



IRID'16

Innovative Research and Industrial Dialogue 2016

Bridging University And Industries Through Research

PROGRAMME BOOK



20 Dec '16
Fakulti Kejuruteraan
Pembuatan, UTeM

Co-Organized by :



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IRID'16

Innovative Research and Industrial Dialogue 2016

Bridging University And Industries Through Research

IRID'16 (Innovative Research and Industrial Dialogue) is the inaugural research day hosted by the Advanced Manufacturing Centre (AMC) of the Faculty of Manufacturing Engineering, UTeM. IRID aims to offer post-graduate students as well researchers and engineers from industry, especially in the field of engineering and technology, a unique platform to present their research findings, establish a mutual knowledge transfer and networking. Through IRID, ideas and solutions to the problems and needs of the local industry can be shared, thus bridging the gap between university and industry in Malaysia.

Message From Chairman



Assalamu'alaikum wrt. wbt and Salam 1Malaysia,

On behalf of the organizing committee, it is my great pleasure to welcome all participants to the Innovative Research and Industrial Dialogue 2016 (IRID'16) held at the Faculty of Manufacturing Engineering, Universiti Teknikal Malaysia Melaka (UTeM) - Melaka, Malaysia. This inaugural event is organized by the Advanced Manufacturing Centre (AMC) of the Faculty of Manufacturing Engineering of UTeM.

With the theme “**Bridging University and Industries through Research**”, IRID'16 offers academicians, post-graduate students, as well as researchers and engineers from industry, especially in the field of engineering and technology, a unique platform to present their research findings, establish a mutual knowledge transfer and networking. Through this, ideas and solutions to the problems and needs of the local industry can be shared, thus bridging the gap between university and industry in Malaysia. This is in line with the increasing demand for innovative research ideas for solving real engineering problems which advocate the provision of rigorous study among distinct communities.

IRID'16 is the first of its kind hosted by the Faculty, which incorporates researchers from university and industries, and it is hoped that it will pave the way for many more productive and interesting events in the future. Last but not least, I wish to formally put on record my sincere thanks to the organizing committee for ensuring the success of IRID'16. Finally, I would like to express our deepest gratitude to the Faculty and sponsors for their continuous support rendered throughout this event.

Thank you.

Prof. Dr. Radzali Bin Othman

Programme Schedule

TENTATIVE PROGRAMME IRID'16

08:00 am	Registration for Participants and Panels Fee Payment by Participants. (Lobby, Pusat Pengajian Siswazah)
09:00 am	Opening Ceremony (Auditorium, Pusat Pengajian Siswazah)
09:30 am	Photo Session
09:45 am	Poster Viewing of Research Showcase (by VIPs) (Advanced Manufacturing Centre (AMC) Laboratory Complex, Fakulti Kejuruteraan Pembuatan)
10:15 am	Refreshment (Banquet Room, Pusat Pengajian Siswazah)
10:45 am - 12:30 pm	Industrial Forum: Career Prospects in Manufacturing Engineering (Auditorium, Pusat Pengajian Siswazah)
12:30 pm	Break
2:00 pm - 4:00 pm	Research Showcase (Advanced Manufacturing Centre (AMC) Laboratory Complex, Fakulti Kejuruteraan Pembuatan)
	UTeM-Materials Lecture Competition (Auditorium, Pusat Pengajian Siswazah)
04:30 pm	Closing Ceremony: Certificate and Awards Presentation (Auditorium, Pusat Pengajian Siswazah)

INDUSTRIAL FORUM



Title : ***Career Prospects in Manufacturing Engineering***

Chairperson : Mr. Muhammad Syafiq Syed Mohamed

Moderator : Prof. Ir. Dr. Sivarao A/I Subramonian



MR. LEE CHEONG CHEE
(CEO, INFINEON TECHNOLOGIES (MALAYSIA) SDN. BHD.)

Mr. Lee Cheong Chee is President and Managing Director of Infineon (Melaka), a company providing semiconductor and system solutions located in Malacca, Malaysia. Mr. Lee is a graduate of South Dakota School of Mines & Technology, USA, where he received a BSc Electrical Engineering.

After graduation, Mr. Lee launched his career at National Semiconductor (M) Sdn Bhd in Batu Berendam, Malacca, where he began his specialization in semiconductor solutions and technology. He was involved in various projects such Improvement of Customer Line Pull DPPM (1994), Improvement of Plant Test Capacity, Increment of Audio and Monitor Product Group Sales, Improvement of Outgoing Visual Mechanical Quality etc.

