

## BRIEF CV



**Professor Datin Dr Napsiah Ismail**  
**Department of Mechanical and Manufacturing**  
**Engineering, Universiti Putra Malaysia**  
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**Areas of interest: Advanced Manufacturing**  
**Technology, Intelligent Manufacturing, Automation**  
**and Robotics, CAD/CAM**

### Academic Qualification:

- Ph.D., Universiti Teknologi Malaysia (UTM), Malaysia. (Thesis: Edge Boundary Classification Technique for Feature Recognition)
- M.Sc. (Mechanical), University of Leeds, UK
- B.Sc. with Honor in Production Engineering, Leeds Metropolitan University, UK

### Professional Qualification/ Membership/ Affiliation:

- Graduate Member, Institution of Engineers (IEM), Malaysia
- Past Member, Society of Manufacturing Engineers, USA
- Member, American Society of Mechanical Engineers (ASME)

### Appointments:

- April 2011 to date Professor, Department of Mechanical and Manufacturing Engineering, UPM
- April 2009 – July 2009 Deputy Dean (Academic, Student Affairs and Alumni), Faculty of Engineering, UPM
- August 2003 to July 2008 Head, Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, UPM
- July 2002 to Mac 2011 Associate Professor, Department of Mechanical and Manufacturing Engineering Faculty of Engineering, UPM
- April 1988 to Jun 2002 Lecturer, Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, UPM
- 1986 – September 1988 Tutor, Department of Mechanical and Systems Engineering, Faculty of Engineering, UPM

### Areas of Interest:

Advanced Manufacturing Technology, Intelligent Manufacturing, Automation and Robotics, CAD/CAM

## Research Topics (Project Leader);

Year	Topic/ Sponsor	Amount
2010-2012	Development of A Virtual Cellular manufacturing System Algorithm in Dual-Resource Constraints, Fundamental Research Grant Scheme (FGRS) Ministry of Higher Education <b>RM52,000</b>	RM52,000
2007-2009	Kinematics Analysis of Serial Robot Manipulators, Analytical and Experimental Artificial Intelligence Approach, Fundamental Research Grant Scheme (FGRS) Ministry of Higher Education	RM70,700
2007-2009	Internal Surface Flaws reconstruction of Composite Materials for Product Inspection in Robotised Manufacturing Cells, Fundamental Research Grant Scheme (FGRS) Ministry of Higher Education	RM90,000
2006-2008	Development of An Integrated CAD and Failure Mode and Effects Analysis System for Mechanical Components, Sciencefund, MOSTI	RM191,297
2003/200	Development of Intelligent Vision-based parts Recognition System for Flexible Manufacturing Cell., IRPA (Experimental Applied) Research , MOSTI	RM115,400
2002	Recognition of Intersecting features from Solid Models, Short term Research Grant for 2002, Universiti Putra Malaysia.	RM10,000
2000	Development of Feature Recognition System using Edge Boundary Classification and Neural Network Technique, Short term Research Grant for 2000, Universiti Putra Malaysia.	RM10,000
1999	Recognition of Intersecting features from Solid Models (Head of Research), Short term Research Grant for Year 1999, Universiti Putra Malaysia	RM10,000

## Student Supervision

- 17 PhD students (Main Supervisor) – 8 completed, 9 on-going
- 17 PhD students (Co- supervisor) – 7 completed, 10 on-going
- 22 MS students (research as Main Supervisor) – 20 completed, 2 on-going
- 48 MS students (research as Co- Supervisor) – 44 completed, , 4 on-going
- 55 MS projects – 47 completed, 8 on-going
- 44 BE projects – all completed

## Publications:

- More than 200 written articles/ papers
- Journals: 94 published & accepted, 43 in citation indexed journals
- Conference/ proceedings more than 150.

