

## Dr. Muhammad Hasnulhadi Bin Mohammad Jaafar

### PERSONAL DETAILS

Address : School of Manufacturing Engineering, Universiti Malaysia Perlis (UniMAP),  
Kampus Pauh Putra, 02600 Arau, Perlis, Malaysia.

Mobile No. : +60199884117                      Date of Birth : 17 September 1984

Email : hasnulhadi@unimap.edu.my              Nationality : Malaysia

Age : 33 years                                      Marital Status : Married



### EDUCATIONAL BACKGROUND

Doctor of Engineering  
**(Apr 2013 – Mar 2016)**              Field of Study : Frontier Forming Process of Lightweight Materials for Automobile  
Institute : Department of Mechanical Engineering, Toyohashi University of Technology

Master of Manufacturing  
Systems Engineering  
**(Dec 2009 – Dec 2010)**              Field of Study : Machining and Manufacturing Process  
Institute : Department of Mechanical and Manufacturing Engineering, Universiti Putra  
Malaysia

Bachelor of Engineering  
Mechatronics (Hons)  
**(Oct 2003 – Jan 2008)**              Field of Study : Mechatronics  
Institute : Department of Mechatronics, International Islamic University Malaysia

### PROFESSIONAL EXPERIENCES

03/2016 – Present                      Senior Lecturer  
School of Manufacturing Engineering, Universiti Malaysia Perlis

03/2011 – 09/2012                      Lecturer  
School of Manufacturing Engineering, Universiti Malaysia Perlis

03/2008 – 07/2009                      Field and Survey Engineer  
Offshore Geo Surveys Sdn. Bhd

### PHD & MASTER PROJECT & RESEARCH

Doctoral Project (PhD)              Title : Punching and Trimming of Die-Quenched and Ultra-High Strength Steel  
Sheets  
Objective : Improvement of quality of sheared edge in punching of die-quenched steel  
sheets

Master Project (MSc)              Title : Parameter Optimization For JIS S45C Steel Turning Process Based on Taguchi  
Objective : Optimization of parameters for turning process

## RESEARCH GRANT

2017	<p>Title : Graphene Growth Mechanism On Thermally Oxidized Cuprous Oxide Layer For Photovoltaic Efficiency Improvement</p> <p>Grant : Fundamental Research Grant Scheme (FRGS)</p> <p>Total amount : RM 70,500.00</p> <p>Sponsor : Universiti Malaysia Perlis (UniMAP)</p> <p>Responsibility : Co-researcher</p> <p>Status : <b>On-going</b></p>
2016	<p>Title : Investigate The Influence Of Weld Bead Path In Butt Joint Design For Dissimilar Metal Welding</p> <p>Grant : Research Development Grant Scheme (RAGS)</p> <p>Total amount : RM 77,683.00</p> <p>Sponsor : Universiti Malaysia Perlis (UniMAP)</p> <p>Responsibility : Project Leader</p> <p>Status : <b>Completed</b></p>
2016	<p>Title : Small Clearance Punching of Ultra-High Strength Steel Sheets</p> <p>Grant : Geran Anugerah Kecemerlangan, Short Term Grant (STG)</p> <p>Total amount : RM 10,000.00</p> <p>Sponsor : Universiti Malaysia Perlis (UniMAP)</p> <p>Responsibility : Project Leader</p> <p>Status : <b>Completed</b></p>
2012	<p>Title : Fundamental Study Of Correlation Between Surface Finish And Tool Wear in Machining Process Involving Solid Lubricants</p> <p>Grant : Fundamental Research Grant Scheme(FRGS)</p> <p>Total amount : RM 34,000.00</p> <p>Sponsor : Ministry Of Higher Education (MOHE)</p> <p>Responsibility : Co-researcher</p> <p>Status : <b>Completed</b></p>
2012	<p>Title : Fundamental Study of Corrosion Detection In Steel Plate Through Changes In Frequency</p> <p>Grant : Short Term Grant (STG)</p> <p>Total amount : RM 8,000.00</p> <p>Sponsor : Universiti Malaysia Perlis (UniMAP)</p> <p>Responsibility : Project Leader</p> <p>Status : <b>Completed</b></p>
2012	<p>Title : Investigation On A New Design Of Washing Machine: A Fundamental Study Of New Washing Machine Process Which Combines Deflection And Abrasion Action Due To The Hydrodynamic And Impact Water Jet Working Liquid</p> <p>Grant : Fundamental Research Grant Scheme(FRGS)</p> <p>Total amount : RM 45,810.00</p> <p>Sponsor : Ministry Of Higher Education (MOHE)</p> <p>Responsibility : Co-researcher</p> <p>Status : <b>Completed</b></p>

