CURRICULUM VITAE

Professor Dr. Mohd Amran Mohd Radzi
Professor in Power and Energy

Department of Electrical and Electronic Engineering,
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Education

1. PhD (Power Electronics), 2010, University of Malaya
2. MSc (Electrical Power Engineering), 2002, Universiti Putra Malaysia
3. BEng (Electrical and Electronics), 2000, Universiti Putra Malaysia

Areas of Interest

1. Power Electronics
2. Power Quality
3. Renewable Energy
4. Energy Storage

Professional Qualification/Membership/Affiliation

1. Chartered Engineer (CEng), United Kingdom
2. Member, Institution of Engineering and Technology (IET)
3. Senior Member, Institution of Electrical and Electronics Engineers (IEEE)
   3.1 Member of IEEE Power Engineering Society
   3.2 Member of IEEE Power Electronics Society
   3.3 Member of IEEE Industrial Electronics Society
4. Graduate Member, Institution of Engineers, Malaysia (IEM)

Appointments

	Position	Duration
1.	Professor, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	October 2020 to date
2.	Head, Department of Development Excellence, Faculty of Engineering, UPM	March 2024 to date
3.	Head, Advanced Lightning, Power and Energy Research (ALPER) Centre, Faculty of Engineering, UPM	March 2024 to date
4.	Director, Agrivoltaic Task Force, UPM	September 2025 to date
5.	Fellow of University Sustainability, UPM	September 2025 to December 2027
6.	Member (Energy Expert), Main Committee of Utility Management	November 2025 to March 2027
7.	Member, Teaching Laboratory Equipment Committee, UPM	September 2025 to September 2026
8.	Associate Member, High Institution Centre of Excellence (HICoE)-University of Malaya Power Energy Dedicated Advanced Centre (UMPEDAC)	July 2010 to date
9.	Researcher, Advanced Lightning, Power and Energy Research (ALPER) Centre, Faculty of Engineering, UPM	October 2018 to March 2024
10.	Coordinator of Development, Department of Electrical and Electronic Engineering	September 2023 to March 2024

Appointments

	Position	Duration
		September 2025
		March 2011 to August 2014
11.	Associate Professor, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	March 2014 to September 2020
12.	Head, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	October 2016 to May 2020
13.	Researcher, Centre for Advanced Power and Energy Research (CAPER), Faculty of Engineering, UPM	October 2012 to September 2018
14.	Coordinator, Master of Engineering in Electrical Power (Without Thesis)	January 2015 to January 2016
15.	Visiting Researcher for "JSPS Invitation Program for East Asian Young Researchers", The Institute of Advanced Energy, Kyoto University	September – October 2011
16.	Senior Lecturer, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	September 2010 - February 2014
17.	Coordinator, Power Electronics Laboratory	February 2010 – October 2016
18.	Coordinator, Electrical Laboratory I	August 2003 – August 2005
19.	Lecturer, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	June 2003 - August 2010
20.	Counsellor, IEEE Student Branch Counselor, Universiti Putra Malaysia	December 2001 - December 2003, January 2005 – December 2005
21.	Tutor, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	July 2000 - June 2003

Publications

Journals (Latest 5 years from total of 192)

1. N. Al-Tawalbeh, M.H. Zafar, **M.A.M. Radzi**, and M.A.A.M. Zainuri, "An innovative design approach: optimized super-lift Luo converter for solar energy extraction," *Energy Systems*, in press. (Scopus)
2. M.H. Hossain, N. Abdullah, S. Rahman, and **M.A.M. Radzi**, "MXene-based electrolyte for vanadium-bromide redox flow battery for green energy," *Materials Today: Proceedings*, in press. (Scopus)
3. N. Al-Tawalbeh, M.A.A.M. Zainuri, A.S. Bataineh, M.M. Olaimat, N. Akhtar, M.H. Zafar, and **M.A.M. Radzi**, "Design and analysis of a charge-pump-assisted high-gain DC–DC converter for low-voltage hybrid PV–TEG energy harvesting applications," *Energy Conversion and Management: X*, vol. 31, pp. 1-25, September 2026. (Scopus)
4. A. Ali, A.A. Ibrahim, **M.A.M. Radzi**, and M.A.A.M. Zainuri, "Harmonic Minimization for Three-Phase Grid-Tied Inverters Under Unbalanced Grid Voltages," *DYNA*, vol. 101, no. 4, pp. 352-360, July 2026. (2024 IF = 0.7, Q3)
5. U.M. Okon, E. Nuamah, M.N. Hayat, **M.A.M. Radzi**, A.H. Othman, and Awis Qurni Sazili, "Black soldier fly larvae meal effects on broiler performance, carcass, and meat traits: A meta-analysis of rearing substrates," *Poultry Science*, vol. 105, no. 10, pp. 1-14, April 2026. (2024 IF = 4.2, Q1)
6. A. Ali, A.A. Ibrahim, P.K. Balachandran, **M.A.M. Radzi**, S.S. Al-Bawri, and M.A.A.M. Zainuri, "Constant Voltage Constant Current Control for Stable Operation of DC–DC Converters in Multilevel Inverters," *Revista Internacional de Métodos Numéricos para Cálculo y Diseño en Ingeniería*, vol. 42, no. 4, pp. 1-24, 2026. (2024 IF = 0.4, Q4)
7. M.F. Yaakub, **M.A.M. Radzi**, N. Azis, S. Shafie, M. Azri, and F.H.M. Noh, "An Impedance-Matching Technique for Suppressing Spurious Switching in Flyback Converters with Parasitic Effects," *Przeglad Elektrotechniczny*, vol. 102, no. 3, pp. 173-178, 2026. (Scopus)
8. S.A.B. Safar, M.Z.A.A. Kadir, M.A.M. Radzi, and J. Jasni, "Performance Evaluation of Maximum Power Point Tracking (MPPT) Algorithms in Photovoltaic Systems and Wind Turbines Under

Various Conditions," *International Journal on Energy Conversion*, vol. 14, no. 1, pp. 28-40, 2026. (Scopus)

9. M.M. Ibrahim, A.C. Soh, A.J. Ishak, R. Kamil, **M.A.M. Radzi**, and A.R.M. Ibrahim, "Ash Fouling Prediction of Individual Heating Surface of Boiler for Ultra-Supercritical Coal Power Plant based on Regression Techniques," *Malaysian Journal of Fundamental and Applied Sciences*, vol. 22, pp. 321−329, 2026. (Scopus)
10. X. Liu, J. Chen, S. Wang, S. Wu, Z. Jiang, **M.A.M. Radzi**, N. Azis, S. Shafie, and M. Hua, "Output capacitance extraction of p-GaN HEMTs under multi pulse switching across variable frequencies and drain-bias stress," *IEEE Transactions on Power Electronics*, vol. 41, no. 6, pp. 8927- 8937, June 2026. (2024 IF = 6.5, Q1)
11. S.Z.H. Naqvi, Y. Hoon, K.W. Chew, and **M.A.M. Radzi**, "ANFIS-based intelligent control for capacitor voltage stabilization and harmonic mitigation in multilevel active power filters," *Next Energy*, vol. 11, pp. 1-14, April 2026. (Scopus)
12. U.M. Okon, M.N. Hayat, E. Nuamah, **M.A.M. Radzi**, A.H. Othman, and A.Q. Sazili, "A meta-analysis of broiler chicken meat quality: Comparative evidence of halal slaughter and electrical stunning," *Poultry Science*, vol. 105, no. 4, pp. 1-13, April 2026. (2024 IF = 4.2, Q1)
13. S.A.A. Safar, M.Z.A.A. Kadir, **M.A.M. Radzi**, and J. Jasni, "A Review of Storage Technologies in Smart Power Grid Renewable Energy Systems," *Pertanika Journal of Science and Technology*, vol. 34, no. 1, pp. 423-455, February 2026. (Scopus)
14. M.F. Yaakub, **M.A.M. Radzi**, F.H.M. Noh, and N. Azis, and A.N. Zaidan, "Influence of Parasitic Elements on Flyback Converter at High Switching Frequency Operation: A Comprehensive Analysis," *Journal of Advanced Research in Applied Sciences and Engineering Technology*, vol. 57, no. 4, pp. 188-199, 2026. (Scopus)
15. S.A.A. Shukor, **M.A.M. Radzi**, N.F. Mailah, M.L. Othman, W.A. Halim, A. Razi, and V.S. Borra, "Design and Analysis Three-Phase Shunt Active Power Filter in Mitigate Harmonic," *Journal of Advanced Research Design*, vol. 139, no. 1, pp. 74-87, April 2026. (Scopus)
16. L. Deng, **M.A.M. Radzi**, S. Shafie, and M.K. Hassan, "Optimizing energy management in fuel cell hybrid electric vehicles using fuzzy logic control with state machine approach: Enhancing SOC stability and fuel economy," *Journal of Engineering Research*, vol. 13, no. 4, pp. 3429-3440, December 2025. (2023 IF = 0.9, Q3)
17. A.M. Al-Mahrouk, N.F. Mailah, **M.A.M. Radzi**, and M.K. Hassan, "Combination circuit of multilevel inverter, matrix converter, and H-bridge," *International Journal of Power Electronics and Drive System*, vol. 16, no. 4, pp. 2476-2490, December 2025. (Scopus)
18. N. Al-Tawalbeh, M.H. Zafar, I. Abuishmais, M.A.A.M. Zainuri, and **M.A.M. Radzi**, "Maximizing energy harvesting in grid-connected hybrid photovoltaic and thermoelectric generator systems: An adaptive global power tracking technique," *Environmental Progress and Sustainable Energy*, vol. 44, no. 4, pp. 1-27, July/August 2025. (2023 IF = 2.1, Q3)
19. Y. Hoon, K.W. Chew, and **M.A.M. Radzi**, "Integrated I-ADALINE neural network and selective filtering techniques for improved power quality in distorted electrical networks," *Symmetry*, vol. 17, no. 8, pp. 1-27, 2025. (2023 IF = 2.2, Q2)
20. F.S. Aamara, P.K. Balachandran, Y. Yusof, **M.A.M. Radzi**, and M.A.A. Mohd Zainuri, "Hybrid passive damping filter of single-phase grid-tied PV-micro inverter," *International Journal of Electrical and Computer Engineering*, vol.15, no.4, pp. 3660-3682, August 2025. (Scopus)
21. X. Liu, S. Shafie, **M.A.M. Radzi**, N. Azis, A.H.A. Karim,·N. Norddin, and I. Lawal, "Simulation-Based Evaluation of Power Efficiency and Output Capacitance in Standalone PV MPPT Buck Converters Using 200 V *p*-GaN HEMTs," *Journal of Electrical Engineering and Technology*, vol. 20, 3875–3887, 2025. (2023 IF = 1.6, Q3)
22. L. Deng, **M.A.M. Radzi**, S. Shafie, and M.K. Hassan, "Optimization of fuel cell switching control based on power following strategy in fuel cell hybrid electrical vehicle," *International Journal of Renewable Energy Development*, vol. 14, no. 2, pp. 299-310, March 2025. (Scopus)
23. R. Mustafa, **M.A.M. Radzi**, A.C. Soh, and H. Hizam, "A transfer function modelling using system identification for air-cooling photovoltaic system," *Pertanika Journal of Science and Technology*, vol. 33, no. 3, pp. 1119-1136, April 2025. (Scopus)
24. Z.Y. Lim, N. Azis, A.H.M. Hashim, **M.A.M. Radzi**, N.M.H. Norsahperi, and A.M. Ariffin, "Acoustic Emission Partial Discharge Localization in Oil Based on Artificial Bee Colony," *Pertanika Journal of Science and Technology*, vol. 33, no. 3, pp. 241-259, January 2025. (Scopus)
25. M.A. Alwez, J. Jasni, **M.A.M. Radzi**, and N. Azis, "Adaptive reactive power control for voltage rise mitigation on distribution network with high photovoltaic penetration," *Renewable and Sustainable Energy Reviews*, vol. 207, pp. 1-10, 2025. (2023 IF = 16.3, Q1)

