

# JOURNAL OF MECHANICAL ENGINEERING

*An International Journal*

Special Issue  
**Engineering for Humanity Vol 3**

Vol SI 4 (3)	October 2017	ISSN 1823-5514	eISSN 2550-164X
--------------	--------------	----------------	-----------------

- 1 [Physical Properties of Porcelain Ceramic with Influence of Milled Alkali Resistant \(AR\) Fibreglass for Sewer Pipes Application](#) 1  
*Muhammad Ikmal Hanapi, Sufizar Ahmad, Hariati Taib, and Tan Chee Chen*
- 2 [Effect of pH of Suspension and Mechanical Treatment on Nanosized Zirconia Dispersion](#) 10  
*Noor Faeizah Amat, Andanastuti Muchtar, and Mariyam Jameelah Ghazali*
- 3 [Characterising Ballistic Limits of Lightweight Laminated-Structure as a Protective Panel for Armoured Vehicle](#) 20  
*N.A. Rahman, M.F. Abdullah, S. Abdullah, W.F.H. Zamri, M.Z. Omar, and Z. Sajuri*
- 4 [Thermal Characteristics of a Rotating Closed-Loop Pulsating Heat Pipe Affected by Centrifugal Accelerations and Numbers of Turns](#) 35  
*Niti Kammuang-lue, Kritsada On-ai, Phrut Sakulchangsatjatai, and Pradit Terdtoon*
- 5 [Heat transfer augmentation of mixture ratio TiO<sub>2</sub> to SiO<sub>2</sub> in hybrid nanofluid](#) 51  
*K.A. Hamid, W.H. Azmi, M.F. Nabil, and Rizalman Mamat*
- 6 [K-180 G Micro Gas Turbine Performance Evaluation](#) 64  
*Mohamad Zulfazli Arief Bin Abd Lati, Muhammad Aiman Bin Ahma, and Rizal Effendy Mohd Nasir*
- 7 [Effect Of Incubation Temperature On Ikta's Quail Breed With New Rolling Mechanism System](#) 78  
*Mohd Badli Ramli, M.S. Wahab, B.A. Zain, A.A. Raus, K. Kamarudin, N Sa'ude, R Haq, M, Ibrahim, and Aqeel Ahmed*
- 8 [Synthesizing the Machine's Availability in Overall Equipment Effectiveness \(OEE\)](#) 89  
*Normariah Che Maideen, Salina Budin, Shuib Sahudin, Hasnida Ab. Samat*

9	Experimental Investigation of Diesel Engine Run with Waste Cooking Oil–Petrol Blends <i>Idris Saad, Nik Rosli Abdullah, Aman Mohd Ihsan Mamat, Wardatul Hayah Ab Rashid, and Nur Hidayah Saidon</i>	100
10	Powder Mixed Dielectric in Electrical Discharge Machining of Inconel 718 <i>Said Ahmad, Erween Abd Rahim, Mohd Amri Lajis, and Mohd Rasidi Ibrahim</i>	110
11	Properties of Injection Molded Nanocomposites and Blends Based on PLA, PHBV and L-CNC <i>Martin Borůvka, Luboš Běhálék, Jiří Habr, Petr Lenfeld, Jan Vácha, and Chakaphan Ngaowthong</i>	128
12	Frequency Based Substructuring Method for the Investigation of the Dynamic Behaviour of a Beam Structure <i>Wan Imaan Izhan Bin Wan Iskandar Mirza, Muhamad Norhisham Bin Abdul Rani, Mohd Azmi Bin Yunus, Ahmad Burhani Bin Ahmad Basri, and Ahmad Azlan Mat Isa</i>	142
13	Experimental and Finite Element Analysis of Laser Stitch Welded Structure <i>Mohd Azmi Bin Yunus, Mohamad Azam Shah Bin Aziz Shah, Muhamad Norhisham Bin Abdul Rani, Wan Imaan Izhan Bin Wan Iskandar Mirza, and Sahril Bin Kushairi</i>	155
14	A Model for Hypersensitive Airflow Sensor Concept <i>Mohamad Dzulhelmy bin Amari, and Sukarnur Che Abdullah</i>	163
15	Modal And FRF Based Updating Methods For The Investigation Of The Dynamic Behaviour Of A Plate <i>Mohd Syazwan Mohd Zin, Muhamad Norhisham Abdul Rani, Mohd Azmi Yunus, Wan Imaan Izhan Wan Iskandar Mirza, Ahmad Azlan Mat Isa, and Zulkifli Mohamed</i>	175
16	Removal of Pigment from Textile Wastewater by Electrospun Nanofibre Membrane <i>Nor Dalila Nor Affandi and Nur Najiha Abdul Razak</i>	190
17	Finite Element Modelling and Updating for Bolted Lap Joints <i>Rohaizat Omar, Muhamad Norhisham Abdul Rani, Wan Imaan Izhan Wan Iskandar Mirza, Mohd Azmi Yunus, and Mohd Hakimi Othman</i>	202
18	Synthetic and Natural Fibrous Scaffolds for Soft Tissue Engineering Applications <i>Weily Khoo, Ching Theng Koh, and Shing Chee Lim</i>	223
19	Wind Tunnel Tests of UiTM Blended Wing Body - Unmanned Aerial Vehicle (BWB-UAV) Prototype <i>Wirachman Wisnoe, Rizal E. M. Nasir, Wan Aizad Musyamel Saarani, Normashiha Mohd Saad, and Mohd Amirul Afiq Mamud</i>	234
20	Electrospinning of Polycaprolactone (PCL) and Gelatin Polymeric Fibers <i>Shing Chee Lim, Weily Khoo, and Ching Theng Koh</i>	246