

CURRICULUM VITAE



HISHAMUDDIN JAMALUDDIN
CHAIR PROFESSOR
FACULTY OF ENGINEERING & IT
hishamuddin@sc.edu.my

1. Academic Qualification

| No. | QUALIFICATION | FIELD OF SPECILIZATION | NAME OF AWARDING INSITUTION & COUNTRY | START DATE – END DATE |
|-----|---------------|------------------------|---------------------------------------|-----------------------|
| 1. | PhD | Control System | Sheffield University, UK | 1991 |
| 2. | M. Eng | Control System | Sheffield University, UK | 1985 |
| 3. | B. Eng. | Control Eng. | Sheffield University, UK | 1982 |
| 4. | | | | |
| 5. | | | | |

2. PREVIOUS EMPLOYMENT RECORD

| No. | START DATE – END DATE | POSITION | JOB NATURE | EMPLOYER / COMPANY |
|-----|-----------------------|-----------|------------|--------------------|
| 1. | 1982 – Dec 2015 | Professor | Academia | UTM |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |



CURRICULUM VITAE

3. PROFESSIONAL QUALIFICATION / MEMBERSHIP (NATIONAL / INTERNATIONAL)

| No. | TYPE OF QUALIFICATIONS / MEMBERSHIP | GOVERNED BY WHICH BODY / COMPANY / ASSOCIATION / OTHERS | AWARDED YEAR / MEMBERSHIP DURATION |
|-----|-------------------------------------|---|------------------------------------|
| 1. | CEng | Engineering Council, UK | 2017 |
| 2. | CMarEng | IMarEST, UK | 2017 |
| 3. | | | |

4. RECOGNITION AWARD (NATIONAL / INTERNATIONAL)

| No. | TYPE OF AWARD RECEIVED | RECEIVED FROM WHICH BODY / COMPANY / ASSOCIATION / OTHERS | RECEIVED YEAR |
|-----|------------------------|---|---------------|
| 1. | | | |
| 2. | | | |
| 3. | | | |

5. CONSULTANCY SERVICES / COMMUNITY SERVICES

| No. | ORGANIZATION / EVENT / PROJECT | DATE / DURATION | VENUE / COMPANY | ROLE / POSITION |
|-----|--------------------------------|-----------------|-----------------|-----------------|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |



6. CONFERENCES AND TRAININGS

| No. | TITLE OF THE CONFERENCES / TRAINING | DATE | TRAINING VENUE | ORGANIZE BY SPEAKER / TRAINER |
|-----|---|-----------------|--|-------------------------------|
| 1. | THE FIRST INTERNATIONAL CONFERENCE ON VOCATIONAL EDUCATION OF MECHANICAL AND AUTOMOTIVE TECHNOLOGY (ICOVEMAT) 2018. | 20 October 2018 | Inna Garuda Hotel (Grand Inna Malioboro), Yogyakarta. http://icovemat.uny.ac.id/page/view/keynote_speaker | Keynote Speaker |
| 2. | Writing Journal Article | 23-24 Feb 2017 | UPNM | Speaker |
| 3. | The 3rd International Conference on Mechanical, Automotive and Materials Engineering (CMAME 2015) | May 25-26,2015 | Howard Beach Resort Kenting | Plenary Speaker |

7. RESEARCH AND PUBLICATION

RESEARCH / PUBLICATION / JOURNALS / BOOKS / OTHER

BOOKS

1. S.B.Hussein, **H.Jamaluddin**, M.Mailah and A.M.S. Zalzala, "An Evolutionary Neural Network Controller for Intelligent Active Force Control. A chapter in *Evolutionary Design and Manufacturing*, I.C. Parmee (Ed.), Springer-Verlag:London, 2000. 351-362.
2. *Introduction to Control Engineering*. **Hishamuddin Jamaluddin**, Mohd. Shafiek Yaacob and Robiah Ahmad. 2011. Johor Bahru: UTM Press.
3. *Pid Controller with Roll Moment Rejection for Pneumatically Actuated Active Roll Control (ARC) Suspension System*. Khisbullah Hudha, Fauzi Ahmad, Zulkifli Abd. Kadir and **Hishamuddin Jamaluddin**. In *PID Control, Implementation and Tuning*. Tamer Mansour (Ed.). InTech Open Access Publisher. 2011.

INTERNATIONAL JOURNAL

1990-1996

1. 'Use of identification techniques to develop a water table prediction model', M.H.N. Tabrizi, **H. Jamaluddin**, S.A. Billings and R.W. Skaggs, *Trans. American Society of Agriculture Engineers*, Vol. 33, No. 6, pp. 1913 - 1918, 1990.
2. 'A comparison of the backpropagation and recursive prediction error algorithms for training neural networks', S.A. Billings, **H.B. Jamaluddin** and S. Chen, *Mechanical Systems and Signal Processings*, Vol.5, No.3, pp. 233-255, 1991
3. ' Properties of neural networks with applications to modelling non-linear dynamical systems', S.A. Billings, **H.B. Jamaluddin** and S.Chen, *Internatinal Journal of Control*, Vol. 55, No.1, pp. 193 - 224, 1992
4. ' A self-organizing map clustering method for multiprocessor scheduling', S. Salleh, B. Sanugi, **H. Jamaluddin** and A.Y. Zomaya, *Journal of Computing and Information*, Vol. 2, No.1, pp.628-639,1996.