Publications

26. A. Kavousighahfarokhi, **M.A.M. Radzi**, S.M. Noorbakhsh, E. Khorshidi, P.H. Dastgerdi, M. Karimi, and A.T. Harchegani, "Advancing voltage control in DC microgrids: a comparative study with IGWO-based H∞control," *International Journal of Dynamics and Control*, vol. 12, no. 9, pp. 3339–3353, 2024. (Scopus)
27. M.I. Muhamad, H. Hizam, **M.A.M. Radzi**, M.L. Othman, C. Gomes, and Ar. Abdu, "Estimation of an Eucalyptus Hybrid (*E.grandis x E.urophylla*) Fuel Wood as a Biomass Source for the 10 MW Malaysia Dendro Power Generation Plant," *International Journal of Integrated Engineering*, vol. 16, no. 7, pp. 37-48, 2024. (Scopus)
28. M.S.M. Rawi, R. Baharom, and **M.A.M. Radzi**, "Uninterruptible Power Supply Topology Based on Single-Phase Matrix Converter with Active Power Filter Functionality," *Energies*, vol. 17, no. 14, pp. 1-36, 2024. (2022 IF = 3.2, Q3)
29. B.A. Fadheel, N.I.A. Wahab, P. Manoharan, A.J. Mahdi, **M.A.M. Radzi**, A.C. Soh, H.M. Ridha, A.R. Alsoud, V. Veerasamy, A.X. R. Irudayaraj, and B.D. Alemu, "A Hybrid Sparrow Search Optimized Fractional Virtual Inertia Control for Frequency Regulation of Multi-Microgrid System," *IEEE Access*, vol. 12, pp. 45879–45903, 2024. (IF 2022 = 3.9, Q2)
30. M. A. Alwez, J. Jasni, R. Wahab, **M.A.M. Radzi**, and N. Azis, "Novel Reactive Power Control Strategy for Mitigating Voltage Rise in the Malaysian Low Voltage Distribution Network with High PV Penetration," *Pertanika Journal of Science & Technology*, vol. 32, no. 4, pp. 1651-1664, July 2024. (Scopus)
31. X. Liu, M. Hua, S. Shafie, **M.A.M. Radzi**, and N. Azis, "SPICE Modelling-Assisted evaluation of dynamic on-resistance characterization in Schottky p-GaN HEMTs amid synchronous buck transient instabilities," *Computers and Electrical Engineering*, vol. 118, pp. 1-14, 2024. (2022 IF = 4.3, Q2)
32. M.N. Hayat, M.R.Ismail-Fitry, U. Kaka, Y. Rukayadi, M.Z.A.A. Kadir, **M.A.M. Radzi**, P. Kumar, N.A.N. Imah, and A.Q. Sazili, "Assessing meat quality and textural properties of broiler chickens: the impact of voltage and frequency in reversible electrical water-bath stunning," *Poultry Science*, vol. 103, no. 7, pp. 1-14, July 2024. (2022 IF = 4.4, Q1)
33. N. Al-Tawalbeh, M.H. Zafar, **M.A.M. Radzi**, M.A.A.M. Zainuri, and I. Al-Wesabi, "Novel initialization strategy: Optimizing conventional algorithms for global maximum power point tracking," *Results in Engineering*, vol. 22, pp. 1-21, June 2024. (Scopus)
34. X. Liu, S. Shafie, **M.A.M. Radzi**, N. Azis, N. Norddin, I. Lawal, N. Zulkifli, and A.H.A. Karim, "SPICE Modeling and Performance Analysis of Enhancement Mode GaN HEMTs for Augmented Hard-Switching Energy Conversion Efficiency," *Pertanika Journal of Science & Technology*, vol. 32, no. 3, pp. 1243-1262, April 2024. (Scopus)
35. A.A. Abulifa, A.C. Soh, M.K. Hassan, R.Kamil, and **M.A.M. Radzi**, "Integrating Fuzzy Logic and Brute Force Algorithm in Optimizing Energy Management Systems for Battery Electric Vehicles," *Pertanika Journal of Science & Technology*, vol. 32, no. 2, pp. 797-817, March 2024. (Scopus)
36. R. Mustafa, **M.A.M. Radzi**, H. Hizam, and A.C. Soh, "An innovative air-cooling system for efficiency improvement of retrofitted rooftop photovoltaic module using cross-flow fan," *International Journal of Renewable Energy Development*, vol. 13, no. 2, pp. 223-234, 2024. (Scopus)
37. M.H. Hossain, N. Abdullah, K.H. Tan, R. Saidur, **M.A.M. Radzi**, and S. Shafie, "Evolution of Vanadium Redox Flow Battery in Electrode," *The Chemical Record*, vol. 4, no. 1, pp. 1-27, 2024. (2022 IF = 6.6, Q1)
38. X. Liu, S. Shafie, **M.A.M. Radzi**, N. Azis, and A.H.A. Karim, "Modelling and mitigating oscillation in E-mode GaN HEMT: A simulation-based approach to parasitic inductance optimization," *Microelectronics Reliability*, vol. 152, pp. 1-11, January 2024. (2022 IF = 1.6, Q4)
39. A.X.R. Irudayaraj, N.I.A. Wahab, V. Veerasamy, M.Premkumar, **M.A.M. Radzi**, N. Sulaiman, and W. Tan, "Distributed intelligence for consensus-based frequency control of multi-microgrid network with energy storage system," *Journal of Energy Storage*, vol. 73, pp. 1-27, December 2023. (2021 IF = 8.907, Q1)
40. C. Zhang, J. Jasni, **M.A.M. Radzi**, N. Azis, and X. He, "Research and analysis of electromagnetic interference of a motor drive control system based on PMSM with SiC MOSFET for new energy electric vehicles," *Frontiers in Energy Research*, vol. 11, pp. 1-13, 2023. (IF = 3.858, Q3)
41. M.Y. Lada, **M.A.M. Radzi**, J. Jasni, H. Hizam, A. Jidin, S.H. Mohamad, "Evaluation of CHB MLI based shunt APF using low pass filter and self-tuning filter," *Indonesian Journal of Electrical Engineering and Computer Science*, vol. 31, no. 3, pp. 1274-1285, September 2023. (Scopus)
42. A.H.M. Hashim, N. Azis, J. Jasni, **M.A.M. Radzi**, M. Kozako, M.K.M. Jamil, and Z. Yaakub, "Examination on the denoising methods for electrical and acoustic emission partial discharge

signals in oil," *Indonesian Journal of Electrical Engineering and Informatics*, vol. 11, no. 3, pp. 791-804, September 2023. (Scopus)