## PUBLICATIONS

### (INDEXED JOURNAL)

1. Y. Abe, Y. Okamoto, K. Mori, **H. Jaafar**, Deformation behaviour and reduction in flying speed of scrap in trimming of ultra-high strength steel sheets, *Journal of Materials Processing Technology*, 250, (2017), 372-378. **(Q1 - IF 3.147)**
2. **H. Jaafar**, K. Mori, Y. Abe, K. Nakanishi, Automatic centring with moving die for cold small clearance punching of die-quenched steel sheets, *Journal of Materials Processing Technology*, 227 (2016), pp. 190-199. **(Q1 - IF 3.147)**
3. Y. Abe, Y. Okamoto, K. Mori, **H. Jaafar**, Deformation behaviour and reduction in flying speed of scrap in trimming of ultra-high-strength steel sheets, *Journal of the Japan Society for Technology of Plasticity*, 57-661 (2016), 146-152
4. **Hasnulhadi Jaafar**, K. Mori, Y. Abe, Correction of eccentricity between punch and die in slight clearance punching of ultra-high strength steel sheets, *Procedia Engineering*, 81 (2014), 843-848. **(indexed by Scopus)**
5. Z.A., Zailani, M.S., Hussin, M.F.M.A., Hamzas, **M.J.**, **Hasnul**, A.B., Sanuddin, The Correlation between surface finish in milling process involving solid lubricant, *International Review of Mechanical Engineering*, 6,6 (2012), pp. 1262-1267. **(indexed by Scopus)**
6. **Hasnul Hadi**, Liyana Tajul, M. F. M. A. Hamzas, M.S. Hussin, Z. A. Zailani, M. H. M Radzi, Parameter Optimization For JIS S45C Steel Turning Process Based on Taguchi , *International Review of Mechanical Engineering*, 6, 3 (2012), pp. 462-467. **(indexed by Scopus)**
7. M.S., Hussin, M.F.M.A., Hamzas, **M.J.**, **Hasnul**, Z.A., Zailani, A.B., Sanuddin, Design and fabrication of a die for molding test press, *International Review of Mechanical Engineering*, 6, 6 (2012), pp.1257-1261. **(indexed by Scopus)**
8. N. L. T. Lile, **M.J. Hasnul**, R.A. Siregar, J.C. Leong, Effect of Blockage Size on Pipe Vibration, *Advanced Materials Research*, 626 (2013), pp. 993-996. **(indexed by Scopus)**
9. **Hasnul Hadi**, Liyana Tajul, Hussin, M.S., Zailani, Z.A., Hamzas, M. F. M. A., Bahari M.S, Study On Ability of Palm Oil as Viscosity Index Improvement (VII) Additive in Thermal Stability (Base Mineral Oil – Cooking Palm Oil), *International Review of Mechanical Engineering*, 6, 3 (2012), pp. 456-461. **(indexed by Scopus)**
10. M.S., Hussin, M.F.M.A., Hamzas, **Hasnul Hadi**, A.B., Sanuddin, Z.A., Zailani, Study of machining parameters of wire electrical discharge of aluminum matrix composites (Amcs) with Taguchi method, *International Review of Mechanical Engineering*, 6, 7 (2012), pp. 1434-1440. **(indexed by Scopus)**
11. N. L. T. Lile, **H. Hadi**, M.R. Roslan, Vibration Analysis of Blocked Circular Pipe Flow, *Applied Mechanics and Materials*, 165 (2012), pp. 197-201. **(indexed by Scopus)**
12. M.S., Hussin, Z.A., Zailani, **Hasnul Hadi**, A.B., Sanuddin, M.F.M.A., Hamzas, Process improvement on manufacturing floor through PDCA methodology, *International Review of Mechanical Engineering*, 6,7 (2012) pp. 1441-1448. **(indexed by Scopus)**
13. M.S., Hussin, Z.A., Zailani, **Hasnul Hadi**, A.B., Sanuddin, M.F.M.A., Hamza, A study on the effect of boric acid mixture as solid lubricant towards machining processes, *International Review of Mechanical Engineering*, 6, 7 (2012) pp. 1429-1433. **(indexed by Scopus)**
14. M.S., Hussin, A.B., Sanuddin, M.F.M.A., Hamzas, Z.A., Zailani, **Hasnul Hadi**, Design and development of a new vertical axis movable vane cavity wind turbine, *International Review of Mechanical Engineering*, 6, 7 (2012) pp. 1638-1642. **(indexed by Scopus)**
15. M.F.M.A., Hamzas, S.A., Bareduan, M.S., Hussin, **M.J.**, **Hasnul**, A.B., Sanuddin, Z.A., Zailani, Performance evaluation of M3 bottleneck based heuristic for M1 M2 M3 flow shop, *International Review of Mechanical Engineering*, 6,6 (2012) pp. 1253-1256. **(indexed by Scopus)**
16. M.S., Hussin, A.B., Sanuddin, M.F.M.A., Hamzas, Z.A., Zailani, **M.J.**, **Hasnul**, Bracket assembly tail failure: Identification of causes and proposal for design improvement, *International Review of Mechanical Engineering*, 6, 6 (2012), pp. 1245-1252. **(indexed by Scopus)**
17. Z.A. Zailani, R. Hamidon, M.S. Hussin, M.F.M.A. Hamzas, **Hasnul Hadi**, Classroom Comfort Ability Assessment: A Case Study, *International Review of Mechanical Engineering*, 6, 3 (2012), pp. 339-345. **(indexed by Scopus)**
18. M. F. M. A. Hamzas, S.A Bareduan, Liyana Tajul, M.S Hussin, Z.A Zailani, **Hasnul Hadi**, Development of Improved Bottleneck-based Heuristic for Re-entrant Flow Shop with Dominant Machine at M1 and M4, *International Review of Mechanical Engineering*, 6, 3 (2012), pp. 501-506. **(indexed by Scopus)**

