

## Curriculum Vitae



### Assoc. Prof. Ir. Dr. Hj. Nik Mohd Zuki Bin Nik Mohamed

Deputy Dean

(Academic and Student Development Affairs).

Faculty of Mechanical Engineering,

Universiti Malaysia Pahang,

26600 Pekan

Pahang, MALAYSIA.

Tel: 609-4246308, Fax: 609-4246222

Email: nikzuki@ump.edu.my, nikzuki@yahoo.com



### Academic Qualifications

1. PhD, University of Bradford, UK, 2012
2. M.Sc. Manufacturing System Engineering, Universiti Putra Malaysia, 2006.
3. Certificate (Grade A), Executive Development Program, International Institute of Public Policy and Management, Universiti Malaya, 2005
4. B. Sc Mechanical Engineering, Widener University, Philadelphia, USA, 1992.

### Brief Profile

Ir. Dr. Nik Mohd Zuki Nik Mohamed is currently an Associate Professor at Mechanical Engineering Faculty, Universiti Malaysia Pahang. Prior to his current position, he has been with Perusahaan Otomobil Nasional (Proton) Holdings Sdn. Berhad for 14 years. He has a wealth of experience in dies design, manufacturing, product development and project management with reputable dies makers from Japan, Korea, Thailand, Spain, Germany, United Kingdom and Australia. Nik Mohd Zuki, married with three children, has a Bachelor's degree in Mechanical Engineering from Widener University, Philadelphia, USA, Master's degree in Manufacturing System Engineering from Universiti Putra Malaysia, and PhD (Knowledge based system for Low Volume Automotive Manufacturing) from University of Bradford. He is also a registered Professional Engineer with Practising Certificate (The Board of Engineers Malaysia) and a corporate member of The Institution of Engineers Malaysia. He has published more than 60 papers in national and international scholarly journals and conferences.

### Working Experiences / Appointment

- |                       |   |
|-----------------------|---|
| 1. 17/2/14 ~ to date  | Deputy Dean (Academic and Student Development Affairs)  |
| 2. 1/8/12-16/2/14     | Head of Automotive & BHA Programmes (collaboration with HsKA, Germany)                        |
| 3. Dec 2006~ to date  | Senior Lecturer, Mechanical Engineering Faculty, Universiti Malaysia Pahang.                  |
| 4. Jan 2006~ Dec 2006 | Division Head, Cost Management/MSC Project, Miyazu (M) Sdn. Bhd<br>– Subsidiary of Proton Bhd |
| 5. Jan 2004~ Dec 2005 | Manager, Engineering/Design, Miyazu (M) Sdn. Bhd<br>– Subsidiary of Proton Bhd                |
| 6. Jun 1997~Dec 2003  | Unit Head, Die Engineering, Proton Bhd  |
| 7. Apr 1993~Jun 1997  | Stamping Die engineer/designer, Proton Bhd  |

### Expert Area

Dies design, project management, total development program for automotive manufacturing, concurrent engineering, lean manufacturing, dies costing, ergonomics, Internal Quality Auditor (IQA) for ISO 9001, safety and 5S committee.

### Research Area / Research Interest

Automotive manufacturing, stamping dies, checking fixtures, low volume automotive manufacturing, knowledge based system, ergonomics, manufacturing systems.

## Professional Activities

### A) Membership of Professional Body

1. Professional Engineer with Practising Cert, Board of Engineer Malaysia, (P. Eng – C112375).
2. Corporate Member, Institution of Engineers Malaysia, (MIEM - M17250).
3. IEM Pahang Branch – Exco (Mechanical Sub-Committee) (2013-2017)
4. Professional Interview Panel (IEM) – Mechanical

### B) Professional Experience.

1. Lotus UK Aluminium Sports Car Project, RM35 million die project. Manage from design, manufacturing, trial, buy-off and handover to production. Involved with Proton in-house, Japan and UK die makers.
2. Proton Chancellor Project, RM8 million die project. Manage from design, manufacturing, trial, buy-off and handover to production. Involved with in-house, local and Korean die makers.
3. Proton Gen2 Project, RM120 million die project. Manage from design, manufacturing, trial, buy-off and handover to production. Involved in-house, local, Japan and Korean die makers.
4. Proton WAJA Project, RM35 million die project. Manage from design, manufacturing, trial, buy-off and handover to production. Involved Korean die makers.
5. Certified Auditor, ISO9001:2000, 1996 to date.

## Teaching Experience

1. SEM II 2016/2017  
BHA 3602 Automotive Product Development, 2 credits (2+0) (13 Students)  
BMM 4924 Final Year Project 2, 4 credits (2 Students)
2. SEM I 2016/2017  
BMM 4623 Mechanical System Design, 3 credits (3+0) (46 Students)  
MME 6113 Research Methodology, 3 credits (3+0) (14 Students)  
BMM 4912 Final Year Project 1, 2 credits (2 Students)
3. SEM II 2015/2016  
BHA 3602 Automotive Product Development, 2 credits (2+0) (19 Students)  
BMM 4924 Final Year Project 2, 4 credits (3 Students)
4. SEM I 2015/2016  
BHA 3602 Automotive Product Development, 2 credits (2+0) (23 Students)  
MME 6113 Research Methodology, 3 credits (3+0) (19 Students)  
BMM 4912 Final Year Project 1, 2 credits (3 Students)
5. SEM II 2014/2015  
BHA 3602 Occupational Safety & Health, 1 credit (1+0) (23 Students)  
BHM4911 Environment Safety and Health (17 Students)  
MME 6113 Research Methodology, 3 credits (2+0) (19 Students)  
BMM 4924 Final Year Project 2, 4 credits (5 Students)
6. SEM I 2014/2015  
BHA 3602 Automotive Product Development, 2 credits (2+0) (19 Students)  
MKM 1443 Industrial Management, 3 credits (3+0) (6 Students)  
BMM 4912 Final Year Project 1, 2 credits (5 Students)
7. SEM II 2013/2014  
BMM 4823 Production Planning & Control, 3 credits (3+0) (30 Students)  
BMM 4924 Final Year Project 2, 4 credits (5 Students)
8. SEM I 2013/2014  
BMI 4713 Production Planning & Control, 3 credits (3+0) (30 Students)  
BMM 4912 Final Year Project 1, 2 credits (5 Students)
9. SEM II 2012/2013  
BMI 4713 Production Planning & Control, 3 credits (3+0) (30 Students)  
BMM 3633 Industrial Engineering, 3 credits (3+0) (48 Students)  
BMM 4924 Final Year Project 2, 4 credits (4 Students)