43. C. Zhang, J. Jasni, **M.A.M. Radzi**, N. Azis, and X. He, "A comprehensive review of stage-of-the-art subsystems configurations, technical methodologies, advancements, and prospects for new energy electric vehicles," *Ionics*, vol. 29, pp. 2529–2547, 2023. (2021 IF = 2.961, Q3)
44. A.K. Ghazali, M.K. Hassan, **M.A.M. Radzi**, and Azizan As'arry, "Optimizing Energy Harvesting: A Gain-Scheduled Braking System for Electric Vehicles with Enhanced State of Charge and Efficiency," *Energies*, vol. 16, no. 12, pp. 1-19, 2023. (2021 IF = 3.252, Q3)
45. A.X.R. Irudayaraj, N.I.A. Wahab, V. Veerasamy, M. Premkumar, **M.A.M. Radzi**, N. Sulaiman, and H.H. Alhelou "Decentralized frequency control of restructured energy system using hybrid intelligent algorithm and non-linear fractional order proportional integral derivative controller," *IET Renewable Power Generation*, vol. 17, no. 8, pp. 2009–2037, 2023. (2021 IF = 3.034, Q2)
46. A.H.M. Hashim, N. Azis, J. Jasni, **M.A.M. Radzi**, M. Kozako, M.K.M. Jamil, and Z. Yaakub, "Application of ANFIS and ANN for partial discharge localization in oil through acoustic emission," *IEEE Transactions on Dielectrics and Electrical Insulation*, vol. 30, no. 3, pp. 1247–1254, June 2023. (2021 IF = 2.509, Q3)
47. C. Zhang, B. Xu, J. Jasni, **M.A.M. Radzi**, N. Azis, and Q. Zhang, "Three voltage vector duty cycle optimization strategy of the permanent magnet synchronous motor driving system for new energy electric vehicles based on finite set model predictive control," *Energies*, vol. 16, no. 6, pp. 1-18, 2023. (2021 IF = 3.252, Q3)
48. B.A. Fadheel, N.I.A. Wahab, A.J. Mahdi, M. Premkumar, **M.A.M. Radzi**, A.C. Soh, V. Veerasamy, and A.X.R. Irudayaraj, "A Hybrid Grey Wolf Assisted-Sparrow Search Algorithm for Frequency Control of RE Integrated System," *Energies*, vol. 16, no. 3, pp. 1-28, 2023. (2021 IF = 3.252, Q3)
49. S.H. Mohamad, **M.A.M. Radzi**, N.F. Mailah, N.I.A. Wahab, and A. Jidin, "Mitigation of Harmonic Current for Balanced Three-Phase Power System Based on Extended Fryze Adaptive Notch Filter," *Journal of Engineering Science and Technology*, vol. 18, no. 2, pp. 1339 – 1362, 2023. (Scopus)
50. B. Ismail, N.I.A. Wahab, M.L. Othman, **M.A.M. Radzi**, K.N. Vijayakumar, M.K. Rahmat, and M.N.M. Naain, "The Optimal Location and Sizing of Single and Multiple STATCOM Using Analytical Approaches under High Loading Occasion," *Journal of Engineering Science and Technology*, vol. 17, no. 6, pp. 3973-3988, 2022. (Scopus)
51. C. Zhang, B. Xu, J. Jasni, **M.A.M. Radzi**, N. Azis, and Q. Zhang, "Model Control and Digital Implementation of the Three Phase Interleaved Parallel Bidirectional Buck–Boost Converter for New Energy Electric Vehicles," *Energies*, vol. 15, no. 9, pp. 1-24, 2022. (2020 IF = 3.004, Q3)
52. B. Ismail, N.I.A. Wahab, M.L. Othman, **M.A.M. Radzi**, K.N. Vijayakumar, M.K. Rahmat, and M.N.M. Naain, "New Line Voltage Stability Index (BVSI) for Voltage Stability Assessment in Power System: The Comparative Studies," *IEEE Access*, vol. 10, pp. 103906-103931, 2022. (2020 IF = 3.367, Q2)
53. N.M.M. Altwallbah, **M.A. M. Radzi**, N. Azis, S. Shafie, and M.A.A.M. Zainuri, "New perturb and observe algorithm based on trapezoidal rule: Uniform and partial shading conditions," *Energy Conversion and Management*, vol. 264, pp. 1-23, 15 July 2022. (2020 IF = 9.709, Q1)
54. F.A.M. Sobri, M. Ariffin, A.H. Sharaai, and **M.A.M. Radzi**, "Public support for feed-in-tariff and net energy metering policies in Malaysia: the role of policy information," *International Journal of Renewable Energy Development*, vol. 11, no. 3, pp. 694-702, 2022. (Scopus)
55. A.H.M. Hashim, N. Azis, J. Jasni, **M.A.M. Radzi**, K. Masahiro, M. Kamarol, and Z. Yaakub, "Partial Discharge Localization in Oil through Acoustic Emission Technique Utilizing Fuzzy Logic," *IEEE Transactions on Dielectrics and Electrical Insulation*, vol. 29, no. 2, pp. 623–630, April 2022. (2020 IF = 2.931, Q2)
56. A.X.R. Irudayaraj, N.I.A. Wahab, M. Premkumar, **M.A.M. Radzi**, N. Sulaiman, V. Veerasamy, R.A. Farade, and M.Z. Islam, "Renewable sources-based automatic load frequency control of interconnected systems using chaotic atom search optimization," *Applied Soft Computing*, vol. 199, pp. 1-17, April 2022. (2020 IF = 6.725, Q1)
57. A. Farooqi, M.M. Othman, **M.A.M. Radzi**, I. Musirin, S.Z.M. Noor, I.Z. Abidin, "Dynamic voltage restorer (DVR) enhancement in power quality mitigation with an adverse impact of unsymmetrical faults," *Energy Reports*, vol. 8, sup. 1, pp. 871-882, April 2022. (2020 IF = 6.870, Q1).

Publications

Conference Proceedings (Latest 5 years from total of 120)

1. B. Ismail, N.I.A. Wahab, M.L. Othman, **M.A.M. Radzi**, "Hybrid-Based Algorithm for the Optimal Location and Sizing of Multiple DGs and DSTATCOMs," in *International Conference on Science, Engineering and Technology (ICSET) 2025*, 13-14 November 2025, Kota Kinabalu, Sabah, Malaysia.
2. **M.A.M. Radzi**, G. Punnianathan, I. Hadzir, "Optimization of Solar Photovoltaic with Storage Utilization Using Lithium-ion and Lead-acid Batteries," in *2025 IEEE Industrial Electronics and Applications Conference (IEACon)*, 8-9 September 2025, Kota Kinabalu, Sabah, Malaysia, pp. 133-136.
3. M.A.A.M. Zainuri, **M.A.M. Radzi**, M.H.M. Zaman, N.A.M. Kamari, A.M. Moubark, M.A. Zulkifley, "Agrivoltaics Effectiveness Towards Solar Photovoltaic Module Performance," in *2025 IEEE 8th International Conference on Electrical, Electronics, and System Engineering (ICEESE)*, 9-11 September 2025, Kuching, Malaysia, pp. 60-65.
4. L. Deng, S. Shafie, **M.A.M. Radzi**, M.K. Hassan, "Optimized Particle Swarm Fuzzy Controller for Energy Management Control of Fuel Cell Battery Electric Vehicles," in *2025 IEEE 15th International Conference on Power Electronics and Drive Systems (PEDS)*, 21-24 July 2025, Penang, Malaysia, pp. 1-5.
5. N.A. Nazeem, M.M. Ibrahim, A.C. Soh, A.J. Ishak, R.M.K.R. Ahmad, N.M.H. Norsahperi, **M.A.M. Radzi**, A.R.M. Ibrahim, "Optimisation of an Ash Fouling Model for Predicting Cleanliness Levels in Coal-Fired Power Plant," in *2025 IEEE International Conference on Industry 4.0, Artificial Intelligence, and Communications Technology (IAICT)*, 3-5 July 2025, Bali, Indonesia, pp. 687-693.
6. M.S.M. Nasir, M.Z.A.A. Kadir, **M.A.M. Radzi**, N. Azis, M.Osman, N.A.F.M. Nasir, "On the effect of rolling sphere penetration and rod spacing configurations in optimizing lightning protection for solar farms," in *2025 13th Asia-Pacific International Conference on Lightning (APL)*, 17-20 June 2025, Bali, Indonesia, pp. 348-353.
7. X. Liu, S. Shafie, **M.A.M. Radzi**, N. Azis, N. Norddin, A.H.A. Karim, I. Lawal, "SPICE Simulation Assisted Thermal Management for Surface-Mount GaN HEMTs: Experimental Validation and Performance Insights," in *2025 IEEE Power Electronics Society International Decentralized Energy Access Symposium (IDEAS)*, 7-9 January 2025, Bali, Indonesia, pp. 1-6.
8. M.A. Alwez, J. Jasni, R. Wahab, L. Mueen, **M.A.M. Radzi**, N. Azis, "Mitigating Voltage Rise on Low-Voltage Distribution Networks with High Solar Photovoltaic Penetration: A Review," in *2024 International Conference on Informatics Electrical and Electronics (ICIEE)*, 5-6 December 2024, Denpasar, Bali, Indonesia, pp. 1-7.
9. G.A. Lajis, J. Jasni, T. Yujun, **M.A.M. Radzi**, N. Azis, M.N. Mohtar, "Performance of Single Plant Microbial Fuel Cells (PMFC) in Aquaponics System Under Tropical Climate," in *2024 IEEE Sustainable Power and Energy Conference (iSPEC)*, 24-27 November 2024, Kuching, Sarawak, Malaysia, pp. 536-541.
10. M.F. Yaakub, **M.A.M. Radzi**, M. Azri, S. Shafie, N. Azis, F.H.M. Noh, "Performance Enhancement of Flyback Converter's Primary Current at High Switching Frequency Utilizing Novel Input Impedance Match Technique," in *2024 IEEE Industrial Electronics and Applications Conference (IEACon)*, 4-5 November 2024, Kuala Lumpur, Malaysia, pp. 65-70.
11. S.A.A. Shukor, W.A. Halim, A. Razi, **M.A.M. Radzi**, N.F. Mailah, M.L. Othman, "An Optimal Tuning of PI Controller for Shunt Active Power Filter Based on PI-PSO Approach," in *2024 IEEE International Conference on Power and Energy (PECon)*, 4-5 November 2024, Kuala Lumpur, Malaysia, pp. 199-204.
12. A. Habib, A.A. Ibrahim, **M.A.M. Radzi**, M.A.A.M. Zainuri, "Analyzing Fault Tolerance in a 1.3 kw Six-Phase Fully Coreless Axial-Flux Permanent-Magnet Generator," in *2024 IEEE Industrial Electronics and Applications Conference (IEACon)*, 4-5 November 2024, Kuala Lumpur, Malaysia, pp. 118-123.
13. R. Baharom, S.M. Muhamad, W.N.W.A. Munim, **M.A.M. Radzi**, N. Hashim, W.M.H.W. Bunyamin, M.Z. Zolkiffly, A.S. Ahmad, S.N.A. Shaffee, "Energy Analysis Between Wire-Connected and Wireless Battery Charger Systems for Electric Bike," in *2023 IEEE Industrial Electronics and Applications Conference (IEACon)*, 6-7 November 2023, Penang, Malaysia, pp. 134-138.
14. M.S.M. Rawi, R. Baharom, **M.A.M. Radzi**, "Simulation Model of Un interruptible Wireless Power Supply Based on Single-Phase Matrix Converter with Active Power Filter Functionality," in *2023 IEEE Industrial Electronics and Applications Conference (IEACon)*, 6-7 November 2023, Penang, Malaysia, pp. 157-162.

