision method	99	Quality Tools and TRIZ Based Quality Improvement Case Study in PT 'X' A Plastic Moulding Manufacturing Industry	214	Development of Universal Portable Spray Stand for Touch-up Process in the Automotive Paintshop
Refreshments: 03:45 – 04.00 PM							

Session 3: 04:00 – 05:30 PM							
3A		3B		3C		3D	
Topic: Materials Venue: Hibiscus 1 Chair: Dr. Dr.Dewan Md. Nuruzzaman Co-Chair: Dr. Izwan Ismail		Topic: Manufacturing Processes Venue: Hibiscus 2 Chair: Dr. Md. Nafis Osman Zahid Co-Chair: Ms. Suraya Sulaiman		Topic: Manufacturing Systems Venue: Lotus 1 Chair: Dr. Noraini Co-Chair: Dr. Nanang Fatchurrohman		Topic: Manufacturing Processes Venue: Lotus 2 Chair: Dr. Ahmad Razlan Yusoff Co-Chair: Dr. Mebrahitom Gebremariam	
ID	Title	ID	Title	ID	Title	ID	Title
103	Effect of low temperature aging on the microstructural and mechanical properties of NITINOL	84	Design and Analysis of a Prototype of Tooth Impact Test Rig for Spur Gear	67	Meta-heuristic algorithm to solve two-sided assembly line balancing problems	15	Estimation of Thermal Contact Conductance Between Blank and Tool Surface in Hot Stamping Process
179	Finite-element analysis of NiTi wire deflection during orthodontic levelling treatment	71	Spring-back Simulation of Unidirectional Carbon/Epoxy L-shaped Laminate Composites Manufactured through Autoclave Processing	101	Flexible Job-Shop Scheduling with Dual-Resource Constraints to Minimize Tardiness Using Genetic Algorithm	37	Applications of CAE in the Thermoforming Mould Design
78	Erosive Wear Characteristics of Multi-fiber Reinforced Polyester under Different Operating Conditions	133	Recent developments in Micro Friction Stir Welding	102	Scheduling Method for MTS/MTO Production System	18	Finite Element Study of the Effect of Substrate Properties in Micro-cutting Thin Workpiece Materials
25	Fracture Micro Indentation on Boride layers on AISI 1020 steels	41	Analysis of Parameters Assessment on Laminated Rubber-Metal Spring for Structural Vibration	111	Job shop scheduling model for non-identic machine with fixed delivery time to minimize tardiness	107	Experimental Validation for Hot Stamping Process By Using Taguchi Method
87	Models for selecting GMA Welding Parameters for Improving Mechanical Properties of Weld Joints	42	Response Surface Methodology Approach on Effect of Cutting Parameter on Tool Wear during End Milling of High Thermal Conductivity Steel (HTCS)	115	Contribution to the modelling and analysis of system performance by Petri nets and simulation models: Application in a supply chain	19	High-speed Milling tool path strategies for mold insert (Stavax ESR) Manufacturing
192	Effect of solution treatment on Al 1100 cryorolled sheet alloy	200	Smart laser micro-welding of aluminum alloy and copper	129	Implementation Learning Curve and Forgetting Curve in Scheduling Garment Industry	26	Utilization of high-speed milling technique in conventional milling machine

Day 2 (Friday, 13th November 2015)