2002-2005



CURRICULUM VITAE

5. 'Enhanced Simulated Annealing Technique for the Single-Row Routing Problem', S. Salleh, B. Sanugi, **H. Jamaluddin**, S. Olariu and A.Y. Zomaya, *Journal of Supercomputing*, Vol. 21, No. 3, pp. 285-203, March 2002.
6. 'Fuzzy logic approach for estimation of longitudinal aircraft parameters'. M. S. Yaacob, **H. Jamaluddin** and K. C. Wong. *Aeronautical Journal*, Vol. 106, No. 1065, November 2002. pp. 585-594.
7. 'Knowledge-Based Trajectory Error Pattern Method Applied to an Active Force Control Scheme'. Endra Pitowarno, Musa Mailah and **Hishamuddin Jamaluddin**. *IIUM Engineering Journal*, Vol. 3., No. 1, pp. 1 - 15, 2002.
8. 'Improved SPC chart pattern recognition using statistical features'. A. Hassan, M. Shariff Nabi Baksh, A. M. Shaharoun and **H. Jamaluddin**. *International Journal of Production Research*. Vol. 41, No. 7, pp. 1587-1603. May 2003.
9. 'Model Structure Selection for Discrete-Time Nonlinear System using Genetic Algorithm. R. Ahmad, **H. Jamaluddin**, M. A. Hussain. *Journal of Systems and Control Engineering*. Vol. 218, No. 12, pp. 85-98, March 2004.
10. Effects of Control Techniques and Damper Constraint on the Performance of Semi-active Magnetorheological Damper. K. Hudha, **H. Jamaluddin**, P. M. Samin and R. A. Rahman. *International Journal of Vehicle Autonomous Systems*. Vol. 3, Issue 2/3/4, pp. 230 - 25, 2005.
11. Robust Motion Control for Mobile Manipulator Using Resolved Acceleration and Proportional-Integral Active Force Control. Endra Pitowarno¹, Musa Mailah and **Hishamuddin Jamaluddin**. *International Journal of Advanced Robotic Systems*. Vol. 2 No.2. pp125- 134. June 2005.

2006-2008

12. Empirical and Feed Forward Neural Networks Models of Tapioca Starch Hydrolysis. R. Rashid, **H. Jamaluddin**, N. A. S. Amin. *Applied Artificial Intelligence*. Vol. 20. No. 1. pp. 79 - 97, 2006.
13. Optimum Grouping in Modified Genetic Algorithm for Discrete-time Nonlinear System Identification. **Hishamuddin bin Jamaluddin**, Md. Fahmi bin Abd. Samad @ Mahmood, Robiah bte Ahmad and Mohd. Shafiek bin Yaacob. *Proc. IMechE*. Vol. 221 Part I : J. *Systems and Control Engineering*. November 2007. 975-989.
14. Non-Parametric Modeling and Force Tracking Control of a Magnetorheological Damper. K. Hudha, **H. Jamaluddin**, P.M. Samin and R.A. Rahman. *International Journal of Vehicle Design*. Vol. 46. No. 2, pp 250 - 269, 2008.
15. Disturbance Rejection Control of a Light Armored Vehicle Using Stability Augmentation based Active Suspension System. Khisbullah Hudha, **Hishamuddin Jamaluddin** and Pakharuddin Mohd. Samin. *Int. J. Heavy Vehicle Systems*. Volume 15 - Issue 2/3/4 - 2008 pp. 152 - 169.
16. Vehicle's Ride Performances with Semi Active Suspension System Using Modified Skyhook Algorithm and Current Generator Model. Saiful Anuar Abu Bakar, Roslan Abd Rahman, **Hishamuddin Jamaluddin**, Pakharuddin Mohd Samin, Khisbullah Hudha. *International Journal of Vehicle Autonomous Systems*. Volume 6, Number 3-4 / 2008 Pages: 197 - 221
17. [Application of memetic algorithm in modelling discrete-time multivariable dynamics systems](#). *Mechanical Systems and Signal Processing*, Volume 22, Issue 7, October 2008, Pages 1595-1609. Robiah Ahmad, **Hishamuddin Jamaluddin**, Mohd. Azlan Hussain

2009-2010

18. Vehicle Active Suspension System Using Skyhook Adaptive Neuro Active Force Control, *Mechanical Systems and Signal Processing*, April 2009, 23(3), pp. 855-868. Impact Factor: 1.33. G. Priyandoko, Musa Mailah, and **H. Jamaluddin**,
19. Gain Scheduling PID Control with Pitch Moment Rejection for Reducing Vehicle Dive and Squat. *International Journal of Vehicle Safety*. Volume 4, Number 1 / 2009 Pages: 45 - 83. Fauzi bin Ahmad, Khisbullah Hudha, and **Hishamuddin Jamaluddin**.
20. [Modelling, validation and roll moment rejection control of pneumatically actuated active roll control for improving vehicle lateral dynamics performance](#). *International Journal of Engineering Systems Modelling and Simulation (IJESMS)*. 1 (2/3) - 2009: 122-136. Khisbullah Hudha, Zulkiffli Abd. Kadir, Md. Radzai Said, **Hishamuddin Jamaluddin**.



CURRICULUM VITAE

21. Aerodynamic derivatives identification for ground vehicles in crosswind using neural network and PCA. *International Journal of Vehicle Systems Modelling and Testing (IJVSMT)*, Vol. 5, No. 1, 2010. pp. 59-71 Nabilah Ramli, **Hishamuddin Jamaluddin**, Shuhaimi B. Mansor, Waleed F. Faris.
22. Hardware-in-the-loop simulation of automatic steering control for lanekeeping manoeuvre: outer-loop and inner-loop control design. *Int. J. Vehicle Safety*, Vol. 5, No. 1, 2010. pp. 35-59. Em Poh Ping, Khisbullah Hudha and **Hishamuddin Jamaluddin**
23. Automatic steering control for lanekeeping manoeuvre: outer-loop and inner-loop control design. *Int. J. Advanced Mechatronic Systems*, Vol. 2, Nos. 5/6 : 350-368, 2010. Em Poh Ping, Khisbullah Hudha and **Hishamuddin Jamaluddin**.
24. Modelling, validation and adaptive PID control with pitch moment rejection of active suspension system for reducing unwanted vehicle motion in longitudinal direction. *Int. J. Vehicle Systems Modelling and Testing*, Vol. 5, No. 4, pp 312- 34, 2010. Fauzi Ahmad*, Khisbullah Hudha and Fitriani Imaduddin, and **Hishammudin Jamaluddin**.

