

CURRICULUM VITAE



ASSOCIATE PROFESSOR DR. AZURA CHE SOH

Department of Electrical and Electronic Engineering, Faculty of Engineering,
Universiti Putra Malaysia, 43400 UPM Serdang, Selangor

T: +603-8946 6499

F: +603-8946 6327

E-mail: azuracs@upm.edu.my

Education

1. PhD(Electrical Engineering), 2011, Universiti Teknologi Malaysia
2. MSc (Electrical & Electronic of Engineering), 2002, Universiti Putra Malaysia
3. BEng (Electronic/Computer), 1999, Universiti Putra Malaysia.

Areas of Interest

1. Control System Engineering
2. Intelligent Control
3. System Modelling & Simulation

Professional Qualification/ Membership/ Affiliation

1. Professional Technologist(PTech), Malaysia Board of Technologists(MBOT)
2. Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
3. Member, Institute of Engineering and Technology (IET), UK
4. Member, International Association of Engineers (IAENG)
5. Member, IEEE Control Systems Society(CS)
6. Member, Asian Control Association(ACA)
7. Member, Malaysia Society of Engineering & Technology (MySET)
8. Member, Malaysian Society for Automatic Control Engineers(MACE)
9. Graduate Member, Board of Engineers Malaysia (BEM)

Appointments

Position	Duration
1. Head of Control Unit, Department of Electrical and Electronics Engineering, UPM	1 Mac 2017-present
2. Associate Researcher, Institut Penyelidikan Penuaan Malaysia(MYAGEING)	1 June 2017-present
3. Coordinator, Laboratory of Control & Automation Department of Electrical and Electronics Engineering, UPM	1 Jan 2015-present
4. Associate Researcher, Center of Power and Advanced Energy (CAPER) , Faculty of Engineering, UPM	July 2014-July 2017
5. Research Fellow, Department of Automatic Control and Systems Engineering, University of Sheffield, UK	February 2014-September 2014
6. HEPA Coordinator, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	August 2011 to August 2013
7. Senior Lecturer, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	July 2011 to present
8. Lecturer, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	June 2003 to July 2011
9. FYP Coordinator, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	2011-2013



10. Lab Coordinator, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM 2003-2005, 2011
11. Head of Master Program with Thesis (Control & Automation), Department of Electrical and Electronic Engineering, UPM March 2011-2012
12. Tutor, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM October 1999 to June 2003
13. Research Attachment, University of La Rochelle, France November 2005– December 2005

Publications

Journals

1. N.F.M. Radzi, **A. Che Soh**, A.J.Ishak, M.K. Hassan and U.K.Yusof, "Development of Electronic Nose for Classification of Aromatic Herbs using Artificial Intelligent Techniques", Journal of Engineering Science and Technology (JESTEC), 2018 (Scopus) - Accepted
2. Muhammad Ammirul Atiqi Mohd Zainuri, Mohd Amran Mohd Radzi, **Azura Che Soh**, Norman Mariun, Nasrudin Abd Rahim, Jiashen Teh and Ching-Ming Lai, "Photovoltaic Integrated Shunt Active Power Filter with Simpler ADALINE Algorithm for Current Harmonic Extraction" Energies 2018, 11, 1152, 1-22, 2018 (IF 2.262) – Q2
3. N. F. M. Radzi, **A. Che Soh**, A. J. Ishak, M. K. Hassan, U. K. Mohamad Yusof, "Aromatic Herbs Classification by Using Discriminant Analysis Techniques", Indonesian Journal of Electrical Engineering and Computer Science, Vol. 5, No. 3, March 2017, 530-535, 2017. (Scopus)
4. T.A.T. Mohd, M.K. Hassan, Ishak Aris, **Azura C.S.** and B.S.K.K Ibrahim, "Application of Fuzzy Logic in Multi-Mode Driving for a Battery Electric Vehicle Energy Management", "International Journal on Advanced Science Engineering Information Technology, Vol. 7(No 1), 2017, pp 284-290 (Scopus)
5. N.F.A. Rahman, M.A.M. Radzi, **A.C. Soh**, N. Mariun, and N.A. Rahim, "Significant insights into the operation of dc-link voltage control of a shunt active power filter using different control algorithms - a comparative study," Turkish Journal of Electrical Engineering and Computer Sciences, 2017 (IF 0.518, Q4) .
6. **A. Che Soh**, U. K. Mohamad Yusof, N. F. M. Radzi, A. J. Ishak and M. K. Hassan, "Classification of Aromatic Herbs using AI Techniques", Pertanika J. Sci. & Technol. 25 (1): 121 - 130 (2017) (Scopus).
7. N. Mohamad Zaber, A. J. Ishak, **A. Che Soh**, M. K. Hasan and A. N. Ishak, "Optimising PID Controller using Slope Variation Method for Positioning Radio Telescope" Pertanika J. Sci. & Technol. 25 (1): 277 - 286 (2017). (Scopus).
8. Hazem M. M. El-Hageen, Karimeh Ibrahim Mohammad Ata, **Azura Che Soh**, Asnor Juraiza Ishak, Haslina Jaafar, "Radio Frequency Identification (RFID) Indoor Parking Control System International Journal of Scientific & Engineering Research Volume 8, Issue 11, November-2017, 557-562
9. Nor Farahaida Abdul Rahman, Mohd Amran Mohd Radzi, **Azura Che Soh**, Norman Mariun, Nasrudin Abd Rahim, "Adaptive Hybrid Fuzzy-Proportional plus Crisp-Integral Current Control Algorithm for Shunt Active Power Filter Operation" Energies, 9(9), 737, 1-18, 2016 (IF 2.077)-Q2
10. Muhammad Ammirul Atiqi Mohd Zainuri, Mohd Amran Mohd Radzi, **Azura Che Soh**, Norman Mariun and Nasrudin Abd Rahim, "Improved ADALINE Harmonics Extraction Algorithm for Boosting Performance of Photovoltaic Shunt Active Power Filter under Dynamic Operations", Journal of Electrical Engineering & Technology, 11(3), 1921-1935 (IF 0.679) –Q3
11. Muhammad Ammirul Atiqi Mohd Zainuri, Mohd Amran Mohd Radzi, **Azura Che Soh**, Norman Mariun and Nasrudin Abd Rahim, "Simplified Adaptive Linear Neuron Harmonics Extraction Algorithm for Dynamic Performance of Shunt Active Power Filter", International Review on Modelling and Simulations (IREMOS), 9(3), 2016, 144-154. (Scopus).
12. S. Yadegar, **A. Che Soh**, S. A. Ahmad and A. J. Ishak, "New Methodology of Online Sliding Surface Slope Tuning PID like Fuzzy Sliding Mode Controller for Robust Control of Robot Manipulators", International Journal of Control Theory and Application. Vol. 9(5), 567-591, 2016. (Scopus)
13. Muhammad Ammirul Atiqi Mohd Zainuri, Mohd Amran Mohd Radzi, **Azura Che Soh**, Norman Mariun, Nasrudin Abd Rahim and Shahrooz Hajjghorbani, "Fundamental Active Current Adaptive Linear Neural Networks for Photovoltaic Shunt Active Power Filters", Energies, 9, 397, 1-20, 2016 (IF 2.077)-Q2

