

## DAILY CONFERENCE PROGRAM IDECON 2016

### DAY 1 (MONDAY 19<sup>th</sup> SEPTEMBER 2016)

7.30 am – 8.00 am	Registration of participants
8.00 am – 9.30 am	<b>Parallel Session A1, B1, C1, D1, E1</b>
9.30 am – 9.45 am	National Anthem & Doa
9.45 am – 10.45 am	<b>Keynote 1</b> <b>YBhg. Professor Datuk Dr. Shahrin Bin Sahib</b> [Vice Chancellor, Universiti Teknikal Malaysia Melaka] Moderator: <b>Prof Dr. Radzali Bin Othman</b> <i>Title : “TVET : Driving Academia Excellence”</i>
10.45 am – 11.00 am	<b>BREAK - REFRESHMENT</b>
11.00 am – 12.00 am	<b>Keynote 2</b> <b>Ybhg. Tan Sri Khalid Bin Ramli</b> [The Chief Executive Officer of Langkawi Development Authority - LADA] Moderator: <b>Prof Dr. Radzali Bin Othman</b> <i>Title :</i>
12.00 am – 02.00 pm	<b>LUNCH</b>
02.00 pm – 03.45 pm	<b>Parallel Session A2, B2, C2, D2, E2</b>
03.45 pm – 04.00 pm	<b>BREAK - REFRESHMENT</b>
04.00 pm – 06.00 pm	<b>Parallel Session A3, B3, C3, D3, E3</b>
06.00 pm	<b>End of 1<sup>st</sup> Day Conference Session</b>
08.00 pm – 11.00 pm	<b>CONFERENCE DINNER</b>

### DAY 2 (TUESDAY 20<sup>th</sup> SEPTEMBER 2016)

7.30 am – 8.00 am	Registration of participants
08.00 am – 10.00 am	<b>Parallel Session A4, B4, C4, D4, E4</b>
10.00 am – 10.15 am	<b>BREAK - REFRESHMENT</b>
10.15 am – 11.45 am	<b>Keynote 3</b> <b>Professor Dr. Shuichi Fukuda</b> [Honorary Member of JSME and Fellow of ASME, IEICE and ISPE Consulting Professor at Stanford University, USA] Moderator: <b>Prof Dr. Radzali Bin Othman</b> <i>Title: "Parallel Engineering: Age of Midfielders"</i>
11.45 am – 00.15 pm	<b>CLOSING CEREMONY</b>
00.15 pm – 02.00 pm	<b>LUNCH</b>
02.00 pm – 09.00 pm	<b>LANGKAWI TOUR</b>

## **PARALLEL SESSION**

## DAY 1 [MORNING]

### PARALLEL SESSION A (1)

Date : Monday, September 19, 2016  
Time : 08:30 am – 09:30 am  
Venue : Adya 1  
Chairperson : PM Dr. T Joseph Sahaya Anand

Time	Paper Title	Author(s)	Paper ID
08:30 – 08:45	BIODEGRADABILITY OF POLYVINYL ALCOHOL (PVA) IN SAND FOR RESIN BONDED SAND CASTING PROCESS	Nur Izan Syahriah Hussein, Mohamad Nizam Ayof, Mohd Yuhazri Yakob, Siti Haizum Salimon	67
08:45 – 09:00	PRELIMINARY STUDY ON THE SOUND ABSORPTION BEHAVIOUR OF SPENT TEA LEAVES FILLED POROUS MATERIAL	Kylie Wong, Qumrul Ahsan, Azma Putra, Sivarao Subramonian, Mohd Jailani Mohd Nor	55
09:00 – 09:15	THIXOFORMED OF AL-6SI-XCU-0.3 MG ALLOYS	M.S. Salleh, N.Naili and S.H.Yahaya	14
09:15 – 09:30	MICROSCOPIC STUDY ON THE NATURAL RUBBER WITH DIFFERENT CARBON LOADINGS UNDER COMPRESSION: SMR CV-60 AND ENR 25.	Mohd Azli Salim	30

### PARALLEL SESSION B (1)

Date : Monday, September 19, 2016  
Time : 08:30 am – 09:30 am  
Venue : Adya 2  
Chairperson : Dr. Effendi Mohamad

Time	Paper Title	Author(s)	Paper ID
08:30 – 08:45	EXPLORING THE FACTORS AND STRATEGIES IN IMPLEMENTATION OF SUSTAINABLE LAND TRANSPORT SYSTEM IN AYER KEROH, MELAKA	Heoy Shin Loo, Boon Cheong Chew, Syaiful Rizal Hamid, Fatin Hafizah Sukri	56
08:45 – 09:00	BRANDING MALACCA AS A COMPLETE GREEN CITY FOR STATE IMAGE ENHANCEMENT	Fatin Hafizah Sukri, Boon Cheong Chew, Syaiful Rizal Hamid, Heoy Shin Loo	48

09:00 – 09:15	GREEN LOGISTICS IMPLEMENTATION FACTORS IN MALAYSIAN LOGISTICS INDUSTRY - A CONCEPTUAL STUDY	Rose Lew Ai Fen, Boon Cheong Chew, Mohd Syaiful Rizal Bin Abdul Hamid	45
09:15 – 09:30	KEY DRIVERS TOWARDS SUSTAINABLE SERVICES DEVELOPMENT IN MALAYSIAN AIRLINE: EVIDENCE FROM AIR	Muhammad-Azfar Abdullah, Boon-Cheong Chew, Syaiful-Rizal Hamid	44