## Journals

1. M. Hamedi, N. Ismail, G. R. Esmaeilian, M. K. A. Ariffin “Capability-Based Virtual Cellular Manufacturing System and Analyzing its Performance over Different Basic Layouts” (International Journal of Industrial Engineering Computations. *(Accepted for publication)*)
2. Taravatsadat Nehzati, Hannaneh Rashidi-Bajgan, Napsiah Ismail, “Development of A Decision Support System using Tabu Search Algorithm for the Warehouse Layout Problem”, Journal of

- the Chinese Institute of Industrial Engineers Volume 28, Issue 4, 2011, 281-297
3. Adeel H Suhail, N Ismail, S.V.Wong, N.A. Abdul Jalil “Workpiece Surface Temperature for In-process Surface Roughness Prediction using response Surface Methodology” *Journal of American Sciences*, 11 (2), 308-315, 2011 (Scopus)
  4. G.R. Esmailian, N. Ismail, M.M.H.M. Ahmad, S.Sulaiman, “A Tabu Search Approach for Mixed-model Parallel Assembly Line Balancing Problem of Type II” *International Journal of Industrial and System Engineering*, (*Accepted for publication*)
  5. Hamed, Maryam; Ismail, N; Esmailian, Gholamreza; Mohd Ariffin, Mohd Khairol Anuar “Developing a Method to Generate Semi Distributed Layouts by Genetic Algorithm”, *International Journal of Production Research*, (*Impact Factor: 0.803. In press. (Thomson ISI)*)
  6. A. Norozi, M.K.A Ariffin, N.Ismail, F. Musthapa “A hybrid GA-SA Algorithm For Multi-Objective Scheduling Problem In High-Product Mix Shop-Floor, *Scientific Research And Essay*, 2011 (*Impact Factor: 0.324., Thomson ISI*)
  7. M.Yusuf, K.Anuar, N.Ismail and S.Sulaiman, “Influence Of Cutting Parameters On Surface Roughness For Wet And Dry Turning Process”, *Key Engineering Materials*, volume 417-472, pp 227-232, 2011. (*Thomson ISI*)
  8. Adeel H. Suhail, N. Ismail, S.V. Wong and N.A. Abdul Jalil “Optimization of Cutting Parameters Based on Surface Roughness and Assistance of Workpiece Surface Temperature in Turning Process” *American Journal of Engineering and Applied Sciences* 3(1): 102-108, 2010(*EBSCO, WAD, ASA, DOAJ*)
  9. A T Hasan, N Ismail, A M S Hamouda, Ishak Aris, M H Marhaban and H M A A Al-Assadi “Artificial Neural network-based Kinematics Jacobian Solution for Serial Manipulator passing Through Singular Configuration” *Journal of Advances in Engineering Software* 41 359–367, 2010 (*IF=0.431*)
  10. A. Norozi, M.K.A. Ariffin and N. Ismail, “Application of Intelligence Based Genetic Algorithm for Job Sequencing Problem on Parallel Mixed-Model Assembly Line”, *American J. of Engineering and Applied Sciences* 3 (1): 831-840, 2010 (*EBSCO, WAD, ASA, DOAJ*)
  11. F Mustapha, N Ismail, S.M.Sapuan, Z Noh, A Samsuri “Development of a Prototype Knowledge-based System for Troubleshooting of Aircraft Engine and Parts – A case Study of Cessna Caravan” *International Journal of Mechanical and Material Engineering (IJMME)*, Vol 5, No 1, 36-42, 2010 (*listed in Scopus*)
  12. M.R. Khabbazi, M.D. Yusof Ismail, N. Ismail, S.A. Mousavi, “Modeling of Traceability Information System for Material Flow Control Data” *Australian Journal of Basic and Applied Sciences*, 4(2): 208-216, 2010
  13. Masood Fathi, M.K.A. Ariffin, Napsiah Ismail “A Note on “A Multi-objective Genetic Algorithm for Solving Assembly Line Balancing Problem” *International Journal of Advanced Manufacturing Technology* (Published online: 23 February 2010), *Impact Factor: 1.128. (Thomson ISI)*
  14. Mohd. Zuhri Mohamed Yusoff, Mohd Sapuan Salit, Napsiah Ismail and Riza Wirawan “Mechanical Properties of Short Random Oil Palm Fibre Reinforced Epoxy composites” *Sains Malaysiana* Vol 39, No. 1, 87 - 92 , 2010(*listed in Scopus*)
  15. A Hambali, S.M.Sapuan, N Ismail, Y Nukman “Material Selection of Polymeric Composite Automotive Bumper Beam Using Analytical Hierarchy Process” *Journal of Central South University of Technology* , 17, 244-256, 2010. (*Thomson ISI*)
  16. Soroush Avakh Darestani, Md Yusof Ismail, Napsiah bt Ismail, Rosnah bt. Mohd. Yusuff, An Investigation on Supplier Delivery Performance by using SPCTechniques for Automotive Industry, *Journal of American Science*, 6(4), 5-11, 2010
  17. Soroush Avakh Darestani, Md. Yusof Ismail, Napsiah bt. Ismail, “Recognition of Nonrandom Patterns on Supply Performance by Employing Statistical Monitoring” *Journal of American Sciences*, 6(4), 114-122, 2010