14. A.J. Ishak, R.Z. Abdul Rahman, **A.C. Soh**, R. Shamsudin, S.A. Jalo, F.C. Lim and H.K. Lin, "Quality Identification of Used Cooking Oil Based on Feature Fusion of Gas Sensor and Color, International Journal of Control Theory and Application. Vol. 9(5), 321-329, 2016. ([Scopus](#))
15. M.A.A.M. Zainuri, M.A.M. Radzi, **A. Che Soh**, N. Mariun, N.A. Rahim, "DC Link Capacitor Voltage Control for Single Phase Shunt Active Power Filter with Step Size Error Cancellation in Self Charging Algorithm" IET Power Electronics, 9(2), 323-335, 2016. ([IF 1.68](#))-Q2
16. N. Mohamad Zaber, A. J. Ishak , **A. Che Soh** , M. K. Hasan, " Performance Analysis of Radio Telescope Position Control using PID and Fuzzy Logic Controller", Advanced Science Letters, Vol. 22, No. 10 (2016), pp. 2686 -2689.
17. N. A. Abdullah, **A. Che Soh**, R. Z. Abd Rahman and S.B. Mohd Noor, " Control and Analysis of Pressure Variable in the UCP Process Control", Global Journal of Engineering and Technology Review 1 (1) 106 – 113 (2016).
18. G.R. Lai, **A.Che Soh**, H.Md.Sarkan, R.Z.Abdul Rahman, M.K. Hassan, "Controlling Traffic Flow in Multilane-Isolated Intersection Using ANFIS Approach Technique," Journal of Engineering Science and Technology (JESTEC) Vol (10), No. 8(2015), 1009-1034. ([Scopus](#))
19. U. K. Mohamad Yusof, **A. Che Soh**, N. F. M. Radzi, A. J. Ishak, M. K. Hassan, S. A. Ahmad, S. Khamis, " Selection of Feature Analysis Electronic Nose Signals Based on the Correlation Between Gas Sensor and Herbal Phytochemical" Australian Journal of Basic and Applied Sciences, 9(5), March 2015, 360-367 ([Scopus](#))
20. Hussein, O.; Hasan, W. Z. Wan, **A. Che Soh**; Jafaar, H., An Accurate Setting for Remapping Process of Foot Plantar Pressure Advanced Science, Engineering and Medicine, Volume 7, Number 10, October 2015, pp. 872-876(5) ([Scopus](#))
21. Mohd, T.A.T., M.K. Hassan, I. Aris, **A.C. Soh**, B.S.K.K. Ibrahim, and M.K. Hat, *Simulation based Study of Electric Vehicle Parameters*. ARPN Journal of Engineering and Applied Sciences, 2015. 10(19): p. 6 (8541-8546). October 2015 ([Scopus](#))
22. Muhmmmed Hussain Riadh, Siti Anom Binti Ahmad, Mohd Hamiruce Marhaban and **Azura Che Soh**, "Infrared Heating in Food Drying: An Overview", Drying Technology: An International Journal ,33(2015),322-335. ([IF:1.742](#)) (Q1)
23. NFA Abdul Rahman, M.A.M. Radzi, **A.Che Soh**, N. Mariun and N.A. Rahim, " Dual Function of Unified Adaptive Linear Neurons Based Fundamental Component Extraction Algorithm for Shunt Active Power Filter Operation", International Review of Electrical Engineering(IREE), Vol 10, N4, July-August 2015,pp. 544-552. ([Scopus](#))
24. Mohd Hafiz Mohd Nordin, Mohd Khair Hassan, **Azura Che Soh** and Mohd Amran Mohd Radzi, " Hardware-In-Loop of Fault Detection System for Air-Fuel Ratio Control", Applied Mechanics and Materials Vol. 663 (2014), 233-237 ([Scopus](#))
25. H. Jaafar, M. H. Zabidi, **A. C. Soh**, T. P. Hoong, S. Shafie, S. A. Ahmad, " Intelligent Guidance Parking System Using Modified Dijkstra's Algorithm", Journal of Engineering Science and Technology(JESTEC), Special Issue on Applied Engineering and Sciences (SAES2013), August 2014, 131-139 ([Scopus](#))
26. **A. Che Soh**, K.K.Chow, U. K. Mohammad Yusuf, A. J. Ishak, M. K. Hassan, S.Khamis, "Development of Neural Network-Based Electronic Nose for Herbs Recognition", International Journal on Smart Sensing and Intelligent Systems, 7(2), 2014, 584-609. ([Scopus](#))
27. Mohammed Ahmed, Samsul Bahari Mohd Noor, Mohd Khair Hassan, **Azura Che Soh**, "A Review of Strategies for Parabolic Antenna Control", Australian Journal of Basic and Applied Sciences, 8(7) May 2014, 135-148. ([Scopus](#))
28. M.A.A.M. Zainuri, M.A.M. Radzi, **A. Che Soh**, N.A. Rahim, " Development of Adaptive P&O-Fuzzy Control MPPT for PV Boost Dc-Dc Converter" IET Renewable Power Generation, 8(2), 2014, 183-194. ([IF 2.280](#))(Q2)
29. Sanaz Yadegar and **Azura Che Soh**, "Design Stable Robust Intelligent Nonlinear Controller for 6-DOF Serial Links Robot Manipulator", International Journal of Intelligent Systems and Applications (IJISA), 6(8), 2014, 19-38.
30. Ahmed Abdulelah, **Azura Che Soh**, Mohd Khair Hassan and Samsul Bahari Mohd Noor, "Controlling the Pitch and Yaw Angles of Twin Rotor MIMO System in Simulation-Based Platform using Fuzzy Logic Controller and PID Controller", Open Journal of Artificial Intelligence, 2(1), 2014, 1-6.
31. Ojo O. Adedayo, M. M. Isa, **A. Che Soh**, and Z. Abbas, "Multi-Adaptive Neuro-Fuzzy Inference System for Dielectric Properties of Oil Palm Fruitlets", International Journal of Applied Science and Engineering, 12(1), 2014, 1-8.