2011

25. Simulation and experimental evaluation on a skyhook policy-based fuzzy logic control for semi-active suspension system. Ubaidillah, Khisbullah Hudha and **Hishamuddin Jamaluddin**. *Int. J. Structural Engineering*, Vol. 2, No. 3, 2011. 243-272. (SCOPUS)
26. Structure optimization of neural network for dynamic system modeling using multi-objective genetic algorithm. Sayed Mohammad Reza Loghmanian, **Hishamuddin Jamaluddin**, Robiah Ahmad, Rubiyah Yusof and Marzuki Khalid. *Neural Computing and Applications*. 2011, Pages 1-15 (SCOPUS IF: 0.563 (2010))
27. [Simulation and Experimental Investigation on Adaptive Multi-order Proportional-integral Control for Pneumatically Actuated Active Suspension System using Knowledge-based Fuzzy](#). [Imaduddin, F., Hudha, K., Mohammad, J.I., Jamaluddin, H.](#) *International Journal of Modelling, Identification and Control* 2011. 14 (1-2), pp. 73-92 (SCOPUS)
28. Energy Analysis for Air Conditioning System Using Fuzzy Logic Controller. Henry Nasution, **Hishamuddin Jamaluddin**, Jamaluddin Mohd. Syeriff. *TELKOMNIKA*, Vol.9, No.1, April 2011, pp. 139-150
29. Deterministic Mutation-Based Algorithm for Model Structure Selection in Discrete-Time System Identification. Md Fahmi Abd Samad, **Hishamuddin Jamaluddin**, Robiah Ahmad, Mohd Shafiek Yaacob, Abul K. M. Azad *International Journal of INTELLIGENT CONTROL AND SYSTEMS*. Volume 16, Number 3, September 2011. Page(s): 182- 190
30. Semi-active Suspension Control to Improve Ride and Handling using Magnetorheological (MR) Damper. Pakharuddin Mohd Samin*, **Hishamuddin Jamaluddin**, Roslan Abd Rahman and Saiful Anuar Abu Bakar and Khisbullah Hudha. *Int. J. Engineering Systems Modelling and Simulation*, Vol. 3, Nos. 3/4, 2011. pp. 99-111.
31. Fuzzy semi-active damping force estimator (fSADE) and skyhook semi-active suspension systems. Saiful Anuar Abu Bakar, **Hishamuddin Jamaluddin**, Roslan Abd. Rahman, Pakharuddin Mohd. Samin and Ryosuke Masuda. *Int. J. Vehicle Systems Modelling and Testing*, Vol. 6, Nos. 3/4, 2011pp. 232 – 249. (Indexed by ISI, Scopus, IF=0.222).
32. Modelling of magnetorheological semi-active suspension system controlled by semi-active damping force estimator. Saiful Anuar Abu Bakar, **Hishamuddin Jamaluddin**, Roslan Abd. Rahman, Pakharuddin Mohd. Samin and Ryosuke Masuda. *Int. J. Computer Applications in Technology*, Vol. 42, No. 1, 2011. Pp. 49 – 64. (Indexed by ISI, Scopus, IF=0.379)
33. Neural Network Structural Optimization Using Elitist Non-Dominated Sorting Genetic Algorithm (NSGA_II). Sayed Mohammad Reza Loghmanian, **Hishamuddin Jamaluddin**, Robiah Ahmad. *International Journal of Computer Sciences and Engineering Systems*. (ISSN: 0973-4406) Volume 5 Number 3, 2011.

2012

34. Hardware-in-the-loop Simulation of Automatic Steering Control for Double Lane Change and Sine Steer Manoeuvres. Em Poh Ping, Khisbullah Hudha, **Hishamuddin Jamaluddin**. *Int. J. Vehicle Autonomous Systems*, Vol. 10, Nos. 1/2, 2012pp. 67- 104. (SCOPUS)
35. Active Suspension System in Improving Ride and Handling Performance of Electric Vehicle Conversion. Saiful Anuar Abu Bakar, Ryosuke Masuda, Hiromu Hashimoto, Takeshi Inaba,

- Hishamuddin Jamaluddin** and Roslan Abd. Rahman. *Int. J. Electric and Hybrid Vehicles*, Vol. 4, No. 1, 2012, pp. 24 -53 (SCOPUS)
36. Implementation of PID Controller Tuning Using Differential Evolution and genetic Algorithms. Mohd Sazli Saad, **Hishamuddin Jamaluddin** and Intan Zaurah Mat Darus. *International Journal of Innovative Computing, Information and Control* Volume 8, Number 11, November 2012 pp. 1-20 (ISI: IF 1.667)
 37. Comparison Between Multi-objective and Single-objective Optimization for the Modeling of Dynamic Systems. Mohd Z Zakaria, **Hishamuddin Jamaluddin**, Robiah Ahmad and Sayed MR Loghmanian. *Proc IMechE Part I: J Systems and Control Engineering*. 226(7) 994–1005. 2012 (ISI: Impact Factor: 0.477)
 38. Iterative Algorithm for Active Vibration Control of Flexible Beam. Mohd S. Saad, **Hishamuddin Jamaluddin**, Intan Z. M. Darus. *International Review of Mechanical Engineering*. 6(1):61-73. 2012. (Scopus).
 39. Active Vibration Control of Flexible Beam using Differential Evolution Optimisation. Mohd Sazli Saad, **Hishamuddin Jamaluddin** and Intan Zaurah Mat Darus. *World Academy of Science, Engineering and Technology* 62:419-426 . 2012 (SCOPUS).
 40. Structure Optimization of Neural Network for Dynamic System Modeling using Multi-objective Genetic Algorithm. Sayed Mohammad Reza Loghmanian , **Hishamuddin Jamaluddin**, Robiah Ahmad, Rubiyah Yusof and Marzuki Khalid. *Neural Computing & Applications* (2012) 21:1281–1295 (ISI IF 0.699 (2011))
 41. Groundhook Control of Semi-Active Suspension For Heavy Vehicle. Syabillah Sulaiman, Pakharuddin Mohd Samin, **Hishamuddin Jamaluddin**, Roslan Abd Rahman and Mohammad Safwan Burhaumudin. *International Journal of Research in Engineering and Technology* (IJRET) Vol. 1, No. 3, 2012: 146-152. (non-indexed)
 42. Integration of Magic Formula Tire Model with Vehicle Handling Model. Mohammad Safwan Burhaumudin, Pakharuddin Mohd Samin, **Hishamuddin Jamaluddin**, Roslan Abd Rahman and Syabillah Sulaiman. *International Journal of Research in Engineering and Technology* (IJRET) Vol. 1, No. 3, pp. 139-145. 2012. (non-indexed)