**DAY 1 [MORNING]****PARALLEL SESSION C (1)**

Date : Monday, September 19, 2016  
 Time : 08:30 am – 09:30 am  
 Venue : Adya 3  
 Chairperson : Dr. Mohd Amri Sulaiman

Time	Paper Title	Author(s)	Paper ID
08:30 – 08:45	JOB SHOP MATERIAL CONTROL BASED ON THE PRINCIPLES OF QUICK RESPONSE MANUFACTURING	Bong Cheng Siong	26
08:45 – 09:00	A STUDY ON SURFACE ROUGHNESS DURING RAPID PROTOTYPING : A REVIEW	Nurul Hatiqah Harun, Mohd Shahir Kasim, Hassan Attan, Muhammad Zaimi Zainal Abidin, Raja Izamshah Raja Abdullah	21
09:00 – 09:15	INVESTIGATION OF EFFECTS OF CARBON NANOFIBER NANOFUID IN DRILLING OF AISI 304 STAINLESS STEELPARAMETRIC MODELING OF METAL INERT GAS (MIG) WELDING PROCESS USING SECOND-ORDER REGRESSION ANALYSIS	Pay Jun Liew, Aini Syahida Binti Mohd Hajazi, Ainusyafiqah binti Shaaroni, Mohd Amri Bin Sulaiman, Raja Izamshah Bin Raja Abdullah	154
09:15 – 09:30	PARAMETRIC MODELING OF METAL INERT GAS (MIG) WELDING PROCESS USING SECOND-ORDER REGRESSION ANALYSIS	Elfi Rahayu Imam Fauzi, Zahurin Samad, Mohd Sabri Che Jamil, Goh Poey Boon.	134

**PARALLEL SESSION D (1)**

Date : Monday, September 19, 2016  
 Time : 08:30 am – 09:30 am  
 Venue : Adya 4  
 Chairperson : Dr. Suriati Akmal

Time	Paper Title	Author(s)	Paper ID
08:30 – 08:45	FINITE ELEMENT ANALYSIS OF LOW VELOCITY BEHAVIOUR ON FUSE DEPOSITION	Maidin, S., Seeying, C	153

	MODELING PRINTED STAB-RESISTANT BODY ARMOUR DESIGN FEATURES		
08:45 – 09:00	WIRE BENDING USING SHEET METAL FEATURE FOR DENTISTRY APPLICATION	Rahimah Abdul Hamid, Teruaki Ito	104
09:00 – 09:15	PROPOSAL OF A UNIVERSAL DESIGN METHOD FOR REFLECTING PHYSICAL CHARACTERISTICS OF DIVERSE USERS - CASE STUDY OF A BICYCLE FRAME-	Masato Inoue	117
09:15 – 09:30	DESIGN AND ANALYSIS OF ANKLE FOOT ORTHOSIS FOR DISABLED CHILDREN	S. Mohamaddan, N.Z. Ishak, A.M. Aizuddin, S. Yamamoto ,S.Z.M. Dawal, E.B. Safawi , H. Khamis	108

## DAY 1 [MORNING]

### PARALLEL SESSION E (1)

Date : Monday, September 19, 2016  
Time : 08:30 am – 09:30 am  
Venue : Adya 5  
Chairperson : Dr. Ing. Azrul Azwan Abdul Rahman

Time	Paper Title	Author(s)	Paper ID
08:30 – 08:45	DESIGN ANALYSIS OF REMOTELY AMPHIBIAN VEHICLE (RAV) –UNDERWATER DRONE	Mohammad 'Afif Kasno, Mohd Shahrieel Mohd Aras, Yeoh Eik Keong, Fadilah Ab Azis, Anuar Mohamed Kassim, Mohamad Haniff Harun, Mohd Khairi Mohd Zambri, Alias Khamis	77
08:45 – 09:00	A DETECTION OF MULTIPLE GLASS DEFECTS USING IMAGE PROCESSING TECHNIQUE	Nurizati Syakirin Rosli, Mohammad Hafidz Fazli Md Fauadi, Nurfadzylah Awang	65
09:00 – 09:15	REVIEW ON APPLICATION OF RADIO FREQUENCY IDENTIFICATION (RFID) IN LOGISTICS	Huong Yu Chung, Zamberi Jamaludin, Lokman Abdullah	24
09:15 – 09:30	DESIGN METHODOLOGY OF A MODULAR NEURAL NETWORK RECOGNIZER FOR BIVARIATE QUALITY CONTROL	Nurul Adlihisam Mohd Sohaimi	43

**DAY 1 [AFTERNOON]****PARALLEL SESSION A (2)**

Date : Monday, September 19, 2016  
Time : 14:00 pm – 15:45 pm  
Venue : Adya 1  
Chairperson : PM Dr. Mohd Fadzli Abdollah