32. Ojo O. Adedayo, M. M. Isa, **A. Che Soh**, and Z. Abbas, "Comparison of Feed Forward Neural Network Training Algorithms for Intelligent Modeling of Dielectric Properties of Oil Palm", *International Journal of Engineering and Advanced Technology (IJEAT)*, 3(3), 2014, 38-42.
33. Seyed Mohammad Hussein S, Siti A. Ahmad, **Azura Che Soh**, Mohd K Hassan, Asnor J Ishak. Introducing New Statistical Shape Based and Texture Feature Extraction Methods in the Plant Species Recognition System. *International Journal of Engineering and Technology*, Vol.10, No. 2, 56 – 61, 2013
34. M. Seifi, **A. Che Soh**, N.I. Abd Wahab and M.K. Hassan, "Modeling of PV Standalone Microgrid Based on IEEE Standards, 1562-2007, 1361-2003 and 1013-2007", *International Review on Modelling and Simulations (IREMOS)*, 6(2), April 2013, 515-525.(Scopus).
35. M. Seifi, **A. Che Soh**, N.I. Abd Wahab and M.K. Hassan, "A Comparative Study of PV Models in Matlab/Simulink", *International Journal of Electrical, Robotics, Electronics and Communications Engineering*, Vol .7(2), 102-107.
36. **A. Che Soh**, R.Z. Abdul Rahman, H. Md. Sarkan and L.T. Yeo, *Intelligent Control of Twin-Rotor MIMO System Using Fuzzy Inference Techniques*. *International Review of Automatic Control (IREACO)*, 6(1), Jan 2013. (Scopus)
37. Asnor Juraiza Ishak, **Azura Che Soh** and Mohamad Asmi Ashaari, *Position Control of Arm Mechanism using PID Controller*. *Journal of Theoretical and Applied Information Technology*, 47(2), 2013, 798-806(Scopus)
38. M.A.A.M. Zainuri, M.A.M. Radzi, **A. Che Soh**, N.A. Rahim, *Development of Modified Fuzzy-P&O Control MPPT Algorithm for Photovoltaic Boost Dc-Dc Converter with Different Loads*. *International Review on Modelling and Simulations (IREMOS)*, 5(6), December 2012(Part B), 2386-2395.(Scopus).
39. **A. Che Soh**, S.A. Ahmad, A.J. Ishak and K.N. Abd. Latif, *Development of an Adjustable Gripper for Robotic Picking and Placing Operation*. *International Journal on Smart Sensing and Intelligent Systems*, 5(4), Dec 2012, 1019-1043(Scopus).
40. **Azura Che Soh**, Mohd Khair Hassan, Ribhan Zafira Abdul Rahman, *A Fuzzy-Fault Classifier System for Malfunction Traffic Light System Classification*. *Journal of Theoretical and Applied Information Technology*, 34(2), 2011, 226-240.(Scopus)
41. M.K.Hassan, R. Z. Abdul Rahman, **A. Che Soh.**, M.Z.A.Ab Kadir, *Lightning Strike Mapping For Peninsular Malaysia Using Artificial Intelligence Techniques*. *Journal of Theoretical and Applied Information Technology*, 34(2), 2011, 202-214.(Scopus)
42. **A. Che Soh**, R. Z. Abdul Rahman, M.Z.A.Ab Kadir and N.S. Mohd Sharif, *Development of the Lightning Location Mapping System Using Fuzzy Logic Techniques*. *International Review on Modelling and Simulations (IREMOS)*, 4(6), December 2011(Part C), 3301-3308.(Scopus).
43. **Azura Che Soh**, Lai Guan Rhung, Haslina Md Sarkan, *MATLAB Simulation of Fuzzy Traffic Controller for Multilane Isolated Intersection*. *International Journal on Computer Science and Engineering*, 2(4), 2010, 924-933.
44. **Azura Che Soh**, Mohd Khair Hassan and Asnor Juraiza Ishak, *Vehicle Gas Leakage Detector*, *The Pacific Journal of Science and Technology (PJST)*, Akamai University, USA, 11(2), 2010, 66-76.
45. Ribhan Zafira Abdul Rahman, **Azura Che Soh**, Noor Fadzlina Muhammad, *Fault Detection and Diagnosis for Continuous Stirred Tank Reactor using Neural Network*, *Kathmandu University Journal of Engineering, Science and Technology*, 6(II), 2010, 66-74.
46. **Azura Che Soh**, Marzuki Khalid, Mohammad Hamiruce Marhaban and Rubiyah Yusof, *Modeling of a Multilane-Multiple Intersection Based on Queue Theory and Standard Approach Techniques*, *International Journal of Simulation Modelling Practice and Theory*, 17(2009),1081-1105. IF(0.586),Q3
47. **Azura Che Soh** and Ribhan Zafira Abdul Rahman, *Fault Detection and Diagnosis for DC Motor in Robot Movement System using Neural Network*. *The Pacific Journal of Science and Technology (PJST)*, Akamai University, USA, 10(1), 2009, 35-43.
48. **Azura Che Soh**, Erny Aznida Alwi, Ribhan Zafira Abdul Rahman and Li Hong Fey, *Effect of Fuzzy Logic Controller Implementation on a Digitally Controlled Robot Movement*, *Kathmandu University Journal of Engineering, Science and Technology*, Vol. 1, No. V., September 2008, 28-39.
49. Erny Aznida Alwi, Samsul Bahari Mohd Noor, **Azura Che Soh**, *Simulation and Real Time Implementation of DC Servo Position Control*, *Journal of Industrial Technology* Vol.15 (1) 2006, 49-72.
50. **Azura C.S.** and Samsul Bahari M.N., *Automatic Fault Detection System for Traffic Light*, *Engineering Transactions, Mahanakorn University of Technology, Thailand.*,Vol.7,No.2(17), July-December 2004, 90-100.

51. **Azura Che Soh**, Mohd Khair Hassan, Mohd Amran Mohd Radzi and Li Hong Fey, *Development Of Fuzzy Logic Controller For Movement Control Of Robotic System*, Journal of Industrial Technology Vol.14 (2) 2005, 113-137.

Conference Proceedings

1. Abdulhadi Abulifa, **Azura Che Soh**, Mohd Khair Hassan, Raja Kamil , Mohd Amran Mohd Radzi, "Modelling and Simulation of Battery Electric Vehicle by Using MATLAB-Simulink", Proceedings of the 2017 Student Conference on Research and Development (SCoReD 2017),13-14 Dec. 2017, Putrajaya, Malaysia.
2. Nor Arymaswati Abdullah, **Azura Che Soh**, Samsul Bahari Mohd Noor, Ribhan Zafira Abdul Rahman and Julia Abdul Karim, "Optimized Proportional Gain of PI Controller Using PSO Algorithm for Research Reactor TRIGA PUSPATI", Proceedings of the 2017 Student Conference on Research and Development (SCoReD 2017),13-14 Dec. 2017, Putrajaya, Malaysia.
3. Mohd Azrol Syafiee Anuar, Ribhan Zafira Abdul Rahman, Samsul Bahari Mohd Noor, **Azura Che Soh**, Zed Zulkafli, "Early Prediction System Using Neural Network in Kelantan River, Malaysia", Proceedings of the 2017 Student Conference on Research and Development (SCoReD 2017),13-14 Dec. 2017, Putrajaya, Malaysia.
4. Asnor Juraiza Ishak, Siti Anom Ahmad, **Azura Che Soh**, Naagajoothi Adin Naraina, Raja Madihah Raja Jusoh, Wada Chikamune," Design of a Wireless Surface EMG Acquisition System," 2017 IEEE 24th International Conference on Mechatronics and Machine Vision in Practice (M2VIP2017), 21-23 Nov, 2017,Massey University, Auckland, New Zealand.
5. Nor Arymaswati Abdullah, **Azura Che Soh**, Samsul Bahari Mohd Noor, Ribhan Zafira Abdul Rahman and Julia Abdul Karim, "The influence of iteration number in PSO application for research reactor TRIGA PUSPATI", 5th International Symposium on Applied Engineering and Sciences (SAES2017), 14-15 Nov 2017, UPM Serdang, Selangor.
6. Nor Hana Mamat, Samsul Bahari Mohd Noor., **Azura Che Soh**, Farah Saleena Taip, Ahmad Hazri Ab. Rashid,, Nur Liyana Jufika Ahmad,, and Ishak Mohd Yusuff," Rank-based Optimal Neural Network Architecture for Dissolved Oxygen Prediction in a 200L Bioreactor," 5th International Symposium on Applied Engineering and Sciences (SAES2017), 14-15 Nov 2017, UPM Serdang, Selangor.
7. Asnor Juraiza Ishaka, Norhisam Mison, **Azura Che Soh**, Zaidatul Akmal Mohammad Khairuddin and Siti Nursyuhada Ali," Lane Tracking for Autonomous Electric Vehicle", 5th International Symposium on Applied Engineering and Sciences (SAES2017), 14-15 Nov 2017, UPM Serdang, Selangor
8. **Che Soh, A.**, Radzi, N.F.M., Ishak, A.J., Hassan, M.K., Ahmad, S.A.," E-botanist system for agricultural applications", 2016 International Conference on Advances in Electrical, Electronic and Systems Engineering, ICAEES 2016, 14-16 Nov 2016, Putrajaya; Malaysia.
9. N.F.M.Radzi, **A. Che Soh**, A.J. Ishak, M.K. Hassan, S.A. Ahmad, S. Khamis, "Feature Extraction for Unique Pattern of Aromatic Herbs using Weighted Histogram Analysis Method", ", 4th International Symposium on Applied Engineering and Sciences 2016 (SAES 2016), 17-18, December 2016 Kyushu Institute of Technology (Tobata Campus) ,Japan.
10. N.Mohamad Zaber, A.J Ishak, **A. Che Soh**, M.K Hasan, "Position Control of Radio Telescope using PSO-PID Controller", 4th International Symposium on Applied Engineering and Sciences 2016 (SAES 2016), 17-18, December 2016 Kyushu Institute of Technology (Tobata Campus) ,Japan
11. Muhammad Ammirul Atiqi Mohd Zainuri , Mohd Amran Mohd Radzi, **Azura Che Soh**, Norman Mariun and Nasrudin Abd Rahim," Performance Evaluation of Modified Widrow-Hoff ADALINE Under Effect of Photovoltaic with Shunt Active Power Filter", 2016 IEEE Industrial Electronics and Applications Conference (IEACon 2016), 20 Nov - 22 Nov 2016, Kota Kinabalu, Malaysia.
12. **Azura Che Soh**, Umi Kalsom Mohamad Yusof, Nur Fadzilah Mohamad Radzi, Asnor Juraiza Ishak, Mohd Khair Hassan and Shamsul Khamis," Development of Electronic Nose for Classification of Aromatic Herbs using Artificial Intelligent Techniques", 2016 International Conference on Engineering Design and Analysis (ICEDA 2016), 29-31 July 2016, Langkawi.
13. N. A. Abdullah, **A. Che Soh**, R. Z. Abd Rahman, and S.B. Mohd Noor, "Control and Analysis of Pressure Variable in the UCP Process Control", Global Conference on Engineering and Technology, 1-2 June 2016, Kuala Lumpur.
14. O. Hussein, W.Z. Wan Hasan, **A. Che Soh**, H. Jafaar," Fundamental References over Insole Plantar Pressure in terms of Human Body Weight Percentage", 2015 IEEE Regional Symposium on Micro and Nanoelectronics (RSM), 19-21 Aug, 2015, Kuala Terengganu, Malaysia.