2013

43. Experimental Study of an Electro-mechanical CVT Ratio Controller. *International Journal of Automotive Technology*, Vol. 14, No. 2, pp. 313–323 (2013). B. SUPRIYO, K. B. TAWI and **H. JAMALUDDIN**. (IF 2011 : 0.606)
44. Design and Clamping Force Modelling of Electronic Wedge Brake System for Automotive Application. *Int. J. Vehicle Systems Modelling and Testing*, Vol. 8, No. 2, 2013. pp. 145-156. Muhammad Luqman Hakim Abd. Rahman, Khisbullah Hudha, Fauzi Ahmad, **Hishamuddin Jamaluddin** (SCOPUS)
45. Modelling and PID control of antilock braking system with wheel slip reduction to improve braking performance. *Int. J. Vehicle Safety*, Vol. 6, No. 3, 2013. pp. 265-296. Vimal Rau Aparow, Fauzi Ahmad, Khisbullah Hudha and **Hishamuddin Jamaluddin** (SCOPUS)
46. Effect of Penalty Function Parameter in Objective Function of System Identification. *International Journal of Automotive and Mechanical Engineering*. Volume 7, Issue 1, 2013, Pages 940-954. Samad, M.F.A., **Jamaluddin, H.**, Ahmad, R., Yaacob, M.S., Azad, A.K.M. (SCOPUS)

2014

47. Simulation and experimental evaluations on the performance of pneumatically actuated active roll control suspension system for improving vehicle lateral dynamics performance. *Int. J. Vehicle Design*, Vol. 64, No. 1, 2014. Khisbullah Hudha, Zulkiffli Abd Kadir, **Hishamuddin Jamaluddin**, (ISI IF 0.509)
48. Frequency analysis of multiple layered cylindrical shells under lateral pressure with asymmetric boundary conditions. *Chinese Journal of Mechanical Engineering*. 2014, Volume 27, Issue 1, pp 23-31. Mohammad Reza Isvandzibaei, **Hishamuddin Jamaluddin**, Raja Ishak Raja Hamzah (ISI IF 0.263)
49. Natural frequency characteristics of thin-walled homogeneous and manifold layered cylindrical shells under pressure using energy method. *Journal of Central South University*. 2014, Volume 21, Issue 2, pp 521-532. Mohammad Reza Isvandzibaei, **Hishamuddin Jamaluddin**, Raja Ishak Raja Hamzah. (ISI IF 0.434)



