



# ME RD'17

30 March 2017  
UTeM Library, Melaka

## PROGRAMME BOOK

Mechanical Engineering Research Day 2017

IDEA ■ INSPIRE ■ INNOVATE

Edited by Mohd Fadzli Bin Abdollah

Organized by

Faculty of Mechanical Engineering  
Centre for Advanced Research on Energy

Co-organized by

Centre of Technopreneurship Development



## THE 5TH INTERNATIONAL CONFERENCE AND EXHIBITION ON ENERGY AND ADVANCED MATERIALS

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16-19 OCTOBER 2017 | HOLIDAY INN MELAKA  
<http://iceseam2017.utem.edu.my>

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### HIGHLIGHTS

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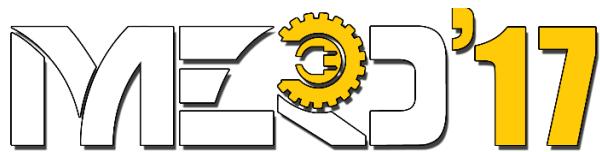


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Mechanical Engineering Research Day (MERD) is a one-day national level poster seminar organized by the Faculty of Mechanical Engineering (FKM) in association with the Centre for Advanced Research on Energy (CARe), Universiti Teknikal Malaysia Melaka (UTeM). Once again in 2017, MERD will be taking place on 30 March 2017, at the UTeM Library, Melaka. This year, MERD is also be co-organized by the Centre of Technopreneurship Development (C-TeD).

The objective is for the scientists, scholars, researchers, engineers and students from Higher Educational Institutions, Research Institutions and Industries in Malaysia to present findings of ongoing/completed original research activities, and hence foster research collaborations between the universities and the industries. The other objective is to introduce young researchers in the scientific field of mechanical engineering through poster presentations and publications, to offer mentoring through senior researchers/scientists, and to foster the building of networks through the informal style of the event.

This year, 218 posters will be presented during the event which cover 8 main topics, including Automotive and Aeronautics; Computer Modelling & Simulation; Design & Optimization; Energy Conversion & Management; Engineering Management & Education; Structure & Materials; Thermal & Fluids; Vibration & Control. Meanwhile, the compilation of papers have been published in the Open Access e-Proceeding (eISBN: 978-967-0257-88-4) via [www3.utem.edu.my/care/proceedings](http://www3.utem.edu.my/care/proceedings). The e-Proceeding is indexed in Google Scholar and will also be submitted to Clarivate Analytics (formerly known as ISI-Thomson Reuters) Conference Proceedings Citation Index™ for indexing consideration in Web of Science® coverage.



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## MESSAGE FROM CHAIRMAN

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*Assalamu'alaikum wrt. wbt, and Salam 1Malaysia,*

I would like to express warmest welcome to all participants to the Mechanical Engineering Research Day 2017 (MERD'17) held at the Library of Universiti Teknikal Malaysia Melaka (UTeM) - Melaka, Malaysia. Alhamdulillah, all praise to Allah, this is the fourth event after successful responds at the third event in 2016. The current event is jointly organized by the Faculty of Mechanical Engineering and Centre for Advanced Research on Energy (CARe), UTeM. This year, MERD is also be co-organized by the Centre of Technopreneurship Development (C-TeD).



With the "IDEA . INSPIRE . INNOVATE" as a theme, MERD'17 is an excellent platform for academicians, engineers and researchers in broad ranges of sustainable collaborations to share their knowledge of innovation, creativity and latest approaches in various research activities. This is in line with the increasing demand for innovative research ideas, design, optimizing, modeling, processing and solutions involving real engineering problems which advocate the provision of rigorous study among distinct communities.

I wish to formally put on record my sincere thanks to the organizing committee in ensuring the success of MERD'17 and for the present e-proceeding. I am sure with the previous experience; the committee will certainly implement substantial improvements and innovations to make this event more productive and interesting. Finally, I would like to express our deepest gratitude to the sponsors for their continuous support given throughout this event.

Thank you.