18. Shahram Arifar, Napsiah Ismail “An Improved Algorithm for Layout Design in Cellular Manufacturing Systems” *Journal of Manufacturing System*, 28, 132-139, 2009 (*listed in Scopus*)
19. M.K.A. Mohd Arifin, M.I. Mohd Ali, S.M. Sapuan and N. Ismail “An Optimise Drilling Process for An Aircraft Composite Structure using Design of Experiments” *Scientific Research and Essay*, Vol 4, No 10, 1109-1116, 2009, Impact Factor: 0.324. (*Thomson ISI*)
20. Seyed Mahdi Homayouni , Sai Hong Tang, Napsiah Ismail “Development of genetic fuzzy logic controllers for complex production systems”, *Computers & Industrial Engineering*, 57 1247–1257, 2009 (*listed in Scopus*)
21. Nur Azida Che lah, Aidy Ali, Napsiah Ismail, Lim Poon Chai, Abdul Aziz Mohamed “The Effect of Controlled Shot peening on Fusion Welded Joints” *Journal of Materials and Design*, Vol 31, 312-324, 2009
22. Omid Reza Esmaeili Motlagh, Tang Sai Hong, Napsiah Ismail “Development Of A New Minimum Avoidance System For A Behavior-Based Mobile Robot” *Fuzzy Sets and Systems*, 160, 1929-1946, 2009 (Impact factor = 1.833)
23. Omid Motlagh, Tang Sai Hong, Napsiah Ismail, Abdul Rahman Ramli and Razali Samin “A New Path Estimation Strategy for Predicting Blind Persons' Motion in Indoor Environments” *Journal of Asian Architecture and Building Engineering*, Vol 8, 371-377, 2009
24. O Matlagh, S H Tang, N Ismail and A.R Ramli “A Review on Positioning Techniques and Technologies: A Novel AI Approach, *Journal of Applied Sciences*, 9 (9), 1601-1614, 2009 (*listed in scopus*)
25. A Hambali, S M Sapuan, N Ismail and Y Nukman, “Application of Analytical Hierarchy Process in the Design Concept Selection of Automotive Composite Bumper beam during the Conceptual Design Stage”, *Scientific Research and Essays Vol 4(4)*, 198-211, 2009 (*Journal is indexed in Science Citation Index Expanded*)
26. A.Hambali, S.M.Sapuan, N Ismail and Y Nukman “Application of Analytical Hierarchy process (AHP) and sensitivity Analysis for selecting the best design concepts during conceptual design stage” *Multidiscipline Modelling in Materials and Stucture” Vol 5(3)*, 289-294 (*listed in Scopus*)
27. A.Hambali, S.M.Sapuan, N Ismail and Y Nukman “Material selection of the Polymeric Composite Automotive Bumper Beam using Analysical Hierarchy Process” *Journal of Central South University of Technology* (Impact Factor 0.189)
28. A. Hambali, S.M. Sapuan, N. Ismail and Y. Nukman “Composite Manufacturing Process Selection Using AnalyticalHierarchy Process” *International Journal of Mechanical and Materials Engineering (IJMME)*, Vol. 4 No. 1, 49 -61, 2009 (*listed in Scopus*)
29. A T Hasan, A M S Hamouda, N Ismail, I Aris and M H Marhaban. “Trajectory tracking for a serial robot manipulator passing through singular configurations based on the adaptive kinematics Jacobian method” *Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering*, Volume 223, Number 3, 2009 (*listed in scopus*)
30. Zaihirain M.M.R., and Napsiah I., and Sapuan M.S., and Wong, S.V.“*Quick Cost Estimation Model for Early Order Stage*.*Journal of Advanced Manufacturing Technology*, 3 (1). pp. 45-72. ISSN 1985-3157, 2009
31. A. Hambali, S.M. Sapuan, N. Ismail, Y. Nukman and M.S. Abdul Karim “The Important Role of Concurrent Engineering inProduct Development Process, *Pertanika Journal Science and Technology*. 17 (1): 9 – 20, 2009
32. Nur Azida Che lah, Aidy Ali, Napsiah Ismail “Characterization of Fusion Welded Joint: A Review” *Pertanika Journal of Science and Technology*, 17(2), 289-298, 2009
33. Mohd Zuhri Nohamed Yusoff, Mohd Sapuan Salit and Napsiah Ismail “Tensile Properties of Single Oil Palm Empty Fruit Bunch (OPEFB) Fibre” *Sains Malaysiana*, 38(4), 525-529, 2009
34. Mohamad Sattar, Md Yusof, Napsiah Ismail, Muhammad Rashid, Rose Amnah “Pembangunann Standard Pengukuran kemahiran Employability” *Jurnal Teknologi*, 49 (E), Dis 2009, 15-29
35. Mohamad Sattar Rasul, Mohd Yusof Ismail, Napsiah Ismail, Muhammad Rashid Rajuddin andRose Amnah Abd Rauf “Importance of Employability Skills as Perceived by Employers of