In 1997, he assumed the role as Head of Quality and Reliability Assurance department, where he has successfully managed and led numerous projects such as Obtainment of QS9000 certification, Implementation of TENS (Test Electrical Normality Scanning) system , Implementation of new quality concept gate of ERA (Electrical Reject Audit). In 2001, he took up projects of Wafer Bump Fab Operation and Wafer Back Grid & Back Metal Operations, in which he had successfully started up US\$ 13.8 Million Wafer Bump Fab investment project. In 2004, he was relocated to Suzhou, China as Operation Director to head a new plant's entire operations from wafer sort, assembly to final test. Two year later, he was promoted to be Managing Director of the Suzhou plant. After three years he relocated to Malacca plant as Vice President and Managing Director. There, he had successfully executed the closure and transfer of the entire Suzhou operation to Malaysia within 6 months. Under his lead, they managed to achieve zero Customer Quality Incidence for 7 consecutive quarters and improved customer delivery performance from 88% to 99%.

In January, 2014 he was appointed as President and Managing Director of Infineon (Malacca) plant till now. During his free time, he loves to spend time with his wife and 4 children. He also likes to play golf occasionally.



TUAN HAJI MOHAMAD ZAMRI MD. ZIN
(Manager/ Staff Engineer, Manufacturing Planning, Production
Engineering, PROTON (MALAYSIA) SDN. BHD.)

Mr. Mohamad Zamri Bin Md. Zain is Head of Stamping Engineering, Manufacturing division of Perusahaan Otomobil Nasional (Proton) located in Shah Alam. Mr. Mohamad Zamri is a graduate of Universiti Sains Malaysia (USM), where he receive a Bachelor of Engineering (Hons) in Material Engineering.

After graduation, Mr. Mohamad Zamri launched his career at Proton (Shah Alam) Selangor, where he began his specialization in metal stamping. He was assigned as a stamping engineer at production department in year 1994 until 1995. In 1995, he was moved to the research and development division as prototype engineer, project coordinator and head of planning and logistic until year 2003. He is assign as head of stamping engineering in manufacturing division until present.

Other than that, he actively involved in teaching and learning. He was appointed as honorary lecture at Universiti Malaysia Perlis (UniMAP) for season 2006 until 2009 and as final year project examiner for mechanical engineering department, Universiti Teknologi Petronas (UTP) from 2014 until 2016.

MR. AMIRUL HERMAN RAZALI
(Head of Department, Manufacturing Engineering Department,
CTRM (MALAYSIA) SDN. BHD.)



Mr. Amirul Herman Razali is head of Manufacturing Engineering Department of CTRM Aero-Composites Sdn. Bhd., a manufacturing company providing composite components for both aerospace and non-aerospace segments, located in Malacca, Malaysia. Mr. Amirul is a graduate of Universiti Putra Malaysia (UPM), where he received a BSc. in Aerospace Engineering in 2006.

After graduation, Mr. Amirul started his career at CTRM Excelnet Engineering Sdn. Bhd. in CyberJaya, Selangor as stress engineer, where he was in charge of Finite Element analysis of various types of aircrafts. In 2008, he was transferred to CTRM Aero-Composites Sdn. Bhd. There, he continued as stress engineer and was in charge of Finite Element Analysis as well as involved in Composite Repair and Production team. He also involved in GAP Analysis to support CTRM to fulfill GKN D.E requirement based on Airbus Industries Process Specification.

In 2010, he moved to Mercedes GP Petronas F1 Team Limited, where he was assigned as stress engineer. He was involved in finite element analysis team for the development process of 2011 F1 car using MSC PATRAN & NASTRAN for both composite and metallic parts. The job scope includes analyzing data & proposing idea & solution during preliminary design process for rear impact structure, F1 car floor, air intake, rear actuator & mirror.

In 2011, he moved back to CTRM Aero-Composites Sdn. Bhd. as Head of section in which he was responsible in managing Stress Section activities. He was also in charge of preliminary checking of Finite Element model and stress report, troubleshooting of MSC, PATRAN, NASTRAN etc. In 2016, he was promoted to Head of department of manufacturing engineering department till present.