15. N. Mohamad Zaber, A.J Ishak, **A. Che Soh**, M.K. Hassan “Performance Analysis of Radio Telescope Position Control Using PID and Fuzzy Logic Controller”, 2015 International Conference on Control Theory and Its Application, 15 – 17 December, 2015, Melaka.
16. N.F.M. Radzi, **A. Che Soh** U. K. Mohamad Yusof, , A. J. Ishak, M. K. Hassan, S.Khamis,” Pattern Analysis using Principle Component Analysis (PCA) Method for Herbs Identification”, 3rd International Symposium on Applied Engineering and Sciences 2015 (SAES 2015), 23-24 Nov 2015, UPM Serdang, Selangor.
17. N.A. Abdullah, **A. Che Soh**, R.Z. Abdul Rahman, S.B. Mohd Noor,” Analysis of a Gain Tuning PID Controller for Pressure Control in UCP Plant”, 3rd International Symposium on Applied Engineering and Sciences 2015 (SAES 2015), 23-24 Nov 2015, UPM Serdang, Selangor
18. N. Mohamad Zaber, A.J Ishak, **A. Che Soh**, M.K. Hassan,” Performance Analysis Between PID and Fuzzy Logic Controller in Position Control System of Radio Telescope”, 3rd International Symposium on Applied Engineering and Sciences 2015 (SAES 2015), 23-24 Nov 2015, UPM Serdang, Selangor
19. U. K. Mohamad Yusof, **A. Che Soh**, A. J. Ishak, M. K. Hassan, S.Khamis,” Development of Electronic Nose for Classification of Medicinal Aromatic Herbs using Artificial Intelligent Techniques”, 3rd International Symposium on Applied Engineering and Sciences 2015 (SAES 2015), 23-24 Nov 2015, UPM Serdang, Selangor
20. U. K. Mohamad Yusof, **A. Che Soh**, A. J. Ishak, M. K. Hassan, S.Khamis,” Implementation of Moving Average Technique in Data Mining for Signal Pre-Processing in Electronic Nose System”, 3rd International Symposium on Applied Engineering and Sciences 2015 (SAES 2015), 23-24 Nov 2015, UPM Serdang, Selangor
21. N.F.A. Rahman, M.A.M. Radzi, **A.C. Soh**, N. Mariun, and N.A. Rahim,” Double soft-computing techniques based triple functionalities for Shunt Active Power Filter with voltage source inverter topology,” 2015 IEEE 15th International Conference on Environment and Electrical Engineering (EEEIC), 796-801.
22. A. Abdulelah, **A. Che Soh**, N. A. Abdullah, M. K. Hassan and S.B. Mohd Noor,” Simulated Real Time Controller Using Modified Hill Climbing Algorithm on Fixed Wing Airplane”, The 2015 10th Asian Control Conference(ASCC 2015), May 31-3 June, 2015, Kota Kinabalu, Sabah, Malaysia
23. S.A Jalo, A.J Ishak, **A.C Soh**, R. Z.A Rahman and R. Shamsuddin, “Optimising Effect of Frying Cycles on Cooking Oil Properties Using Particle Swarm Optimisation”, The 2015 10th Asian Control Conference(ASCC 2015), May 31-3 June, 2015, Kota Kinabalu, Sabah, Malaysia
24. N. Mohamad Zaber, A.J Ishak, **A. Che Soh**, M.K. Hassan, Z. Zainal Abidin, “Designing PID Controller for Position Control with Disturbance”, IEEE International Conference on Computer, Communication, and Control Technology , 21 - 23th April, 2015, Kuching, Sarawak, Malaysia
25. Mohammed Ahmed, Samsul Bahari Mohd Noor, Mohd Khair Hassan, **Azura Che Soh**, “Parabolic Antenna Control Using The T-S Type Fuzzy Logic”, The Second International Conference on Defence and Security Technology(DSTC 2014), 24-25 September 2014, Kuala Lumpur.
26. U. K. Mohamad Yusof, **A. Che Soh**, A. J. Ishak, M. K. Hassan, K.K.Chow, “Selection of Feature Analysis Electronic Nose Signals Based on the Correlation between Gas Sensor and Herbal Phytochemical”, 2nd International Symposium on Applied Engineering and Sciences 2014 (SAES 2014), 20-21 Dec 2014, Japan
27. N. Mohamad Zaber, A.J Ishak, **A. Che Soh**, M.K. Hassan, R.Z. Abdul Rahman and Z. Zainal Abidin, “Control Positioning of Radio Telescope using PID Controller with Varying Parameters for High Precision Output”, The 6th International Conference On Postgraduate Education (ICPE-6 2014), 17-18 Dec 2014, UTeM, Melaka
28. M. A. A. Mohd Zainuri, M.A.M. Radzi, N.F.A. Abdul Rahman, **A.C.Soh**, N. Mariun and N.A. Rahim, “Single Phase Shunt Active Power Filter with Simplified ADALINE Neural Network”, 3rd IET International Conference on Clean Energy and Technology 2014, 24-26 Nov 2014, Kuching Sarawak, Malaysia.
29. H. Kasman, H. Jaafar, **A. Che Soh** and W.Z.W.Hasan,”Development of Universal Remote Controller for Robotic Application”, World Research and Innovation Convention of Engineering & Technology (WRICET), 25-26 Nov 2014, Putrajaya, Malaysia.
30. Mohd Rafiuddin Mohd Nordin, Ribhan Zafira Abdul Rahman, Mohd Khair Hassan, **A. Che Soh** and Siti Anom Ahmad, ”Identify The High And Low RFI Level Base On Image Processing With Gray Level Co-Occurrence Method”, World Research and Innovation Convention of Engineering & Technology (WRICET), 25-26 Nov 2014, Putrajaya, Malaysia.
31. Mohammad Seifi, **Azura Che Soh**, Mohd Khair Hassan and Noor Izzri Abd. Wahab, “An Innovative Demand Side Management for Vulnerable Hybrid Microgrid”, 2014 IEEE Innovative Smart Grid Technologies Conference- Asia (ISGT ASIA), 20-23 May, 2014, Kuala Lumpur.