Publications

15. M.H.Hossain, M.S. Hossain, **M.A.M. Radzi**, S. Rahman, S. Shafie, "Preparation and Performance Characteristics of Reduced Graphene Oxide-Based Electrolytes of Vanadium Redox Flow Battery for Green Energy Storage," in *2023 IEEE Conference on Energy Conversion (CENCON)*, 23-24 October 2023, Kuching, Sarawak, pp. 31-34.
16. M.Y. Lada, M.A.M. Radzi, J. Jasni, H.Hizam, A.Jidin; S.H. Mohamad, "Evaluation of conventional inverter and nine level multilevel inverter in shunt active power filter," in *4th International Conference On Applied & Industrial Mathematics And Statistics 2023 (ICoAIMS 2023): Mathematics and Statistics for Technological Society*, 22–24 August 2023 Pahang, Malaysia.
17. A.H.M. Hashim, N.D. Ahmad, N. Azis, J. Jasni, **M.A.M. Radzi**, M. Kozako, M.K.M. Jamil, "Examination on acoustic emission partial discharge localization error rate in oil in the presence of pressboard," in *2023 12th Asia-Pacific International Conference on Lightning (APL)*, 12-15 June 2023, Langkawi, Malaysia, pp. 1-4.
18. M.I. Muhamad, **M.A.M. Radzi**, M.L. Othman, H. Hizam, C. Gomes, and M.A. Alias, "Estimating Biomass Sources for a 10 MW Dendro Power Plant Using *Leucaena Leucocephala* Fuel Wood," in *2023 IEEE 3rd International Conference in Power Engineering Applications (ICPEA 2023)*, 6-7 March 2023, Putrajaya, Malaysia, pp. 385-390.
19. B.A. Fadheel, N.I.A. Wahab, **M.A.M. Radzi**, A.C. Soh, and A.X.R. Irudayaraj, "An SSA algorithm for LFC of two-area power systems *integrated with renewable energy sources in a deregulated environment," in 6th International Conference on Engineering Sciences (ICES2022)*, 21–22 December 2022, Karbala, Iraq, pp. 1-12.
20. R. Mustafa, **M.A.M. Radzi**, H.Hizam, A.C. Soh, "Solar insolation and PV module temperature impact on the actual grid connected solar photovoltaic system in German Malaysian Institute," in *International Postgraduate Conference for Energy Research 2022 (IPCER-2022)*, 19 December 2022, Kuala Lumpur, Malaysia, pp. 1-6.
21. M.H. Hossain, **M.A.M. Radzi**, M.A. Zaed, S. Rahman, S. Shafie, M.S. Hossain, "Synthesis and Thermophysical Properties of $Ti_3C_2T_x$ -Based Vanadium Bromide Redox Flow for Green Energy Storage," in *2022 IEEE International Conference on Power and Energy (PECon)*, 5-6 Dec. 2022, Langkawi, Malaysia, pp. 132-137.
22. G.A. Lajis, J. Jasni, M.F. Kamaruddin, **M.A.M. Radzi**, N. Azis, M.N. Mohtar, "Bioelectricity generation in economic crops at aquaponics system using plant microbial fuel cell," in *2022 IEEE International Conference on Power and Energy (PECon)*, 5-6 Dec. 2022, Langkawi, Malaysia, pp. 99-104.
23. B. Ismail, N.I.A. Wahab, M.L. Othman, **M.A.M. Radzi**, N.H.A. Kahar, L.J. Awalin, "Optimal Placement and Sizing of STATCOM(s) for Power System Security Improvement using MOPSO," in in *2022 IEEE International Conference on Power and Energy (PECon)*, 5-6 Dec. 2022, Langkawi, Malaysia, pp. 304-309.
24. A.N. Zaidan, **M.A.M. Radzi**, S. Shafie, N. Azis, M.A.A.M. Zainuri, "Multilevel PV-Grid NPC Inverter Based Artificial Neural Network Maximum Power Point Tracking Technique," in *2022 IEEE Industrial Electronics and Applications Conference (IEACon)*, 3-4 Oct. 2022, pp. 152-156.
25. R. Baharom, M.S. Sepeeh, K.S. Muhammad, W.N.W.A. Munim, **M.A.M. Radzi**, N. R. N. Idris, O. H. Hassan, M. F. M. Taib, M. Z. Zolkiffly, S. N. A. Shafee, A. S. Ahmad, "A View of Wireless Charging System for Electric Vehicle: Technologies, Power Management and Impacts," in *2022 IEEE Industrial Electronics and Applications Conference (IEACon)*, 3-4 Oct. 2022, pp. 146-151.
26. M.H. Hossain, N. Abdullah, S. Rahman, **M.A.M. Radzi**, "MXene-based Electrolyte for Vanadium-Bromide Redox Flow Battery for Green Energy," in *Composite Sciences and Technology International Conference 2022 (COMSAT2022)*, 22-23 Aug. 2022, Johor, Malaysia, pp. 123-126.

Book

1. M.A.A.M. Zainuri, **M.A.M. Radzi**, and N.A. Rahim, *Active Power Filter: Photovoltaic Integrations Impact on Power Quality Harmonics*, Bangi: UKM Press, 2020.

Chapter in Book

1. M.R. Mehrjou, N. Mariun, M. Karami, S.B.M. Noor, S. Zolfaghari, N. Misron, M.Z.A.A. Kadir, **M.A.M. Radzi** and M.H. Marhaban, Wavelet-Based Analysis of MCSA for Fault Detection in Electrical Machine, *Wavelet Transform and Some of Its Real-World Applications*, Dr. Dumitru Baleanu (Ed.), ISBN: 978-953-51-2230-2, InTech, DOI: 10.5772/61532. Available from:

Publications

http://www.intechopen.com/books/wavelet-transform-and-some-of-its-real-world-applications/wavelet-based-analysis-of-mcsa-for-fault-detection-in-electrical-machine, 2015.

Intellectual Property

No.	Reg. Number	Detail	Year
1.	PI2013701144	Automatic Dual Axis Solar Tracking Apparatus, System, Method and Thereof	2013
2.	UI 2017700251	A Solar Tracking Sensor	2017
3.	PI2017700249	A Solar Tracker and A Method for Controlling Thereof	2017
4.	LY2017004403	An Software for Energy Management and Monitoring Based on Only Couple RF-Modules for the Solar Powered Home System	2017
5.	LY2017004402	One Time MPP Software for Calculating The Voltage at which The Solar-battery Controller Operates	2017
6.	AR2017005479	MPP Charge Controller Circuit Diagram - Solar Home System based on Integrated DC Matching Technique	2017
7.	AR2017005480	DC to DC Management Circuit Diagram - Solar Home System based on Integrated DC Matching Technique	2017
8.	AR2017005481	Full DC-Load Matching Circuit Diagram - Solar Home System based on Integrated DC Matching Technique	2017
9.	LY2024W04717	The Process for Denoising Acoustic Emission Partial Discharge Signal in Mineral Oil Using Finite Impulse Responses Technique	2024
10.	LY2024W04718	The Process for Denoising Acoustic Emission Partial Discharge Signal in Mineral Oil Using Moving Average Technique	2024
11.	LY2024W04719	The Process for Denoising Acoustic Emission Partial Discharge Signal in Mineral Oil Using Discrete Wavelet Transform Technique	2024
12.	PI 2024007735	Method to Implement Artificial Neural Network Utilizing Multi Hidden Layer Process and Time Difference of Arrival Method for Partial Discharge Acoustic Emission-Based Localization in Oil	2024
13.	LY2026E05547	Agrofusion: Green Revolution Through Tabletop Fertigation and Aquaponics Systems	2026

Research Grants

No	Project Title (*As Principal Investigator)	Amount (RM)	Year	Source of Fund
1.	TEKAT Programme: Economic Transformation of Air Tawar Community through Smart Poultry Farming System	241,136	2026-2027	Malaysia Research University Network (MRUN)
2.	UPM Kampung Angkat Madani Project - Kampung Sawah Sempadan, Kuala Selangor: Installation of Solar Lightings, Moveable Kiosk, Trash Collection Centre and Canoe*	200,000	2025	Ministry of Finance
3.	Formulation of Partial Discharge Model for Early Identification and Interpretation of Corrosive Sulfur Migration in a Transformer	100,000	2024-2027	Putra Grant, UPM
4.	Enhancing Boiler Heat Absorption in Ultra-Supercritical Coal Boilers through Optimized Soot Blowing	104,200.00	2024-2026	Fundamental Research Grant Scheme (FRGS), Ministry of Higher Education (MOHE)