*Assoc. Prof. Dr. Noreffendy Bin Tamaldin*

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## ORGANIZING COMMITTEE

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**Chairman**

Noreffendy Bin Tamaldin

**Co-Chairman**

Ghazali Bin Omar

**Secretary**

Khairul Azri Bin Azlan  
Syalwanie Binti Mohamad Rozi

**Promotion & Publicity**

Mohd Fadzli Bin Abdollah

**Programme & Protocol**

Siti Hajar Binti Sheikh Md Fadzullah  
Norma Hayati Binti Hashim

**Poster Evaluation Panel**

Ahmad Rivai  
Md. Radzai Bin Said  
Azma Putra  
Mohd Zulkefli Bin Selamat

**Submission, Registration & Publication**

Mohd Fadzli Bin Abdollah  
Tee Boon Tuan  
Mohd Azli Bin Salim  
Mohd Zaid Bin Akop  
Rainah Binti Ismail  
Haslinda Binti Musa

**Sponsorship**

Ahmad Kamal Bin Mat Yamin  
Kamarul Ariffin Bin Zakaria

**Certificate & Souvenir**

Siti Nurhaida Binti Khalil  
Rafidah Binti Hasan

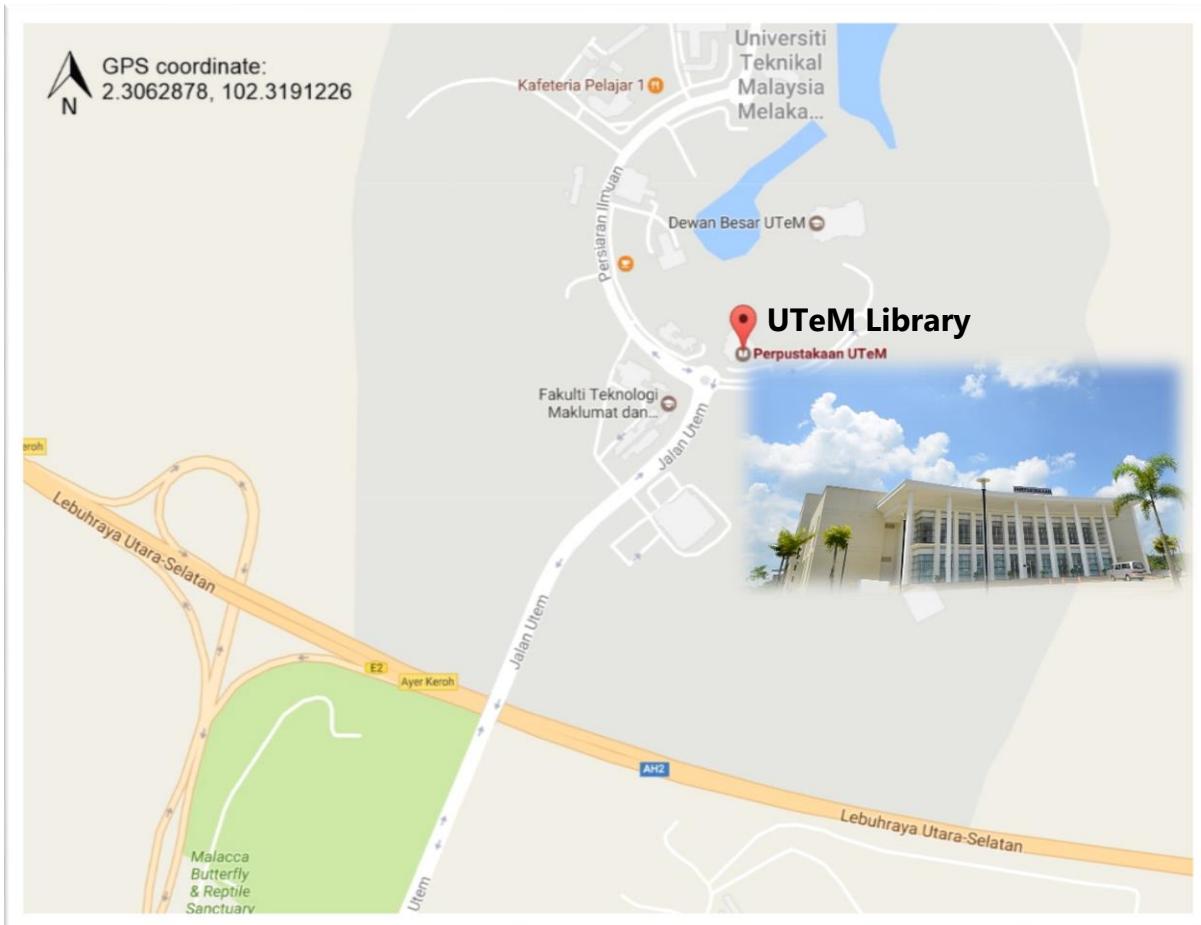
**Logistic & Technical**

Mohd Azman Bin Abdullah  
Faiz Redza Bin Ramli  
Muhd Ridzuan Bin Mansor

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## VENUE

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## PROGRAMME SCHEDULE

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**30 March 2017 (Thursday)**

08:00 – 08:30 **Registration**

08:30 – 12:00 **Poster seminar & judging session**

12:00 **VIP poster viewing**

12:30 **Closing ceremony & award presentation**

13:00 **Group photo session & luncheon**

## **POSTER PRESENTATION LIST**

POSTER ID	ABSTRACT ID	TITLE	AUTHORS	PRESENTER	AFFILIATION	TRACK
1	7	Tribological behaviour of bio-oil extracted from peel waste of musa aluminata balbisiana	H.A. Hamid, N.A.B. Masripan, R. Hasan, G. Omar, M.F.B. Abdollah	Husna A Hamid	FKM (UTeM)	Automotive and Aeronautics
2	13	Pre-charge pressure effects on isothermal and adiabatic energy storage capacity for dual hybrid hydro-pneumatic passenger car driveline	F. Wasbari, R.A. Bakar, L.M. Gan, M.M. Tahir, A.A. Yusof	Faizli Wasbari	FKM (UTeM)	Automotive and Aeronautics
3	14	Influence of iron oxide on the mechanical and tribological behaviors of brake friction materials	R.J. Talib, M.A. Selamat, M. Hisyam Basri, Koay Mei Hye, N.I. Ismail	Talib Ria Jaafar	UITM	Automotive and Aeronautics