32. Pouya Borazjani, Noor Izzri Abd. Wahab, Hashim Hizam and **Azura Che Soh**, "A Review on Microgrid Control Techniques", 2014 IEEE Innovative Smart Grid Technologies Conference- Asia (ISGT ASIA), 20-23 May, 2014, Kuala Lumpur.
33. W.Z.W.Hasan, Lim Wei Chun, M.H. Marhaban, M.N. Hamidon, S. Shafie and **A.Che Soh**, "A Smart Car Design Model Using Freescale Single-Chip MC9S12XS128", International Conference on Engineering Education 2013 Madinah, Kingdom of Saudi Arabia, 22-25 December 2013
34. Thong Peng Hong, **Azura Che Soh**, Haslina Jaafar and Asnor Juraiza Ishak," Real-time Monitoring System for Parking Space Management Services", 2013 IEEE Conference on Systems, Process & Control, 13-15 Dec, 2013, Kuala Lumpur, Malaysia.
35. Mohd Hafiz Mohd Nordin. Mohd Khair Hassan, **Azura Che Soh** and Mohd Amran Mohd Radzi, "Hardware-In-Loop of Fault Detection System for Air-fuel Ratio Control", 2nd International Conference on Recent Advances in Automotive Engineering & Mobility Research (ReCAR2013), 16-18 December 2013.
36. Chow Kar Kit, **Azura Che Soh**, Umi Kalsom Mohammad Yusuf , Asnor Juraiza Ishak, Mohd Khair Hassan and Shamsul Khamis," E-Nose Herbs Recognition System based on Artificial Neural Network Technique", The 2013 IEEE International Conference on Control System, Computing and Engineering, 29 Nov – 1 Dec, 2013, Penang, Malaysia.
37. M. Azhar Omar, Mohd Khair Hassan, **Azura Che Soh** and Mohd Zainal Abidin Abd. Kadir, "Lightning Severity Classification Utilizing the Meteorological Parameters: A Neural Network Approach", The 2013 IEEE International Conference on Control System, Computing and Engineering, 29 Nov – 1 Dec, 2013, Penang, Malaysia.
38. NFA Abdul Rahman, M.A.M. Radzi, N. Mariun, **A.Che Soh** and N.A. Rahim, "Integration of Dual Intelligent Algorithms in Shunt Active Power Filter", The 2013 IEEE Conference on Clean Energy and Technology (CEAT 2013), 18-20 November 2013, Langkawi, Malaysia.
39. Ahmed Abdulelah, **Azura Che Soh**, Samsul Bahari Mohd Noor and Mohd Khair Hassan," Design of Fuzzy Logic Controller and PID Controller for Controlling the Pitch and Yaw Angles of Twin Rotor MIMO System", International Symposium on Applied Engineering and Science (SAES), 30 Sept - 1 Oct, 2013, UPM Serdang, Selangor, Malaysia.
40. Haslina Jaafar, M. Hidayat Zabidi, Lam Phooi Shan, **Azura Che Soh** and Suhaidi Shafie," Smart Guidance Parking System Using Modified Dijkstra Algorithm", International Symposium on Applied Engineering and Science (SAES), 30 Sept - 1 Oct, 2013, UPM Serdang, Selangor, Malaysia.
41. Siti Anom Ahmad, M. Zuhilmie Ibrahim and **Azura Che Soh**," Study of Hand Prehension using Force Sensor and Accelerometer," International Symposium on Applied Engineering and Science (SAES), 30 Sept - 1 Oct, 2013, UPM Serdang, Selangor, Malaysia.
42. **Azura Che Soh**, Marzuki Khalid, Mohammad Hamiruce Marhaban and Rubiyah Yusof, "A Discrete-Event Traffic Simulation Model for Multilane-Multiple Intersection", Proceedings of the 2013 9th Asian Control Conference(ASCC 2013), June 23-26, 2013, Istanbul, Turkey.
43. **Azura Che Soh**, Asnor Juraiza Ishak and Mohd Hanif Zaini, "Smart Monitoring Fault Detection System for Malfunction Traffic Light Operation", Proceedings of the 2013 IEEE 8th Conference on Industrial Electronics and Applications (ICIEA), June 19 – 21, 2013, Melbourne, Australia.
44. Asnor Juraiza Ishak, **Azura Che Soh**, Mohammad Hamiruce Marhaban, Shamsul Khamis and Mohammad Ali Jan Ghasab," Automated Recognition of Ficus Deltoidea Using Ant Colony Optimization Technique ", Proceedings of the 2013 IEEE 8th Conference on Industrial Electronics and Applications (ICIEA), June 19 – 21, 2013, Melbourne, Australia.
45. Haslina Jaafar, **Azura Che Soh**, Wan Zuha Wan Hasan, Mohammad Hamiruce Marhaban and Shaufiq Abd Rashid", A Wireless Flipper Robot Using Interface Free Controller", Proceedings of the 2013 IEEE 8th Conference on Industrial Electronics and Applications (ICIEA), June 19 – 21, 2013, Melbourne, Australia.
46. **Azura Che Soh** and Yeo Lay Ting, "Intelligent Fuzzy Controller of Twin-Rotor MIMO System". Proceedings of the International Conference on Electrical, Computer, Electronics and Communication Engineering (ICEECE 2012), Dec. 6-7, 2012, Penang, Malaysia.
47. M.A.Atiqi, M.A.M.Radzi, **A.C. Soh** and N.A.Rahim, " Photovoltaic Boost Dc/Dc Converter for Power Led with Adaptive P&O-fuzzy Maximum Power Point Tracking", Proceedings of the Power and Energy Conversion Symposium(PECS 2012), Dec 17, Melaka, Malaysia (Awarded Best Paper).
48. Seyed Mohammad Hussein S, Siti Anom Ahmad, **Azura Che Soh**, Mohd Khair Hassan and Juraiza Ishak, "Introducing New Statistical Shape Based And Texture Feature Extraction Methods In The Plant Species Recognition System", Proceedings of the World Research & Innovation Convention on Engineering & Technology 2012, pp 200-207 , 3-5 December, 2012, Kuala Lumpur, Malaysia.