RESEARCH SHOWCASE

LIST OF PARTICIPANT

Paper ID	Title	Authors	University/RG	Field
001	Optimization of Multiple Robot Configuration Pattern Using Shape Variant Approach	N.S. Osman, M.A.A. Rahman, A.A. Abdul Rahman, S.H. Kamsani, B.M. Bali Mohamad	UTeM/IMS/AMC	Robotics & Automation
002	Development of an Underactuated Robotic Hand for Industrial Work	M.A.M. Yuden, M.M. Ghazaly, A.C. Amran, I.W. Jamaludin	UTeM/CeRIA/FKE	Electrical
003	Effect of Ultrasonic and Vacuum System Assisted Mid-End Fused Deposition Modeling to Improve Printed Parts Surface Finish	A.S. Mohamed, S. Maidin, J.H.U. Wong, N.M. Arif, W.F.A. Romlee, S.B. Mohamed	UTeM/FKP	Design
004	Investigation of Heat Transfer for Vacuum System Assisted Fused Deposition Modeling. A Finite Element Analysis	S. Maidin, J.H.U. Wong, A.S. Mohamed, W.F.A. Romlee, S. Akmal	UTeM/FKP	Design
005	Designing and Implementation of Automated Room Temperature Control System to Optimize Energy Consumption in a Building	J.S. Quah, K.A.M. Annuar, M.F. Miskon, M.H. Harun, M.F.M.A. Halim	UTeM/FTK	Mechanical
006	Static Torque Profile of Switched Reluctance Actuator	I. Yusri, M.M. Ghazaly, M.F. Rahmat, Z. Abdullah, M.A.M. Ali, R. Ranom, I.W. Jamaludin	UTeM/CeRIA/FKE	Electrical
007	Design and Control Leg-exo Robot for Rehabilitation Purpose	S.A. Ali, K.A. Mohd Annuar, M.F. Miskon, M.H. Harun, M.F. Mohd Abdul Halim	UTeM/FTK/FKE	Robotics & Automation
008	Development of Biomimetic Features Database System to Aid Product Conceptual Design	W.F.A. Romlee, S. Maidin, J.H.U Wong, A.S. Mohamed, S. Akmal	UTeM/FKP	Design
009	Experimental Investigation of the Motion Characteristics for a Passive Quarter Car Suspension System	S.P. Tee, M.M. Ghazaly, S.H. Chong, I.W. Jamaludin	UTeM/CeRIA/FKE	Electrical

010	Point-to-Point (PTP) Positioning and Tracking Performances of an Underactuated Robotic Hand (RH) System	C.K. Yeo, M.M. Ghazaly, S.H. Chong, I.W. Jamaludin	UTeM/CeRIA/ FKE	Electrical / Robotics
011	Design and Implementation of Smart Observable System of Indoor Hydroponic	N. Makbul Shah, K.A. Mohd Annuar, M.H. Harun, M.F. Mohd Abdul Halim, A.H. Azahar	UTeM/FTK	Mechanical
012	Development of Mold for Self-Fabricated Ceramic Cutting Tools	T. Norfauzi, A.B. Hadzley, U.A.A. Azlan, M.R.M. Razly	UTeM/PMG/AMC	Process
013	Investigation on The Effect of Machining Strategies on The Dimensional Accuracy of Five-Axis Flank Machining of Curvy Angled Shapes (Convex)	M.R.M. Razly, S.A. Suandi, R. Izamshah, T. Norfauzi	UTeM/PMG/AMC	Process
014	Analysis of KNN Films Deposited with Different Annealing Temperature	M.A. Mohd Hatta, M.W. Abd Rashid, U.A.A. Haji Azlan, N.A. Azmi,	UTeM/FKP	Material
015	Study of Cassava Based Adhesive to Reduce Warping Deformation in 3D Printer Machine	M.A. Nazan, F.R. Ramli, M.R. Alkahari, M.A. Abdullah	UTeM/FKM	Mechanical
016	Development of RFID Tracking System for Wheeled Trolleys within an Automotive Industry	Y.C. Huong, Z. Jamaludin, L. Abdullah, R. Haron, M.F. Abdullah, K.B.A. Jalal	UTeM/FKP	Automotive
017	Robust Super Twisting Sliding Mode Control for Machine Tools	T.H. Chiew, Z. Jamaludin, A.Y. Bani Hashim, L. Abdullah, N.A. Rafan	UTeM/FKP	Robotics & Automation
018	Effects of Nanographene Addition on Tensile and Electrical Properties of Nylon 6,6 Nanocomposite	N. Abdullah Sani, M.E. Abd Manaf, M.I. Shueb	UTeM/FKP	Material
019	Mechanical Properties of Kenaf Reinforced Polypropylene Composites Added with Oil Palm Shell Powder and Its Activated Carbon	M.A. Abd Latif, M.E. Abd Manaf , Z. Shamsudin	UTeM/FKP	Material