4	29	Friction and wear behaviors of different graphite vol. % in brake friction material composition	R.J. Talib, N.I. Ismail, M. Hisyam Basri, K. Ramli, A.O. Eliasidi	Talib Ria Jaafar	UITM	Automotive and Aeronautics
5	32	Effect of leading edge (LE) tubercles on side mirror performance	H. Yusoff, S. Suhaimi, A. Farhan, N. Iswadi, D. Ibrahim, A. Imron	Shafiq Suhaimi	UITM	Automotive and Aeronautics
6	35	Utilizing model-based calibration approach for engine throttle PI controller optimization	N.I. Mat Arifahad, M.Z. Md Zin, M.F. Muhamad Said	Noor Izuan Mat Arifahad	UTM	Automotive and Aeronautics
7	36	The control scheme of vehicle steer by wire system by using PD-PID controller	M.Z.M. Tumari, M.A.M. Nasir, M.S. Saejal, A.W.A. Aziz, S. Saat, M.H. Sulid, M.R. Ghazali	Mohd Zaidi Mohd Tunari	FTK (UTeM)	Automotive and Aeronautics
8	44	Effect of virgin coconut oil, VCO as transmission lube oil based substitute on the friction properties	N.M.B.M. Sukery, M.I.H.C. Abdullah, A. Ahmad, M.F.B. Abdollah, N.R.M. Nuri	Muhammad Ilman Hakimi Chua Abdullah	FTK (UTeM)	Automotive and Aeronautics
9	50	The lift performances of paper planes	N.I. Ismail, R.J. Talib, M. Hisyam Basri, A.H. Zulkifli, Z.M. Ali	Noor Iswadi Ismail	UITM	Automotive and Aeronautics
10	65	The drag performances of paper planes	N.I. Ismail, R.J. Talib, M. Hisyam Basri, A.H. Zulkifli, A.S. Abdullah, H. Yusoff	Noor Iswadi Ismail	UITM	Automotive and Aeronautics
11	66	The ideal brake force control for underbone motorcycle suspension system using numerical approach	M. Hisyam Basri, A.H. Zulkifli, R.J. Talib, M.A.M. Anuar, N.I. Ismail	Mahamad Hisyam Mahamad Basri	UITM	Automotive and Aeronautics
12	107	Investigation on transverse behavior in automotive suspension system using numerical approach	N.S.A. Norazni, M.A. Salim, A. Md. Saad, F.A. Munir, M.Z. Akop	Mohd Azli Salim	FKM (UTeM)	Automotive and Aeronautics
13	108	Force line improvement analysis of a coil spring in macpherson strut using Altair Hyperworks	C.W. Lee, S.N. Sulaiman, M.H. Abdul Rahman, A.A.M. Damanhuri	Lee Chia Wei	FTK (UTeM)	Automotive and Aeronautics
14	116	Spot welding quality evaluation of reworked galvannealed metal sheet with high strength steel (HSS)	Mohd Harris Fadhlah, Najiyah Safwa, Mohd Saiful Ridzuan Zainudin	Mohd Harris Fadhlah	FTK (UTeM)	Automotive and Aeronautics