- Malaysian Manufacturing Industry” Journal of Applied Sciences Research, 5(12): 2059-2066, 2009
36. Hamid Rahimizadeh, M.H.Marhaban, R.M.Kamil, N Ismail “Color Image Segmentation Based On Bayesian Theorem And Kernel Density Estimation”, European Journal of Scientific Research, Vol 26, No 3, 430-436, 2009
  37. A.M.A.Gader, M.Y.Ismail, A.M.S Hamouda, N.Ismail, Khalifa Al-Khalifa “ISO 9000 Performance Among The Malaysian Companies: The Effects Of Motives.” International. Journal of. Industrial And Systems Engineering, Vol 4, No 1, 32-45, 2009
  38. Esmailian, G R, S Sulaiman, N Ismail, M M H Megat Ahmad and M Hamed, Allocating and Balancing of Mixed Model Production Through the Parallel Assembly Lines “European Journal of Scientific Research, 31(4), 616-613, 2009
  39. K. Karmegama, M.Y. Ismail, S.M. Sapuana, N. Ismail, M.T. Shamsul Bahri, S. Shuib and P. Seetha “A Study On Motorcyclist’s Riding Discomfort In Malaysia”Engineering e-Transaction (ISSN 1823-6379) Vol. 4, No. 1, June 2009, pp 39-46
  40. K. Karmegam, M.Y. Ismail, S.M. Sapuan and N. Ismail, “Conceptual Design And Prototype Of An Ergonomic Back-Leaning Posture Support For Motorbike Rides, Journal of Scientific and Industrial Research” Vol 67, 599-604, 2008 (Impact factor = 0.229)
  41. P. Seetha, K. Karmegam, M.Y. Ismail, S.M. Sapuan and N. Ismail, “Noise Level In School Classrooms And The Effects To The Teaching Environment”, Journal of Scientific and Industrial Research, Vol 67, 659-664, 2008 (Impact factor = 0.229)
  42. G.R.Esmailian, S.Sulaiman, N.Ismail, M.M.H.M.Ahmad, M.Hamed “Application of MATLAB to Create Initial Solution for Tabu search in Parallel Assembly Lines Balancing”, International Journal of Computer Science and Network Security, Vol. 8, No 10, 132-136, 2008 (*listed in scopus*)
  43. Haslina Arshad , A.M.S. Hamouda, Napsiah Ismail , Riza Sulaiman “Virtual Reality As A Training Tool In Engineering Education” World Review of Science, Technology and Sustainable Development, Volume 5, Number 3-4, 2008(*listed in scopus*)
  44. Mohammadreza Vasili, Tang Sai Hong, Seyed Mahdi Homayouni, NapsiahIsmail, “A Statistical Model for Expected Cycle Time of SP-AS/RS: An Application of Monte Carlo Simulation” Journal of Applied Artificial Intelligence, Vol 22, No 7, 824-840, 2008 (Impact factor =0.753)
  45. M.R. Vasili, S.H. Tang, N. Ismail, and S. Sulaiman, “Class-Based Storage Assignments For Miniload As/Rs With Open-Rack Structure” International Journal of Engineering and Technology, Vol. 5, No. 2, 2008, pp. 118-128
  46. O. Motlagh, T.S Hong, N. Ismail, A.R Ramli, and R. Samin “A Novel Approach To Human Motion Estimation WithApplications In Human-Robot Safety”International Journal of Engineering and Technology, Vol. 5, No. 2, 2008, pp. 129-137
  47. Hambali Ariff, Mohd Sapuan Salit, Napsiah Ismail and Y. Nukman “Use of Analytical hierarchy Process (AHP) for Selecting the Best Design Concept” Jurnal Teknologi, No.49 (A), 1-18, 2008
  48. N. Ismail, F. Musharavati, A.S.M. Hamouda,A.R.Ramli , “Manufacturing Process Planning Optimization in Reconfigurable Multiple Parts Flow Lines”, Journal of Achievement in Materials and Manufacturing Engineering, Vol 31, No 2, 671-677, 2008
  49. G.R.Esmailian, M.M.H.Megat Ahmad, N.Ismail S.Sulaiman M.Hamed “Particular Model for Improving Failure Mode and Effect Analysis (FMEA) by Using of Overall Equipment Efficiency (OEE)”, IEEE (ITSim08) Congress, 3, 1458-1466, 2008.
  50. F. Musharavati, N.Ismail, H.M. Hamouda, R.R.Ramli, “A Metaheuristic Approach to Manufacturing Process Planning in Reconfigurable manufacturing Systems”, Jurnal Teknologi, No 48, 55-70, 2008
  51. Tohit, K.N.M., Sulaiman, S., Ismail, N.,Ismail, M.Y. and Sapuan, S.M. “Improvement of Accuracy Level Using Process Failure Mode and Effect Analysis and Control Plan Techniques for Automotive Fender Shield Assembly”. Journal Of Scientific and Industrial Research. Vol. 66, pp.811-818. 2007(*listed in SCIE*)