020	Study of Different Elements for Composite Plate in Finite Element Modelling	A.F Ab Ghani, M.B Ali, M Ahadlin, N.A.A Md Zahir	UTeM/FKM	Mechanical
021	Lightweight and Green Tiles from Recycled Polypropylene Reinforced with Cockle- Shells Powder	N. Mohamad, M.A. Zohid, M. Mazliah, K.I. Karim	UTeM/FKP	Material
022	User's Acceptance of Mobile Augmented Reality Applications for Heritage Preservation in UNESCO World Heritage Sites: Adapting the UTAUT Model	L.W. Shang, T.G. Siang	UTeM/FTMK	Information Technology
023	Development of an Optimized Thermoelectric Cooler for Active Processor Cooling	Z. Abdullah, N. Mokhtar, M.M. Ghazaly, M.A.M. Ali, K.F. Samat, T.A. Abdullah	UTeM/FKP	Design
024	Reduction of Water Hammer Effect for Domestic Water System	Z. Abdullah, L.W. Wein, M.M. Ghazaly, M.A.M. Ali, M.S. Kasim, R. Jaafar	UTeM/FKP	Design
025	Design of PID and Nonlinear PID Controller for Tracking Performance of XY Table Ball Screw Drive System	R.I.A. Raja Izam, L. Abdullah, N.H. Zulkifli	UTeM/AMC	Process
026	Water Absorption Study on Woven Jute Reinforced Unsaturated Polyester Composite Using Warm Compression Moulding with and without Lay-Up Process	N. Hakimi, Z. Mustafa	UTeM/AMC/ SM4GT	Material
027	Identification and Control of Hand Grasping Force for Upper Limb Prosthetics System using Noninvasive Electromyography Technique	M.N. Maznan, R. Ghazali, C.C. Soon, M.H. Jali, M.Z.A. Rashid	UTeM/FKE	Electrical
028	Surface Roughness Monitoring during Machining HTCS 150 Hardened Steel under Various Cutting Parameters	A.B. Hadzley, A.A. Anis, M.S. Kasim, R. Izamshah, M.O. Hairizal	UTeM/PMG/AMC	Process
029	RFID Based for Inspection System During Assembly Operation	M.M. Nor Azhar, L. Abdullah, N.A. Rosli	UTeM/FKP	Robotics & Automation

030	Optimisation of process parameters on warpage of plastic part using Taguchi method in injection moulding	M.A.M. Ali, N. Idayu	UTeM/AMC	Process
031	Force Characterization of a Rotary Motion Bottom Drive Type: Linear Type vs. Skewed Type	Y.P. Chin, M.M. Ghazaly, J.S. Keek, S.H. Chong, I.W. Jamaludin	UTeM/CeRIA/FKE	Electrical
032	Study on Comparison of Surface Roughness when Machining AISI 1045 under Dry and Wet Conditions	A.B. Hadzley, T. Norfauzi, U.A.A. Azlan	UTeM/PMG/AMC	Process
033	Manufacturing Issues: Time Respond Lead to Losses	N. Norazlin, A.Y. Bani Hashim, H.F.M. Fauadi, T. Ito	UTeM/FKP	Management
034	Characterization of TiO ₂ Coating Deposited on Ceramic Substrates	M.A. Musa, J.M. Juoi, M.R. Zulkifli, N.D. Johari	UTeM/AMC/SM4GT/ FKP	Material
035	Analysis of an Instrument to Test Reading & Interpreting Engineering Drawing Skills	Z. Abdullah, H.H. Suhaimi, M.S. Tang, M.A.M. Ali, R.H. Hambali, S. Akmal	UTeM	Design
036	Spectral Analysis of Cutting Forces Data for XY Table Ballscrew Drive System	L. Abdullah, M.J. Tan, M.A.A. Din	UTeM	Robotics & Automation
037	Analysis of Simulated Tracking Performance of X- Axis for Ball Screw Drive System	N.A. Anang, L. Abdullah, Z. Jamaludin, S.C.K. Junoh, Z. Retas, T.H. Chiew	UTeM	Robotics & Automation
038	Implementation of Analytical Hierarchy Process (AHP) Method into Control System Environment	N.A.S. Suhaimi, L. Abdullah, M.Z. Mohamad Zaini	UTeM	Robotics & Automation
039	Design and Analysis on Sitting Posture in Quality Checking Workstation Of a Manufacturing Company	Z. Abdullah, N.S. Norazman, C.S. Chew Ting, M.M. Ghazaly, R. Jaafar, S. Maidin	UTeM	Design
040	DFMA Application on the Development of Products: A Case Study of Consumer Products	Z. Abdullah, N. Zakaria, N.A. Zulkifli, S. Maidin, M.A.M. Ali, M.M. Ghazaly	UTeM	Design