POSTER ID	ABSTRACT ID	TITLE	AUTHORS	PRESENTER	AFFILIATION	TRACK
15	130	Investigation on hBN nanoparticle dispersion stability in liquid phase with difference dispersion agents	A.A.E.M. Nawi, M.I.H.C. Abdullah, M.F.B. Abdullah, N.R.M. Nuri, M.A. Samudin	Muhammad Ilman Hakimi Chua Abdullah	FTK (UTeM)	Automotive and Aeronautics
16	157	Prediction of engine performance for different cam profile by using Gr-power simulation	A.B. Shahriman, A.K. Mohammad Sya'iq, M.S.M. Hashim, Zuradzman M. Razan, W. Khairunizam, D. Hazry, M. Afendi, R. Daud, M. Tasyrif Abdul Rahman	Mohamad Sya'iq Abdul Khadir	UniMAP	Automotive and Aeronautics
17	192	Optimizing the emission effects of continuous hydrogen injection on diesel engine intake using Taguchi method	M.N.M. Norani, B.T. Tee, Z.M. Zulfattah, M.N. Mansor Rasyidi Ridzuan, Munaliza Ibrahim, Fauzi Ahmad	Mohamad Nordin Mohamad Norani	FKM (UTeM)	Automotive and Aeronautics
18	197	Anti-roll suspension system using parallel type PID	Fathiah Mohammed Jamil, Mohd Azman Abdullah, Mohd Rasyid Ridzuan, Munaliza Ibrahim, Fauzi Ahmad	Fathiah Mohamed Jamil	FKM (UTeM)	Automotive and Aeronautics
19	198	Bodywork design and analysis of FV Malaysia race car	Mohd Azman Abdullah, Naquiddin Nasirin, Muhammad Zahir Hassan, Syahibuddi Ikhwan Abdul Kudus	Mohd Azman Abdullah	FKM (UTeM)	Automotive and Aeronautics
20	268	Effect of temperature on friction of bio-lubricant under high loading capacity	A.R. Zulhilmi, N.A.B. Mastipan, S.O.A.N. Hayder, M.F.B. Abdollah, G. Omar, M.I. Syakir, A.H. Nurfaizey, S.H.S.M. Fadzullah	Zulhilmi Abdul Rashid	FKM (UTeM)	Automotive and Aeronautics
21	299	Experimental investigation on the relationship between current and alternator temperature and battery voltage	R.K. Mazlan, R.M. Dan, A. Putra, M.Z. Zakaria, A.H.A. Hamid	Rozdman Khaidir Mazlan	FKM (UTeM)	Automotive and Aeronautics
22	328	Commercial vehicle anti-rollover suspension system	Munaliza Ibrahim, Mohd Azman Abdullah, Fathiah Mohamed Jamil, Fauzi Ahmad	Munaliza Ibrahim	FKM (UTeM)	Automotive and Aeronautics
23	336	Drag and lift evaluation on redesigned front area of 1990's land rover defender	A.M.H.S. Lubis, M.I.F. Rosley, M.S.A. Razak, A.A.M. Damanhuri, A.N.M. Amin	Abdul Munir Hidayat Syah Lubis	FTK (UTeM)	Automotive and Aeronautics
24	340	Development of 3-cylinder composite engine: Analysis on strength and fuel efficiency	N. Tamaldin, S.R. Ruslan, A.K. Mat Yamin, A. Md Saad, M.F.B. Abdullah	Noreffendy Tamaldin	FKM (UTeM)	Automotive and Aeronautics
25	341	Study on new approach of breaking system using artificial intelligence	N. Tamaldin, M. Saifuddin, A.K. Mat Yamin, G. Omar	Noreffendy Tamaldin	FKM (UTeM)	Automotive and Aeronautics
26	2	The structure of the pressure field in the contact area	V.S. Deeva, S.M. Slobodyan, S.P. Vashchuk, N.A. Voronina	Vera Deeva	TOMSK POLYTECHNIC UNIVERSITY	Computer Modeling and Simulation
27	21	Modelling and control of underwater remotely operated vehicle (ROV) for depth control using system identification	Muhammad Wahyuddin Nor Azmi, Mohd Shahriel Mohd Aras, Mohamad Haniff Harun	Muhammad Wahyuddin Nor Azmi	FKE (UTeM)	Computer Modeling and Simulation
28	53	Numerical simulation of defogging on automotive windshield	F. Azman, F.A. Munir, M.A. Salim	Fudhail Abdul Munir	FKM (UTeM)	Computer Modeling and Simulation