## (PROCEEDINGS CONFERENCE)

1. **H. Jaafar**, M. H. M Radzi, L. Tajul, M. A. Rojan, Study of mechanical performance of dissimilar metal weld joint design, The 3rd International Conference on Green Design and Manufacture (IConGDM 2017), Krabi, Thailand, 29–30 April 2017.
2. **H. Jaafar**, M. H. M Radzi, L. Tajul, M. A. Rojan, M. Zamzuri, MIG dissimilar metal welding simulation: mechanical performance of different joint design, The 3rd International Conference on Green Design and Manufacture (IConGDM 2017), Krabi, Thailand, 29–30 April 2017.
3. M. Zamzuri, **H. Jaafar**, N. Rosli, M. Mat Salleh, N. Tajul Lile, M. Azaman, F. Mohamad, N. Hisyamudin and M. Izaki, Sputtered AZO on <111>-oriented Cu<sub>2</sub>O photovoltaic device with improved performance, IOP Conference Series: Materials Science and Engineering, 226 (1), IOP Publishing, 2017.
4. **Hasnulhadi Jaafar**, Ken-ichiro Mori, Yohei Abe, Correction of eccentricity between punch and die in slight clearance punching of ultra-high strength steel sheets, 11th International Conference on Technology of Plasticity, Nagoya, Japan, 19-24 October 2014.
5. **Hasnulhadi Jaafar**, Ken-ichiro Mori, Yohei Abe, Keishiro Nakanishi, Cold punching of high strength die-quenched steel sheets, JSTP 7th International Seminar on Precision Forging, Nagoya, Japan, 9-12 March 2015.
6. Lile N.L.T., **Hasnul M.J.**, Siregar R.A., Leong J.C., "Effect of blockage size on pipe vibration" 2012 International Conference on Advanced Materials Engineering and Technology, ICAMET 2012.