52. Seyed Mahdi Homayouni, Tang Sai Hong and Napsiah Ismail "Performance Evaluation of Genetic Distributed Fuzzy Controllers for Multi-Part-Type Production Line, Journal of Advanced Manufacturing Systems, Vol 6, No. 2 115 – 128. 2007(*listed in scopus*)
53. S.H.Tang, Y.J.Tan, S.M.Sapuan, S.Sulaiman, N.Ismail and R.Samin. "The Use Of Taguchi Method In The Design Of Plastic Injection Mould For Reducing Warpage", Journal of Material Processing Technology, 182, 418-426, 2007 (Impact factor =1.143)
54. A.T. Hassan, A.M.S.Hamouda, N.Ismail, H.M.A.A. Al-Assadi, "A New Adaptive Learning Algorithm for Robot Manipulator Control", Proceedings of the Institution of Mechanical Engineering, Part L: Journal of Materials: Design and Application, Vol. 221, No. 4, pp.663-672, 2007 (Impact factor = 0.464)
55. Ali T. Hasan, A.M.S. Hamouda, N. Ismail, H.M.A.AAl-Assadi "An Artificial Neural Network Strategy For The Forward Kinematics Of Robot Control", International Journal of Intelligent Systems Technologies and Applications, Vol. 2, No. 1, 41-49, 2007(Impact factor =0.667)
56. H.M.A. Ali-Assadi, A.M.S.Hamouda,N Ismail, I Aris "An Adaptive Learning Algorithm For Controlling Two-Degree-Of-Freedom Serial Ball-And-Socket Actuator" Proceedings of the Institution of Mechanical Engineering, System and Control Engineering", Vol 221 pp.1001-1006, 2007(*listed in scopus*)
57. Z. Leman, N.Ismail, S.S. Tai, S.M Sapuan, "Productivity And Efficiency Improvement Of A Vehicle Seat Assembly Line Using Computer Simulation Analysis." ASM Science Journal,135-141, 2007
58. W C K Steven, M Daud, N M Adam, S M Sapuan, R Samin and N Ismail, "Particulate and Black Smoke Emission from palm Oil Mill Boiler in Sarawak", Malaysia J Ecotoxicol Environment Monitoring, 445-453, 2007
59. A.T.Hassan, A.M.S.Hamouda, N.Ismail "An Adaptive-Learning Algorithm To Solve The Inverse Kinematics Problem Of A 6 D.O.F Serial Robot Manipulator" International Journal Advances in Software Engineering , 37, 432-438, 2006(*listed in scopus*)
60. R. Usubamatov, S.M.Sapuan, M.M.H.M. Ahmad, N.Ismail "System analysis of efficient production Process for Productivity Enhancement" Journal of The Institution of Engineers, Malaysia, 67, No 1, 10-14, 2006
61. M.R Vasili, S.H.Tang, S.M. Homayouni, N Ismail, "Comparison of Different Dwell Point Policies for Split-Platform Automated Storage and retrieval System", International Journal of Engineering and Technology, Vol 3, No 1, 91-106, 2006
62. Rao K.W., Ismail M.Y., Megat Ahmad M.M.H., Ismail N., Sapuan S.M., and Mariappan V. "Implementation Of Process Quality Module (PQM) In Fan And Blower Plant's Shop Floor Reengineering", Journal of Industrial Technology 15, No. 2, 101-115, 2006
63. N. Ismail, N. Abu Bakar and A.H. Juri"Recognition Of Cylindrical And Conical Features Using Edge Boundary Classification" International Journal of Machine Tools and Manufacture, Volume 45, Issue 6, 649-655, 2005(Impact factor =1.576)
64. S.M.Sapuan, M.A.Maleque, H.Hameedullah, M.N.Suddin and N.Ismail "A Note On The Conceptual Design Of Polymeric Composite Automotive Bumper System, Journal of Materials Processing Technology, 159, 145-151, 2005(Impact factor =1.143)
65. C. F. Tan, N. Ismail, S.V.Wong, S.Sulaiman and M.R.Osman, "Development of STEP Hole Recognition System for Computer Aided Process Planning" Jurnal Teknologi, No 43 , 73-86, 2005
66. 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(1), 2005
67. 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, Vol. 3, No.1, 1-6, 2005
68. S.M.Sapuan, M.N.Suddin and N.Ismail and M.A.Maleque "Composite Product Development:

- Case Study in Automotive Bumper Fascia, *Journal of Industrial Technology*, 59-68, 2005
69. 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 Model in Automotive Industry" *Journal of Industrial Technology*, Vol 14, No 2, 139-145, 2005
  70. Ooi C.K, M.M.H. Megat Ahmad, S.Sulaiman, M.Y.Ismail, N. Ismail, 2005. Proposing a Non-Traditional Ordering Methodology in Achieving Optimal Flexibility with Minimal Inventory Risk, *Asia Pacific Journal of Marketing and Logistics* Volume 17, Issue 2, 2005.
  71. N.M.Z.N.Mohamed, H.Y.Sastra, S.M. Sapuan, N. Ismail, P.R. Arora and A.B.A. Hamid, "Vendor involvement and concurrent engineering: methods in reducing development time for new model in automotive industry", *Jurnal Kemanusiaan*, vol. 4, no. 1, 17-23, 2005.
  72. M.N. Nizam, S.M. Sapuan, N. Ismail, M.A. Maleque and E. S. Zainudin, "Total Design Of Polymer Composite Automotive Bumper Fascia", *Suranaree Journal of Science and Technology*, 12, no. 1, 39-45, 2005
  73. J.Y.Tan, S.V.Wong, A.M.S.Hamouda, Napsiah Ismail "Strategy For Generalizing The Development Of Alloy Steel Fuzzy Model For Machinability Data Selection" *Journal of Materials Processing Technology*, 155-156, p2080-2086, 2004(Impact factor =1.143)
  74. F.Mustapha, S.M. Sapuan and N.Ismail, A. Samsuri "A Computer-based Intelligent System for Fault Diagnosis of an Aircraft Engine" *International Journal for Computer Aided Engineering and Software*. Vol.21, No.1, 78-90 2004.(*listed in scopus*)
  75. N.Ismail, N. Abu Bakar and A.H.Juri. "Recognition Of Cylindrical-Based Features Using Edge Boundary Technique For Integrated Manufacturing", *Journal of Robotics and Computer Integrated Manufacturing*, 20, pp.417-422, 2004. (*listed in scopus*)
  76. C.F Tan, N Ismail, S.V Wong, S.Sulaiman, M.R Osman, "Development of Hole Recognition System From STEP File" *AJSTD*, Vol 22, No 3, 285-295, 2004
  77. R. Usubamatov, N.Ismail, Z Leman and S.M.Sapuan "Productivity of Section-based Automated Line" *Mechanical Engineering Research Journal*, vol 4, p12-16, Chittagong University of Engineering and Technology, Bangladesh, 2004
  78. M.S. Rasul, N.Ismail, M.Y.Ismail, M.M.H.M.Ahmad "Development of Sorting System in the Plywood Grading System : Evaluation of Systems Performance" *Jurnal Mekanikal*, Bil 18, 1-12, 2004
  79. Rosli Darmawan, Mohd Rasid Osman, Rosnah Mohd Yusuff, Napsiah Ismail and Zulkiflle Leman, "Manufacturing Plant Performance Evaluation by Discrete Event Simulation". *Journal of Faculty of Mechanical Engineering*. Vol. 1, No. 1, 1-14, 2004
  80. C.F.Tan, N.Ismail, M.R.Osman, S.V.Wong and S.Sulaiman, "The Development of Hole Recognition System for Machined Parts". *Pertanika Journal of Science and Technology*. Supplement 12(2), 1-8, 2004
  81. M.R.Osman, M.Y.Ismail, N.Ismail, R.M.Yusuff, C.F.Tan and M.J.M.M.Noor. "Comparative studies of ISO9000 and TQM Implementation in Malaysia." *Pertanika Journal of Science and Technology*. Supplement, 12(1), 31-40, 2004
  82. Wong Choon Tat, Shamsuddin Sulaiman, Napsiah Ismail and A.M.S. Hamouda, "Design and Simulation of Plastic Injection Moulding Process, *International of Plastic Molding Technology*", *Pertanika Journal of Science and Technology*. Supplement 12(2), 85-99, 2004
  83. J.Y.Tan, S.V.Wong, N.Ismail and A.M.S.Hamouda, "General Strategies in Developing Alloy Steel Fuzzy Model for Machinability Data Selection of Turning Process". *Pertanika Journal of Science and Technology*. Supplement 12(2), 177-188, 2004)
  84. Ahmad Yusairi Bani Hashim, Napsiah Ismail, Megat Hamdan Megat Ahmad, Abdel Magid Hamouda and Mohd Rasid Osman, "Application of Soft Computing to Serial Manipulator Kinematic Problems", *Pertanika Journal of Science and Technology Supplement*, Vol 12, No 2, 191-200, 2004
  85. N.Ismail, M.R.Osman, C.F.Tan, S.V.Wong and S.Sulaiman, "Extraction of Cylindrical Features