10. SEM 1 2012/2013  
 BMM 2011 Occupational Safety & Health, 1 credit (1+0) (170 Students)  
 BMM 4623 Mechanical System Design, 3 credits (3+0) (29 Students)  
 BMM 4912 Final Year Project 1, 2 credits (4 Students)
11. SEPT 2011 – MARCH 2012 Teaching Assistant at University of Bradford  
 ENG 4087 Manufacturing Planning and Control  
 ENG 4082 Manufacturing Simulation
12. JUL 2008/2009  
 BMM 2011 Occupational Safety & Health, 1 credit (1+0) (201 Students)  
 DMM 3011 Occupational Safety & Health, 1 credit (1+0) (54 Students)  
 BMM3923 Final Year Project 2, 4 credits (7 Students)  
 BMM4999 Industrial Training (1 student)
13. DEC 2007/2008  
 BMM 2643 Manufacturing Processes, 3 credits (3+0) (223 Students)  
 BMM3912 Final Year Project 1, 2 credits (7 Students)  
 BMM4999 Industrial Training (10 students)
14. JUL 2007/2008  
 BMM 3011 Engineer & Society, 1 credit (1+0) (220 Students)  
 BMM 2011 Occupational Safety & Health, 1 credit (1+0) (201 Students)  
 BMM3923 Final Year Project 2, 4 credits (8 Students)
15. DEC 2006/2007  
 BMM 3513 Heat Transfer, 3 credits (3+1) (191 Students)  
 BMM3912 Final Year Project 1, 2 credits (8 Students)  
 BMM4999 Industrial Training (2 students)

### Post Graduates Supervision

No.	Academic Year	Name of Student	Level	Title of Project
1.	2013 - 2015	Adam Shariff Adli Bin Aminuddin	PhD Completed	A Knowledge Base Fuzzy Analytic Process System for Sustainable Manufacturing Management
2.	2013	Noraishah Mohamad Noor	PhD	New Design Of Tool And Die In Hot Press Forming Process Of Ultra High Strength Steel For Automotive Application
3.	2015	Fazilah Abdul Aziz	PhD	Automotive assembly line workers ergonomic risk assessment
4.	2013	Ahmad Fauzan Bin Zakaria	MSc	Development Of Thermal Simulation For Hot Press Forming (HPF) Die Using Innovative Cast Tool Steel
5.	2014	Bastian Wibar Bin Momang	MSc Completed	Development of a portable quality-confirmation inspection unit for automotive checking fixture
6.	2015	Norhidayah Binti Mat Sout	MSc Completed	Assessment of ergonomics at Malaysian mining industry
7.	2015	Hamizatun Binti Mohd Fazi	MSc Completed	Application of Ergonomic in Design for Food Production Industry
8.	2015	Veyolla Jaffrey	MSc Completed	Layout Improvement in Food Production Industry by Using Witness Simulation Software
9.	2015	Nurul Husna Zakaria	MSc	Ergonomics Study on Workers in Manufacturing Industry
10.	2015	Azizul Qayyum Bin Basri	PhD	SMED in Production Stamping Proton Shah Alam Selangor
11.	2016	Hamizatun Binti Mohd Fazi	PhD	Ergonomic Embedded in Designing Assembly Toolings for Automotive Manufacturing Environment by Using KBS
12.	2016	Veyolla Jaffrey	PhD	Development of KBS for Designing an Ergonomic Manufacturing Environment for Aircraft Components
13.	2016	Ahmad Shah Hizam Mat Yasir	PhD	Layout Improvement for Military Armored Vehicle Production Line

14.	2016	Mohd Yusrizal Mohd Yusooif	MSc Completed	The Assessment Of Man And Method Toward The Assembly Line Improvement In Automotive Manufacturing
15.	2017	Muhammad Azril Amir Bin Zakariah	MSc Completed	Production Flow Analysis Through VSM Method for Automotive Stamping Line