Time	Paper Title	Author(s)	Paper ID
14:00 – 14:15	REVIEW ON COOLING CURVE THERMAL ANALYSIS OF COMMERCIALIZED ALUMINIUM ALLOYS	Mohamad Ridzuan Mohamad Kamal	112
14:15 – 14:30	COLLAPSIBILITY OF PMMA BASED MATERIAL IN DIRECT INVESTMENT CASTING	Muhammad Shazwan Shukri.	156
14:30 – 14:45	REVIEW ON THE APPLICATION OF CARBON NANOTUBES BASED POLYMER COMPOSITES	Noraina Alia Mat Noo <sup>a</sup> , Jeefferie Abd Razak, Syahriza Ismail, Noraiham Mohamad, Lau Kok Tee, Rose Farahiyah Munawar.	115
14:45 – 15:00	ELECTROLESS QUATERNARY NI-CU-CO-P ALLOY DEPOSITION MECHANISM IN ACIDIC BATH USING CYCLIC VOLTAMMETRY MEASUREMENT	M. N. Azran, M. Khaizaki, M. Alif, M. Zaimi, M. A. Azam, M. S. Kasim, M. S. A. Aziz, T. Anand, C. H. C. Haron, J. A. Ghani	10
15:00 – 15:15	INFLUENCE OF CURING TEMPERATURE ON MECHANICAL PROPERTIES OF WOVEN JUTE REINFORCED POLYESTER COMPOSITE	Zaleha Mustafa	145
15:15 – 15:30	EFFECT OF VOLTAGE ON TIO <sub>2</sub> NANOTUBES FORMATION IN ETHYLENE GLYCOL SOLUTION	Syahriza Ismaila, Khairil Azwa Khairula, Nurul Asyikin Ahmad Nor Hishama, Md Shuhazlly Mamat, Mohd Asyadi Azama.	142
15:30 – 15:45	THE EFFECT OF ALKALINE TREATMENT AND FIBRES LENGTH ON PINEAPPLE LEAF FIBRES REINFORCED POLYLACTIC ACID BIOCOSCOMPOSITES	Siti Nur Rabiaturadawiah Ramli, Siti Hajar Sheikh Fadzullah, Zaleha Mustafa.	141



**DAY 1 [AFTERNOON]**

**PARALLEL SESSION A (3)**

Date : Monday, September 19, 2016  
 Time : 16:00 pm – 17:45 pm  
 Venue : Adya 1  
 Chairperson : Dr. Syahriza Ismail

Time	Paper Title	Author(s)	Paper ID
16:00 – 16:15	TIO <sub>2</sub> NANOPARTICLES REINFORCED LEAD-FREE 96.5SN–3.0AG–0.5CU SOLDER PASTE FOR ULTRA-FINE PACKAGE ASSEMBLY IN REFLOW SOLDERING PROCESS	F. Che Ani, A. Jalar , Z. Mustafa A.A. Saad , C.Y. Khor, N. K. Othman , M.Y. Tura Ali, Z. Samsudin	137
16:15 – 16:30	UREA GRAFTED MULTIWALLED CARBON NANOTUBES ENHANCING NITROGEN USE EFFICIENCY AND NITROGEN UPTAKE BY PADDY PLANTS	Azizah Shaaban, Norazlina Mohamad Yatim, Mohd Fairuz Dimin, Faridah Yusof, Jeefferie Abd Razak	105
16:30 – 16:45	CHARACTERIZATION OF DODECYLBENZENE SULFONIC DOPED POLYMERIZED POLYANILINE	Nurul Akmil Mustaffa, Qumrul Ahsan, Mohd Asyadi Azam, Abdullah Luqman Chuah	97
16:45 – 17:00	MECHANICAL AND PHYSICAL PROPERTIES OF GLASS/FLAX REINFORCED EPOXY ON TENSILE, FLEXURAL AND WATER ABSORPTION	Muhamad Shahirul Mat Jusoh, Mohd Yazid Mohd Yahya, Zaleha Mustafa , Hariz Ahmad Israr Ahmad	86
17:00 – 17:15	DESIGN OF NON-DESTRUCTIVE TEST ON COMPOSITE MATERIAL USING PARALLEL PLATE ELECTRICAL CAPACITANCE TOMOGRAPHY: A CONCEPTUAL FRAMEWORK	Wan Norhisyam Abd Rashid, Elmy Johana Mohamad, Ruzairi Abdul Rahim, A Shamsul Rahimi Subki, Abdul Latiff Ahood, Ahmad Fauzan Kadmin, Mohd Hariz Naim @ Mohayat, Mazran Ahmad, Mohd Aliff Bin Mohd Tah	73
17:15 – 17:30	OPTIMIZATION OF PHOSPHORIC ACID TREATMENT BIOCHAR USING RESPONSE SURFACE METHODOPTIMIZATION OF PHOSPHORIC ACID TREATMENT BIOCHAR USING RESPONSE SURFACE METHOD	Farhaneem. N, Dimin M.F, Shaaban A.	7

17:30 – 17:45	A METHODOLOGY TO DEVELOP TAXONOMY OF ADDITIVE MANUFACTURING USING FORMAL ATTRIBUTES SPECIFICATION TEMPLATE	Suriati Akmal	76
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**DAY 1 [AFTERNOON]****PARALLEL SESSION B (2)**

Date : Monday, September 19, 2016  
 Time : 14:00 pm – 15:30 pm  
 Venue : Adya 2  
 Chairperson : PM. Dr. Mohd Rizal Salleh