POSTER ID	ABSTRACT ID	TITLE	AUTHORS	PRESENTER	AFFILIATION	TRACK
29	98	A predictive model of corrosion pit geometry of steel in aqueous sodium chloride solution	S. Salleh	Suhaila Salleh	FKM (UTeM)	Computer Modeling and Simulation
30	153	The introductory of dimple to the Ahmed body top surface as a drag reduction device	M.F. Abdul Latif, M.N.M. Zain, M. Azwar Azhari	Mohd Faruq Abdul Latif	FTK (UTeM)	Computer Modeling and Simulation
31	221	Analytical modelling of protective headgear for soccer players	Mohd Hasnun Arif Hassan, Zahari Taha	Mohd Hasnun Arif Bin Hassan	UMP	Computer Modeling and Simulation
32	239	Numerical simulation of mechanical heart valve with coherent vortex shedding in OpenFOAM	M.S. Zakaria, F. Ismail, S. Wirididjaja, M.F.A. Aziz, M. Tamagawa, A.A. Basri, K.A. Ahmad	Mohamad Shukri Zakaria	FKM (UTeM)	Computer Modeling and Simulation
33	243	Numerical investigation of turbulence in oscillatory flow found in thermoacoustics	S.H.A. Mustaffa, F.A.Z. Mohd Saat, E. Mat Tokit	Siti Hajar Adni Mustaffa	FKM (UTeM)	Computer Modeling and Simulation
34	254	Lighting simulation for energy analysis in laboratory building A.N. Ali, B.T.Tee	A.N. Ali, B.T.Tee	Tee Boon Tuau	FKM (UTeM)	Computer Modeling and Simulation
35	271	Simulation of ball-grid-array package during board-level drop test	A.F.M. Yamin, A.A. Sufian	Aliff Farhan Mohd Yamin	UITM	Computer Modeling and Simulation
36	276	Formulating an algorithm to detect readability level of malay, mexts	N.A.M. Hazawawi, M.H. Zakaria, S. Hisham	Nur Amalina Mohamad Hazawwi	FTMK (UTeM)	Computer Modeling and Simulation
37	287	Design optimization of die casting motorcycle pressure plate through casting simulation	M.R.M. Kamal, N.A.M. Mustafa, N.F. Bazilah	Mohamad Ridzuan Mohamad Kamal	FTK (UTeM)	Computer Modeling and Simulation
38	292	Interfacing STEP-NC tool path to open-architecture PC-based NC milling	D. Ibrahim, Z. Samad, Y. Yaakob, H. Yusoff	Dzulijah Ibrahim	UITM	Computer Modeling and Simulation
39	304	Structural integrity of aluminium alloy 7075-T6 fuselage frame during crash event	Ahmad Sufian Abdullah, A.F.M. Yamin, H. Ghafar, S.N.A.M. Halidi, M.A. Ab Hamid Pahmi, N.I. Ismail	Ahmad Sufian Abdullah	UITM	Computer Modeling and Simulation
40	312	Performance analysis of 19nm n-channel MOSFET device with different high-K dielectric materials	Syazana Lokman, F. Salehuddin, N.R. Mohamad, K.E. Kaharudin, N.F. Mohd Sabki, A.S.M. Zain, A.H. Affah Maheran, A.R. Hanim, H. Hazura, S.K. Idris	Syazana Lokman	FKEK (UTeM)	Computer Modeling and Simulation
41	325	Effects of rim and web thickness on root stress of thin-rimmed spur gear with symmetric web arrangement	Ismail Ali Abdul Aziz, Siti Ruhani Mohd Hanafi, Daing Mohammad Nafiz Daing Idris, Mohd Ruzaimi Mat Rejab, Mohd Hasnun Arif Hassan, Mohamad Firdaus Basrawi	Ismail Ali Abdul Aziz	UMP	Computer Modeling and Simulation
42	337	Numerical simulation of airflow in diseased human nasal airway	Vizy Nazira Razuddin, Kamarrul Arifin Ahmad, Masaaki Tamagawa, Mohammed Zubair, NurHashima Abdul Rashid, Norkhairunnisa Mazian	Vizy Nazira Razuddin	UPM	Computer Modeling and Simulation