CURRICULUM VITAE

50. Vibration Control of Flexible Beam using Self-tuning Pole Placement Control Scheme. *Australian Journal of Basic and Applied Sciences* 03/2014; 8(4):669-677. Mohd Sazli Saad, **Hishamuddin Jamaluddin**, Intan Zaurah Mat Darus
 51. Effects of uniform interior pressure distribution on vibration of FGM cylindrical shell with rings support based on first-order theory subjected to ten boundary conditions. *Acta Mechanica*. 225(7):2085-2109. Isvandzibaei, M.R., **Jamaluddin, H.**, Raja Hamzah, R.I. (ISI IF 1.247) ISSN: 0001-5970 (print version) ISSN: 1619-6937 (electronic version). Springer.
 52. Analysis of the Vibration Behavior of FGM Cylindrical Shells Including Internal Pressure and Ring Support Effects Based on Love-Kirchhoff Theory With Various Boundary Conditions. *Journal of Mechanical Science and Technology*. 28(7): 1-10 (ISI IF 0.161) Isvandzibaei, M.R., **Jamaluddin, H.**, Raja Hamzah, R.I. Print ISSN: 1738-494X; Online ISSN: 1976-3824 Springer
 53. Vibration Control of Flexible Beam using Self-tuning Pole Placement Control Scheme. *Australian Journal of Basic & Applied Sciences* 8 (4). 669-677M Sazli Saad, **H Jamaluddin**, IZ Mat Darus ISSN 1991-8178.
 54. Model-in-the-loop simulation of gap and torque tracking control using electronic wedge brake actuator. *International Journal of Vehicle Safety*. Volume 7, Number 3-4/2014 :390-408. Vimal Rau Aparow, Khisbullah Hudha, Fauzi Ahmad, **Hishamuddin Jamaluddin**.
- 2015**
55. Application of a self-tuning fuzzy PI-PD controller in an active anti-roll bar system for a passenger car. V Muniandy, PM Samin, **H Jamaluddin**. *Vehicle System Dynamics* 53 (11), 1641-1666.
 56. Tire Force Control Strategy for Semi Active Magnetorheological Damper Suspension System Using Quarter Heavy Vehicle Model. S Sulaiman, PM Samin, **H Jamaluddin**, RA Rahman, A Bakar, S Anuar. *Applied Mechanics and Materials* 789, 957-961
 57. Ground Semi Active Damping Force Estimator (gSADE) for Magnetorheological Damper Suspension System Using Quarter Heavy Vehicle Model. S Sulaiman, PM Samin, **H Jamaluddin**, RA Rahman, A Bakar, S Anuar. *Applied Mechanics and Materials* 789, 913-917.
 58. Perturbation Parameters Tuning of Multi-Objective Optimization Differential Evolution and its Application to Dynamic System Modeling. MZ Zakaria, **H Jamaluddin**, R Ahmad, A Harun, R Hussin, ANM Khalil, *Jurnal Teknologi* 75 (11)
 59. Experimental Study of Active Vibration Control of a Flexible Beam System Using Iterative Learning Algorithm. MS Saad, **H Jamaluddin**, IZ Mat Darus, I Abd Rahim. *Key Engineering Materials* 660, 356-360
 60. Modeling and Validation of Electronic Wedge Brake Mechanism for Vehicle safety System. VR Aparow, K Hudha, F Ahmad, **H Jamaluddin**. *Jurnal Teknologi* 75 (1).
 61. Online monitoring and self-tuning control using pole placement method for active vibration control of a flexible beam. MS Saad, **H Jamaluddin**, IZM Darus. *Journal of Vibration and Control* 21 (3), 449-460
 62. Study the Potential Application of Smart Fluid Material and Force Tracking Control of Magnetorheological Damper. MH Harun, W Abdullah, WM Zailimi, **H Jamaluddin**, R Ab Rahman, *Applied Mechanics and Materials* 699, 348-353
 63. Tyre force control strategy for semi-active magnetorheological damper suspension system for light-heavy duty truck. S Sulaiman, PM Samin, **H Jamaluddin**, RA Rahman, SAA Bakar. *International Journal of Vehicle Autonomous Systems* 13 (1), 65-90
- 2016**
64. Development and Verification of a 9-DOF Armored Vehicle Model in the Lateral and Longitudinal Directions. VR Aparow, K Hudha, MMHM Ahmad, **H Jamaluddin**. *Jurnal Teknologi* 78 (6)
 65. Enhancement of the Satellite Attitude Control Using Optimal Regulator Scheme MG Zardian, **HB Jamaluddin**. *Journal of Soft Computing and Decision Support Systems* 3 (4), 1-6
 66. Vibration Analysis of Supported Thick-Walled Cylindrical Shell Made of Functionally Graded Material Under Pressure Loading . MR Isvandzibaei, **H Jamaluddin**, RIR Hamzah. *Journal of Vibration and Control* 22 (4), 1023-1036

CURRICULUM VITAE

2017

67. Modelling and Control of a Fixed Calliper-Based Electronic Wedge Brake. F Ahmad, K Hudha, SA Mazlan, **H Jamaluddin**, H Zamzuri, ZA Kadir, *Strojniški vestnik-Journal of Mechanical Engineering* 63 (3), 181-190.
68. Double Anti-roll Bar Hardware-in-loop Experiment for Active Anti-roll Control System. Muniandy V., Mohd Samin P., **Jamaluddin H.**, Abdul Rahman R., Abu Bakar S. A. *Journal of Vibroengineering*, Vol. 19, Issue 4, 2017, p. 2886-2909.
69. NARMAX Model Identification of a Palm Oil Biodiesel Engine Using Multi-objective Optimization Differential Evolution. Zakwan Mansor, Mohd Zakimi Zakaria, Azuwir Mohd Nor, Mohd Sazli Saad, Robiah Ahmad, and **Hishamuddin Jamaluddin**. *AIP Conference Proceedings* **1885**, 020142 (2017).

2018

70. Simulation and Experimental Investigation of Vehicle Braking System Employing a Fixed Caliper Based Electronic Wedge Brake. Fauzi Ahmad, Khisbullah Hudha, Saiful Amri Mazlan, **Hishammudin Jamaluddin**, Vimal Rau Aparow, MR M Yunos. *Simulation*. (2018). 94(4): 327-340
71. Fuzzy fractional PID gain controller for antilock braking system using an electronic wedge brake mechanism. F Ahmad, SA Mazlan, K Hudha, **H Jamaluddin**, H Zamzuri. *International Journal of Vehicle Safety*. (2018). 10 (2), 97-121

INTERNATIONAL CONFERENCES

1987-1999

1. 'Dynamic modelling and simulation of a four-capacity thermal system', Zainol Anuar Mohd Sharif, **Hishamuddin Jamaluddin** and P.K. Arumugam, *International Conference on Modelling and Simulation* Melbourne, Oct, 1987.
2. 'A nonlinear discrete time model of the drift force', E.R. Jefferys, S.A. Billings, **H. Jamaluddin** and G.R. Tomlinson, *6th. International Workshop on Water Waves and Floating Bodies*, Woods Hole, Mass., USA, 14 - 17 April 1991.
3. 'Adaptive Fuzzy Network for Traffic Noise Modelling', **H. Jamaluddin**, *IASTED Int. Conference on Modelling, Simulation and Optimization*, Gold Coast, Australia, paper #242 - 008, 6 - 9 May, 1996.
4. 'A self-organizing map clustering method for multiprocessor scheduling', S. Salleh, B. Sanugi, **H. Jamaluddin** and A.Y. Zomaya, *8th. Int. Conf. on Computing and Information*, University of Waterloo, Canada, 19 - 22 Jun 1996.
5. 'A mean-field annealing model for task scheduling in multiprocessor systems', S. Salleh, B. Sanugi, **H. Jamaluddin** and A.Y. Zomaya, *Int. Conf. on Parallel and Distributed Processing Techniques and Applications*, Sunnyvale, California, Vol. 1, pp.189, 9-11 August, 1996.