Session 4: 09:00 – 10:30 AM

4A		4B		4C		4D	
Topic: Materials Venue: Hibiscus 1 Chair: Dr. Noor Mazni Ismail Co-Chair: Dr. Akm Asif Iqbal		Topic: Manufacturing Processes Venue: Hibiscus 2 Chair: Dr. Azmir Co-Chair: Dr. Kushendarsyah Saptaji		Topic: Manufacturing Systems Venue: Lotus 1 Chair: Dr. Ismed Iskandar Co-Chair: Dr. Noraini		Topic: Manufacturing Systems Venue: Lotus 2 Chair: Dr. Rachmawati Co-Chair: Dr. Muchamad Oktaviandri	
ID	Title	ID	Title	ID	Title	ID	Title
90	Siliconizing Process On Mild Steel Substrate by Using Tronoh Silica Sand : Microstructure, composition and coating growth	120	Experimental Investigation and Optimization of Response Variables in WEDM of Inconel – 718	112	Analysis of Maintenance Service Contracts for Dump Trucks Used in Mining Industry with Simulation Approach	5	A Hybrid Fuzzy Model for Lean Product Development Performance measurement
98	3D Microfabrication Using Emulsion Mask Grayscale Photolithography Technique	55	A review on nozzle wear in abrasive water jet machining application.	116	Modelling a supply chain with integrated analytical models: Case of a chemical industry	182	The Determinants of Islamic Banking Human Resource Performance: Bank Syariah Mandiri Indonesia
113	Microstructure and Mechanical Properties Investigation of Al4Cu – ZrB2 in situ composites	58	Sustainable Cooling Method for Machining Titanium Alloy	162	Maintenance Contract for Dump Truck Used in A Coal Industry: A Case Study in South Kalimantan site	183	The Influence of External Factor on Business Strategy and Organization Capability and Its Impact on Corporate Performance of Schedule Airline in Indonesia
93	High Anatase Rate Titanium Dioxide Coating Deposition by Low Power Microwave Plasma Spray	60	Effect of Cooling Methods on Hole Quality in Drilling of Aluminium 6061-6T	128	Development Of Mini Portable Digester Design Of Households' And Restaurants' Organic Solid Waste Processing To Be Clean Biogas	51	Improving Quality of Seal Leak Test Product using Six Sigma
92	Deposition of Hard Chrome Coating onto Heat Susceptible Substrates by Low Power Microwave Plasma Spray	65	Grey Relational Analyses for Multi-Objective Optimization of CNC Turning S45C Carbon Steel	191	Analysis of Maintenance Service Contracts for Dump Trucks Used in Mining Industry with Simulation Approach	199	Practical Framework: Implementing OEE Method in Manufacturing Process Environment
205	Predicting Effects of Corrosion Erosion of High Strength Steel Pipelines Elbow on CO2-Acetic Acid (HAc) Solution	47	Computational Fluid Dynamic Based Erosion Modeling of Abrasive Water Jet Nozzle	161	Cellular Manufacturing System with Dynamic Lot Size Material Handling	16	Simulation on the Effect of Bottle Wall Thickness Distribution using Blow Moulding Technique