POSTER ID	ABSTRACT ID	TITLE	AUTHORS	PRESENTER	AFFILIATION	TRACK
43	4	DC offset leads to saturation of right leg drive output	Zinvi Fu, A.Y. Bani Hashim, Z. Jamaludin, I.S. Mohamad, N. Norazlin	Zinvi Fu	FKP (UTeM)	Design and Optimization
44	17	Fuzzy analytic hierarchy process (FAHP) for better selection during implementation of design for remanufacturing	Ahamad Zaki Mohamed Noor, Muhammad Hafiz Fazli Md Faudi, Fairu Azni Jafar	Ahamad Zaki Mohamed Noor	FKP (UTeM)	Design and Optimization
45	26	Modeling and PID controller design using optimization technique for pneumatic system	Khairuddin Osman, Muhammad Fahmi Faajan, Azira Abd Rahman, Siti Fatimah Sulaiman	Khairuddin Osman	FKEK (UTeM)	Design and Optimization
46	28	Electromyography signal processing using wavelet transform approach for resistance band rehabilitation	N. Burhan, R. Ghazali, M.A. Kasno, M.H. Jalil	Nuradebah Burhan	FKE (UTeM)	Design and Optimization
47	30	Non destructive evaluation and optimization of composite material CFRP/GFRP layup	N.A.A. Md Zahir, M. Ahadlin, A.F. Ab Ghani	Nur Aizatul Ain Md Zahir	FKM (UTeM)	Design and Optimization
48	31	Determination of the optimal workspace and manufacturing throughput time for configuring robot work cell	N.S. Osman, M.A.A. Rahman, A.A. Abdul Rahman, S.H. Kamsani, B.M.B. Mohamed	Nor Suriyanti Osman	FKP (UTeM)	Design and Optimization
49	47	Optimization of drilling parameters in diameter accuracy on dry drilling process of AISI D2 tool steel	M.H. Osman, M. Hadzley, N.F. Tamin, N.J. Mohamad, M.K. Wahid, M.N. Ahmad, N.A. Maidin, M.H. Ab Rahman	Mohd Hairizal Osman	FTK (UTeM)	Design and Optimization
50	55	The correlation between S11 and S21 techniques measured in a network analyzer from 45MHz until 50GHz	Ming Hui Tan, Ahmad Yusairi Bani Hashim, Mohd Rizal Salleh	Tan Ming Hui	FKP (UTeM)	Design and Optimization
51	67	Development of fixable rotation clamping method for milling machine	N. B. Ab Wahab, M.H. Abdul Rani, A.K. Nordin, N.F. Tamin, A.A. Onn	Azizi Arif Onn	FTK (UTeM)	Design and Optimization
52	74	Earth tubes for assisting passive cooling in masjid Sayidina Abu Bakar, UTeM	S.N. Khalij, N.N. Hamzah	Siti Nurhalida Khalil	FKM (UTeM)	Design and Optimization
53	76	Geometrical shrinkage comparison between gate direction and transverse direction of plastic part in plastic injection molding	M.A.M. Amran, N. Idayu, S. Sivarao, M.S. Salleh, Z. Abdullah	Noorfa Idayu Mohd Ali	FKP (UTeM)	Design and Optimization
54	113	Optimization of mixed-model assembly line balancing problem with resource constraints	M.M. Razali, M.F.F. Ab Rashid, M.R.A. Make	Muhammad Magffierah Razali	UMP	Design and Optimization
55	133	Design of high gain co-planar waveguide fed staircase shaped monopole antenna with modified ground plane for radio-frequency (RF) energy harvesting application	Alphonso A Masius, Yan Chiew Wong	Alphonso A Masius	FKEK (UTeM)	Design and Optimization
56	137	Design and performance analysis of CMOS voltage controlled ring oscillator for low power DC-DC converter block	Mohamad Khairul Mohd Kamel, Yan Chiew Wong	Mohamad Kharul Mohd Kamel	FKEK (UTeM)	Design and Optimization