041	Improvement of Workstation in Manufacturing Industry for Manual Handling Worker	Z. Abdullah, N.A. Samsuddin, A.A. Stephen, R.H. Hambali, H. Arep, S. Akmal	UTeM	Design
042	Application of Right Leg Drive Topology in an EMG Acquisition Circuit	Z. Fu, A.Y. Bani Hashim, Z. Jamaludin, I.S. Mohamad Jamaludin	UTeM	Robotics & Automation
043	Nanostructured Iron Oxide by Thermal Oxidation	F.I. Abu Bakar, S. Ismail, J.A. Razak	UTeM	Material
044	Development of Stewart Platform-based for Ankle Muscle Rehabilitation	N.S. Razali, R. Ghazali, S.Y.S. Hussien, H.I. Jaafar, M.Z.A. Rashid	UTeM	Electrical
045	Design and Development of Roof for Covering Car	Z. Abdullah, M.R. Raduan, H.Y. Ting, M.M. Ghazaly, M.S. Kasim, S. Maidin	UTeM	Design
046	Design of Model Reference Adaptive Control (MRAC) for Machine Tool Applications	S.H. Ooi, S.C.K. Junoh	UTeM	Design
047	Effect of Ultrasonic and Vacuum System Assisted Mid-End Fused Deposition Modeling to Improve Printed Parts Surface Finish	A.S. Mohamed, S. Maidin, J.H.U. Wong, N.M. Arif, W.F.A. Romlee, S.B. Mohamed	UTeM	Design
048	Study of Failure Index Variation of Hybrid Composite via Finite Element Modelling	A.F. Ab Ghani, S. DharMalingam, N.A.A. Md Zahir, J. Mahmud	UTeM	Mechanical
049	Investigation the Effect of Different Cross Section Bumper Beam in Energy Absorption Capability Through Finite Element Analysis (FEA)	Muhammad Nasiruddin S., Hambali A., Rosidah J.	UTeM	Design
050	Structural and Optical Properties of Nickel Sulphoselenide (NiSSe) Thin Film for Photoelectrochemical Applications	Nurul Hazliza, S. Shariza, Mohd Zaidan, Rajes KM Rajan, T.J.S. Anand	UTeM	Material

051	Effect of Laser Post-Processing on Surface Roughness of Fused Deposition Modeling (FDM) Part	S.N.H. Mazlan, M.R. Alkahari, F.R. Ramli, N.A. Maidin	UTeM	Mechanical
052	Tracking Error Compensation of XY Table Ball Screw Driven System Using Cascade Fuzzy P+PI	Z. Retas, L. Abdullah, S.N. Sy Salim, Z. Jamaludin, N.A. Anang	UTeM	Robotics & Automation
053	Two Level Factorial Optimization of Silicone Rubber Insulator –PDIV Test	N.N. Ali, A. Aman, J.A. Razak	UTeM	Electrical
054	A Conceptual Design of an Interpreter for an Open Architecture Control System	N.M. Seman, Z. Jamaludin, M. Minhat, M.A. Othman	UTeM	Robotics & Automation
055	Photocatalytic Activity of Titania Modified Kenaf Fiber	Edynoor, T. Moriga, K. Murai , A.R.M. Warikh	UTeM	Material
056	Synthesis of Graphene Powders From Nickel Based Catalyst by Using Alcohol Catalytic Chemical Vapor Deposition	R.N.A.R. Seman, M.A. Azam, R. Izamshah, G. Omar, S. Ismail, Z. Muslim, N. Mohamed, M.S. Kasim	UTeM	Material
057	A Concept of Reconfigurable Conveyor System in Manufacturing System: Logical Reconfiguration	N.R. Mohamad, A.A.A. Rahman, M.A.A. Rahman	UTeM	Robotics & Automation
058	Design and Analysis of Cascade P/ PI Controller for XY Milling Table Ball Screw Driven System	M. Maharof, Z. Jamaludin, M. Minhat	UTeM	Robotics & Automation
059	Animal Robot Therapy for Rehabilitation Patients with Major Depressive Disorder	W.Z. Zulkifli, S. Shamsuddin, L.T. Hwee	UTeM	Robotics & Automation
060	Implementation of RFID on Reconfigurable Conveyor System	M.S. Osman, A.A. Abdul Rahman, N.R. Mohamad, N.Z. Noridan	UTeM	Robotics & Automation
061	Evaluation of Temperature on Different Penetration Angle for Orthopaedic Surgical Bone Drilling	M.S. Noorazizi, R. Izamshah, M. Hadzley, M.S. Kassim	UTeM	Process