Time	Paper Title	Author(s)	Paper ID
14:00 – 14:15	INTEGRATED MANAGEMENT SYSTEM FOR QUALITY MANAGEMENT SYSTEM ACCREDITATION	Mohd Hafizzudin Muzaimia, Boon Cheong Chew, Syaiful Rizal Hamid	42
14:15 – 14:30	CREATING SUSTAINABILITY THROUGH GREEN INTELLECTUAL PROPERTY IMPLEMENTATION; A LESSON LEARNT FOR MALAYSIA	Mohamad-Nazmi Ridzuan, Boon Cheong Chew	41
14:30 – 14:45	ONTOLOGICAL DESCRIPTIONS OF EMOTIONS IN WALKING ASSISTANCE	Keiichi Muramatsu, Eiichiro Tanaka, Keiichi Watanuki	121
14:45 – 15:00	IMPROVING MANUFACTURING EXECUTION SYSTEM (MES) DATABASE PERFORMANCE WITH QUERY REWRITING USING MATERIALIZED VIEW HIERARCHY	Nor'azah Md Khushairi, Nurul A. Emran, Mokhtar Mohd Yusof	147
15:00 – 15:15	EVALUATION OF MENU HIERARCHY DISPLAY TYPES OF SELF-CHECKOUT SYSTEM ON HUMAN PERFORMANCE	Nadiyah Ahmad, Radin Zaid Radin Umar, Isa Halim, Muhammad Syafiq Syed Mohamed, Haeryip Sihombing, Mohamad Ridzuan Jamli, Mohammad Syafiq Baharudin, Malek Hamid	128
15:15 – 15:30	LOW COST ERGONOMICS SOLUTIONS FOR SAFE WORK POSTURE AT CONVENTIONAL MILLING MACHINE	Isa Halim	127
15:30 – 15:45	LEAN PRODUCTION INCREASE OVERALL EQUIPMENT EFFICIENCY IN MANUFACTURE PAPER AND PAPER PRODUCTS INDUSTRY	Soo-Fen Fam	146

**DAY 1 [AFTERNOON]**

**PARALLEL SESSION B (3)**

Date : Monday, September 19, 2016  
 Time : 16:00 pm – 17:45 pm  
 Venue : Adya 2  
 Chairperson : Prof. Dr. Shuichi Fukuda

Time	Paper Title	Author(s)	Paper ID
16:00 – 16:15	A METHOD FOR FLEXIBLE JOB-SHOP SCHEDULING USING GENETIC ALGORITHM	Eiji Morinaga, Yuki Sakaguchi, Hidefumi Wakamatsu, Eiji Arai	72
16:15 – 16:30	CLEANER PRODUCTION IMPLEMENTATION IN E-WASTE RECOVERY PLANT BY USING VALUE STREAM MAPPING	Anuar Ishak, Effendi Mohamad, Lukman Sukarma , Mohd Shukor Salleh, AB Rahman Mahmood, Nor Akramin Mohamad , Raja Izamshah Raja Abdullah , Mohd Amran Md Ali	32
16:30 – 16:45	THE STRATEGIC USE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT ) ON THE GAPS MODEL OF SERVICE QUALITY IN BANKING INDUSTRY THE STRATEGIC USE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT ) ON THE GAPS MODEL OF SERVICE QUALITY IN BANKING INDUSTRY	Lay Hong, Tan , Boon Cheong, Chew , Syaiful Rizal, Hamid	31
16:45 – 17:00	ISSUES RELATED TO HUMAN TECHNOLOGY INTERACTION IN NAVIGATION OPERATION OF MERCHANT SHIPS	Saedah Sakidin, Boon Cheong Chew, Syaiful Rizal Hamid, Manivannan Subramaniam	29
17:00 – 17:15	SUPPLY CHAIN RISK IN MALAYSIA OIL AND GAS INDUSTRY: THE DOUBLE RISKS	Chien Khay Choong	101
17:15 – 17:30	INDUSTRY COLLABORATION PROGRAM (ICP): EMPOWERING TECHNOLOGY DEVELOPMENT FOR NATIONAL ECONOMIC GROWTH	Zailani bin Safari	81

17:30 – 17:45	A FRAMEWORK FOR IMPROVING MANUFACTURING OVERALL EQUIPMENT EFFECTIVENESS	Kam Choi Ng	135
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**DAY 1 [AFTERNOON]****PARALLEL SESSION C (2)**

Date : Monday, September 19, 2016  
 Time : 14:00 pm – 15:45 pm  
 Venue : Adya 3  
 Chairperson : Prof. Dr. Radzali Othman

Time	Paper Title	Author(s)	Paper ID
14:00 – 14:15	EXPERIMENTAL STUDY OF SELF-ALIGNMENT ON LEAD-FREE SOLDER PASTE INVOLVING REFLOW SOLDERING PROCESS	Mohd Najib Ali Mokhtar, Mohd Zulkifly Abdullah, Abdullah Aziz Saad, Zambri Samsudin, Damian Santhanasamy	132
14:15 – 14:30	OPTIMIZATION OF MOULDING COMPOSITION FOR QUALITY IMPROVEMENT OF SAND CASTING	Rahaini Mohd Said , Mohamad Ridzuan Mohamad Kamal, Nor Hamizah Miswan, Ng Shu Juan.	114
14:30 – 14:45	CUTTING PERFORMANCE OF ELECTROLESS TERNARY NI-W-P COATED CUTTING TOOL	Mohd Sanusi Abdul Aziz, Bahrin Ikram Redzuwan, Muhammad Zaimi, Raja Izamshah, Mohd Shahir Kasim, Mohd Amran Md Ali, Akira Mizobuchi, Tohru Ishida	102
14:45 – 15:00	REENGINEERING THE NEW PRODUCT DEVELOPMENT ON BIEICHI TECHNOLOGY	Ardinaldi Maliki, Boon Cheong Chew, Mohd Fazli Mohd Sam, Keng Liang Lau, Fatin Hafizah Sukri	94
15:00 – 15:15	EFFECT OF FATIGUE TEST ON SPOT WELDED STRUCTURAL JOINT	M.Khalid Wahid,M.Nabil Sufian , H.M.S. Firdaus	88
15:15 – 15:30	OPTIMISATION OF CUTTING PARAMETER ON SURFACE ROUGHNESS DURING END MILLING OF HIGH THERMAL CONDUCTIVITY STEEL-150	Mohd Hadzley Abu Bakar	8
15:30 – 15:45	AN INVESTIGATION ON THE EFFECT OF SURFACE FINISH BY VARYING MACHINING STRATEGIES OF FIVE-AXIS FLANK MILLING OF CURVY ANGLED SHAPES (CONVEX)	S.A Sundi, R. Izamshah, M.S Jumali , M.R Raffay	71