Refreshments: 10:30 – 10:45 AM

Session 5: 10:45 – 12:15 PM							
5A		5B		5C		5D	
Topic: Manufacturing Automations Venue: Hibiscus 1 Chair: Dr. Liang Shing Ng Co-Chair: Dr. Abdo Hashem		Topic: Manufacturing Processes Venue: Hibiscus 2 Chair: Dr. Zamzuri Hamedon Co-Chair: Dr. Mebrahitom Gebremariam		Topic: Manufacturing Systems Venue: Lotus 1 Chair: Dr. Wisnu Aribowo Co-Chair: Dr. Nanang Fatchurrohman		Topic: Manufacturing Systems Venue: Lotus 2 Chair: Dr. Muchamad Oktaviandri Co-Chair: Dr. Anas Ma'Ruf	
ID	Title	ID	Title	ID	Title	ID	Title
10	The Effects of Rest Interval on Electromyographic Signal during Load Lifting Task	38	Cutting orientations for non-complex parts in 4th axes CNC Machining	130	Lean Production in Improving Supply Chain Performance through Hybrid Model SCOR 11.0 – System Dynamics	4	Proposal for a Conceptual Model for Evaluating Lean Product Development Performance: A Study of LPD Enablers in Manufacturing Companies
28	Defect Detection of Fiberglass Composite Laminates (FGCL) with Ultrasonic A-Scan Signal Measurement	59	A study on post processor application for CNC milling via CAD/CAM system	140	e-Learning Application for Machine Maintenance Process using Iterative Method in XYZ Company	178	Product Development using QFD, MCDM and the Combination of these Two Methods
141	Boundary Tracing for Pose Estimation Analysis using Fourier Descriptor	68	Study on optimal surface property of WC-Co cutting tool for aluminium alloy cutting	143	Inventory decision in a closed-loop supply chain with inspection, sorting, and waste disposal	13	Simulation of Assembly Line Balancing in Automotive Component Manufacturing
40	Modelling and control of an upper extremity exoskeleton for rehabilitation	82	Purification of Tronoh Silica Sand via Preliminary Process of Mechanical Milling	144	An Integer Batch Scheduling Model for a Single Machine with Simultaneous Learning and Deterioration Effects to Minimize Total Actual Flow Time	114	A Bayesian Estimation Analysis Approach for Competing Risks Models in Reliability Engineering with the Weibull Distribution Cases.
46	Methodology in Investigating the Influences of Automated Material Handling System in Automotive Assembly Process	75	2D Mask Fabrication using Optical Exposed Lithography	145	The relationship between of manufacturing flexibility, innovation capability, and operational performance in Indonesian Manufacturing SMEs	31	Reducing Bits in Electrodeposition Process of Commercial Vehicle – A Case Study
207	Magnetorheological Fluid Materials Properties, Rheological Behaviour and Device Design in Valve Application	49	Evaluation of surface roughness and power consumption in machining cast iron using coated and uncoated milling tools	211	Study on the Key Factor Parameters to Increase Productivity in Construction and Manufacturing Industries	204	An investigation of low ergonomic risk awareness, among staffs at early product development phase in Malaysia automotive industries
Lunch Break: 12:15 – 2.30 PM							

Session 6: 02:30 – 03:45 PM							
6A		6B		6C		6D	
Topic: Materials Venue: Hibiscus 1 Chair: Dr. Akm Asif Iqbal Co-Chair: Dr. Izwan Ismail		Topic: Manufacturing Systems Venue: Hibiscus 2 Chair: Dr. Faiz Mohd Turan Co-Chair: Dr. Noraini		Topic: Manufacturing Systems Venue: Lotus1 Chair: Dr. Ismed Iskandar Co-Chair: Dr. Nanang Fatchurrohman		Topic: Manufacturing Processes Venue: Lotus 2 Chair: Dr. Abdul Aziz Jaafar Co-Chair: Dr. Mebrahitom Gebremariam	
ID	Title	ID	Title	ID	Title	ID	Title
91	Investigation of thin film deposition on stainless steel 304 substrates under different operating conditions	201	A Methodology for Manufacturing Execution Systems (MES) Implementation	148	A Clustering Classification of Spare Parts for Improving Inventory Policies	34	Temperature Assessment of Heating Stage in Thermoforming Equipment
54	Preparation of Polypropylene Thermoplastic Container via Thermoforming Process	166	Redesign of Transjakarta Bus Driver's Cabin	149	Information System Design of Inventory Control Spare Parts Maintenance (Valuation Class 5000) (Case Study: Plant KW)	3	Improvement of formability of high strength steel sheets in shrink flanging
36	Tensile Properties of 3D printed ABS + hydrous magnesium silicate composite- under various test conditions	171	Simulation Modeling by Classification of Problems: A Case of Cellular Manufacturing	150	The Application of EOQ and Lead Time Crashing Cost Models in Material with Limited Life Time (Case Study: CN-235 Aircraft at PT Dirgantara Indonesia)	197	Modeling and flow analysis of pure nylon polymer for injection molding process
209	Improving Efficiency of Aluminium Sacrificial Anode Using Cold Work Process	174	Application of Concurrent Engineering Tools and Design Structure Matrix in Designing Tires	151	A Framework for Offshore Vendor Capability Progression	77	Influence of Normal Loads and Sliding Velocities on Friction Properties of Engineering Plastics Sliding against Rough Counterfaces
138	Investigation on the Thermal Properties, Density and Degradation of Iron and Titanium Containing Phosphate Based Glasses.	193	Model for Assembly Line Re-Balancing Considering Additional Capacity and Outsourcing to Face Demand Fluctuations	14	Effect of B2O3 containing fluxes on the microstructure and mechanical properties in submerged arc welded mild steel plates	6	Application of peening processes for surface treatment
Refreshment: 03:45 – 04:00 PM							