POSTER ID	ABSTRACT ID	TITLE	AUTHORS	PRESENTER	AFFILIATION	TRACK
57	145	Evaluation of mechanical properties for open cellular structure 17.4 PH stainless steel alloy fabricated by selective laser melting process	M.F.F.A. Hamidi, W.S.W. Harun	Mohd Faizul Farhan Ahmad Hamidi	UMP	Design and Optimization
58	168	The effect of cutting parameters on tool wear in end milling of AISI D2 tool steel	N.H.J. Luqman, S. Mohd Shukor, M. Hadzey	Luqman Nul Hakim Juwara	FKP (UTeM)	Design and Optimization
59	174	The effect of machining strategies on dimensional accuracy in flank milling for five-axis slanted thin-walled – aero structural component	S.A. Sundi, M.S. Jumali, M.R.M. Razly, M.F.A. Rob, R. Izamshah, M.S. Kasim	Syahrul Azwan Sundi	FTK (UTeM)	Design and Optimization
60	181	Design and analysis of foldable human-powered vehicle	Mohd Azman Abdullah, Mohammad Alif Fayumi Ahmad, Shafizal Mat, Faiz Redza Ramli	Mohd Azman Abdullah	FKM (UTeM)	Design and Optimization
61	193	Car seat design using RULA analysis	S. Mat, M.A. Abdullah, A.R. Dullah, S.A. Shamsudin, M.F. Hussin	Shafizal Mat	FKM (UTeM)	Design and Optimization
62	194	Automated sorting system design in manufacturing industries	S. Mat, M.A. Abdullah, F.R. Ramli, S.I. Abdul Kuddus, A.A. Abdul Aziz	Shafizal Mat	FKM (UTeM)	Design and Optimization
63	196	Flexible shield for impact resistant purpose: A conceptual design	H.M.S. Firdaus, M.Y. Halyani, M.I.H.C. Abdullah, O.M. Rafi, R.F. Farhana	Mohamed Saiful Firdaus Hussin	FTK (UTeM)	Design and Optimization
64	202	The analysis of design product preferences using curve fitted profiling (CFP)	H. Shombong, W.N. Hidayah, S. Shamsuddin, M.Y. Yuhazri	Wan Nur Hidayah Wan Yaacob	FKP (UTeM)	Design and Optimization
65	280	Optimization of process parameters variation on $I_{ON}$ and $V_{TH}$ in n-channel double gate FinFET device	N.K. Norddin, F. Salehuddin, N.R. Mohamad, Norhisham Mansor, A.S.M. Zain, K.E. Kaharudin, A.H. Afiah Maheran, A.R. Hanim, H. Hazura, S.K. Idris	Nur Khairiyyah Norddin	FKEK (UTeM)	Design and Optimization
66	282	Reliability testing of inertial measurement units in the analysis of physiological variables in archery	Z. Taha, R.M. Musa, M.R. Abdullah, M.H.A. Hassan, M.A.M. Razman, A.P.P. Abdul Majed	Rabiu Muazu Musa	UniSZA	Design and Optimization
67	291	Wing design for blended-wing-body aircraft	M.H. Mat Yazik, M.T.H. Sultan, A. Hamdan	Muhamad Hasfanizam Mat Yazik	UPM	Design and Optimization
68	293	Improving manufacturing facilities design layout for a coffee production company	D. Ibrahim, S.M. Hashim, A.I.S. Yusof, Y. Yaakob, N. Hussin, A.A. Azahari	Dzullijah Ibrahim	UITM	Design and Optimization
69	316	Particles influence on breakdown voltage of liquid insulating medium	M.H.S. Zainoddin, H. Zainudin, N. Abu Bakar	Hafiy Syazwan Zainoddin	FKE (UTeM)	Design and Optimization
70	323	Optimization of FDM process parameters for ABS spur gear build time	S.M.M. Nor, M.N. Sudin, S.H.S.M. Fadzillah, M.R. Alkahari, F.R. Ramli	Siti Maryam Md Nor	FKM (UTeM)	Design and Optimization