**DAY 1 [AFTERNOON]****PARALLEL SESSION C (3)**

Date : Monday, September 19, 2016  
Time : 16:00 pm – 17:45 pm  
Venue : Adya 3  
Chairperson : PM. Dr. Noreffendy Tamaldin

Time	Paper Title	Author(s)	Paper ID
16:00 – 16:15	ROTARY ULTRASONIC ASSISTED MACHINING OF MOULD AND DIE MATERIAL	Azlan Ramli., Raja Izamshah Raja Abdullah, Mohd Hadzley Abu Bakar, Mohd Shahir Kasim, Muhamad Afrauz A. Rahman, Muhammad Akmal Mohd Zakaria	57
16:15 – 16:30	A REVIEW OF DEVELOPMENTS TOWARDS MINIMUM QUANTITY LUBRICATION AND HIGH SPEED MACHINING OF ALUMINUM 7075-T6	Azreen Zainol Amir, MZA Yazid	46
16:30 – 16:45	TENSILE PROPERTIES OF TERNARY BLENDS FOR HDPE/PP/RECYCLE HDPE IN BLOW MOULDING PROCESS	Mohd Amran Md Alia, Abu Abdullah, Effendi Mohamad, Mohd Shukor Salleh, Nur Izan Syahriah Hussein, Zailani Muhammad, Shamshulizam Dahman	27
16:45 – 17:00	A NOVELTY ON WIRE ELECTRICAL DISCHARGE MACHINING (WEDM): A COMPREHENSIVE REVIEW	Mohd Aidil Shah bin Abdul Rahima, Mohamad bin Minhat, Nur Izan Syahriah Binti Hussein	18
17:00 – 17:15	EXPERIMENTAL STUDY OF WELDED JOINTS ON SPCC SHEET METAL USING DIFFERENT ELECTRODE TIPS	Nooririnah Omar	17
17:15 – 17:30	SIMULATION OF CUTTING FORCE DURING HIGH SPEED END MILLING OF INCONEL 718	Mohd Shahir Kasim	129
17:30 – 17:45	COUPLED THERMAL-STRESS ANALYSIS OF THE CORRUGATED METAL GASKET UNDER HIGH TEMPERATURE LOADING	Wahyono Sapto	75

**DAY 1 [AFTERNOON]****PARALLEL SESSION D (2)**

Date : Monday, September 19, 2016  
Time : 14:00 pm – 15:45 pm  
Venue : Adya 4  
Chairperson : Prof. Dr. Teruaki Ito

<b>Time</b>	<b>Paper Title</b>	<b>Author(s)</b>	<b>Paper ID</b>
14:00 – 14:15	VACUUM SYSTEM ASSISTED FDM – AN INVESTIGATION ON THE CHARACTERISTIC OF HEAT TRANSFER USING FINITE ELEMENT ANALYSIS	Maidin, S., Wong, J.H.U., Mohamed, A.S., Romlee, W.F.A., Akmal, S.	150
14:15 – 14:30	OPTIMIZATION OF CONCEPTUAL DESIGN OF BABY STROLLER USING DFMA	Mohd Hidayat Ab Rahman, Nurul Ain binti Maidin, Azie Noor Marlia Ruslan	37
14:30 – 14:45	SET-BASED UNIVERSAL DESIGN METHOD CONSIDERING WITH USER REQUIREMENTS VARIABILITY:CASE STUDY OF A MECHANICAL PENCIL	Masato Inoue	116
14:45 – 15:00	EFFECT OF MULTIPLE PIEZOELECTRIC TRANSDUCER ON FDM TO IMPROVE PARTS' SURFACE FINISH	Shajahan Bin Maidin	61
15:00 – 15:15	AUTO-RECOGNITION OF CHAMFER FEATURES BY RULE BASED METHOD AND AUTO-GENERATION OF DELTA VOLUME	Pramod S Kataraki, Mohd Salman Abu Mansor	87
15:15 – 15:30	FINITE ELEMENT ANALYSIS OF VACUUM CHAMBER APPLICATION ON FUSE DEPOSITION MODELING	Maidin, S., Wong, J.H.U., Mohamed, A.S., Romlee, W.F.A, Sivaraos	28
15:30 – 15:45	DESIGN, FABRICATION AND CONTROL OF UPPER LIMB REHABILITATION ROBOT PROTOTYPE FOR STROKE PATIENTS	Shahrol Mohamaddan	119



**DAY 1 [AFTERNOON]****PARALLEL SESSION D (3)**

Date : Monday, September 19, 2016  
Time : 16:00 pm – 17:45 pm  
Venue : Adya 4  
Chairperson : Dr. Rosidah Binti Jaafar