062	Development of an Integrated ANP and TRIZ for New Framework of Design Selection for Automotive at the Conceptual Design Stage	Amira Farhana M.T., Hambali A.	UTeM	Design
063	Mechanical Properties and Fracture Morphology Observation of Epoxy/Mwcnts Nanocomposites: The Effects of MWCNTS Covalent Surface Treatment	N.A. Mat Noor, J.A. Razak, S. Ismail, N. Mohamad, R. Junid	UTeM	Material
064	Interpretation of ISO 6983 and ISO 14649 for CNC Adaptive Controller: A Conceptual Model	M.A. Othman , M. Minhat, Z. Jamaludin, N.M. Seman	UTeM	Robotics & Automation
065	Parameter-Magnitude Based Information Criterion for Identification of Linear Discrete-Time Model	M.F. Abd Samad, A.R. Mohd Nasir	UTeM	Mechanical
066	Ultrasonic and Vacuum System Assisted 3D Printing to Improve Printed Parts Surface Finish	A.S. Mohamed, S. Maidin, J.H.U. Wong, N.M. Arif, W.F.A. Romlee, S.B. Mohamed	UTeM	Design
067	Effect of Reflow Cycle on The Shear Strength of Sn-3.5Ag/Ni-P/EFTECH 64-Ni, EFTECH 64-Cu and C194-Ni Bump	C.G. Ong, K.T. Lau	UTeM	Material
068	Analysis and Verification of Vehicle Roll Dynamic Model	F. Mohamed Jamil, M.A. Abdullah, M. Ibrahim	UTeM	Mechanical
069	Experimental Investigation of Cutting Force by Rotary Ultrasonic Assisted Machining of Hardened D2 Tool Steel Materials	R. Azlan, R. Izamshah, M. Hadzley, M.S. Kasim, M. Arfauz, M. Akmal	UTeM	Process
070	Effect of Repetitive Rework on Microhardness of Dissimilar Austenitic Stainless Steel Pipes Using GMAW Orbital Welding	S. Laily, N.I.S. Hussein, M.N. Ayof, T.H. Kean	UTeM	Process
071	Design and Fabrication of Antilock Braking System Test Rig	M.A. Abdullah, M.S. Musthafa, M.H. Harun, F. Ahmad, M.Z. Hassan	UTeM/FKM/ CaRE	Mechanical

072	Multi-Order PID Control for a Simple Suspension System	M.A. Abdullah, M. Ibrahim, M.R. Ridzuan, F. Mohamed Jamil, F. Ahmad	UTeM/FKM/ CaRE	Mechanical
073	Effect of Carbon Nanofiber Nanofluids as Coolant on Surface Roughness and Tool Wear in Turning of D2 Steel	P.J. Liew, S. Ainusyafiqah, K. Tasnim	UTeM/FKP	Process
074	Development of a New Closed-Loop Recyclability Framework Based on Extended Producer Responsibility in Minimizing Electronic Waste	Mohamad Zulkifli I., Hambali A.	UTeM/FKP	Design
075	Development of Cyber-Physical System for The Reconfigurable Conveyor System	N.Z. Noridan, A.A. Abdul Rahman, M.H. Nordin, N.R. Mohamad, M.S. Osman, N.S. Osman	UTeM/IMS/AMC	Design
076	Preliminary Survey of Ergonomic and Economical Lumbar Support Device for Healthcare Workers using Malaysian Anthropometric Data	N. Azizan, R.H. Hambali, S.R. Kamat, N.S. Rayme	UTeM/FKP	Design
077	A Study on Plantar Pressure Distribution Associated with Prolonged Standing among Workers in Aerospace Industry	R.H. Hambali, S.K. Khalil, M.H. Zin	UTeM/FKP	Design
078	Virtual Reality Immersive System by Using Malaysian Anthropometry Data in Aerospace Manufacturing	N.S. Rayme, S.R. Kamat, S. Shamsuddin, R.H. Hambali, N. Azizan	UTeM/FKP	Robotics & Automation
079	Development of Vertical Bandsaw Machine (VBM) for Polymer Foam Cutting	A.B. Hadzley, M.Y. Yuhazri, A.A. Anis	UTeM/FKP	Process
080	A Review of BNT-BT Ceramics for Piezoelectric Applications	N.J. Mohamad, U.A.A. Azlan, M.R. Othman	UTeM/FKP/FTK	Material
081	Effect of Surfactant on the Surface Integrity of Stainless Steel using EDM	P.J. Liew, Z. Nurlishafiqah, S.H. Amira	UTeM/FKP	Process