Research Grants

No	Project Title (*As Principal Investigator)	Amount (RM)	Year	Source of Fund
5.	Low Income Household Empowerment Project Towards Sustainable Agriculture by Introducing Integrated Aquaponics System and Bio Composting Activities by Resident Community in Kampung Seri Jugra, Banting, Selangor	30,000.00	2024-2025	Empowerment Programme Komuniti@ UniMADANI
6.	Design of Hybrid RF-Solar Energy Harvesting System with Conjoint AI and Maximum Power Point Tracking Algorithm for Standalone Solar PV-RF Module under Various Irradiance Conditions*	107,017.00 (SAR 990,000)	2023-2025	Najran University, Saudi Arabia
7.	Soot Blowing Sequence Optimization and Prediction to Improve Boiler Heat Absorption for Ultra-Supercritical Coal Boiler	50,000.00	2023-2026	Putra Grant, UPM
8.	Advanced Battery Charger System for Electric Vehicle	3,066,368	2022-2024	Petronas Research Sdn. Bhd.
9.	Advanced Partial Discharge Measurement System for Fault Analysis in Transformers	100,000	2022-2025	Putra Grant-Group Putra Initiative, UPM
10.	Off-Grid Solar Photovoltaic System for Sustainable Autonomous Aquaponic System	35,000	2022-2025	Putra Grant-Young Putra Initiative, UPM
11.	Sustainable Aquaponic System Integrated with Independent Power Supply and Plant-Based Cell	20,925 (USD 5,000)	2021-2022	IEEE Humanitarian Activities Committee (HAC) and IEEE Special Interest Group on Humanitarian Technology (SIGHT)
12.	Development of Innovative Electrical Insulation Diagnostic System for Power Transformer using Partial Discharge Acoustic Measurement	76,000	2021-2023	Matching Grant-UPM
13.	Hotspot Detection and Performance Evaluation of Solar Photovoltaic modules using Deep Learning Networks	113,200	2021-2024	Grant Putra – Impactful Putra Grant, UPM
14.	Sustainable Domestic Aquaponics System Integrated with Plant-Based Cell (PBC)	25,000	2021-2024	Putra Grant – Postgraduate Initiative, UPM
15.	Energy storage performance for the developed nanocomposites (MXene)/nanofluids induced with emerging materials*	121,000	2020-2026	Putra Grant-Group Putra Initiative, UPM
16.	Intelligent Energy Management Scheme of Hybrid Energy Storage System Integrated with Fuel Cell in Economical Operation of Microgrid	156,640	2020-2023	FRGS, Ministry of Higher Education (MOHE)
17.	A Conjoint AI and Maximum Power Point Tracking Algorithm for Improving Global Peak Tracking Under Various Insolation Conditions	50,000	2020-2022	Geran Galakan Penyelidik Muda, UKM
18.	Flexible Energy Management Scheme with Economic Factors for Hybrid Energy Storage System in Microgrid Operation*	119,000	2019-2023	FRGS, Ministry of Education (MOE)

Research Grants

No	Project Title (*As Principal Investigator)	Amount (RM)	Year	Source of Fund
19.	Erasmus+ Capacity Building in the field of Higher Education (CBHE) titled "Enhancement of engineering skills of students of all levels for application of evidence based sustainable renewable energy solutions in the built environment – SKYBELT"	509,146 (EUR 110,451)	2019-2022	Education, Audiovisual and Culture Executive Agency, European Commission
20.	Feasibility Study of Development Dendro Power Generation System for Rural Electrification in Malaysia	25,000	2019-2025	Putra Grant – Postgraduate Initiative, UPM
21.	A New Optimal Switching Modulation Technique for Fast Torque Dynamic Response of Induction Motor	56,000	2019-2021	FRGS for Research Acculturation of Early Career Researchers (RACER), MOE
22.	Indirect Step Size Fuzzy Maximum Power Point Tracking Algorithm for Stand Alone Photovoltaic Boost Dc/Dc Converter	17,500	2019-2021	Short Term Research Grant (USM)
23.	Project of Data Collection and Validation of Stunning Value for Poultry for Development of Malaysian Standard (MS)	226,643.94	2019-2020	UPM Education & Training Sdn. Bhd.
24.	Development of Clustered Misai Kucing Plots in Solar PV Farms for Natural Cooling Mechanism	1,327,500	2019-2022	Malaysian Electricity Supply Industries Trust Account (AAIBE)
25.	Three-phase Four-leg Shunt Active Filter with Harmonic Extraction Algorithm Based on Self-adaptive Artificial Neural Network*	25,000	2018-2022	Putra Grant – Postgraduate Initiative, UPM
26.	Design and Development of Bidirectional Multilevel Power Converter for Energy Conversion System	50,000	2018-2020	Putra Grant, UPM
27.	Predictive Optimization for Energy Management System in a Battery Electric Vehicle Using Hybrid Artificial Intelligence	47,900	2018-2020	Putra Grant, UPM
28.	Development of Electrical Wiring Safety Model	40,000	2018-2019	Grant of Current Issue, UPM
29.	Development of Integrated Multilevel Matrix Converter for Solar Photovoltaic Energy Conversion	25,000	2017-2019	Putra Grant – Postgraduate Initiative, UPM
30.	**Program Leader** titled "Photovoltaic System: From Transparent Solar Cell to Greenhousing Applications Under Tropical Environment" (Under this program, also as Principal Investigator for Sub-Project 3 titled "Sub-Project 3: Development of Single-Stage Dual Functioned Converter for Transparent Photovoltaic Application")*	500,000	2016-2018	Putra Grant-Group Putra Initiative, UPM
31.	Japan-ASEAN Science, Technology and Innovation Platform (JASTIP) Collaborative Research (JASTIP-Net 2016) titled "Optimal Design of Green Energy Systems Based on Multi-Renewable Resources for Rural Electrification"*	19,738 (JPY 500,000)	2016-2017	Kyoto University

Research Grants

No	Project Title (*As Principal Investigator)	Amount (RM)	Year	Source of Fund
32.	High Efficiency Integrated Solar Home Automation System Based on DC Load Matching Technique	20,000	2016-2017	Putra Grant – Postgraduate Initiative, UPM
33.	Single Phase Photovoltaic Based Active Power Filter*	15,000	2015-2017	Putra Grant – Postgraduate Initiative, UPM
34.	Development of a High Efficiency Portable Solar Generator utilizing Optimum Solar Panel Orientation for Flood Evacuation Centre	80,000	2015	FRGS, MOHE
35.	Fountain Installation Project between AS Engineering and Faculty of Engineering UPM	270,000 (In kind)	2014-2021	AS Engineering
36.	Formulation of Maximum Power Point Tracking Algorithm Based on Artificial Intelligence under Shadowing Condition*	116,000	2014-2017	FRGS, MOE
37.	A Modified Artificial Neural Network (ANN) Algorithm to Control Shunt Active Power Filter (SAPF) For Current Harmonic Reduction	15,000	2014-2015	Putra Grant – Postgraduate Initiative, UPM
38.	Shunt Active Power Filter with Dual Intelligent Algorithms*	142,700	2014-2015	Putra Grant – High Performance Individual, UPM
39.	Assessment of Hybrid Classification Technique in Power Quality Analysis for Renewable Energy Systems*	82,000	2013-2016	Exploratory Research Grant Scheme (ERGS), MOE
40.	Sustainable Hydrokinetic Renewable Energy - Hydrokinetic Green Energy Converter (HGEC)	204,000	2013-2016	Malaysian Electricity Supply Industries Trust Account (AAIBE)
41.	Prediction of Photovoltaic Power Generation Based on Solar Radiation Model for Connection the Local Grid	150,000	2013-2015	Putra Grant, UPM
42.	Power Quality, Stability and Demand Response Analysis of Power System with Penetration of Renewable Energy Sources	150,000	2013-2015	Putra Grant, UPM
43.	Intelligent Fault Detection Scheme for Line Start Permanent Magnet Synchronous Motors	109,000	2013-2015	FRGS, MOHE
44.	Realization Techniques for the Mitigation of Power Quality Problems using Dynamic Voltage Restorer*	15,000	2012-2014	Research University Grant Scheme (RUGS), UPM
45.	Development of Photovoltaic Boost Converter with Adaptive P&O-Fuzzy Logic Maximum Power Point Tracking*	13,000	2012-2014	RUGS, UPM
46.	Investigation and Characterization of Active Solar Power System with Angle Controller Utilizing Date and Time-based Approach	76,140	2012-2014	FRGS, MOHE
47.	Development of a high efficiency solar-integrated power system utilizing motorized system with two axes angle controller	240,000	2012-2014	Prototype Research Grant Scheme (PRGS), Ministry of Energy, Green Technology and Water

Research Grants

No	Project Title (*As Principal Investigator)	Amount (RM)	Year	Source of Fund
48.	Realization Techniques of Single Phase to Three Phase System Using Matrix Converter for Variable Speed Drives of Poly Phase Induction Motors	100,000	2011-2014	FRGS, MOHE
49.	Concentrated Photovoltaic Project in Collaboration with Sichuan Zhonghan	67,913	2011-2013	Matching Grant-UPM
50.	Performance and Suitability Assessment Study of Concentrated Photovoltaic (CPV) Systems in Tropical Climate Conditions	103,000	2011-2013	FRGS
51.	Special Project Formation Investigation (Young Researcher Team Feasibility Studies) for Science and Technology Research Partnership for Sustainable Development (SATREPS) titled "Feasibility Study on Renewable Energy Potential in Asia"	118,860 (JPY 3,000,000)	2011-2012	Japan Science and Technology Agency (JST)
52.	Design and Development of Integrated Flexible Dual Power Filters for Reduction of Harmonics*	30,000	2010-2012	RUGS, UPM
53.	Application of Computational Intelligence Technique for the Enhancement of Transient Stability Assessment of Power Systems	30,000	2010-2011	RUGS, UPM
54.	Software Development for the Prediction of Future of Electrical Energy Demand in Malaysia*	40,500	2004-2005	Fundamental-UPM
55.	Development of web-based distributed intelligent energy management system*	10,000	2004-2005	UPM
56.	Automatic Semiconductor Tap Changer for Power Transformer	79,920	2003-2005	IRPA
	Total	**9,862,947**		

Student Supervision

Postdoctoral Researcher

No.	Name	Title	Duration
1.	Dr. Hoon Yap	Development of Single-Stage Dual Functioned Converter for Transparent Photovoltaic Application	2017–2018

PhD (Main Supervisor)

No.	Name	Title	Status
1.	Dr. Nor Farahaida Abdul Rahman	Shunt Active Power Filter using Hybrid Fuzzy-Proportional and Crisp-Integral Control Algorithm for Total Harmonic Distortion Improvement	Graduated 2016
2.	Dr. Shahrooz Hajighorbani	Dual Search Maximum Power Point Algorithm Based on Mathematical Analysis under Partially Shaded Conditions	Graduated 2016
3.	Dr. Goh Zai Peng	Development of Fast FT-ADALINE and Voltage Flicker Detection for Detection of Harmonics and Voltage Flicker in Power Electronic Application	Graduated 2017
4.	Dr. Muhammad Ammirrul Atiqi Mohd Zainuri	Photovoltaic Shunt Active Power Filter Based on Indirect Self-Charging with Step Size Error Cancellation and Simplified Adaptive Linear Neuron	Graduated 2017
5.	Dr. Hoon Yap	Enhanced Control Algorithms for Multilevel Inverter-based Shunt Active Power Filter	Graduated 2017