<b>Time</b>	<b>Paper Title</b>	<b>Author(s)</b>	<b>Paper ID</b>
16:00 – 16:15	A REVIEW ON TOOLS TO INCORPORATE BIOMIMETIC INTO PRODUCT DESIGN	Maidin, S., Romlee, W.F.A., Mohamed, A.S., Mohammad, N.M.A.N., Wong, J.H.U., Akmal, S.	59
16:15 – 16:30	ELECTRICAL TEST OF RESISTIVE AND CAPACITIVE OPEN DEFECTS AT DATA BUS IN 3D MEMORY IC	Masaki Hashizume	90
16:30 – 16:45	EXPERIMENTAL STUDY OF BIO-MFC FOR ELECTRICITY GENERATION: PERFORMANCE CHARACTERIZATION AND CAPACITY IMPROVEMENT	Zul Hasrizal Bohari	9
16:45 – 17:00	ELECTRICAL TESTS FOR CAPACITIVE OPEN DEFECTS IN ASSEMBLED PCBS	Fara Ashikin Binti Ali, Akihiro Odoriba, Masaki Hashizume, Hiroyuki Yotsuyanagi, Shyue-Kung Lu	98
17:00 – 17:15	COMPARISON OF CAP AND QAM-DMT MODULATION FORMAT FOR IN-HOME NETWORK ENVIRONMENT	N. M. Ridzuan, M. B. Othman, M. B. Jaafar, M. F. L. Abdullah	6
17:15 – 17:30	IMPROVE CYCLE TIME FOR PAD INDUCTOR LAYER BY INTRODUCE REMOTE GLOBAL ALIGNMENT ERROR ASML TOOLS	Shajahan Bin Maidin	74
17:30 – 17:45	SIGNIFICANT EFFECT OF POINT TO POINT CHECKING JIG APPLY IN KAIZEN TO ENHANCE PRODUCT QUALITY PERFORMANCE	Mohd Soufhwee Rahman	125

**DAY 1 [AFTERNOON]****PARALLEL SESSION E (2)**

Date : Monday, September 19, 2016  
Time : 14:00 pm – 15:45 pm  
Venue : Adya 5  
Chairperson : Prof. Dr. Masato Inoue

<b>Time</b>	<b>Paper Title</b>	<b>Author(s)</b>	<b>Paper ID</b>
14:00 – 14:15	DEVELOPMENT OF HMD-BASED TELE-IMMERSION SYSTEM FOR COLLABORATIVE WORK	Tetsuro Ogi	38
14:15 – 14:30	A FRAMEWORK DESIGN OF STEP-NC CONTROLLER VIA MATLAB/SIMULINK	Norhidayah Mat Seman, Zamberi Jamaludin, Mohamad Minhat, Yusri Yusof	25
14:30 – 14:45	ARCHITECTURE OF RECONFIGURABLE CONVEYOR SYSTEM IN MANUFACTURING SYSTEM	Nor Rizan Mohamad, Azrul Azwan Abdul Rahman, Bashir Mohamad Bali Mohamad, Muhamad Arfauz A Rahman, Fairul Azni Jaafar, Razali Muhammad, Hafidz Fadzli	63
14:45 – 15:00	PRECISE POSITIONING CONTROL STRATEGY OF MACHINE TOOLS: A REVIEW	Nur Amira Anang, Lokman Abdullah, Zamberi Jamaludin, Zain Retas, Syed Najib Syed Salim, Chiew Tsung Heng.	23
15:00 – 15:15	APPLICATION OF ROBOTS TO IMPROVE SOCIAL AND COMMUNICATION SKILLS AMONG AUTISTIC CHILDREN	Muhammad Zaiyad Ismail	157
15:15 – 15:30	DESIGN OF COMPACT PRE-PREGGER MACHINE FOR IN HOUSE PRODUCTION OF PRE-PREG MATERIAL	Muhamad Arfauz A Rahman, Nor Rizan Mohamad, Zaleha Mustafa, Syahriza Ismail, Azrul Azwan Abdul Rahman, Shariman Abdullah, Effendi Mohamad, Mohd Hisham Nordin, Mohd Rizal Salleh	143
15:30 – 15:45	POINT TO POINT POSITIONING CONTROL OF A 1-DOF PNEUMATIC MUSCLE ACTUATOR SYSTEM	C. Y. Chan, S. H. Chong, K. Sato, V. Sakthivelu, S. L. Loh	54

**DAY 1 [AFTERNOON]****PARALLEL SESSION E (3)**

Date : Monday, September 19, 2016  
 Time : 16:00 pm – 18:00 pm  
 Venue : Adya 5  
 Chairperson : Mr. Shariman Abdullah