### Undergraduates Final Year Projects Supervision

No.	Academic Year	Name of Student	Student ID	Title of Project
1.	2017-2018	Muhamad Amirul Che Azis	Mh14031	Ergonomics In Lean Manufacturing
2.	2017-2018	Syaffiq Humaidi Zainal	Ma14201	Ergonomics In Low Volume Manufacturing
3.	2017-2018	Muhammad Fitri Ahmad Nasruddin	Mh14008	Ergonomics Study For Automotive Body Assembly Line
4.	2016-2017	Noor Diana Syakila Bt Azmi	MA13175	Relationship Between The Employees Involvement And Productivity Improvement
5.	2016-2017	Nurul Shazzwani Bt Mustafa	MA13129	The Effectiveness Os The Lean Manufacturing Implementation For A SME
6.	2015-2016	Fadhilah Bt Sutan Ibrahim	MC12039	QC Inspection Effectiveness Study At SME
7.	2015-2016	Muhammad Asyraf B. Muda	MA12045	Employees Involvement Towards Productivity Improvement
8.	2015-2016	Luqman B Mohd Hasan	MA12027	Lean Manufacturing Implementation In Small And Medium Industries
9.	2014-2015	Noor Azian Bt Sulaiman	MC11009	To Study The Effectiveness Of The Assembly Line Balancing For A Small And Medium Industry
10.	2014-2015	Mak Yip Kuan	MA11153	The Development Of A Portable Checking Fixture Device Programming
11.	2014-2015	Muhammad Luqman Hakim B. Ismail	MA11148	The Development Of A Knowledge Based System For Automotive Supplier
12.	2014-2015	Mohd Hazmie B. Suieb	MH11100	To Develop A KB System For Automotive Assembly Line
13.	2014-2015	Nurul Husna Zakaria	MC11026	To Study The Effectiveness Of The Lean Manufacturing Implementation For A Small And Medium Industry
14.	2013-2014	Faris Irham Bin Abdul Ramit	MA10036	The Study Of Cooling Channel Embedded Casting For HPF
15.	2013-2014	Hamizan B. Abd. Hamid	MA10020	The Development Of A Portable Checking Fixture Device Programming
16.	2013-2014	Siti Nur Ezura Bt . Imran	MG10011	The Study On Portable Checking Fixture Device
17.	2013-2014	Nur Shakirah Bt Sahadan	MG11004	Design Analysis Of Cooling Analysis Of Cooling Channel For HPF Die
18.	2013-2014	Mohd Khairul Ridhwan B. Azizan	MH10008	The Study Of The Cooling Channel Fluids For HPF Die
19.	2012-2013	Muhammad Shahir Bin Nazir	MH09022	The Application Of Adhesive Bonding For Different Types Of Material For Car Body Parts
20.	2012-2013	Bastian Wibar Bin Momang	MH09041	Design Analysis Of Exterior Car Body Parts
21.	2012-2013	Tiong Chiong Chii	MA09028	The Study Of The Joining Strength Based On Low Power Laser Techniques
22.	2012-2013	Mohd Nadzrizal Bin Mohamad Ghaazali	MH09110	The Study Of The Joining Strength Based On Different Joining Technique
23.	2008 – 2009	Faizarul Akmal Bin Jamaludin	MH05007	Roll Forming Simulation For Automotive Bumper Fixing
24.	2008 – 2009	Mohd Hilman Bin Sobhi	MH05037	Scrap Reduction Study For Automotive Stamping

25.	2008 – 2009	Shuhairy Bin Said	MH05028	Lean Manufacturing Implementation For Low Volume Car Production
26.	2008 – 2009	Muhammad Farid Bin M Fathil	MH05032	Painting Process Improvement For Automotive Industry
27.	2008 – 2009	Mohd Najmi Bin Mohamad	MH05017	Body Assembly Process Improvement For Automotive Industry
28.	2008 – 2009	Mohd Ubaidallah Bin Abd Rashid	ME05039	Supply Chain Management For Manufacturing Industry
29.	2008 – 2009	Mohd Fakhri Azizi Bin Jusoh	MA05072	Design A New Concept Of Recycle Trash Bin
30.	2007 – 2008	Mohamad Hafizuddin B. Mokhtar	MG04016	Regenerative Chatter In Milling Machining On Mould Steel Via Experimental
31.	2007 – 2008	Muhammad Fitri B. Mhd Taib	MD04020	Hardening Of Aluminium Sheets (AL 6000) Automotive Body Panel By Precipitation Hardening.
32.	2007 – 2008	Rahmat B. Noor Yatim	MA03048	Design, Fabricate And Analyze A New Racing Bicycle Concept.
33.	2007 – 2008	Muhamad Zulhelme B. Bakar	ME04022	Investigation Of Fatigue Properties Of EN7 Carbon Steels.
34.	2007 – 2008	Mohd Khairi B. Ali	MF04018	Investigation On The Different Methods Of Joining For Automotive Panels.
35.	2007 – 2008	Mohamad Suhaimi B. Samsudin	MF04025	Investigation On The Different Types Of Material Of Joining For Automotive Panels.
36.	2007 – 2008	Faiz Asyraf B. Roslan	MA04008	Heat Treatment Condition Of EN7 Effects On The Machinability
37.	2007 – 2008	Abd Hisham B. Mohamad	MA04026	Investigation On Mechanical Properties Of Heat Treated EN7 Carbon Steel.

### Diploma Final Year Projects Supervision

-Nil-

### List of Publications

#### A) International and National Journal

1. **N.M.Z.N.Mohamed**, H.Y.Sastra, S.M. Sapuan, N. Ismail and A.B.A. Hamid, Manpower consideration to reduce development time for new model in automotive industry, American Journal of Applied Sciences, 2, no. 4, pp.763-767, 2005 (Listed in INSPEC).
2. **N.M.Z.N.Mohamed**, H.Y.Sastra, S.M. Sapuan, N. Ismail and A.B.A. Hamid, Vendor involvement and concurrent engineering: methods in reducing development time for new model in automotive industry, Jurnal Kemusiaan, no. 4, pp.17-23, 2005.
3. **N.M.Z.N.Mohamed**, H.Y.Sastra, S.M. Sapuan, N. Ismail and A.B.A. Hamid, Material consideration to reduce development time for new model in automotive industry, Journal of Applied Technology, 3(1):1-6, 2005.
4. **N.M.Z.N.Mohamed**, H.Y.Sastra, S.M. Sapuan, N. Ismail and A.B.A. Hamid, Improvement in machine performance to reduce development time for new model in automotive industry, Journal of Industrial Technology, 14(2):139-145, 2005.
5. **Zuki.N.M.**, Noor, M.M., Kadirgama, K., Hussain, H.C., Sapuan, S. M., Investigation on different methods of joining for automotive panel. Journal of Advanced Manufacturing Technology, ISSN: 1985-3157, 4(1), 2010 (Myais indexing)