PhD (Main Supervisor)

No.	Name	Title	Status
6.	Dr. Musa Suleiman	Shunt Active Power Filter with Synchronous Reference Frame Technique and Fuzzy Logic Current Controller for Harmonic Mitigation	Graduated 2017
7.	Altwallbah Neda Mahmod Mohammad	Solar Photovoltaic Energy System Based on Perturb and Observe Maximum Power Point Tracking with Trapezoidal Rule Approach under Partial Shading Conditions	Graduated 2023
8.	Syahrul Hisham Mohamad @ Abd Rahman	Shunt Active Power Filter with Extended-Fryze Adaptive Notch Filter and Weightage-Based Particle Swarm Optimization Proportional Integral Controller	Graduated 2024
9.	Rozita Mustafa	Innovative Air-Cooling Technique for Retrofitted Rooftop Photovoltaic System Utilizing Thermoregulated Cross-Flow Fan	Graduated 2025
10.	Deng Leipengyun	Hybrid Particle Swarm Optimization-Simulated Annealing of Fuzzy Logic-Based Energy Management for Fuel Cell Hybrid Electric Vehicles	Graduated 2026
11.	Muhamad Faizal Yaakub	Performance Enhancement of Photovoltaic Interleaved Flyback Micro-Inverter Via Optimal LCL Filtering, Impedance Matching And Cogging BCM	Graduated 2026
12.	Ahmad Syukri Mohamad	A New Improved Cascaded Multilevel Inverter Topology with Minimum Number of Conducting Switches	Ongoing
13.	Syahar Azalia Ab Shukor	Shunt Active Power Filter Using Artificial Intelligent Algorithm	Ongoing
14.	Al Rubaye Ahmed Naji Zaidan	Single-stage Multilevel Inverter with Fuzzy Logic MPPT for PV System	Ongoing
15.	Rashid Muhammad	Energy Storage Systems in Microgrid Operation	Ongoing

MSc with thesis (Main Supervisor)

No.	Name	Title	Status
1.	Mohammad Hossein Taghvaee	Fuzzy Logic Based Hill Climbing Technique for Photovoltaic Maximum Power Point Tracking (MPPT) Converter	Graduated 2013
2.	Muhammad Ammirrul Atiqi Mohd Zainuri	Photovoltaic Boost Dc/Dc Converter with Adaptive Perturb and Observe-Fuzzy Maximum Power Point Tracking Algorithm	Graduated 2013
3.	Behzad Ghazanfarpour Khoulenjani	Unified Neural Network Controller of Series Active Power Filter for Power Quality Problems Mitigation	Graduated 2013
4.	Mohsen Fadaee Nejad	Multi-Objective Optimization of Stand-Alone Hybrid Renewable Energy System using Genetic Algorithm	Graduated 2014
5.	Razieh Khanaki	Maximum Power Point Tracking using Artificial Neural Network for Photovoltaic Standalone System	Graduated 2014
6.	Farshad Azadian	Controlled Islanding Strategy for Power Systems based on Flexible Semi-Supervised Spectral Clustering	Graduated 2014
7.	Mohd Izhwan Muhamad	Hybrid Renewable Energy System Based on Biomass and Solar Resources in Tropical Climate Condition	Graduated 2016
8.	Tanaselan Ramelu	Photovoltaic-Based Single Ended Primary Inductor Converter with Dual Fuzzy Logic Control Based MPPT for Dual Load Operation	Graduated 2016

No.	Name	Title	Status
9.	Hossain Md Hasnat	MXene-RGO Composite Based Vanadium Redox Flow Battery for Large Scale Energy Storage	Passed Viva

Master of Electrical Power Engineering (Dissertation - Main Supervisor)

No.	Name	Title	Status
1.	Arash Kavousighahfarokhi	Optimisation and Training of a Fuzzy Controller for Hybrid Energy Storage System by Neural Network and GWO Algorithm	Graduated 2023
2.	Basyir Ahmad Mamat @ Muhammad	Optimisation of Solar Energy Using Homer with Comparison Storage Utilisation Using Lithium Ion Battery and Lead Acid Battery	Graduated 2023
3.	Tuan Zirwatulhanam Tuan Zailani	Optimization of Circuit Breaker Design Selection and Performance Evaluation of Cable Ratings Cable Ratings for Direct On-line Starter on Smoke Spill Fan Motors	Graduated 2024
4.	Gannanathan Punnianathan	Optimisation of Solar Photovoltaic Energy Using HOMER with Storage Utilization using Lithium Ion and Lead Acid Batteries	Graduated 2024
5.	Huang Erting	SIC-MOSFET Based SVPWM Scheme for Three-Phase Four-Leg Inverters	Graduated 2025
6.	Revathy Rajendiran	Application of Homer Tool for Designing Renewable Energy System with Energy Storage	Graduated 2026
7.	Yang Yiting	Deep Learning-Based Forecasting of Residential Electricity Demand with Integrated Anomaly Detection	Graduated 2026
8.	Ho Chee Yeong	Using VSD to Increase Raw Meal Feed and for Energy Saving in Cement Process	Graduated 2026
9.	Atiqah Nadhirah Mohd Yusof	Feasibility Study of Surplus Solar Energy for Battery Integration in Floating Solar Photovoltaic System Considering University Load Profiles	Graduated 2026

PhD (External Co-Supervisor)

No.	Name	Institution	Title	Status
1.	Siti Zaliha Mohammad Noor	Universiti Teknologi MARA	Single-Phase Single Stage String Inverter for a Grid Connected Photovoltaic System with Integrated Perturb and Observe – Fuzzy Logic Control MPPT Technique	Graduated 2018
2.	Muhammad Awais Farooqi	Universiti Teknologi MARA	A State-Feedforward Boost Controlled Unified Power Quality Conditioner (UPQC) for PV-ESS Microgrid Systems	Graduated 2026
3.	Nurul Farhana Abdul Hamid	Universiti Kebangsaan Malaysia	Development of Single Phase PV Inverter with AI Based DC Link Capacitor Voltage Control Integrated with Lithium Ion and Fuel Cells	Ongoing
4.	Saidatul Shema Saad	Universiti Kebangsaan Malaysia	Development of Optimized MPPT for Hybrid Solar PV-Wind System	Ongoing
5.	Muhammad Shawwal Mohamad Rawi	Universiti Teknologi MARA	Development of Uninterruptible Wireless Power Supply Topology Using Single Phase Matrix Converter with Active Power Filter Functionality	Ongoing

No.	Name	Institution	Title	Status
6.	Wan Muhamad Hakimi Wan Bunyamin	Universiti Teknologi MARA	Advanced Wireless Grid-to-Vehicle (G2V) Power Transfer System Leveraging Single-Phase Matrix Converter for Enhanced Efficiency and Sustainability	Ongoing
7.	Ahmed Ali Saleh Ali	Universiti Kebangsaan Malaysia	Multilevel Inverter	Ongoing

MSc with thesis (External Co-Supervisor)

No.	Name	Institution	Title	Status
1.	Syed Zaki Ul Hasan Naqvi	Universiti Tunku Abdul Rahman	Studies on Voltage Unbalance Issues of Multilevel Inverters in Performing Active Power Filtering through the Application of Intelligent Control Approaches	Ongoing

PhD/MSc (Member of Supervisory Committee)

No.	Programme	Name	Status
1.	PhD	Mohammad Effendy bin Yaacob	Graduated
2.	PhD	Mahdi Karami	Graduated
3.	PhD	Saman Toosi	Graduated
4.	PhD	Vengadeshwaran Velu	Graduated
5.	PhD	Mohammad Rezazadeh Mehrjou	Graduated
6.	PhD	Sabo Mahmoud Lurwan	Graduated
7.	PhD	Mohammed Saidu Kumo	Graduated
8.	DEng	Jayaseelan Nadarajah	Graduated
9.	PhD	Salah Eldeen Gasim Mohamed Hassan	Graduated
10.	PhD	Farinaz Behrooz	Graduated
11.	PhD	Ahmad H. Sabry	Graduated
12.	PhD	Nur Hazirah Zaini	Graduated
13.	PhD	Masoud Ahmadipour	Graduated
14.	PhD	Akram Mohammed Abdul Aziz Al-Mahrouk	Graduated
15.	PhD	Anith Khairunnisa Ghazali	Graduated
16.	PhD	Abdulhadi Abdulsalam Abulifa	Graduated
17.	PhD	Fatimah Azzahraa Mohd Sobri	Graduated
18.	PhD	Andrew Xavier Raj	Graduated
19.	PhD	Ahmad Hafiz Mohd Hashim	Graduated
20.	PhD	Abo Alwez Mustafa Hussein Abed	Graduated
21.	PhD	Bashar Abbas Fadheel Al-Murshedi	Graduated
22.	PhD	Zhang Chi	Graduated
23.	PhD	Liu Xinzhi	Graduated
24.	PhD	Mohd Izhwan Muhamad	Graduated
25.	PhD	Bazilah Ismail	Graduated
26.	PhD	Ghaibulna binti Abdol Lajis	Ongoing
27.	PhD	Safar Saleh A A Ben	Ongoing
28.	PhD	Qiu Guangkai	Ongoing
29.	PhD	Mohd Azhar Abdul Aziz	Ongoing
30.	PhD	Maslina Mohd Ibrahim	Ongoing