- from Neutral Data Format for CAD/CAM Integration”. International Journal of Engineering and Technology (FEIIC), Vol. 1, No.1, 73-78, 2004
86. M.R. Osman, M.Y. Rosnah, N. Ismail, R. Tapsir and M.I. Sarimin, “Internal Customer Satisfaction in ISO9001 Certified Manufacturing Companies”. International Journal of Engineering and Technology (FEIIC). Vol 1 No.2 pp.179-187, 2004.
  87. S.M. Sapuan, M.Y. Hassan, N. Ismail and M. Johari, (2003). “Development of Polymeric-based Composite Holy Qur’an Stand (rehal)”, Al Nahdah – Journal of the Regional Islamic Da’wah Council of South East Asia and Pacific, 22, no.1, pp.37-38, 2003
  88. S.M.Sapuan, N.Ismail and R.Osman, (2001) “Development Of Injection Moulded Composite Automotive Components: IT Tool Integration Approach” Journal of Industrial Technology 10 (1), 129-140.
  89. N. Ismail, L.C. Huey, N.K Nordin, R. Ali (1999). “A prototype Feature Recognition System for Rotational Parts” Journal of Information Technology, Vol. 11, No. 2, . 9-76
  90. N.Ismail,N. Abu Bakar, A.H Juri. “Feature Recognition Patterns for Form Features Using Boundary Representation Models”, The International Journal of Advanced Manufacturing Technology, Vol. 20, No. 8, pp 553-556, 2002(Impact factor =0.378)
  91. S.M. Sapuan, M.S.D. Jacob, F.Mustapha, and N.Ismail “A Prototype Knowledge-Based System For Material Selection Of Ceramic Matrix Composites Of Automotive Engine Components” Material and Design Vol 23, 701-708, 2002 (Impact factor =1.107)
  92. Napsiah Ismail and Nooh Abu Bakar (1997). “Recognition of Machined Features from Solid Database of Prismatic Components”, Pertanika Journal of Science and Technology, 5(2), 231-240
  93. Napsiah Ismail and Nooh Abu Bakar (1997). “Recognition of features from B-rep Solid Models”, ASEAN Journal of Science and Technology Development, 14(2) pp 35-49