082	Effect of Current Density on the Properties of Nickel-Fly Ash Composite Coating Deposited on Aluminium Alloy 7075 Substrate	M.K. Ahmad, I.S. Othman, M.Z.Z. Abidin, S.A. Sundi, M.F.H. Ali	UTeM/FKP	Material
083	Swell Properties and Dynamic Mechanical Behavior of Natural Rubber Vulcanizates Modified by Tapioca Starch	M. Mazliah, N. Mohamad, H.E. Ab Maulod, A.R. Jeefferie, A. Muchtar	UTeM/FKP	Material
084	Water Resistant Composite Sheet from Durian Shell Waste Using Polyethylene as Hydrophobic Agent Through Disintegration Method	R.F. Munawar, A.B. Afraha, W.N.F.W.A. Shani, K.T. Lau, I.S. Othman, M.S.M. Suan, M.F. Dimin, P.J. Liew	UTeM/FKP/AMC/CRT	Material
085	Parameters and Properties Relationship of Thin Steel Plate Joint Using Low Energy Arc Welding	S.D. Sabdin, N.I.S. Hussein, M.K. Sued	UTeM/FKP	Process
086	Morphological Studies of Beta-Tricalcium Phosphate Scaffold	N.F. Ishak, Z. Mustafa, R. Othman, S.H. Sheikh Md. Fadzullah	UTeM/FKP	Material
087	A Case Study: Workplace Environment and Activity Potential towards Slips and Falls	S.R. Kamat, S.A. Syed Ali	UTeM/FKP	Management
088	Manufacturing Issues: Time Respond Lead to Losses	N. Norazlin, A.Y. Bani Hashim, M.H.F.M. Fauadi, T. Ito	UTeM/FKP	Robotics & Automation
089	Chassis Design and Analysis of Narrow Track Vehicle (NTV)	M.A. Abdullah, M.A.H. Mohd Najmi, M.H. Harun, F.R. Ramli, S. Mat	UTeM/CaRE/ FKM	Mechanical
090	Design Selection and Analysis of Human-Powered Vehicle	M.A. Abdullah, M.Z. Azis, M.H. Harun, F.R. Ramli, S. Mat	UTeM/CaRE/ FKM	Mechanical
091	Analysis of Commercial Vehicle Ride Dynamics	M. Ibrahim, M.A. Abdullah, F. Mohamed Jamil	UTeM/CaRE/ FKM	Mechanical
092	Morphological Studies of Beta-Tricalcium Phosphate Scaffold	N.F. Ishak, Z. Mustafa, R. Othman, S.H. Sheikh Md. Fadzullah, N. Ahmad	UTeM/FKP	Material

093	Verification of Commercial Vehicle Ride Dynamics	M. Ibrahim, M.A. Abdullah, F. Mohamed Jamil	UTeM/CaRE/ FKM	Mechanical
094	Reveal Hidden Wastes in Overall Equipment Effectiveness by Using Maynard Operation Sequence Technique	S.S. Yoong, P. Puvanasvaran, C.C. Tay	UTeM/FKP	Management
095	Influence of Hot Compression Moulding Processing Method on The Mechanical Strength of Recycled Polypropylene (PP)/Polyethylene (PE) Blends	M.J. Taufiq, M.R. Mansor, Z. Mustafa, M.N. Nordin, G. Omar, S.H.S. Fadzullah, M.H. Isa, N.A. Hamid, M.A. Masripan	UTeM/CaRE/ FKM	Mechanical
096	Effect of Nitriding Temperature and Time on the Surface Hardness and Grain Size of Mg Az91d Alloy	W.A. Shafiz, Y. Yusuf, Z.M. Rosli, J.M. Juoi	UTeM/FKP	Material
097	Hidden Wastes of Transportation Between Processes With Respect to Overall Equipment Effectiveness (OEE)	Teoh Y.S., P. Perumal, T. Ito	UTeM/FKP	Management
098	Industrial Robotics in the Lean Enterprise: A Case Study in Semiconductor Industry	S. Hammam, P. Perumal	UTeM/FKP	Management
099	Tool Entry Impact for Bobbin Friction Stir Welding	M.K. Sued, F.A.R. Fadil, M.R. Ramli, B. Abu Bakar	UTeM/FKP	Process
100	The Evaluation of Mandarin MOOC_A Case Study of Effectiveness	S.F.A. Fesol, S. Salam	UTeM/FTMK	Information Technology
101	Effects of Citrate to Nitrate Ratio on Superconducting Properties of YBa ₂ Cu ₃ O _{7-δ} Prepared Via Auto-Combustion Reaction	M.S.M. Suan, K.T. Lau, L.S. Chung, M.R. Johan	UTeM/FKP	Material