No.	Programme	Name	Status
31.	PhD	Mohd Solehin Mohd Nasir	Ongoing
32.	PhD	Bahril Balli	Ongoing
33.	PhD	Lim Zhi Yang	Ongoing
34.	PhD	Lailatul Niza Muhammad	Ongoing
35.	PhD	Utibe Mfon Okon	Ongoing
36.	MSc	Anayet Karim	Graduated
37.	MSc	Imtiaz Ahmad Khan	Graduated
38.	MSc	Suhairi Rizuan Che Ahmad	Graduated
39.	MSc	Wan Mohd Khairudin Wan Abdul Malik	Graduated
40.	MSc	Ahmad Syukri Mohamad	Graduated
41.	MSc	Usman Hamisu	Graduated
42.	MSc	Aminmohammad Saberian	Graduated
43.	MSc	Rebaz J. Ahmed	Graduated
44.	MSc	Ameer M. F. Sider	Graduated
45.	MSc	Seyedeh Narjes Fallah	Graduated
46.	MSc	Aliyu Sabo	Graduated
47.	MSc	Payam Farzan	Graduated
48.	MSc	Alaa Hadi Mohammed Musa	Graduated
49.	MSc	Malik Qasim Badar	Graduated
50.	MSc	Ehsan Mohsin Obaid Alhamdawee	Graduated
51.	MSc	Soheil Roknideilami	Graduated
52.	MSc	Nor Izzati Ahmad	Graduated
53.	MSc	Sabri Yasameen Hussein Sabri	Graduated
54.	MSc	Almalik Faisel bin Mohd Saupi	Graduated
55.	MSc	Mohd Solehin bin Mohd Nasir	Graduated
56.	MSc	Muhamad Hidayat Zabidi	Ongoing

Awards/Recognition

No.	Name of Awards	Title	Award Authority	Award Type	Year
1.	Third Place, Outstanding PES Final Year Project Award	Battery System for E-Bike	IEEE Power and Energy Society (PES) Malaysia Chapter	National	2025
2.	Silver Award	Smart Wireless Battery Charger System for EV	Malaysia Technology Expo	National	2024
3.	Best Paper Award	Energy Analysis between Wire-connected and Wireless Battery Charger System for Electric Bike	2023 IEEE Industrial Electronics and Applications Conference (IEACon 2023)	International	2023
4.	Silver Medal	Design and Develop of an Off-grid Solar Photovoltaic Aquaponic System	Hyper Interdisciplinary Conference in Malaysia 2023	National	2023
5.	Innovation and Novelty Project Award	Petronas GR&T Award and	Petronas Research Sdn. Bhd.	National	2022

Awards/Recognition

No.	Name of Awards	Title	Award Authority	Award Type	Year
		Recognition 2022			
6.	Best Paper Award	2021 IEEE Industrial Electronics and Applications Conference (IEACon 2021)	IEEE Malaysia Industrial Electronics (IE)/Industrial Applications (IA) Joint Chapter	International	2021
7.	Excellent Service Award	-	Universiti Putra Malaysia	University	2018, 2014, 2010, 2004
8.	Gold	Invention, Innovation and Design (IID) Faculty of Electrical Engineering 2016	Universiti Teknologi MARA.	National	2016
9.	3rd (Power and Energy Track)	2015 Final Year Project Competition	IEEE Malaysia Section	National	2015
10.	Silver Prize	International Engineering Invention and Innovation Exhibition (i-ENVEX) 2014	Universiti Malaysia Perlis	International	2014
11.	Best Paper	Power and Energy Conversion Symposium (PECS 2012)	Universiti Teknikal Malaysia Melaka	International	2012
12.	Third Winner	National Robotic Design Contest (Robocon)	MOHE, MOSTI, RTM and SIRIM	National	2005
13.	Best Idea Award	National Robotic DesignContest (Robocon)	MOHE, MOSTI, RTM and SIRIM	National	2005
14.	Best Design Award	National Robotic Design Contest (Robocon)	MOHE, MOSTI, RTM and SIRIM	National	2005
15.	Volunteer of the Year (Second Winner)	-	IEEE Malaysia Section	National	2004

Consultation

No.	Year	Title	Authority	Amount
1.	2016	Ceylon Electricity Board Delegates from Sri Lanka for a International Training Program on Study of Technical Education Innovations for Developing Nations	Ceylon Electricity Board	RM500
2.	2013	Embedded Electronics Boards for DISEGANNI Storage Unit	Nagasteel Equipment Sdn Bhd	RM21,175

3.	2012	KL Sentral - Preliminary Harmonic Study at KL Sentral	UAT Air Conditioning Sdn Bhd	RM32,000
4.	2011	Top-Up Course (TET 412 – Power Electronic Drive) for Engineering Graduates, Universiti Malaysia Perlis (UniMAP) 2007, 2008 and 2009	UPM Education and Training Sdn Bhd	RM4,200

Professional Services

No.	Role	Activity	Authority
1.	Internal Examiner for PhD/MSc Thesis	30 PhD, 12 MSc	Universiti Putra Malaysia
2.	Chairman of Thesis Examination	5 PhD, 12 MSc	Universiti Putra Malaysia
3.	External Examiner for PhD/MPhil/MSc/ MEng Thesis	• 1 PhD • 1 PhD • 1 PhD • 1 PhD • 1 PhD • 1 PhD • 2 PhD • 2 PhD • 1 PhD, 1 MSc • 1 PhD, 4 MSc • 6 PhD, 3 MEng • 3 PhD, 1 MSc • 2 PhD • 7 MPhil • 5 PhD, 1 MPhil • 1 PhD, 1 MSc • 1 PhD, 2 MSc • 2 MSc • 4 MSc • 1 MSc	• United Arab Emirates University • University of Mauritius, Mauritius • National Institute of Technology, Tiruchirappalli, India • Visvesvaraya Technological University, India • Qatar University • Anna University, India • International Islamic University Malaysia • Universiti Tun Hussein Onn Malaysia • Multimedia University • Universiti Teknologi MARA • Universiti Tenaga Nasional • Universiti Malaysia Pahang • Universiti Kuala Lumpur • University of Malaya • Universiti Teknologi Malaysia • Universiti Kebangsaan Malaysia • Universiti Teknologi PETRONAS • Universiti Teknikal Malaysia Melaka • Universiti Malaysia Perlis • Taylor's University
4.	Member	Advisory/Editorial Board (Journal)	• International Journal of Electrical Engineering and Applied Sciences • International Journal of Renewable Energy Development (IJRED)
5.	Asia-Pacific Academic Network Young Researcher (Country Representative)	Sustainable Energy and Environment Forum (SEE Forum), 2010-2014	Kyoto University
6.	Member	Advisor/Advisory Committee/Advisory Board (Conference)	• 7th International Conference on Clean Energy and Technology (CEAT) 2025 • International Postgraduate Conference for Energy Research (IPCER) 2022

No.	Role	Activity	Authority
			• Symposium on Control System and Signal Processing 2019 (SymCSSP2019) • 5th International Conference on Clean Energy and Technology (CEAT) 2018 • International Conference on Electrical, Control and Computer Engineering, 2015
7.	External Examiner (Programme Evaluation)	Bachelor of Engineering (Hons) Electrical Engineering	Universiti Teknologi MARA
8.	External Examiner	Bachelor of Electromechanical Engineering Technology with Honours	UniKL-MFI
9.	Assessor Panel	Master of Renewable Energy	University of Malaya
10.	Visiting Professor	Postgraduate Programmes by Research and Mixed Mode in Field of Electrical Engineering	Universiti Teknikal Malaysia Melaka
11.	Member	Study Committee, Institute for Advanced Studies, 2020 - 2023	University of Malaya
12.	Member	Study Committee, Master of Renewable Energy, 2020 - 2023	University of Malaya
13.	Member	Board of Studies, Master of Science (Mechatronics Engineering), 2021 - 2022	International Islamic University Malaysia
14.	Panel	Curriculum Review of Master of Renewable Energy, 2017 - 2020	University of Malaya
15.	Member	Board of Studies, Bachelor of Engineering Technology (Water Engineering and Energy), 2017-2019	UniKL-MFI
16.	Stakeholder	• Bachelor of Electrical Engineering, 2019 • Diploma in Electrical Engineering, 2019 • Master of Electrical Engineering (Mixed Mode), 2018	UTeM
17.	Member	Advisory Panel, Master of Engineering (Industrial Electronics and Control), 2015	University of Malaya
18.	Member	Working Group on “Electrical measuring equipment and their accessories” (WG/S/7-3)	SIRIM
19.	Member	Project Advisory Committee – Smart Grid Project, 2019-2021	The United Nations Industrial Development Organization (UNIDO) and Malaysian Industry-Government Group for High Technology (MIGHT)
20.	Member	• Energy Committee, 2025-2027 • WEHAB++ Energy Committee, 2023-2025 • ASM Task Force on Energy Use and Energy Efficiency in Transportation, 2014-2015	Academy of Sciences Malaysia (ASM)

Professional Services

No.	Role	Activity	Authority
21.	Keynote/Plenary /Guest/Invited Speaker	• 2nd International Conference on Electrical, Robotics and Intelligent Systems (ELECRiS 2026), with title of “Accelerating Solar Photovoltaic Towards 70% Renewable Energy Target by 2050: Harnessing Maximum Power and Storing Energy Surplus”	• Universiti Malaysia Perlis (UniMAP)
		• Course of Solar System Design, Installation and Maintenance	• Institut Latihan Pengembangan Pertanian (ILPP) Serdang
		• Course of Solar System Installation, 2025	• Institut Latihan Pengembangan Pertanian (ILPP) Serdang
		• UK-Jiangsu-ASEAN Net-Zero Workshop with title of “Maximising Solar Photovoltaic Generation in Malaysia: Potential Integrated Solutions”	• British Council and UK-Jiangsu 20+20 Consortium
		• International Postgraduate Conference for Energy Research (IPCER) 2022, with title of “Optimising Solar Photovoltaic Generation in Addressing Challenges of Energy Trilemma: Maximum Power Point Tracking”	• UM Power Energy Dedicated Advanced Centre (UMPEDAC)
		• National Lecture Program (NLP), with title “Fuzzy Logic Control in Empowering Performance of Power Electronic Converters”, 2021	• IEEE Malaysia PELS Chapter National
		• Distributed and Smart Power Technology for Affordable and Sustainable Energy, 2021	• UM Power Energy Dedicated Advanced Centre (UMPEDAC)
		• 3rd Online Working Group Discussion titled "Pre-Awards and Post Awards: Science, Technology and Innovation Coordinators in Japan and ASEAN towards Grand Challenges", 2020	• Kyoto University Research Administration Office, ASEAN Foundation, Japan ASEAN Science, Technology and Innovation Platform (JASTIP), and ASEAN Secretariat
		• First International Conference on Sustainable Infrastructure with Smart Technology for Energy and Environmental Management (FIC-SISTEEM-2020) with title of “Solar Power as Future Main Player in Infrastructure Development”, 2020	• Bannari Amman Institute of Technology, India
		• UPM-Kyutech Joint Seminar on Solar Technology, 2017.	• Universiti Putra Malaysia
		• 3rd Japan-ASEAN Science, Technology and Innovation Platform (JASTIP) Symposium with title of “Study on Energy	• Kyoto University, Japan