POSTER ID	ABSTRACT ID	TITLE	AUTHORS	PRESENTER	AFFILIATION	TRACK
71	329	Behavior analysis of human walking and robot movement for person following robot	A. I. Tarmizi, A.Z.H. Shukor, N.M.M. Sobran, M.H. Jamaluddin	Aine Ilina Tarmizi	FKE (UTeM)	Design and Optimization
72	330	Roughness of 3D printed surface under influence of chemical post processing	A.R. Zolkaply, M.R. Alkahari, F.R. Ramli, N.S. Hamdan, M.N. Sudin	Arzadtu Ruziyah Zolkaply	FKM (UTeM)	Design and Optimization
73	332	An investigation on applying different type of adhesive to reduce warping deformation in open source 3D printer	M.A. Nazan, F.R. Ramli, M.R. Alkahari, M.A. Abdullah, M.N. Sudin	Muhammad Afidhal Nazan	FKM (UTeM)	Design and Optimization
74	333	Manufacturability of overhang structure using open source 3D printer	M.R. Alkahari, S.N.H. Mazlan, O.I. Sun, F.R. Ramli, N.A. Maidin, M.N. Sudin	Siti Nur Humaira Mazlan	FKM (UTeM)	Design and Optimization
75	343	Design self-balancing bicycle	N. Tamaldin, H.I.M. Yusof, M.F.B. Abdollah, G. Omar, M.I.F. Rosley	Noreffendy Tamaldin	FKM (UTeM)	Design and Optimization
76	348	Optimizing the design of n-channel trench power MOSFET device using Taguchi method	N.A. Ahmed Nazri, F. Salehuddin, N.R. Mohamad, M.N.I.A. Aziz, M. Hadinan, A.S.M. Zain, A.H. Affiah Maheran, A.R. Hanim, H. Hazura, S.K. Idris	Nurdi Amirah Ahmed Nazri	FKEK (UTeM)	Design and Optimization
77	1	Characterizations of thermoelectric (TE) for energy harvesting on low level heat sources	Ali Mohammed Abdal-Kadhim, Kok Swee Leong	Ali Mohammed Abdalkadhim	FKEK (UTeM)	Energy Conversion and Management
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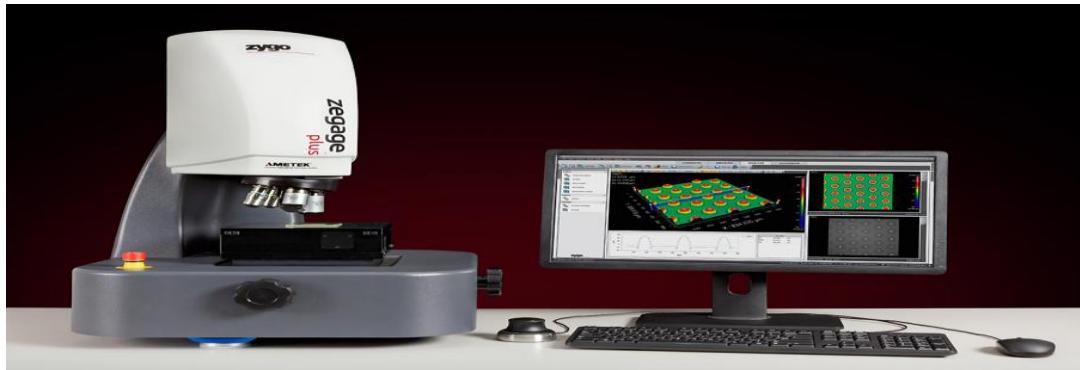
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