6. K.Kadirgama, M.M.Noor, **N.M.Zuki.N.M**, M.M. Rahman, M.R.M. Rejab, R. Daud, K. A. Abou-El-Hossein," Optimization of Cutting Force and Surface Roughness in End Milling on Mould Aluminium Alloys (AA6061-T6) using Response Surface Method and Radian Basis Function Network", *Int. Journal of Jordan Mechanical Engineering & Industry*. 2(4), 209-214, 2009.
7. M.M.Noor, K.Kadirgama, M.M.Rahman, **N.M.Zuki N.M**, K.F.Muhamad, M.R.M.Rejab, Julie J. Mohamed "Prediction Modelling of Surface Roughness for Laser Beam Cutting on Acrylic Sheets", *Advanced Materials Research*, Vols. 83-86, 793-800, ISSN: 1022-6680, 2010. (Scopus and EI Indexing).
8. K.Kadirgama, M.M.Noor, M.R.M.Rejab, A.N.M.Rose, **N.M. Zuki N.M**, M.S.M.Sani, A.Sulaiman, R.A.Bakar, Abdullah Ibrahim, Importance of the Pre-Requisite Subject, 4<sup>th</sup> International Conference on University Learning and Teaching, 2008, 168-172.
9. **Mohamed, N.M.Z.N.** and Khan, M. K. (2011) "Knowledge Based System Implementation for Lean Process in Low Volume Automotive Manufacturing (LVAM) with Reference to Process Manufacturing," *Chemical Product and Process Modeling*: Vol. 6: Iss. 2, Article 7.  
**DOI:**10.2202/1934-2659.1601  
**Available at:** <http://www.bepress.com/cppm/vol6/iss2/7>
10. **Mohamed, N.M.Z.N.** and Khan, M. K. (2012) "The development of a hybrid knowledge based system for the design of a Low Volume Automotive Manufacturing (LVAM) system," *Int. J. Intelligent Systems Technologies and Application*, Vol. 11, Nos 1/2, pp.17-35.
11. **Mohamed, N. M.Z. N.** and Khan, M. K. (2012) "Decomposition of manufacturing processes: A Review, *International Journal of Automotive and Mechanical Engineering (IJAME)*,5, pp. 545-560 (**Scopus**)
12. A.S.A.Aminuddin, M.K.M.Nawawi, **N.M.Z.Nik Mohamed** (2014) "Analytic network process model for sustainable lean and green manufacturing performance indicator", *AIP Proceedings*,1613, pp32-38.
13. M.F.F. Ab Rashid, W.S.W.Harun, S.A.C. Ghani, **N.M.Z.Nik Mohamed** and A.N. Mohd Rose (2014) "Optimization of Multi-Pass Pocket Milling Parameter using Ant Colony Optimization", *Advanced Materials Research*, 1043, pp65-70.
14. M.F.F. Ab Rashid, **N.M.Z.Nik Mohamed**, A.N. Mohd Rose, S.A.C. Ghani and W.S.W.Harun (2015) "Implementation of Ant Colony Optimization Algorithm to Minimize Cost of turning process", *Applied Mechanics and Materials*, 695,pp 558-561.
15. **N.M.Z. Nik Mohamed**, M.F.F. Ab Rashid, A.N. Mohd Rose and Woh Yu Ting (2015) "Production layout improvement for steel fabrication works" *Industrial and Intelligent Information* Vol.3, No.2 pp133-137.
16. Mohd Kamal Mohd Nawawi, **Nik Mohd Zuki Nik Mohamed**, and Adam Shariff Adli Aminuddin (2015) "Hybrid Knowledge-Based System for Collaborative Green Automotive Manufacturing Management" *Applied Mechanics and Materials* Vols. 752-753, pp 1333-1338.
17. B.W. Momang and **N.M.Z.N. Mohamed** (2015) "Development concept of a portable quality-confirmation inspection device for automotive parts", *International Journal of Automotive and Mechanical Engineering (IJAME)* ISSN: 2229-8649 (Print); ISSN: 2180-1606 (Online); Volume 11, pp. 2738-2746, January-June 2015. Universiti Malaysia Pahang DOI: <http://dx.doi.org/10.15282/ijame.11.2015.49.0230>
18. M.F.F. Ab Rashid, **N.M.Z. Nik Mohamed**, A.N. Mohd Rose and K.Y. Kor (2015) "Simulation study of a vehicle production line for productivity improvement", *Journal of Mechanical Engineering and Sciences (JMES)* ISSN (Print): 2289-4659; e-ISSN: 2231-8380; Volume 8, pp. 1283-1292, June 2015 © Universiti Malaysia Pahang, Malaysia DOI: <http://dx.doi.org/10.15282/jmes.8.2015.3.0125>
19. MK Abdolbaqi, WH Azmi, R Mamat, **N Mohamed**, G Najafi, (2016). Experimental investigation of turbulent heat transfer by counter and co-swirling flow in a flat tube fitted with twin twisted tapes *International Communications in Heat and Mass Transfer* 75, 295-302. (**ISI Q1 I.F: 3.718**)
20. **Nik Mohd Zuki Nik Mohamed**, Nurul Husna Zakaria, Ahmad Nasser Mohd Rose, Mohd Fadzil Faisae Ab. Rashid. (2016) *Lean Manufacturing Implementation in Small and Medium Industry Advances in Smart Systems Research*, Publisher: Future Technology Publications, Vol. 5 No. 1: Workshop Papers from KES Conferences 2016,Journal ISSN: 2050-8662