2000-2005

6. 'The hybrid intelligent active force controller for robot arm using neural network and evolutionary computation', S.B.Hussein, **H.Jamaluddin**, M.Mailah and A.M.S. Zalzal, *Congress on Evolutionary Computation*, California USA, July 2000.
7. 'The evolutionary neural network controller for intelligent active force control', S.B.Hussein, **H.Jamaluddin**, M.Mailah and A.M.S. Zalzal, *Proceeding of the First Regional Symposium on Quality & Automation*, RESQUA2000, USM, 4-5 May, 2000, pp. 201-209.
8. 'The hybrid intelligent active force controller for a robot arm using neural network and evolutionary computation', S.B.Hussein, **H.Jamaluddin** and M.Mailah, paper no. 152, *TENCON 2000*, Kuala Lumpur, 24-27 Sept. 2000.
9. 'Statistical Features for Training and Testing ANN-based SPC Pattern Recognizer', A. Hassan, M.S. Nabi Bash, A.M. Shahroun and **H. Jamaluddin**, *ICMAT 2000*, 17-18 August 2000.
10. Properties of Adaptive Fuzzy Model for System Identification of Dynamic Systems using Back-propagation Algorithm', M.S. Yaacob and **H.Jamaluddin**, *First International Conference on Mechatronics ICOM'01*, 12-13 February 2001, Kuala Lumpur



CURRICULUM VITAE

11. *'Univariate Time Series Modelling of Inflow', Sobri Harun, Van Thanh Nguyen, Mohd Shafiek Yaacob and Hishamuddin Jamaluddin, XXIX IAHR Congress, Beijing, Sept. 2001.*
12. Trajectory Error Pattern Refinement of A Robot Control Scheme Using A Knowledge-Based Method. Endra Pitowarno, Musa Mailah, **Hishamuddin Jamaluddin**. *ICICS 2001*. October 2001. Singapore.
13. Multivariable System Identification for Dynamic Discrete-Time Nonlinear System Using Genetic Algorithm. **Hishamuddin Jamaluddin**, Mohamad Azlan Hussain and Robiah Ahmad. *2002 IEEE International Conference on Systems, Man and Cybernetics*. Yasmine Hammamet – Tunisia, October 6-9, 2002. paper WA1F2
14. Identification of multivariable discrete-time nonlinear system using genetic algorithm. R. Ahmad, **H. Jamaluddin**, M. A. Hussain, *Regional Symposium on Chemical Engineering and 16th Symposium of Malaysian Chemical Engineers*, Kuala Lumpur, 28-30 October 2002. paper MAL157. Volume 2: 1599-1606.
15. Application of Multi-Layer Perceptron in Modeling Tapioca Starch Hydrolysis R. Rashid, **H. Jamaluddin** and N.A. Saidina Amin. Paper 74. *AIAI 2003. Malaysian-Japan Seminar on Artificial Intelligence Applications in Industry*. 24-25 June 2003. Park Plaza Hotel, Kuala Lumpur.
16. Semi Active Roll Control Suspension (SARCS) System on a New Modified Half Car Model. Khisbullah Hudha, **Hishamuddin Jamaluddin**, Pakharuddin Mohd. Samin and Roslan Abdul Rahman. SAE Technical Paper Series 2003-01-2274. *Future Transportation Technology Conference*, Costa Mesa, California. June 23 – 25, 2003.
17. Application of Radial Basis Function in Modelling the Tapioca Starch Hydrolysis. Roslina Rashid, **Hishamuddin Jamaluddin**, and Nor Aishah Saidina Amin. *Second International Conference on Artificial Intelligence in Engineering & Technology*. Kota Kinabalu, Sabah, August 3-5, 2004. pp.897-902.
18. Selection of a Model Structure in System Identification using Memetic Algorithm. Robiah Ahmad, **Hishamuddin Jamaluddin** and Mohamad Azlan Hussain. *Second International Conference on Artificial Intelligence in Engineering & Technology*. Kota Kinabalu, Sabah, August 3-5, 2004 pp. 714-720.
19. Motion Control of Mobile Manipulator Using Resolved Acceleration and Iterative-Learning Active Force Control. Endra Pitowarno, Musa Mailah, **Hishamuddin Jamaluddin** . The 2nd International Conference on Mechatronics, ICOM'05 17. IIU Kuala Lumpur.
2006-2010
20. Application of Neural Network in Estimating the Aerodynamic Derivatives of Simple Ground Vehicle Model. Nabilah Ramli, Shuhaimi Mansor, **Hishamuddin Jamaluddin**, Waleed Fekry Faris. *International Conference on Control, Instrumentation and Mechatronics Engineering (CIM'07)*. May 28-29, 2007 in Johor Bahru, Malaysia. pp. 459 - 464
21. Skyhook Adaptive Neuro Active Force Control for a Suspension System. Gigih Priyandoko, Musa Mailah and **Hishamuddin Jamaluddin**. *International Conference on Control, Instrumentation and Mechatronics Engineering (CIM'07)*. May 28-29, 2007 in Johor Bahru, Malaysia. pp. 502 – 506.
22. Identification of Aerodynamic Coefficients Using Neural Network. Nabilah Ramli, **Hishamuddin Jamaluddin**, Shuhaimi Mansor, Waleed Fekry Faris. *2007 IEEE Intelligent Vehicles Symposium (IV'07)*. Sponsor by IEEE Intelligent Transportation Systems Society. Jun 13 – 15, 2007, Istanbul, Turkey.
23. Simulation Studies on the Performance of Magnetorheological Damper in Passenger Vehicle's Semi Active Suspension System. Saiful Anuar Abu Bakar, Roslan Abd Rahman, **Hishamuddin Jamaluddin** and Pakharuddin Mohd Samin. *Conference on Applications and Design in Mechanical Engineering*, 25-26 October 2007, Kangar, Perlis, Malaysia
24. Modeling and Validation of a 7-DOF Full Car For Ride Quality. Pakharuddin Mohd Samin, **Hishamuddin Jamaluddin**, Roslan Abd Rahman, Saiful Anuar Abu Bakar and Khisbullah Hudha. *Conference on Applications and Design in Mechanical Engineering*, 25-26 October 2007, Kangar, Perlis, Malaysia
25. Identification of Ground Vehicle Aerodynamic Derivatives -Application of Neural Network with Principal Component Analysis. Nabilah RAMLI, Waleed Fekry FARIS, **Hishamuddin**