Time	Paper Title	Author(s)	Paper ID
16:00 – 16:15	AUTOMATED ISOLATION RECYCLING BIN	Norhafiza Samion, Masiri Kaamin, Nor Faezah Adan, Nurul Nadiah Ab Latiff, Aslila Abd. Kadir	148
16:15 – 16:30	PERFORMANCE ANALYSIS OF PID AND FUZZY LOGIC CONTROLLER FOR UNMANNED UNDERWATER VEHICLE FOR DEPTH CONTROL	Mohd Shahrieel Mohd Aras, Marizan Sulaiman, Yeoh Eik Keong, Mohammad 'Afif Kasno, Anuar Mohamed Kassim, Alias Khamis	131
16:30 – 16:45	EXPERIMENTAL STUDY ON CHEMICAL MECHANICAL PLANARIZATION PROCESS BY AUTOMATED MANUFACTURING SYSTEM	Samad Ramlan	123
16:45 – 17:00	GENERALIZED MINIMUM VARIANCE CONTROLLER DESIGN FOR PNEUMATIC SYSTEMS	Khairuddin Osman, Nur Khairul Bariyah Mahyudin, Siti Fatimah Sulaimana	107
17:00 – 17:15	THE VEHICLE STEER BY WIRE CONTROL SYSTEM BY IMPLEMENTING PID CONTROLLER	Mohd Zaidi Mohd Tumari, Muhammad Salihin Saealal, Wan Norhisyam Abd Rashid, Shahrizal Saat, Muhamad Azidi Mohd Nasir	95
17:15 – 17:30	CONTROL CHART PATTERN RECOGNITION IN METAL-STAMPING PROCESS USING STATISTICAL FEATURES-ANN	Norasulaini Abd Rahman, Ibrahim Masood, Mohd Nasrull Abd Rahman	13
17:30 – 17:45	IMPROVING QUALITY IN ELECTRODEPOSITION PROCESS OF LIGHT COMMERCIAL VEHICLE	Nabiilah Ab Rahim	160
17.45 - 18:00	EFFECTS OF BIODIESEL TOWARDS CI ENGINE PERFORMANCE AND EMISSION: A BRIEF REVIEW	Khairul Azri Azlan	166

**DAY 2 [MORNING]****PARALLEL SESSION A (4)**

Date : Tuesday, September 20, 2016  
 Time : 08:00 am – 10:00am  
 Venue : Adya 1  
 Chairperson : Dr. Rose Farahiyah Munawar

Time	Paper Title	Author(s)	Paper ID
08:00 – 08:15	DESIGN AND MODELLING OF WAVE ENERGY CONVERTER AND POWER TAKE-OFF SYSTEM	Edwin Chuah, Kumaresan Magaswaran, Muhammad Zahir Hassan	99
08:15 – 08:30	IMPLEMENTATION OF ROBUST COMPOSITE NONLINEAR FEEDBACK FOR ACTIVE FRONT STEERING BASED VEHICLE YAW STABILITY	Mohd Hanif Che Hasan, Yahaya Md Sam, Muhamad Khairi Aripin, Mohamad Haniff Harun, Syahrul Hisham Mohamad	51
08:30 – 08:45	IN-SITU MEASUREMENT OF ELECTRODE WEAR DURING EDM DRILLING USING VISION SYSTEM	Zamzuri Hamedon	159
08:45 – 09:30	DEVELOPMENT OF OPTIMIZE PROTOTYPE FORMULA VARSITY KNUCKLE	Hassan Attan	118
09:30 – 09:45	EMPTY ALUMINIUM HONEYCOMB UNDER QUASI-STATIC LOADING: EXPERIMENT AND SIMULATION	M. R. Said	60
09:45 – 10:00	AN IMPROVE OF IMAGE FILTERING METHOD IN WELDING INSPECTION USING PSNR EVALUATION	Nurfadzylah Awang	130

**PARALLEL SESSION B (4)**

Date : Tuesday, September 20, 2016  
 Time : 08:00 am – 10:00am  
 Venue : Adya 2  
 Chairperson : PM. Dr. Nur Izan Syahriah Hussein

Time	Paper Title	Author(s)	Paper ID
08:00 – 08:15	INITIAL DESIGN OF SEMI AUTO SOAP MAKING DEVICE FROM USED COOKING OIL FOR HOME APPLIANCES	Nurul Ain Maidin, Mohd Hidayat Ab Rahman, Mohd Nazri Ahmad, Siti Asmira Abdul Rahman, Mohd Rizal Bin	36

		Alkahari	
08:15 – 08:30	BIODEGRADATION OF USED ENGINE OIL BY USING MICROORGANISM	Nurdiyana Husin	158
08:30 – 08:45	INFLUENCES OF DRAW FORMING PROCESS ON THE CRASH ANALYSIS OF A CIRCULAR CUP	Sivakumar D	165
08:45 – 09:00	A SURVEY ON PUBLIC PARTICIPATION OF MALAYSIA'S MRT PROJECT WITH REFERENCE TO ENVIRONMENTAL IMPACT ASSESSMENT	Fairiz Miza Yop Zain, Dasimah Omar	58
09:30 – 09:45	MESH CONVERGENCE STUDY ON TETRAHEDRAL AND HEXAHEDRAL DOMINANT ELEMENTS TYPES IN FINITE ELEMENT ANALYSIS OF IC PACKAGE	Khairul Fadzli Samat	52
09:45 – 10:00	THE APPLICATIONS OF SHAPE-CHANGING AND RIGID BODY MECHANISMS IN ARTS AND ENGINEERING	Shamsul Anuar Bin Shamsudin	120

**DAY 2 [MORNING]****PARALLEL SESSION C (4)**

Date : Tuesday, September 20, 2016  
 Time : 08:00 am – 10:00am  
 Venue : Adya 3  
 Chairperson : Dr. Zuhriah Ebrahim