21. Y. P. Asmara , Agus Geter, **N. M. Zuki**, J. Jamaludin, S. Januar, B. Dandi, T. Kurniawan, M. C. Ismail (2016) Corrosion inhibition of carbon steel in oil and gas environments. *International Journal of Advanced and Applied Sciences*, 3(5), pp 88-91
22. F. A. Aziz, Zakri Ghazalli, **N. M. Z. Nik Mohamed** and Amri Isfar. (2017). A Future Framework of Knowledge-Based Ergonomics Assessment System at Workplace in Automotive Assembly Plant. In book: *Advances in Social & Occupational Ergonomics*, pp.93-105 DOI: 10.1007/978-3-319-41688-5\_9
23. ANM Rose, MFF Ab Rashid, **NMZ Nik Mohamed**, H Ahmad (2017). Similarities of lean manufacturing approaches implementation in SMEs towards the success: Case study in the automotive component industry. *MATEC Web of Conferences*, 87, pp.20-24
24. HM Fazi, **NMZN Mohamed**, MFF Ab Rashid, ANM Rose. (2017). Ergonomics study for workers at food production industry. *MATEC Web of Conferences* 90, pp.01003
25. NH Zakaria, **NMZN Mohamed**, MFF Ab Rahid, ANM Rose. (2017). Lean manufacturing implementation in reducing waste for electronic assembly line. *MATEC Web of Conferences* 90, pp.01048
26. Fazilah ABDUL AZIZ, Zakri GHAZALLI, **Nik Mohd Zuki MOHAMED**, and Amri ISFAR. (2017). Assessing exposure to physical risk factors for work-related musculoskeletal disorders and relevant psychosocial factors among assembly workers in an automotive component assembly plant. *Malaysian Journal of Human Factors and Ergonomics*. Vol. 2 (1): 35 – 53
27. Najwa Wahida Zainal Abidin, Mohd Fadzil Faisae Ab Rashid, **Nik Mohd Zuki Nik Mohamed**. (2017). A Review of Multi-holes Drilling Path Optimization Using Soft Computing Approaches. *Journal Archives of Computational Methods in Engineering*, (), 1-12. DOI 10.1007/s11831-017-9228-1. **(ISI Q1 I.F: 5.061)**
28. Yasir, A.S.H.M. and **Mohamed, N.M.Z.M.** (2017). Production Layout Efficiency Improvement for Armoured Vehicle Assembly Line. *International Journal of Information Research and Review*, Vol. 04, Issue, 03, pp.3810-3815, March, 2017.
29. FA Aziz, Z Ghazalli, NMZN Mohamed, A Isfar, NSM Shalahim (2017). Musculoskeletal Discomforts among Assembly Team Members performing Assembly Welding Task. *The Japanese Journal of Ergonomics* 53 (Supplement2), S466-S469
30. V Jaffrey, N Mohamed, ANM Rose (2017). Improvement of productivity in low volume production industry layout by using witness simulation software. *IOP Conference Series: Materials Science and Engineering* 257 (1), 012030

#### **B) International and National Conference Papers**

1. **N.M.Z.N. Mohamed**, H. Y. Sastra, S.M. Sapuan and N. Ismail, Die making process in automotive industry, *Prosiding Seminar Metalurgi Pertama*, 27 November 2004, Bangi, Selangor, Malaysia, pp. 19 - 26,
2. **N.M.Zuki.N.M**, M.M.Rahman, M. M.Noor, K.Kadrigama, M.R.M.Rejab, An investigation into the effect of materials on joining for automotive panel using tailor welded blanks, *2<sup>nd</sup> Regional Conference on Vehicle Engineering and Technology, RIVET08*. 15~17July, Kuala Lumpur, 20-24, ISBN 978-983-42496-1-8, 2008
3. **N.M.Zuki.N.M**, M.M.Rahman, M. M.Noor, Regenerative chatter in end milling on mould aluminum via experimental, *Proceeding in Universiti Malaysia Terengganu International Symposium*, Jun 2008.
4. M.M.Noor, K.Kadrigama, **N.M.Zuki.N.M**, K.F.Muhamad, M.R.M.Rejab (2008), A Surface Roughness Prediction Model for Laser Beam Cutting (LBC) on Arcylic sheets, *International Conference on Advanced in Materials and Processing Technologies, AMPT2008*, Manama, Bahrain.
5. M.R.M. Rejab, N.U.A. Tarmidi, **N.M.Zuki.N.M**, M.M.Noor, "Strain Rate Effects of Polymeric Foam Cores under Compressive Loading", *Science, Technology and Social Science Conference, Pahang*. 3~4 J un 2008. vol. 1, 267~275. ISBN 978-983-2607-17-5.
6. D.T.T.Montt, M.S.M.Sani, Rosli. A.B, **N.M.Zuki.N.M**, Design Analysis of Silicon Cantilever for Label-less Sensing using Finite Element Method. *Fourth IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications*, October 12-15, 2008, Beijing, China ISBN: 978-1-4244-2366-2

7. M.M.Noor, K.Kadrigama, M.M.Rahman, **N.M.Zuki N.M**, K.F.Muhamad, M.R.M.Rejab, Julie J.Mohamed "Prediction Modelling of Surface Roughness for Laser Beam Cutting on Acrylic Sheets", International Conference on Advances Materials and Processing Technologies (AMPT08), 2-5 November, Gulf International Convention Center, Manama, Kingdom of Bahrain, 2008
8. R.Daud, M. M. Noor, K. Kadrigama. Z. Hamedon, **N.M.Zuki.N.M**, M.R.M. Rejab "Development and Optimization of Main Cavity Mold", Proceeding in Universiti Malaysia Terengganu International Symposium, Jun 2008.
9. M.M.Noor, K.Kadrigama, R.Devarajan, M.R.M.Rejab, **N.M.Zuki N.M.**, T.F.Yusaf, "Design of a High Pressure Compressed Natural Gas Mixer for 1500cc Engine", National Conference on Design and Concurrent Engineering (DECON08), 28-29th October, Avillion Legacy Hotel, Melaka. 435-438, ISBN 978-983-2948-54-4, 2008.
10. M.M.Noor, R.Daud, K.Kadrigama, M.R.M.Rejab, **N.M.Zuki N.M**, Z.Hamedon, S.N.Azizan, "Development of Turret Punch Cutting Tool using Reverse Engineering Method", National Conference on Design and Concurrent Engineering (DECON08), 28-29th October, Avillion Legacy Hotel, Melaka, 285-288, ISBN 978-983-2948-54-4, 2008.
11. A.R.N.A. Rahim, K.Kadrigama, M.M.Noor, Devarajan R., M.R.M.Rejab, **N.M.Zuki.N.M**, Design and simulate mixing of compressed natural gas with air in a mixing device, Proceedings of MUCET2008, Malaysian Technical Universities Conference on Engineering and Technology, March 8-10, 2008, Putra Palace, Perlis, Malaysia
12. K.Kadrigama, M.M.Noor, M.M. Rahman, M.S.M.Sani, **N.M.Zuki.N.M**, K. A. Abou-EI-Hossein, Prediction modeling of power and torque in end-milling, OPTI 2009, 8-10 June, Algarve, Portugal, 2009
13. **N.M.Z.N. Mohamed**, M. K. Khan, and K. Hussain, A hybrid knowledge based system for Low Volume Automotive Production (LVAP), 25<sup>th</sup> International Conference of CAD/CAM, Robotics & Factories of the Future Conference, 13-16 July 2010, Pretoria, South Africa. (ISBN number: 978-0-620-46582-3)
14. **N.M.Z.N. Mohamed**, and M. K. Khan, Knowledge Base System Implementation for lean Process In Low volume Automotive Manufacturing (LVAM), Computer Aided Process Engineering Forum (European Federation of Chemical Engineering), 21-22 March 2011, Bradford, United Kingdom
15. **N.M.Z.N. Mohamed**, and M. K. Khan, A hybrid knowledge based system for Low Volume Automotive Manufacturing (LVAM):Stage 2 (Design), 26<sup>th</sup> International Conference of CAD/CAM, Robotics & Factories of the Future Conference, 26-28 July 2011, Kuala Lumpur, Malaysia. (ISBN number: 978-983-44947-3-5)
16. M. K. M. Nawawi, **N.M.Z.N. Mohamed**, and A. S. A. Aminuddin, Planning and design of a knowledge based system for green manufacturing, International Conference on Mechanical Engineering Research, 1-3 July 2013, Kuantan, Malaysia.
17. **N.M.Z.N. Mohamed** , M.F.F. Ab Rashid, A.N. Mohd Rose and Woh Yu Ting, Production layout improvement for steel fabrication works 2014 International Conference on Industrial Engineering and Applications, Sydney.
18. B. W. Momang and **N. M. Z. N. Mohamed**, Development Concept Of A Portable Quality-Confirmation Inspection Device For Automotive Body Parts. AIGEV 2014
19. A. F. Zakaria and **N. M. Z. N. Mohamed**, Hot Press Forming Concept In Development Of Automotive Body Parts. AIGEV 2014
20. **N.M.Z. Nik Mohamed**, The study of cooling channel effect for Hot Press Forming Asia Joint Symposium on Die & Mould Technology and Technology Commercialization, Korea, Hanbat University, 2014.
21. B. W. Momang and **N. M. Z. N. Mohamed**, Design of CF for Automotive Body Parts Based on Artificial Intelligent. MUCET 2014
22. B. W. Momang and **N.M.Z.N. Mohamed**, Design Analysis Of Front Fender Panels By Using Finite Element Method, 3<sup>rd</sup> International Conference on Mechanical Engineering Research, 18-19 August 2015, Kuantan, Malaysia.