CURRICULUM VITAE

- JAMALUDDIN, and Shuhaimi MANSOR. Tenth International Conference on Control, Automation, Robotics and Vision (ICARCV 2008), Vietnam. 17 - 20 December 2008
26. Multi-Objective Optimization of NARX Model for System Identification Using Genetic Algorithm, S. Mohammad Reza Loghmanian, Robiah Ahmad, **Hishamuddin Jamaluddin** *Computational Intelligence, Communication Systems and Networks, International Conference on*, pp. 196-201, 2009 First International Conference on Computational Intelligence, Communication Systems and Networks, 2009. Indore, India. July 23-July 25. ISBN: 978-0-7695-3743-6. DOI Bookmark: <http://doi.ieeecomputersociety.org/10.1109/CICSYN.2009.62>
27. Poh Ping **Em**, Khisbullah Hudha, **Hishamuddin Jamaluddin**. Automatic Steering Control for Lanekeeping Maneuver: Outer-Loop Control Design. Poster Paper. 6th IFAC Symposium Advances in Automotive Control. Schwabing, Germany. July 12-14, 2010
28. Saiful Anuar Abu Bakar, **Hishamuddin Jamaluddin**, Roslan Abd Rahman, Pakharuddin Mohd Samin. Semi Active Damping Force Estimator Algorithm in Controlling Magnetorheological Damper in Semi Active Suspension System. The Third Regional Conference in Noise, Vibration, and Comfort. Putrajaya, Malaysia. June 23 - 30, 2010.
29. Em Poh Ping, Khisbullah Hudha and **Hishamuddin Jamaluddin**. Hardware-in-the-loop Simulation of Automatic Steering Control for Lanekeeping, Double Lane Change, and Sine Steer Maneuvers. *International Conference on Sustainable Mobility 2010*. 1st-3rd December 2010, Seri Pacific Hotel, Kuala Lumpur, Malaysia.
30. B. Supriyo, K. B. Tawi, **H. Jamaluddin**, S. Ariyono. Deadzone Compensator For Pulley Position Control Of An Electro-Mechanical Dual Acting (EMDAP) CVT system. *International Conference on Sustainable Mobility 2010*. 1st-3rd December 2010, Seri Pacific Hotel, Kuala Lumpur, Malaysia.
- 2011-2015**
31. Khisbullah Hudha*, M. Hafiz Harun, M. Hanif Harun, **Hishamuddin Jamaluddin**. Lateral Suspension Control of Railway Vehicle Using Semi-Active Magnetorheological Damper. 2011 IEEE Intelligent Vehicles Symposium (IV 2011), June 5-9, 2011, Baden-Baden, Germany. art. no. 5940544, pp. 728-733 (SCOPUS)
32. Mohd Sazli Saad, **Hishamuddin Jamaluddin**, Intan Zaurah Mat Darus. Active Vibration Control of Flexible Beam System using Proportional Control Scheme in Finite Difference Simulation Platform. Fourth International Conference on Modeling, Simulation and Applied Optimization 2011 (ICMSAO'11) 19th - 21st April 2011, Kuala Lumpur. art. no. 5775494 (SCOPUS)
33. Abu Bakar, S.A, **Jamaluddin, H.**, Samin, P.M., Masuda, R., Hashimoto, H., and Inaba, T. (2011). Fuzzy-Semi Active Damping Force Estimator (fSADE) and Skyhook Semi Active Suspension Systems. International Conference on Mechanical, Automotive and Aeronautics Engineering. 17-19 May. Kuala Lumpur, Malaysia.
34. Kadir, Z.A., Hudha, K., Jamaluddin, H., Ahmad, F., Imaduddin, F. Active roll control suspension system for improving dynamics performance of passenger vehicle. *Proceedings of 2011 International Conference on Modelling, Identification and Control, ICMIC 2011*, Shanghai 26-29 June art. no. 5973755, pp. 492-497 (SCOPUS)
35. Zakaria, M.Z., Jamaluddin, H., Ahmad, R., Muhaimin, A.H. Effects of genetic algorithm parameters on multiobjective optimization algorithm applied to system identification problem. *2011 4th International Conference on Modeling, Simulation and Applied Optimization, ICMSAO 2011*, 19th - 21st April 2011, Kuala Lumpur. art. no. 5775624 (SCOPUS).
36. Stability Augmentation System of Active Suspension System in Electric Vehicle Conversion: Towards Optimal Ride Comfort Performance. Saiful Anuar ABU BAKAR*, Ryosuke MASUDA*, Hiromu HASHIMOTO, Takeshi INABA, **Hishamuddin JAMALUDDIN**, Roslan ABD. RAHMAN, Pakharuddin MOHD. SAMIN, *International Conference on Applications and Design in Mechanical Engineering 2012 (ICADME 2012)* 27-28 February 2012, Penang, Malaysia.
37. Non-pressurized Magnetorheological Damper Controlled Using Fuzzy Semi Active Damping Force Estimator (fSADE) Saiful Anuar ABU BAKAR, **Hishamuddin JAMALUDDIN**, Roslan ABD. RAHMAN, Pakharuddin MOHD. SAMIN, Ryosuke MASUDA, Hiromu HASHIMOTO, Takeshi INABA. *International Conference on Applications and Design in Mechanical Engineering 2012 (ICADME 2012)* 27-28 February 2012, Penang, Malaysia.