49. Ribhan Zafira Abdul Rahman, Tan Loo Pei and **Azura Che Soh**, "Temperature Control of Portable Cooler", Proceedings of the International Conference on Electrical, Computer, Electronics and Communication Engineering (ICECECE 2012), Dec. 6-7, 2012, Penang, Malaysia.
50. **Azura Che Soh** and Koay Yee Kean, "Reduction of ANFIS-Rules Based System through K-Map Minimization for Traffic Signal Controller", Proceedings of the 2012 12th International Conference on Control, Automation and Systems (ICCAS 2012), 17-21 October 2012, Jeju Island, Korea.
51. M. A. A. Mohd Zainuri, M. A. Mohd Radzi, **Azura Che Soh** and N. Abdul Rahim, "Adaptive P&O-Fuzzy Control MPPT for PV Boost Dc-Dc Converter", Proceedings of the IEEE International Conference on Power and Energy (PECon2012), 2-5 December 2012, Kota Kinabalu, Sabah, Malaysia.
52. **Azura Che Soh**, Ribhan Zafira Abdul Rahman, Lai Guan Rhung and Haslina Md Sarkan, "Traffic Signal Control Based on Adaptive Neural-Fuzzy Inference System Applied to Intersection", Proceedings of the 2011 IEEE Conference on Open Systems, 25-28 September 2011, Langkawi, Malaysia.
53. Ribhan Zafira Abdul Rahman, **Azura Che Soh** and Siti Nur Naznin Adnan, "Lightning Characteristics & Mapping for Peninsular Malaysia using Neural Network Method", Proceedings of the 3rd International Conference on Computational Intelligence, Modeling and Simulation, 20-22 Sept 2011, Langkawi, Malaysia.
54. **Azura Che Soh**, Kwok Siew Yoong, Asnor Juraiza Ishak and Samsul Bahari Mohd Noor, "Intelligent Fault Detection System For Traffic Light System", Proceedings of the World Engineering Congress 2010, 2-5 August 2010, Kuching Sarawak, Malaysia
55. **Azura Che Soh**, Marzuki Khalid, Mohammad Hamiruce Marhaban and Rubiyah Yusof, "Improving Fuzzy Traffic Controller for Multilane-Multiple Intersection", Proceedings of the Seventh IEEE International Conference on Control & Automation, 9-11 Dec 2009, Christchurch, New Zealand.
56. **Azura Che Soh**, Marzuki Khalid, Mohammad Hamiruce Marhaban and Rubiyah Yusof, "Validating Inter-Arrival Time and Inter-Departure Time for Traffic Intersection using Simulation", Proceedings of the 2nd International Conference on Control, Instrumentation and Mechatronic Engineering (CIM 2009), 2-3 June 2009, Malacca.
57. Lai Guan Rhung, **Azura Che Soh**, Ribhan Zafira Abdul Rahman, Mohd Khair Hassan, "Fuzzy Traffic Light Controller Using Sugeno Method for Isolated Intersection, Proceedings of the 2009 Student Conference on Research and Development (SCOReD 2009), 16-18 Nov. 2009, UPM Serdang, Malaysia.
58. **Azura Che Soh**, Marzuki Khalid, Mohammad Hamiruce Marhaban and Rubiyah Yusof, "Analysis of A Multilane-Multiple Intersection Model Using Decomposition Method" Proceedings of the Symposium on Engineering & Technology '08 (SET 2008), 15 & 16 December 2008, Labuan.
59. **Azura Che Soh**, Marzuki Khalid, Mohammad Hamiruce Marhaban and Rubiyah Yusof, "Multilane-Multiple Traffic Intersection Using Fuzzy Inference", Proceedings of the 2008 Regional Student Conference on Research and Development (SCOReD 2008), 26-27 Nov, UTM Skudai, Malaysia.
60. **Azura Che Soh**, Marzuki Khalid, Rubiyah Yusof and Mohammad Hamiruce Marhaban, "Modelling and Optimisation of a Traffic Intersection Based on Queue Theory and Markov Decision Control Methods", Proceedings of the Asia Modelling Symposium, AMS2007, 27 Mac-30Mac 2007, Phuket, Thailand.
61. Chin Kong Hin, **Azura Che Soh**, Raja Mohd Kamil Raja Ahmad, Mohammad Hamiruce Marhaban and Marzuki Khalid, "Fuzzy Logic Controller for Traffic Junction", Proceedings of the Conference on Innovative Technologies in Intelligent Systems and Industrial Applications, Monash University, Sunway Campus, 7Nov-19Nov 2007, Kuala Lumpur, Malaysia.
62. **A. Che Soh**, M.Khalid, R.Yusof and M.H. Marhaban, "Modelling of a Multilane Traffic Intersection Based on Networks of Queues and Jackson's Theorem", Proceedings of the Malaysia-Japan International Symposium Advanced Technology, MJISAT 2007, 12Nov-15Nov 2007, Kuala Lumpur.
63. **Azura C. S.**, M.K. Hassan, Li Hong Fey, "Intelligent Movement Control For Robots Using Fuzzy Logic", Proceedings of the International Conference Artificial Intelligence in Engineering and Technology (ICAET 2004), 3-5 Aug. 2004, Sabah, Malaysia.
64. **Azura C.S**, Samsul Bahari M.N, Roslina M.S, Rahman W. and Nasri S, "Traffic Light Fault Detection System", Proceedings of the World Engineering Congress 2002, 22-24 July 2002, Kuching Sarawak, Malaysia.
65. **Azura C.S**, Samsul Bahari M.N, Roslina M.S, Rahman W. and Nasri S, "Failure Monitoring System of a Traffic Light", Proceedings of the World Engineering Congress 2002, 22-24 July 2002, Kuching Sarawak, Malaysia.

66. Ribhan Zafira A.R., **Azura C.S.**, Erny A.A., Samsul Bahari M.N. and J.B. Gomm, "Process Fault Detection and Diagnosis Using A Dynamic Neural Networks Model", Proceedings of the World Engineering Congress 2002, 22-24 July 2002, Kuching Sarawak, Malaysia.

Research Grants

No	Project Title	Amount (RM)	Year	Source of Fund
1.	Predictive Optimization For Energy Management System In A Battery Electric Vehicle Using Hybrid Artificial Intelligence(Leader)	47,900	1/2/2018-1/2/2020	UPM/Geran Putra
2.	Fault Detection On The Pipe Failure Rates Due To Internal Initiating Events In WCR Using Artificial Intelligent Technique(Researcher)	9600(Euro)	2018-2022	Inter. Atomic Energy Agency (IAEA)
3.	Development of Single-Stage Dual Functioned Converter for Transparent Photovoltaic Application(Researcher)	120,000	1/12/2016-1/12/2018	UPM/GP-IPB
4.	Formulation of Inferential Algorithm for Estimation of Inferential Variable in PHA Production Using Wavelet Neural Network Approach(Researcher)	50,000	1/9/2017-2019	UPM/Geran Putra
5.	Formulation of Hybrid Algorithm to Identify Distinctive Electromyography Signals Pattern of Lower Limb Muscle Activities based on Various Type of Motion for Rehabilitation Therapy. (Researcher)	84,000	2/11/2015-31/12/2017	FRGS(MOHE)
6.	Modeling and Design of High Output Force Dielectric Elastomer Actuator(Researcher)	77,000	2015-2017	FRGS(MOHE)
7.	Development of E-Tongue Device For Herb Recognition System(Leader)	20,000	1/12/2015-1/12/2017	UPM/GP-IPS
8.	Monitoring And Fault Detection Of Batch Process Using Wavelet Neural Network Based Inferential Model(Researcher)	10,000	1/5/2017-1/5/2018	UPM/GP-IPS
9.	An Auto-Tuning Of Hybrid Intelligent Controller For Process Control System(Leader)	20,000	1/4/2016-1/4/2018	UPM/GP-IPS
10.	On-Site Calibration Of Pressure Sensor For Insole Application(Researcher)	20,000	1/6/2016-1/6/2017	UPM/GP-IPS
11.	Optimal Design of Energy Management System for Electric Battery Vehicle Using Hybrid Artificial Intelligence(Researcher)	20,000	1/12/2015-1/6/2017	UPM/GP-IPS
12.	Improved Aspect of Transformer Structure of the Core Against Lightning Impulse(Researcher)	125,900	1/1/2015-1/7/2017	UPM/GP-IPB
13.	Development of An automated cleaning system: Knife and Chicken neck(Researcher)	37,540	1/1/2016-1/9/2016	PRPN
14.	Single Phase Photovoltaic Based Active Power Filter(Researcher)	15,000	15/3/2015-15/3/2017	UPM/GP-IPS
15.	Shunt Active Power Filter With Dual Intelligent Algorithms (Researcher)	142,700	Jan 2014-Dec 2015	GB-IBT
16.	Formulation of Algorithm to Classify Distinctive Odors Pattern of Aromatic Plant Species using Hybrid Artificial Intelligence Techniques (Leader)	121,500	2013-2015	FRGS
17.	Development of ECU for MEEGE Multi-fuel Mixer (Researcher)	329,600	2013-2015	GP-IPB
18.	Development of E-Nose Herbs Recognition System Based on Artificial Intelligence Technique (Leader)	68,000	2012-2014	RUGS