23. Norhidayah M.S., **Nik Mohd Zuki Nik Mohamed**, Muhamad Arifpin Mansor, Ahmad Rasdan Ismail, A Study of Postural Loading in Malaysian Mining Industry using Rapid Entire Body Assessment, 3<sup>rd</sup> International Conference on Mechanical Engineering Research, 18-19 August 2015, Kuantan, Malaysia.
24. H. M. Fazi, **N. M. Z. N. Mohamed**, M.F.F. Ab Rashid, A.N. Mohd Rose. Ergonomics Study for workers at food production industry, 2016 International Conference on Automotive Innovation and Green technology Vehicles, 2-3 August 2016, Cyberjaya
25. N. Zakaria, **N. M. Z. N. Mohamed**, M.F.F. Ab Rashid, A.N. Mohd Rose. Lean manufacturing implementation in reducing waste for electronic assembly line. 2016 International Conference on Automotive Innovation and Green technology Vehicles, 2-3 August 2016, Cyberjaya
26. N. Zakaria, **N. M. Z. N. Mohamed**, M.F.F. Ab Rashid, A.N. Mohd Rose. Lean Manufacturing Implementation In Small And Medium Industry. 20th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems. 5-7 Sept, 2016, York, UK
27. F. A. Aziz, Zakri Ghazalli and **N. M. Z. Nik Mohamed**. Development of knowledge based ergonomics assessment system at workplace in automotive assembly plant. 7<sup>th</sup> International Conference on Applied Human Factors and Ergonomics. 27-31 July, 2016, Florida,USA
28. V Jaffrey, N M Z N Mohamed and A N M Rose. Layout improvement in low Witness simulation software. 4<sup>th</sup> International Conference on Mechanical Engineering Research, 1-2 August 2017, Kuantan, Malaysia.
29. A.Q. Basri and N.M.Z.N. Mohamed. (2017) "The study of extended single minute exchange of die (smed) method in 1200 tonnage tandem press line for operation improvement", CIE47 Proceedings, 11-13 October 2017, Lisbon
30. A.S.H.M. Yasir, N.M.Z.N. Mohamed (2017). Assembly Line Efficiency Improvement by Using Simulation Approach CIE47 Proceedings, 11-13 October 2017, Lisbon
31. A.S.H.M. Yasir, N.M.Z.N. Mohamed (2017). Assembly Line Efficiency Improvement By Using Simulation Approach, The 3rd International Manufacturing Engineering Conference, 7-8 December 2017, Yogyakarta

#### **C) National/International Session Chair**

1. Parallel Session 2D - 26<sup>th</sup> July 2011 (2.30 pm – 4.00 pm) @ 26<sup>th</sup> International Conference of CAD/CAM, Robotics & Factories of the Future Conference, 26-28 July 2011, Kuala Lumpur, Malaysia.
2. Parallel Session 4B - 27<sup>th</sup> July 2011 (2.00 pm – 3.30 pm) @ 26<sup>th</sup> International Conference of CAD/CAM, Robotics & Factories of the Future Conference, 26-28 July 2011, Kuala Lumpur, Malaysia
3. Parallel Session 2, 9<sup>th</sup> September 2012 (8.30am-10.30am) @ National Conference for Postgraduate Research
4. Parallel Session 1A - 1<sup>st</sup> July 2013 (2.00 pm – 3.30 pm) @ International Conference on Mechanical Engineering Research, 1-3 July 2013, Kuantan, Malaysia
5. Session Chair, 30<sup>th</sup> May 2014 @ International Conference on Industrial Engineering and Applications, Sydney, Australia.