38. Modeling and Validation of Magic Formula Tire Model . Mohammad Safwan Burhaumudin, Pakharuddin Mohd Samin, **Hishamuddin Jamaluddin**, Roslan Abd Rahman, Syabillah Sulaiman. *International Conference on Automotive, Mechanical and Material Engineering (ICAMME'2012)* Penang, Malaysia May 19-20, 2012.
 39. Modeling and Validation of 7-DOF Ride Model for Heavy Vehicle. Syabillah Sulaiman, Pakharuddin Mohd Samin, **Hishamuddin Jamaluddin**, Roslan Abd Rahman, Mohammad Safwan Burhaumudin. *International Conference on Automotive, Mechanical and Material Engineering (ICAMME'2012)* Penang, Malaysia May 19-20, 2012.
 40. Active Vibration Control of Flexible Beam Using Differential Evolution Optimisation. Mohd S. Saad, **Hishamuddin Jamaluddin**, Intan Z. M. Darus. ICCSA 2012 : International Conference on Computer Science and Applications, February 19-21, 2012. Kuala Lumpur, Malaysia.
 41. Investigation on Vibration Modes of The Aluminum Hollow Cylindrical Shell Using Sanders Shell Theory. Mohammad Reza Isvandzibaei, **Hishamuddin Jamaluddin**, Raja Ishak Raja Hamzah. *The 15th International Conference on Mathematical and Computational Methods in Science and Engineering (MACMESE '13)*. Kuala Lumpur, Malaysia. April 2-4, 2013. pp. 122-126
 42. Study on the Potential Application of Smart Fluid Material in Suspension System. Mohd Hanif Harun, W M Zailimi W Abdullah, Hishamuddin Jamaluddin, Roslan Ab Rahman, Khisbullah Hudha and Mohamad Hafiz Harun. *The 3rd International Conference and Exhibition on Sustainable Energy and Advanced Materials (ICE-SEAM 2013)*. 30 - 31 October 2013. Melaka International Trade Center, Malaysia. (SCOPUS)
 43. The Analysis of Railway Vehicle with Semi-Active Secondary Suspension System under Harmonic Excitation Disturbance. Mohd Hanif Harun, W. Mohd Zailimi W. Abdullah, Mohd Azman Abdullah, Hishamuddin Jamaluddin, Roslan A. Rahman and Khisbullah Hudha. *Annual Conference on Engineering and Information Technology. ACEAIT-041*. June 2013 Seoul, South Korea.
 44. Hybrid Skyhook-Stability Augmentation System for Ride Quality Improvement of Railway Vehicle. Mohd Hanif Harun, W Mohd Zailimi W Abdullah, Hishamuddin Jamaluddin, Roslan Ab Rahman and Khisbullah Hudha. *The 2nd International Conference on Recent Advances in Automotive Engineering & Mobility Research (ReCAR 2013)*. December 16-18, 2013. Kuala Lumpur, Malaysia (SCOPUS)
 45. Modeling and simulation of railway vehicle using ADAMS/Rail. Applied Mechanics and Materials . 548-549: 515-519. Authors of Document Abdullah, W.M.Z.W., Jamaluddin, H., Harun, M.H., Rahman, R.A., Hudha, K. 3rd International Conference on Manufacturing Engineering and Process, ICMEP 2014; Seoul; South Korea; 10 April 2014 through 11 April 2014; Code 105442 (SCOPUS) ISSN: 1662-7482 Scientific.net
 46. Dynamic response of commuter rail vehicle under lateral track irregularity. Applied Mechanics and Materials. 548-549: 948-952. 3rd International Conference on Manufacturing Engineering and Process, ICMEP 2014; Seoul; South Korea; 10 April 2014 through 11 April 2014; Code 105442Harun, M.H., Zailimi, W.M., Jamaluddin, H., Rahman, R.A., Hudha, K.. (SCOPUS) ISSN: 1662-7482 Scientific.net
- 2017
47. NARMAX model identification of a palm oil biodiesel engine using multi-objective optimization differential evolution. Z Mansor, MZ Zakaria, AM Nor, MS Saad, R Ahmad, H Jamaluddin. AIP Conference Proceedings 1885 (1), 020142
- 2018
48. Invited Speaker. THE FIRST INTERNATIONAL CONFERENCE ON VOCATIONAL EDUCATION OF MECHANICAL AND AUTOMOTIVE TECHNOLOGY (ICOVEMAT) 2018. Inna Garuda Hotel (Grand Inna Malioboro), Yogyakarta. 20 October 2018. http://icovemat.uny.ac.id/page/view/keynote_speaker

CURRICULUM VITAE

8. OTHER ADDITIONAL ADMINISTRATIVE RESPONSIBILITIES

| No. | POSITION (APPOINTMENT) | FACULTY / DIVISION / DEPARTMENT | START DATE – END DATE |
|-----|--------------------------------|--|--|
| 1. | Head of Department | Department of Mechanics and Design, Faculty of Mechanical Engineering, UTM | 4 April 1994 - 3 April 1998 (2 terms) |
| 2. | Academic Manager (Research) | School of Graduate Studies, UTM | 1 Mei 2002 - 31 Disember 2008. (3 terms): |
| 3. | Director, | Penerbit UTM <i>Press</i> | 1 Januari 2009 – 31 December 2012 (2 terms) |

9. OTHER RELEVANT INFORMATION

- 1.
- 2.
- 3.