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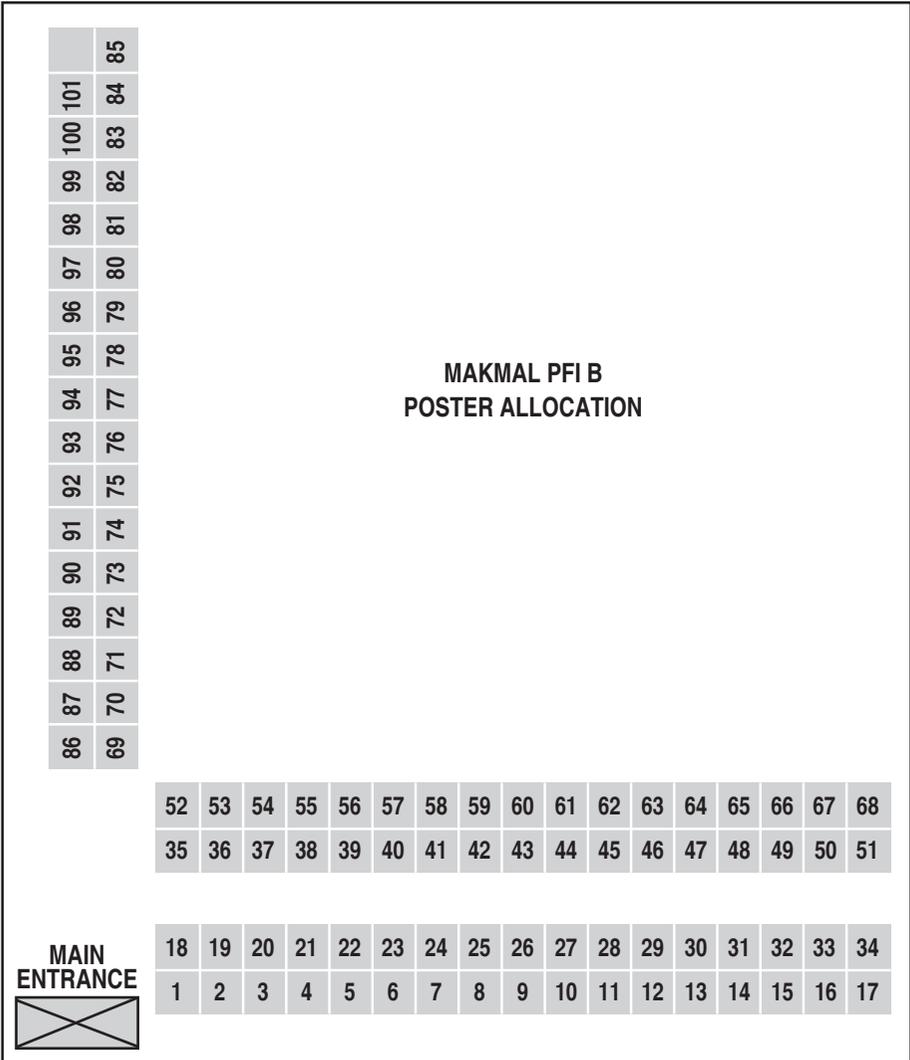
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FLOOR-PLAN OF RESEARCH SHOWCASE



UTeM-MATERIALS LECTURE COMPETITION



LIST OF PARTICIPANTS

NO.	NAME	FACULTY	LECTURE TITLE
1.	Ang Siew Khim	FTK	Engineering Polymer Matrix Composites
2.	Muhammad Syukri Baharudin	FTK	Rubber in Engineering Applications
3.	Muhammad Saiful Ridzwan	FTK	Significant Effect of Galvaneal Metal Sheet to The Quality of Spot Welding
4.	Dayang Nor Fatin Mahmud	FKM	Bearing Load Capacity of a Palm Kernel Activated Carbon-Epoxy Composite under Dry Sliding Conditions
5.	Aizuddin Fahmi Mohd Ridzuan	FKM	Comparison of Various Ron95 Gasoline Fuel Brands Available in Malaysia
6.	Izlin Anne Kamarul	FKP	Semiconductors: What are they really?
7.	Mohamad Rafiezi Mat Zainu Zaman	FTK	Significant Effect of Different Base Metal in Metal Sheet Spot Welding
8.	Abdul Rahman A'zizi	FTK	Preparation of Form-Stable Phase Change Materials (PCM) for Thermal Energy Storage
9.	Muhammad Akmal Mohd Zakaria	FKP	Shedding Light on Implant: PEEK for Clinical Framework Material
10.	Mohammad Khairul Azmi Mohd Kassim	FKP	Sustainability in Welding Technology
11.	Julian Anak Bakri	FKP	Carbon Nanotube for Cleaner and Safe Water Supply in Rural Areas
12.	Lau Zhi Hao	FKP	Future Trend on Application of SMP
13.	Khor Huai Khang	FKP	Smart Glass and Its Benefits on Energy Consumption
14.	Martini Mohmad	FKM	Effect of Dimple Size on Tribological Characteristics of Surface Textured PKAC-E Composite
15.	Nur Elina Shahrina Amza Abd Mudtalib	FKP	Synthesis of Graphene using Catalytic Chemical Vapour Deposition and Waste Cooking Oil as Carbon Feedstock

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We would like to give special thanks to all the research group members of Advanced Manufacturing Centre (AMC), Faculty of Manufacturing Engineering, UTeM, who helped to make this event possible.

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