#### **D) Journal Referee**

1. Chemical Product and Process Modeling
2. Int. Journal of Intelligent Systems Technologies and Application
3. Jurnal Teknologi (E ISSN 2180-3722)

#### **E) International Conference sub-committee**

1. Publication sub-committee for 26<sup>th</sup> International Conference of CAD/CAM, Robotics & Factories of the Future Conference, 26-28 July 2011, Kuala Lumpur, Malaysia.
2. Secretariat sub-committee for International Conference on Mechanical Engineering Research, 1-3 July 2013, Kuantan, Malaysia.
3. Publication sub-committee for International Conference on Mechanical Engineering Research, 18-19 August 2015, Kuantan, Malaysia

## List of Consultancy

1. Die surface finishing with laser application – consultation and collaboration works with Miyazu Malaysia Sdn. Bhd. (Status: in progress)
2. Die Casting problem – consultation works with Hicom Die Casting.
3. Consultation of SiO<sub>2</sub>/Water Nanofluid Stability – UniKL France Institute
4. Visiting Lecturer to Padova University, Italy - 14-21 Oct 2017.

## List of Research / Project

1. "Development of laser cutting and engraving machine utilizing PC-NC controller", RM 78,000 as Project Leader. RDU 070308 (Mar'07 ~ Mar'08). (Status: Completed).
2. "Design, analysis and development of incremental forming process utilizing PC-NC controller", RM 29,000 as researcher. RDU 070306 (Mar'07 ~ Mar'08). (Status: Completed).
3. "Numerical study on fatigue life of spot welded for automotive components", as researcher. RDU 070346 (Status: Completed).
4. "Development of a portable quality-confirmation inspection unit for automotive checking fixture" RM39,460 as Project Leader. RDU130316 (15/05/2013 – 14/05/2015).
5. "Development of Energy Efficient Hybrid Drivetrain Utilising Internal Combustion Engine and Ultra-Capacitor" RM32,500 as Project Leader. RDU1203105 (15/12/2012 – 14/12/2014)
6. "Enhancement of Weldability in Light Alloys (A6061 & A7075) Dissimilar Metal Welding" RM127,000 as researcher. RDU130112 (1/4/2013 – 31/3/2015)
7. "Development of Hot Press Forming Die for Ultra High Strength Steels in Automotive Component Application" RM37,960 as researcher. RDU130343 (15/6/2013 – 14/6/2015)
8. A Hybrid Knowledge-Based System For Collaborative Green Manufacturing Management. RM48,000 as researcher. FRGS 11866 (15/05/2012 to 13/10/2012)
9. To Develop A Modified Ductile Ni-Resist Alloy Using Casting Austempered Process For Elevated Temperature Components. RM51,742 as researcher RDU131402. (17/09/2013 to 16/09/2015).
10. To Enhance Graphite Nodularity Of Modified Ductile Ni-Resit Using Insertion Of Alloying Elements During Casting. RM98,000 as researcher. RDU130145 (01/12/2013 to 31/12/2015)
11. Peningkatan Productiviti Pengeluaran Baja Cecair Kilang Iks Melalui Penambahbaikan Sistem Operasi Dan Pengurusan Bahan Mentah. RM117,426.56 as researcher. RDU141004 (15/02/2014 to 14/02/2016).
12. Modeling And Optimization Of Automotive Manufacturing Layout To Enhance Productivity. RM24,000 as researcher. RDU1303113 (15/02/2014 to 14/02/2016).
13. Modeling And Optimization Of Assembly Line Balancing With Multi-Resource Constraints. RM117,426.56 as researcher. RDU140103 (01/07/2014 to 30/06/2017)
14. Development Of 3d Copier Machine For Non Metal Automotive Part. RM35,060.00 as researcher. RDU1403127 (15/11/2014 to 14/11/2016)
15. Embedded Ergonomic in Design for Assembly of Automotive Body Sub-Components. RM25,750 as Project Leader. RDU160305 (05/04/2016 to 04/04/2018)
16. Ergonomics Study On Musculoskeletal Disorders (Msd) Related Problems Among Workers In Electronics Assembly Line RDU. RM26,000 as Project Leader 160386 (25/06/2016 to 24/06/2018)

## Research Achievements / Awards

1. Silver - 9th International Warsaw Invention & Show 2015 (IWIS 2015), Warsaw University of Technology, Warsaw, Poland, 12<sup>th</sup> October, 2015

2. Gold – Development of Portable Checking Fixture Device For Automotive Body Parts Quality Confirmation, International Engineering Invention & Innovation Exhibition (I-ENVEX) 2015, UniMAP, Perlis, 18<sup>th</sup> -19<sup>th</sup> April 2015
3. Gold – Development of Portable Checking Fixture Device For Automotive Body Parts Quality Confirmation, CITREX 2014.
4. Gold – Development of Portable Checking Fixture Device For Automotive Body Parts Quality Confirmation, Innovation & Green Technology Exhibition 2014, Kuantan, 26<sup>th</sup> -27<sup>th</sup> August 2014.
5. Cendekia Bitara Merit Award for Research Product - Design and Develop Blow Mould Using Machining Optimization Parameters - International Invention, Innovation and Technology Exhibition (ITEX'08). 2009
6. Bronze – Design and Development of Blow Mould using Machining Optimization Parameters. 19<sup>th</sup> International Invention, Innovation, Industrial Design & Technology Exhibition (ITEX08), PWTC Kuala Lumpur, 9<sup>th</sup> – 11<sup>th</sup> May 2008.
7. Bronze – Design and Development of PC\_NC Incremental Forming Machine. 19<sup>th</sup> International Invention, Innovation, Industrial Design & Technology Exhibition (ITEX08), PWTC Kuala Lumpur, 9<sup>th</sup> – 11<sup>th</sup> May 2008.
8. Anugerah Perkhidmatan Cemerlang 2008
9. Gold Medal Research Award – Development of laser cutting and engraving machine utilizing PC-NC controller. International Exhibition Ideas-Inventions - Novelties, Nuremberg, Germany (IENA07). 2007.
10. Silver Medal Research Award – Development of laser cutting and engraving machine utilizing PC-NC controller. PECIPTA, Kuala Lumpur. 2007