### Awards & Recognitions:

- 1 Gold Medal, Pameran Rekacipta, Penyelidikan Dan Inovasi (PRPI 2010). “Development of a Heuristic Model for balancing in Mixed-Model in parallel Assembly Lines” Main Researcher, UPM, 2010
- 2 Silver Medal, Pameran Rekacipta, Penyelidikan Dan Inovasi (PRPI 2010), “Optimization of Cutting parameters based on Surface Roughness and Assistance of Workpiece Surface Temperature in Turning Process” Main Researcher, UPM, 2010
- 3 Silver Medal, Pameran Rekacipta, Penyelidikan Dan Inovasi (PRPI 2010), “Development of a New Minimum Avoidance System for a behavior-based Mobile Robot” Co-Researcher, UPM, 2010
- 4 Silver Medal, Pameran Rekacipta, Penyelidikan Dan Inovasi (PRPI 2010), “A New Path Estimation Strategy for Predicting Blind Persons’ Motion in Indoor Environment” Co-Researcher, UPM, 2010
- 5 Bronze Medal, Malaysian Technology Expo 2010 “Concurrent decision making at the Conceptual Stage Using Analytical Hierarchy” Co-Researcher, Malaysian Association Research Scientists, 2010
- 6 Excellence Service Award Certificate, UPM, 2009
- 7 Silver Medal, Pameran Rekacipta, Penyelidikan Dan Inovasi (PRPI 2009), Concurrent Decision Making at the Concetual Design Stage Using Analytical Hierarchy Process, Co-Researcher, UPM, 2009
- 8 Bronze Medal, Pameran Rekacipta, Penyelidikan Dan Inovasi (UPM), 2007
- 9 Setia Putra, UPM, 2007
- 10 Silver Medal, UPM Invention, Research and Innovation Exhibition, “Smart Machining System

- in Turning Process with Artificial Intelligence”, Co-Researcher, UPM, 2005
- 11 Bronze Medal, UPM Invention, Research and Innovation Exhibition, “Development of Intelligent Process Planning System for Prismatic Parts” Main Researcher, UPM, 2005
  - 12 Bronze Medal, “Artificial Intelligence Based Machining System” Co-Researcher, 16<sup>th</sup> International Invention Innovation Industrial Design & Technology Exhibition (ITEX2005)
  - 13 Silver Medal, Pameran Rekacipta dan Penyelidikan UPM 2003 “Penyelidikan Artificial Intelligent Based Expert System for Machining Process” UPM, 2003
  - 14 Pertandingan Mencipta Robot(ROBOCON), UPM, 2003
  - 15 Pameran Rekacipta dan Penyelidikan UPM “Development of Intelligent Vision-based parts Recognition System for Flexible Manufacturing Cell” ITMA, UPM, 2002
  - 16 Excellence Service Award , UPM, 1992

#### Professional Training Attended

1. Image Processing Using Neural Network, 3- 4 April 2008, Kuala Lumpur
2. ISO 9001:2000 QMS Lead Auditor/Auditor Training, 17-21 Mac 2003, Shah Alam, Selangor
3. Internal Quality Auditor, ISO9001:2000, 27 – 28 June 2002, Putrajaya, Selangor
4. CNC Lathe Machine Training, Mazak Yamazaki Co., Nagoya, Japan (5 days), 2001
5. Internal Quality Auditor, ISO9000, 4 – 5 April 2000, University Putra Malaysia
6. Programmable Logic Controller (PLC) Training Course (Basic and Advanced Level), 22 Mac – 1 April 1999, University Putra Malaysia
7. Artificial Neural Network Course, September 10-12, 1996, Kuala Lumpur
8. DEA Coordinate Measuring Machine (CMM) Training (5 days), Swindon, United Kingdom, 1994
9. Visiting Scholar, Asean Development Bank Award for Training – Industrial development and Management Program, University of Tokushima (5 weeks), Japan, 1993
10. Visiting Scholar, British Council, Committee for International Cooperation in Higher Education (CICHE), University of Bradford, United Kingdom (2 weeks), 1991/1992