19.	Formulation of Hybrid Artificial Intelligence Control of Energy System for Electric Vehicle (EV) (Researcher)	147,000	2013-2015	FRGS
20.	The First Radio Quiet Zone(RQZ) Map for Radio Astronomy in Malaysia (Researcher)-Project Collaboration with UM	183,000	2013-2014	ANGKASA & MOSTI
21.	Tuning a Fuzzy Controller by Particle Swarm Optimization for Twin-Rotor System (Leader)	12,300	2014-2015	GP-IPS
22.	Modelling of Antenna Tracking Controller (Researcher)	15,000	2014-2015	GP-IPS
23.	Global Lightning Network Sensor for Lightning Research (Researcher)	927,500	2009-2019	WSI Corp.USA
24.	An Intelligent Load Control System for Autonomous Microgrid Based on Solar and Wind Energy (Leader)	14,300	2012-2014	RUGS
25.	Intelligent Characterisation and Evaluation of Reused Cooking Oil using Pattern Recognition Techniques (Researcher)	30,000	2012-2014	RUGS
26.	A Leaf Recognition Algorithm for Plant Classification Using Artificial Neural Network (Researcher)	11,000	2012-2014	RUGS
27.	Development of Photovoltaic Boost Converter with Adaptive P&O-Fuzzy Logic Maximum Power Point Tracking (Researcher)	13,000	2012-2014	RUGS
28.	Exploration on Hybrid Artificial Intelligence of Model-Based Calibration Engine (Researcher)	68,000	2011-2013	ERGS
29.	Intelligent Five-Fingered Robotic Hand Design and Development for Prosthetic Application (Researcher)	172,000	2012-2014	Science Fund
30.	Intelligent Fault Detection System for Traffic Light (Leader)	30,000	2009-2011	RUGS
31.	Intelligent Predictive Control of Autonomous Mobile Robot Navigation (Researcher)	136,000	2006-2009	FRGS
32.	Development of Hybrid Control System for Distillation Column (Researcher)	117,000	2004-2006	FRGS
33.	Intelligent Movement Control For Robots (Leader)	10,000	2004-2005	PLB(UPM)

Awards/Recognition

No	Name of awards	Title	Award Authority	Award Type	Year
1.	Excellent Service Award	Majlis Gemilang Putra & Sambutan Hari Pekerja 2018	Universiti Putra Malaysia	University	2018
2.	Silver Medal	Pameran Rekacipta, Penyelidikan dan Inovasi(PRPI)	Universiti Putra Malaysia	National	2016
3.	2 nd Prize	2015 Innovate Malaysia Design Competition	Dream Catcher Consultation Sdn Bhd	National	2015
4.	Silver Medal	International Engineering Invention and Innovation	Universiti Malaysia Perlis, Kementerian Pelajaran Malaysia	International	2014

5.	3rd Best Student Branch (Large Category)	Exhibition (i-ENVEX). IEEE Student Branch UPM (Student Counselor)	IEEE Malaysia Section	National	2013
6.	Best Chapter Award	IEEE Circuits and Systems Society(Ex-Committee)	IEEE Region 10	International	2010
7.	-Champion -Best Engineering Award	Robogamez Competition	Universiti Tenaga Nasional(UNITEN) Kementerian Pengajian Tinggi	National	2011
8.	-Best Design -Presentation Award (Fire Fighting Robot) - 2nd Place (Paintball Robot)	Malaysia International Robotic Competition 2013 (MIRoC)	Universiti Malaysia Perlis Kementerian Pengajian Tinggi	International	2013
9.	-Best Design -Presentation Award (Rope Climbing Robot) -2nd Place (Fire Fighting Robot)	Malaysia University Robot Competitions 2012 (MURoC)	Universiti Malaysia Perlis Kementerian Pengajian Tinggi	National	2012
10.	Consolation prize	Schneider Electric University Challenge 2011 "Go Green In Malaysia" Final(5 shortlisted teams)	Schneider Electric Malaysia	National	2011
11.	Champion	Robot War, MMU Robotic Challenge Week 2011	Multimedia University(MMU) Melaka	National	2011
12.	Champion – Rope Climbing Robot Champion – Fire Fighting 3st Runner-up – Paintball Robot Best Presenter Award – Fire Fighting Robot Best Presenter Award – Rope Climbing Microchip Special Award – Rope Climbing 2nd Runner-up	Malaysia University Robot Competitions 2011 (MURoC)	Universiti Malaysia Perlis Kementerian Pengajian Tinggi	National	2011

13.	Champion –	Robogamez 2010(Robor War II)	Universiti Tenaga Nasional(UNITEN) Kementerian Pelajaran Malaysia	National	2010
14.	Paintball Robot Best Design - Paintball Robot Champion- Rope Climbing Robot Best Design - Rope Climbing Robot 1st Runner-up – Fire Fighting Industry Award – Fire Fighting	Malaysia University Robot Competitions 2010 (MURoC)	Universiti Malaysia Perlis Kementerian Pengajian Tinggi	National	2010
15.	1st Runner-up	Robogamez 2009(Robot War)	Universiti Tenaga Nasional(UNITEN) Kementerian Pengajian Tinggi	National	2009
16.	Champion	Robogamez (Solve Maze) 2008.	Universiti Tenaga Nasional(UNITEN) Kementerian Pengajian Tinggi	National	2008
17.	Third Winner Idea Award Best Design Award	National Robotic Design Contest (Robocon)	MOHE, MOSTI, RTM and SIRIM	National	2005

Consultation

No	Year	Title	Authority	Amount
1.	2013	Embedded Electronic Boards For 'DISEGANNI' Storage Unit.	Nagasteel Equipment Sdn. Bhd	RM21,175
2.	2016	Development of An automated cleaning system: Knife and Chicken neck	Hajar Hijrah Sdn. Bhd	RM37,540
3.	2016-2018	MyCOMS – Electric Car Project	Toyota Auto Body	RM150,000

Professional Services

No	Role	Activity	Authority
1.	Internal Examiner for Postgraduate Thesis	5 MSc	Universiti Putra Malaysia
2.	Chairman of Thesis Examination	4 MSc	Universiti Putra Malaysia
3.	External Examiner for Postgraduate Thesis	<ul style="list-style-type: none"> • 7 MSc • 2 MSc • 1 MSc 	<ul style="list-style-type: none"> • Universiti Teknologi Malaysia • Universiti Kebangsaan Malaysia • Universiti Teknologi PETRONAS
4.	Member	Editorial Board	<ul style="list-style-type: none"> • Engineering Technology Open Access Journal (ETOAJ) – (2017-present) • Journal of Power Systems and Process Control (2017-present) • Journal on Automation and Control Engineering(2013-2016)

			<ul style="list-style-type: none"> • Research Journal of Modeling and Simulation(2013-2016) • Open Journal of Artificial Intelligence(2013-2016)
5.	Panel Temuduga	<ul style="list-style-type: none"> • Biasiswa Yang DiPertuan Agong • Program Hadiah Latihan Persekutuan & Cuti Belajar Bergaji Penuh Tanpa Biasiswa 	Jabatan Perkhidmatan Awam (JPA)
6.	Invited Lecturer	Associate Professor under the Locum Tenens for Electrical and Electronic Engineering	Universiti Teknologi Brunei(UTB)
7.	Invited Speaker	<ul style="list-style-type: none"> • 2016 Malaysia Japan Seminar on Sustainable Technology in Life Sciences • International Conference on the Advances in Electrical, Electronic and Systems Engineering 2016 (ICAEESE 2016) • Advancement of Industry, Science & Technology (FAIS 2016) 	<ul style="list-style-type: none"> • Universiti Putra Malaysia & Kyutech Jepun • Universiti Kebangsaan Malaysia(UKM) • Universiti Putra Malaysia & Kyutech Jepun
8.	Subject Matter Expert		<ul style="list-style-type: none"> • Steinbeis Malaysia Foundation • Building Malaysian Ageing Research • Network A MOHE Robotics Research
9.	Judge/Technical Evaluator	<ul style="list-style-type: none"> • 2016 IEEE CASS Student Design Competition • Malaysian University Robot Competition (MuRoC) 2012 	<ul style="list-style-type: none"> • IEEE Circuits and Systems Society (CAS) (Malaysia Chapter) • Universiti Malaysia Perlis & Kementerian Pengajian Tinggi
10.	Grant Reviewer/Evaluator	Research Grant Scheme Applications FRGS	Universiti Putra Malaysia
11.	Journal Reviewer		<ul style="list-style-type: none"> • Journal of Intelligent and Robotic Systems • Journal on Automation and Control Engineering • Research Journal of Modeling and Simulation • Open Journal of Artificial Intelligence • Pertanika Journal of Science and Technology (JST) • International Journal of Computing and Digital Systems • Journal of Traffic and Transportation Engineering