## Patent

-Nil-

## List of Course / Conference Attended

Date	Program	Status
5-7 Sept, 2016	International Conference on Knowledge-Based and Intelligent Information & Engineering Systems., York, UK	Presenter
18-19 August 2015	International Conference on Mechanical Engineering Research, 18-19 August 2015, Kuantan, Malaysia.	Committee
1-3 July 2013	International Conference on Mechanical Engineering Research, 1-3 July 2013, Kuantan, Malaysia.	Committee
26-28 July 2011	26 <sup>th</sup> International Conference of CAD/CAM, Robotics & Factories of the Future Conference, , Kuala Lumpur, Malaysia	Presenter
21-22 March 2011	Computer Aided Process Engineering Forum (European Federation of Chemical Engineering), , Bradford, United Kingdom	Presenter
24 Nov 2010	Seminar on "Developments in high performance car engines, emissions, and after treatment by Mr. Dave Richardson (Technical Specialist, Jaguar & Land Rover Advanced Power Train Engineering), University of Bradford, UK	Participant
13-16 July 2010	25 <sup>th</sup> International Conference of CAD/CAM, Robotics & Factories of the Future Conference, Pretoria, South Africa	Presenter
03 Mar 2010	Seminar on "Experiential Engineering" by Prof. Paul Jennings, University of Warwick, UK	Participant
20 Oct 2009	Seminar on "Spark Ignition Engine -Trends and Technology Seminar by Mr. Dave Richardson (Technical Specialist, Jaguar & Land Rover Advanced Power Train Engineering), University of Bradford, UK	Participant
7 Oct 2009	Seminar on "Combination of Evolutionary Algorithms and Mathematical Programming for Multi objective Optimization" by Prof. Qingfu Zhang (University of Essex), University of Bradford, UK	Participant
23 Sep 2009	Talk on "A knowledge based (KB) system for the design of lean manufacturing techniques for low volume automotive production" by NMZ N. Mohamed	Presenter
1 Jul 2009	Seminar on "Failure Mode Avoidance" by Prof. Tim Davis, Director of Quality & Automotive Safety, Jaguar Land Rover and Visiting Professor of Statistical Engineering, University of Bradford, UK	Participant
10 Feb 2009	Course on "Introduction to SPSS" by Dr Pete Greasley, University of Bradford, UK	Participant

13 Nov 2008	Training on "Develop Your Skills in the Critical Appraisal of Published Material" by Dr Ian Naylor, University of Bradford, UK	Participant
5 Nov 2008	Training on EndNote for Researchers by Grace Hudson, University of Bradford, UK	Participant
16 Aug 2008	Bloom Taxonomy and OBE CQI Workshop. UMP	Participant
23-24 Jun 2008	Training on Writing Conference Paper by Prof. Dr. Azirah Hashim, UM at Vistana, Kuantan.	Participant
9-11 Jun 2008	FKM Continuous Quality Improvement(CQI) in OBE Training by Prof. Ir. Dr. Riza UKM, and EAC Task Force Meeting, De Rhu, Balok, Kuantan.	Participant
3-7 Apr 2008	Kursus Kenegaraan, BTN	Participant
29 Feb ~2 Mar 2008	FKM Outcome Base Education Training, Holiday Villa, Cherating.	Participant
4-5 Feb 2008	Engineering Contract Training, Board of Engineer Malaysia (BEM) mandatory training for professional engineer (PE) by Ir. Harban Singh.	Participant
27-28 Dec 2007	Management Skill Training, Board of Engineer Malaysia (BEM) mandatory training for PE by CMD(R) Ir. Raymond Swa.	Participant
15-23 Dec 2007	Research Exhibition – Development of laser cutting and engraving machine utilizing PC-NC controller, East Coast Economic Region, Petronas Exhibition, (ECER).	Exhibitor
10-14 Dec 2007	IERP Software Training	Participant
18-19 Sept 2007	Induction Course, UMP Special Module – UMP.	Participant
18-30 Aug 2007	Induction Course. Overall Module – Sanctuary Resort, Cherating.	Participant
14 Aug 2007	Industrial Laser & Gas Seminar, Mr Owe Vogel(TRUMPF CEO)–GMI, Cheras.	Participant
9-12 Aug 2007	Research Exhibition – Development of laser cutting and engraving machine utilizing PC-NC controller, Ministry of Higher Education, International Exposition of Research and Development of Institute of Higher Learning 2007 (PECIPTA07).	Exhibitor
13-15 Jul 2007	Teaching and Learning Course, Module 2 – Legend, Cherating.	Participant
6 Jul 2007	Outcome Base Education Training, Sg Tembling Resort, Kuantan.	Participant
23-26 Jun 2007	Teaching and Learning Course, Module 1 – La Paris Hotel, Port Dickson	Participant / Leader
14-18 May 2007	Research Methodology (SLAB) Course – Prof. Dr. Fauzi (UTM), Prof. Dr. Rosli (UMP) – UMP.	Participant
17-19 Apr 2007	"A Course on IELTS"	Participant
28 Mar 2007	FRGS (Fundamental Research Grant Scheme) Proposal Writing Workshop, Prof. Dr. Awaluddin (UTM) – MS Garden, Kuantan.	Participant

#### Previous trainings

1. Managing & Increasing Productivity at Work, Biz Training, 25-26/3/2006
2. Project Management Principles, Management Concept, 28/11-1/12/2005
3. Miyazu Malaysia Teambuilding, Fraser Hill, 2005
4. The basis of metallurgy and press forming technology, JFE steel corporation, 18/6/2003
5. Internal Auditing Training for ISO 9001:2000, General Physics, 19-21/3/2002
6. Introduction to ISO 9000:2000, General Physics, 18/2/2002
7. Intellectual Property Training, Sirim Training Services, 27-28/6/2001
8. Seven Habits of Highly Effective People, 2001
9. Proton teambuilding, Kem Wira Waja, 23-24/10/2000
10. Industrial Relations, Professional & Organisational Development Sdn.Bhd, 14-15/10/1997
11. Internal Quality Auditing, East Asia Quality Consultant, 7-8/10/1997
12. Euclid3- Solid modelling, Matra Datavision, 19/2 -19/5/1995
13. Environment, Health and Safety Training, 1995