Time	Paper Title	Author(s)	Paper ID
08:00 – 08:15	SIMULATION MODELLING FOR LEAN PRODUCTION : CASE STUDY	Wan Hasrulnizam Wan Mahmood, Muhamad Zaki Yusup, Mohd Rizal Salleh Mohd Nizam Ab Rahman	100
08:15 – 08:30	CROWDFUNDING FOR RESEARCH: A CASE STUDY IN RESEARCH MANAGEMENT CENTRE IN MALAYSIA	Keng Liang Lau, Boon Cheong Chew, Ardinaldi Maliki	89
08:30 – 08:45	FACTORS INFLUENCING ENTERPRISE RESOURCE PLANNING SYSTEM: A REVIEW	Muhammad Syahid Hasan, Wan Hasrulnizam Wan Mahmood, Zuhriah Ebrahim, Mohd Nizam Ab Rahman	85
08:45 – 09:30	DEVELOPMENT OF ENTERPRISE HUMAN SYSTEM MODELING FRAMEWORK IN SUPPORT OF CELLULAR MANUFACTURING LEAN OPERATION	Rohana Abdullah, Hanizam Hashim, Md Nizam Abd Rahman, Mohd Rizal Salleh	82
09:30 – 09:45	WHAT IS THE STRENGTH OF JAPANESE COMPANIES? A PROPOSED TQM FRAMEWORK USING ATLAS.TI	Md Fauzi Ahamad	163
09:45 – 10:00	A STUDY ON HAND GRIP FORCE FOR PUSH ACTIVITY AT AEROSPACE INDUSTRY	Seri Rahayu Kamat	122

**PARALLEL SESSION D (4)**

Date : Tuesday, September 20, 2016  
 Time : 08:00 am – 10:00am  
 Venue : Adya 4  
 Chairperson : Dr. Shukor Salleh

Time	Paper Title	Author(s)	Paper ID
08:00 – 08:15	EFFECT OF CUTTING PARAMETERS ON SURFACE ROUGHNESS IN DRY DRILLING OF AISI D2 TOOL STEEL BY	Mohd Hairizal Osman	164

	USING TAGUCHI METHOD		
08:15 – 08:30	A REVIEW ON METHODS FOR THIN PLATES JOINING USING ARC WELDING AS HEAT SOURCE	Nur Izan Syahriah Hussien	126
08:30 – 08:45	PERFORMANCE OF CVD COATED CARBIDE TOOL BY OPTIMIZING MACHINING PARAMETERS DURING TURNING TITANIUM ALLOY Ti-6Al-4V ELI IN FLOODED CONDITION	Siti Asiyah Mat, Mohd AmriSulaiman*, Mohamad SaufiSubari, Zuraimi Ramle, Effendi Mohamad, Raja Izamshah Raja Abdullah	136
08:45 – 09:30	OPTIMIZATION OF DRILL GEOMETRY DESIGN TO MINIMIZE THERMAL NECROSIS IN SURGICAL BONE DRILLING	Raja Izamshah	138
09:30 – 09:45	ANALYSIS OF SURFACE INTEGRITY OF ALUMINIUM ALLOY 2024 UNDER DIFFERENT CUTTING CONDITIONS	Mohd Hadzley Abu Bakar	22
09:45 – 10:00	COMPARATIVE STUDY ON THE APPLICATION OF FUZZY ANALYTIC HIERARCHY PROCESS WITH EXTENT ANALYSIS AND ANALYTIC HIERARCHY PROCESS IN DETERMINING THE WEIGHT OF CUSTOMER REQUIREMENTS	Mohd Sapuan Salit	16

**DAY 2 [MORNING]****PARALLEL SESSION E (4)**

Date : Tuesday, September 20, 2016

Time : 08:00 am – 10:00am

Venue : Adya 5

Chairperson : Dr. Jeeffeire Abd Razak

Time	Paper Title	Author(s)	Paper ID
08:00 – 08:15	WATER REPELLENT IMPROVEMENT OF GREEN COMPOSITE SHEET SURFACE BY HYDROPHOBIC MODIFIED-SILICA COATING	Rose Farahiyan Munawar, Afraha Baiti Arif, Wan Nur Fateehah Wan Abdullah Shani, Noraiham Mohamad, Jeefferie Abd Razak, Hairul Effendy Ab Maulod, Qumrul Ahsan, Mohd Shukor Salleh, Nurul Husna Mohd Hassan	20
08:15 – 08:30	PRELIMINARY INVESTIGATION ON THE POTENTIAL OF RUBBER WOOD AS HONEYCOMB CORE	Jennise Tan Teng Teng, Mohd Yuhazri Yaakob, Haeryip Sihombing, Mohd Edeerozey bin Abd Manaf, Nur Izan Syahriah binti Hussein	83
08:30 – 08:45	EFFECT OF THIXOFORMING ON THE WEAR PROPERTIES OF AL-SI-CU ALUMINUM ALLOY	M.Z. Omar	79
08:45 – 09:30	INFLUENCE OF SONICATION ASSISTED DISPERSION METHOD ON THE MECHANICAL AND ELECTRICAL PROPERTIES OF NYLON 66/NANO-COPPER NANOCOMPOSITE	Mohammed Iqbal Shueb, Mohd Edeerozey Abd Manaf, Chantara Thevy Ratnam, Noraiham Mohamad	78
09:30 – 09:45	QUALITY AND YIELD IMPROVEMENT OF BARREL TIN PLATING PROCESS FOR SMX SEMICONDUCTOR PACKAGE	Mohd Misri bin Dollah Kanan, Muhammad Zaimi, Mohd Edeerozey Abd Manaf, Pham Ngoc Mai	53
09:45 – 10:00	SEMISOLID FORMING OF AL-6%SI-3%CU ALLOY	M.S. Salleh, M.A.H. Safian, <sup>2</sup> M.R.M. Kamal, Z. Marjom, S.H. Yahaya, E. Mohamad and M.R. Jamli	12