Session 7: 04:00 – 05:30 PM							
7A		7B		7C		7D	
Topic: Materials Venue: Hibiscus 1 Chair: Dr. Izwan Ismail Co-Chair: Dr. Noor Mazni Ismail		Topic: Manufacturing Processes Venue: Hibiscus 2 Chair: Dr. Ahmad Razlan Yusoff Co-Chair: Dr. Kushendarsyah Saptaji		Topic: Manufacturing Systems Venue: Lotus 1 Chair: Dr. Iwan Inrawan Co-Chair: Dr. Faiz Mohd Turan		Topic: Manufacturing Automation Venue: Lotus 2 Chair: Dr. Md. Aizzat Bin Zakaria Co-Chair: Dr. Liang Shing Ng	
ID	Title	ID	Title	ID	Title	ID	Title
30	Investigation of the Product Performance of Al-Metal matrix Composites Brake Disc using Finite Element Analysis	123	Experimental Investigations during Dry EDM of Inconel – 718	152	Production and delivery batch scheduling with common due date and multiple vehicles	44	Sensors Fusion for Online Mapping and Features Extraction of Mobile Robot in Road Following and Roundabout
86	Study on fatigue crack propagation behaviour in SiC particulate Al ₂ O ₃ whisker reinforced hybrid MMC	132	Nanoindentation studies of in-plane and cross sectional plane of multilayered thin films	153	Technology Adoption: an Interaction Perspective	168	Fundamental studies on Development of MHD (Magnetohydrodynamic) Generator Implement on Wave Energy Harvesting
100	Experimental Investigation on the Mechanical Properties of Glass Fiber Reinforced Nylon	110	Determination of heat transfer coefficient for an interaction of sub-cooled gas and metal	154	Improving Humanware and Technoware Level to Fulfil Product Requirement	72	Low Cost Night Vision System for Intruder Detection
126	Processing and Mechanical Properties of Aluminium-Silicon Carbide Metal Matrix Composites	122	Multi-Objective Optimization in Hot Machining of Al/SiCp Metal Matrix Composites	155	Make or Buy Analysis Model Based on Tolerance Allocation to Minimize Manufacturing Cost and Fuzzy Quality Loss	79	Signal Analysing and Filtering for Engine Misfire Detection (EMD) Using Zirconia Oxygen Sensor
11	Magneto-Rheological Defects and Failures: A Review	194	Impact and tensile test on bio composite polymer from oil palm mesocarp fiber with polypropylene produced by injection moulding	156	Quality Improvement Through Variance Reduction Allocation and Investment in Learning	196	Dynamic Curvature Steering Control for Autonomous Vehicle: Performance Analysis
1	Temperature Gradient Field Theory of Nucleation	202	The Development of Model for Measuring Railway Wheels Manufacturing Readiness Level	159	Implementation Learning and Forgetting Curve to Scheduling in the Garment Industry	203	The Development of Mini Portable Digester Designs for Domestic and Restaurant Solid Waste Processing to be Clean Biogas as Energy's Alternative to Replace LPG

Note:

The time allotted for each *presentation* is 15 minutes inclusive of question & answer session.

Day 3 (Saturday, 14th November 2015)

**A tour of the City of Kuala Lumpur
(Tour Starts from the Conference Venue)**

8:00 AM to 12:30 PM