		<ul style="list-style-type: none"> • Journal of Engineering Science and Technology (JESTEC) • Robotica • Ain Shams Engineering Journal, Elsevier • International Journal of Hydrogen Energy, Elsevier • Jurnal Teknologi, Universiti Teknologi Malaysia • Journal of Scientific Research and Reports • British Journal Of Applied Science & Technology • American Journal Of Intelligent Systems • Journal Of Industrial Technology • International Journal of Engineering and Technology, Universiti Kebangsaan Malaysia
12.	Involvement in Association	<ul style="list-style-type: none"> • Student Counselor • Auditor • Executive Committee
13.	Committee Membership	<ul style="list-style-type: none"> • International Advisory Committee & Technical Program Committee • Program Chair • Technical Program Chair • Program Co-Chair • Organizing Committee
14	Speaker	Membership Drive IEEE Student Branch 2011-2013
		<ul style="list-style-type: none"> • IEEE Student Branch UPM(2012-2014) • IEEE Circuits and Systems Society (CAS)(2013-2014) • IEEE Circuits and Systems Society (CAS)(2009-2010) • FIRA RoboWorld Cup and Congress 2013 • Student Conference on Research and Development (SCOREd 2017) • International Conference on Electrical & Electronic Technology(ICEETech2016) • The 2015 10th Asian Control Conference (ASCC 2015) • 2015 IEEE CASS Outreach Initiative Women in Circuits and Systems (WiCAS2015) • 2nd World Engineering Congress, (WEC 2002) • Student Conference on Research and Development (SCOREd 2003) • Malaysia-Japan International Symposium Advanced Technology (MJISAT 2007) • Student Conference on Research and Development (SCOREd 2009) • The IEEE APCCAS 2010, the 11th biennial Asia Pacific Conference on Circuits and Systems by IEEE Circuits and Systems Society (CAS) Malaysia Chapter • Technical Activity Board (TAB) Colloquia • Workshop Modelling and Simulation Using MATLAB 2003 • Workshop on Smart Sensor Systems
		IEEE Student Branch UPM

15	Advisor	Robotic Club UPM(2002-2013) & IEEE SB UPM (2011- 2013)	Student Competitions(Robotics), UPM Student Activities, UPM
----	---------	---	--

Student Supervision

PhD (Supervisor)

No.	Name	Title	Status
1.	Nor Arymaswati Binti Abdullah	Real Time & Auto-tuning for Dynamic Control System	Ongoing
2.	Nur Fadzilah Binti Mohamad Radzi	Feature Fusion Of Chemical And Physical Properties For Herbs Recognition	Ongoing
3.	Abdulhadi Abdulsalam Abulifa	Real-Time Predictive Optimization For Energy Management System in a Battery Electric Vehicle Using Hybrid Artificial Intelligence	Ongoing

PhD (Co-Supervisor)

No.	Name	Title	Status
1.	Nor Farahaida Binti Abdul Rahman	Shunt Active Filter With Dual Intelligent Controller Algorithms	Graduated
2.	Muhammad Ammirul Atiqi B Mohd Zainuri	Single-Phase Photovoltaic Based Active Power Filter With Intelligent Based Control System	Graduated
3.	Tengku Azman Tengku Mohd	Optimal Design of Energy Management System for EV Using Hybrid AI	Ongoing
4.	Norhana Mamat	Nonlinear modeling and control of a grain dryer utilizing neuro-fuzzy systems	Ongoing
5.	Ali Mohsen	An Optimized Neuro Fuzzy Controller Based Energy Management Strategy on Battery/Ultra Capacitor in Battery Electric Vehicles	Ongoing
6.	Muhammad Taquiuddin Bin Abdul Rahman	Design and Modelling of Cell Balancing Lithium-ion Battery for Electric Vehicle(EV)	Ongoing
7.	Asmida Binti Ismail	Autonomous Electric Vehicle using Hybrid LIDAR and Video Camera Tracking	Ongoing

MS (Main Supervisor)

No.	Name	Title	Status
1.	Mohammad Seifi	Modelling Of Stand Alone Hybrid Microgrid With Demand Side Management	Graduated
2.	Ahmed Abdulelah	Simulated Real-Time Controller for Tuning Algorithm using Modified Hill Climbing Approach	Graduated
3.	Sanaz Yadegar	Sliding Mode Controller for Robot Manipulator Movement	Graduated
4.	Umi Kalsom Bt Mohamad Yusof	Development of E-Nose Herbs Recognition System Based on Artificial Intelligence Technique	Graduated
5.	Alaa Hadi Mohammad Musa	Analog Adaptive Interference Canceller Based on Analog Algorithm with an Offset Voltage for Controlling Output	Graduated
6.	Karimeh Ibrahim Mohammad Ata	Real-time Guidance System for Parking Space Management Services	Ongoing

MS (Co-Supervisor)

No.	Name	Title	Status
1.	Norazlin Ibrahim	Bilinear Distillation Column	Graduated
2.	Mohammad Ali Jan Ghasab	An Optimal Feature Subset Selection for Plant Leaf Classification	Graduated
3.	Muhammad Ammirul Atiqi B Mohd Zainuri	Photovoltaic Boost Dc/Dc Converter With Adaptive Perturb And Observe-Fuzzy Maximum Power Point Tracking Algorithm	Graduated
4.	Muhammed Hussain Abdul Shahab	Model Development, Computer Simulation & Automatic Control of Fixed-Bed Infrared Dryer Under Different Water Flux Expression	Graduated
5.	Muhammad Azhar Omar	Lightning Pattern and Analysis Via Artificial Intelligence Method For Peninsular Malaysia	Graduated
6.	Ojo Adedayo Olukayode	Characterization of Oil Palm Fruitlets using Artificial Neural Network	Graduated
7.	Nursaida Mohamad Zaber	Develop Control Algorithm For Positioning Radio Telescope	Graduated
8.	Jalo Abdulmumini Salihu	Developing of Intelligent Algorithm Based on Optimization Technique for Grading Quality of Deep Fried Palm Oil	Graduated
9.	Pouya Borazjani	Control of Microgrid in Island Mode using Multi-Agent System	Graduated
10.	Hussein Taleghani	Regenerative Braking Strategy for Electric Vehicles Using Improved Adaptive Genetic Algorithm	Graduated
11.	Omar Hussein Alwan	Remapping of the Pressure Sensor under the insole system	Graduated
12.	Anith Khairunnisa Ghazali	Design of Model Reference Adaptive Control of Power Module in Nuclear Reactor System	Graduated
13.	Saif Mohammed Ridha Abdulateef Hamandi	Exoskeleton for Knee Joint to Assist Elderly People for Walking	Ongoing
14.	Mohd Azrol Syafiee Anuar	Flood Prediction System at Kelantan River Using Neural Network	Ongoing
15.	Naagajoothi A/P Adin Naraina	Modeling and Simulation of Controlling Lower Limb Exoskeleton For Rehabilitation Purpose	Ongoing
16.	Noraida Abdullah	Autonomous Vehicle	Ongoing