No.	Role	Activity	Authority
		Usage and Quality of Life for Rural Community through Rural Electrification Using Renewable Energy", 2017.	
		• 2016 IEEE Industrial Electronics and Applications Conference (IEACon) with title of “Power Quality: Detection and Mitigation Techniques of Harmonics”, 2016.	• IEEE Industry Applications Society-Industrial Electronics Society Malaysia Joint Chapter
		• Exploring Frontier of Knowledge into the Futures Business Lecture Series: Power Energy, 2016	• Puncak Niaga Management Services Sdn. Bhd.
		• National Lecture Program on Power Electronics, Machines and Drives with title of “Artificial Intelligence in Power Electronics”, 2015	• Universiti Teknologi MARA (UiTM)
		• Technical Seminar on “Artificial Intelligence in Power Electronics Applications – Special Attention to Fuzzy and Neural Network”, 2014	• Universiti Selangor (UNISEL)
22.	External Assessor	• Promotion of Professor and Associate Professor	• Universiti Tun Hussein Onn Malaysia (UTHM)
		• Promotion of Associate Professor	• Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA)
		• Promotion of Associate Professor	• Universiti Malaysia Perlis (UniMAP)
		• Promotion of Academic Staffs to Associate Professor	• Universiti Teknologi MARA (UiTM)
23.	Grant Reviewer/Evaluator	• Chilean National Science and Technology Commission (CONICYT - Chile)	• FONDECYT Regular 2019 Grant Competition
		• Malaysia-Spain Innovating Programme (MySIP)	• Ministry of Higher Education
		• Higher Education Centre of Excellence (HICoE)	
		• Research Excellence Consortium	
		• Fundamental Research Grant Scheme (FRGS)	
		• Grant Application of Ministry of Higher Education	• Department of Polytechnic Education
		• Science, Technology and Innovation “STI-Mock Interview Session”, AUN/SEED-NET Regional Conference Towards Carbon Neutrality	• UM Power Energy Dedicated Advanced Centre (UMPEDAC)
		• Grant Application of Ministry of Higher Education	• Universiti Malaysia Pahang
		• Research Grant Scheme Applications	• Universiti Putra Malaysia
		• High Impact Research (HIR) Grant Proposal	• University of Malaya

Professional Services

No.	Role	Activity	Authority
		• Taylor's Research Grant Scheme (TRGS)	• Taylor's University
24.	Judge/Assessor	• FYP Symposium	• National University of Malaysia
		• Assessment of Posters for Scientific Project II 2021	• National University of Malaysia
		• World Varsity Engineering Challenge 2013 (WOVEC 2013)	• International Islamic University Malaysia (IIUM)
		• Final Year Project Poster Presentations of Undergraduate Students 2014	• National University of Malaysia
		• Competition of Engineering in the Kitchen 2014	• Universiti Putra Malaysia
25.	Auditor	Internal Audit Quality for MS ISO/IEC 17025	University of Malaya
26.	Book Assessor	Revolusi Fotovoltan	Dewan Bahasa dan Pustaka
27.	Journal Reviewer		• IEICE Electronics Express (ELEX) • International Journal of Circuit Theory and Applications • Journal of Electrical and Electronic Systems Research (JEESR) • International Journal of Power Electronics and Drive Systems (IJPEDS) • International Journal of Circuit Theory and Applications • Basrah Journal of Agricultural Sciences • Pertanika Journal of Science and Technology • IEEE Transactions on Industrial Electronics • International Journal of Ambient Energy • MethodsX • Journal of Circuits, Systems, and Computers • Jurnal Teknologi • ASEAN Journal on Science and Technology for Development • Engineering Science and Technology: an International Journal • International Journal of Renewable Energy Development (IJRED) • The Scientific World Journal • Journal of Solar Energy • Journal of Engineering Science and Technology (JESTEC) • Reviewer for International Journal of Electrical Power and Energy Systems (IJEPES) • COMPEL: The International Journal for Computation and Mathematics in Electrical and Electronic Engineering

No.	Role	Activity	Authority
			• European Transactions on Electrical Power • IEEE Transactions on Power Electronics • IEEE Transactions on Control Systems Technology • IET Signal Processing • Electric Power Components and Systems
28.	Committee Membership	• General Chair	• 2026 IEEE Industrial Electronics and Applications Conference (IEACon 2026)
		• General Chair	• 7th IEEE Conference on Energy Conversion 2026 (CENCON 2026)
		• Technical Program Chair	• 2025 IEEE Industrial Electronics and Applications Conference (IEACon 2025)
		• Technical Program Chair	• 15th IEEE International Conference on Power Electronics and Drive Systems (PEDS 2025)
		• General Chair	• 2024 IEEE Industrial Electronics and Applications Conference (IEACon 2024)
		• Technical Program Chair	• 2024 IEEE International Conference on Power and Energy (PECon 2024)
		• Technical Program Chair	• 2023 IEEE Industrial Electronics and Applications Conference (IEACon 2023)
		• General Chair	• 2022 IEEE Industrial Electronics and Applications Conference (IEACon 2022)
		• Technical Program Chair	• 2021 IEEE Industrial Electronics and Applications Conference (IEACon 2021)
		• Organising Chair	• 2020 IEEE International Conference on Power and Energy (PECon)
		• Technical Program Chair	• IEEE Student Conference on Research and Development (SCOReD) 2017
		• Co-Chair	• International Conference on Electrical and Electronic Technology, 2016
		• Member of Technical Committee	• 4th International Conference on Clean Energy and Technology 2016 (CEAT 2016)
		• Member of Steering Committee	• IEEE Industrial Electronics and Applications Conference (IEACon 2016)
		• Member of Organising Committee	• The 7th International Conference on Sustainable Agriculture for Food, Energy and Industry (ICSAFEI 2015)

Professional Services

No.	Role	Activity	Authority
		• Track Co-Chair	• 3rd IET International Conference on Clean Energy and Technology (CEAT) 2014
		• Programme Chair	• 2013 IEEE Conference on Clean Energy and Technology
		• Member of Technical Program Committee	• 2012 IEEE International Conference on Power and Energy
		• Member of Organising Committee	• Energy and Technology Conference and The 8th Sustainable Energy and Environment (SEE) Forum Meeting, Kuala Lumpur, 2011
		• Secretary of Organising Committee	• 15th Asian Technology Conference in Mathematics, 2010
		• Secretary of Organising Committee	• National Power and Energy Conference, 2003
		• Secretary of Organising Committee	• National Power and Energy Conference, 2004
		• Secretary of Organising Committee	• Student Conference on Research and Development (SCOReD), 2003

Teaching

No.	Course	Semester
1.	KEE 3905 Electrical and Electronics Laboratory V	May-03/04
2.	KEE 4308 Wiring System Design	Nov-03/04
3.	KEE 3113 Electric Circuits	May-03/04, 1-04/05
4.	KEE 3906 Electrical and Electronics Laboratory VI	Nov-03/04, 2-04/05
5.	KEE 3408 Microcontroller	2-04/05
6.	KEE 4317 High Voltage Engineering	2-04/05
7.	KEE 3207 Microprocessor Technology	1-04/05, 1-05/06
8.	KEE 3312 Power Electronics	1-05/06
9.	EEE 3907 Power System and Machine Laboratory	2-09/10
10.	EEE 3501 Signal Processing	2-09/10, 2-10/11, 2-11/12
11.	EEE 5955 Photovoltaic Generation and Applications	2-11/12, 2-12/13
12.	EEE 3302 Power Electronics	1-10/11, 1-11/12, 1-12/13, 1-13/14, 1-14/15
13.	EEE 3909 Electronic Systems Design	2-15/16
14.	EEE 3904 Electrical Power Engineering Laboratory	1-16/17
15.	EEE 3201 Microprocessor Technology	2-10/11, 2-13/14, 2-15/16, 2-16/17
16.	EEE 3106 Electric Circuits	1-12/13, 2-12/13, 1-13/14, 1-14/15, 1-15/16, 1-17/18
17.	EEE 4311 Electric Power Quality	2-14/15, 1-18/19
18.	ECC 4204 Internet Computing	2-18/19
19.	EEE 3121 Electrical and Electronic Principles	1-19/20
20.	EEE 5301 Power Electronics Converters	1-11/12, 2-19/20, 1-20/21
21.	EEE 3924 Electrical Power Engineering Laboratory	1-19/20, 1-20/21, 1-2021/22, 1-2022/23
22.	EEE 3126 Electric Circuits	2-2021/22, 2-2022/23
23.	EEE 5315 Smart Power Grid Renewable Energy Systems	2-20/21, 1-2021/22, 2-2021/22, 1-2022/23, 2-2022/23, 1-2023/24, 2-

Teaching

No.	Course	Semester
		2023/24, 1-2024/25, 2-2024/25, 2-2025/26
24.	EEE 3934 Electrical Power Engineering Laboratory	2-2023/24, 2-2024/25, 2-2025/26
25.	EEE 3332 Power Electronics	1-2023/24, 1-2024/25, 3-2024/25, 1-2025/26, 1-2026/27