CURRICULUM VITAE

Dr. Nashiren Farzilah Binti Mailah
Department of Electrical and Electronic Engineering, Faculty of Engineering,
Universiti Putra Malaysia,
43400 UPM Serdang, Selangor, Malaysia

T: 03-8946 6316
F: 03-8768 6327
Email: nashiren@upm.edu.my

Education

1. PhD in Electrical Power Engineering, 2010, Universiti Putra Malaysia, Malaysia
2. MEng in Electrical Engineering, 2001, Universiti Teknologi Malaysia, Malaysia
3. BEng (Hons) in Electrical and Electronic Engineering, 1999, University of Huddersfield, UK

Areas of Interest

1. Power Electronics Converter and Its Applications
2. Power Systems

Professional Qualification / Membership / Affiliation

1. Registered with Board of Engineers Malaysia (BEM)
2. Graduate Member, Institute of Engineers Malaysia (IEM)
3. Member, Institute of Electrical and Electronic Engineer (IEEE)
4. Member, IEEE Power Electronics Society (PELS)

Appointments

Position	Duration
1. Senior Lecturer, Universiti Putra Malaysia	May 2009 - Present
2. Lecturer, Universiti Putra Malaysia	Jan 2001- May 2009
3. Tutor, Universiti Putra Malaysia	Oct 1999 - Dec 2000

Publications

Journals (30 recent journals)

1. Ipshita Zerin, Ishak Aris, **Nashiren Farzilah Mailah**, (2018). "A Critical Review of Induction Heating System (IHS) Technology and its Applications", Journal of Computational and Theoretical Nanoscience, ISSN 1546-1955, Vol.15, pp. 1095-1105.
2. Yap Hoon, Mohd Amran Mohd Radzi, Mohd Khair Hassan and **Nashiren Farzilah Mailah**, (2017). "Operation of Three-Level Inverter-Based Shunt Active Power Filter under Non-Ideal Grid Voltage Conditions with Dual Fundamental Component Extraction", IEEE Trans. On Power Electronics, In Press.
3. Haizum Hanim Ab. Halim, Norman Mariun, Mohammad Lutfi Othman and **Nashiren Farzilah Mailah**, (2017). "Advanced Metering Infrastructure and An Implementation in Malaysia", FEIIC International Journal of Engineering and Technology, Vol. 14, No. 1, pp. 40-45.
4. Yap Hoon, Mohd Amran Mohd Radzi, Mohd Khair Hassan and **Nashiren Farzilah Mailah**, (2017). "Control Algorithms of Shunt Active Power Filter for Harmonics Mitigation : A Review", *Energies*, 10, art. No. 2038, DOI:10.3390/en10122038.
5. Yap Hoon, Mohd Amran Mohd Radzi, Mohd Khair Hassan and **Nashiren Farzilah Mailah**, (2017). "A Self-Tuning Filter-Based Adaptive Linear Neuron Approach for Operation of Three-Level Inverter-Based Shunt Active Power Filters under Non-Ideal Source Voltage Conditions", *Energies*, 10, art. No. 667, DOI:10.3390/en10050667.
6. Yap Hoon, Mohd Amran Mohd Radzi, Mohd Khair Hassan and **Nashiren Farzilah Mailah**, (2017). "Neutral-Point Voltage Deviation Control for Three-Level Inverter-Based Shunt Active Power Filter with Fuzzy-

Based Dwell Time Allocation", *IET Power Electronics*, 10 (4) pp. 429-441. DOI: 10.1049/iet-pel.2016.0240.

7. Yap Hoon, Mohd Amran Mohd Radzi, Mohd Khair Hassan and **Nashiren Farzilah Mailah**, (2017). "A Refined Self-Tuning Filter-Based Instantaneous Power Theory Algorithm for Indirect Current Controlled Three-Level Inverter-Based Shunt Active Power Filters under Non-Sinusoidal Source Voltage Conditions", *Energies*, 10 (3), art. No. 277.DOI: 10.3390/en10030277.
8. Shaker M. Khudher, Ishak Aris, **Nashiren F. Mailah** and R.K. Z Sahbudin, (2017). "Analysis of AC-to-DC Uncontrolled Converters Harmonics for Electric Vehicles Applications", *Pertanika Journal of Science and Technology*, Vol. 25(S), Feb. 2017, pp. 283-290.
9. Ahmed Qasim Turki, **Nashiren Farzilah Mailah** and Ahmed H. Sabry, (2017). "Transmission Lines Modeling Based on RLC Passive and Active Filter Design", *Pertanika Journal of Science and Technology*, Vol. 25(S), Feb. 2017, pp. 235-242.
10. **Nashiren Farzilah Mailah**, Yap Hoon and Mohd Amran Mohd Radzi, (2017). "DC-link Capacitor Voltage Regulation with Effort-reduction Fuzzy Logic Control for Three-Level Inverter-based Shunt Active Power Filter", *Pertanika Journal of Science and Technology*, Vol. 25(S), Feb. 2017, pp. 11-20.
11. Yap Hoon, Mohd Amran Mohd Radzi, Mohd Khair Hassan, **Nashiren Farzilah Mailah**, (2017). "A Simple Neutral Point Voltage Deviation Minimization Method for Three Level Inverter Based Shunt Active Power Filter", *International Journal of Simulation Systems, Science &Technology(IJSSST)* (ISSN 14738031 print, 1473804x online), Vol. 17, No. 41, pp. 33.1-33.6. DOI: 10.5013/IJSSST.a.17.41.33
12. Ahmed Qasim Turki, **Nashiren Farzilah Mailah**, Mohammad Lutfi Othman, Ahmad H. Sabry, (2017). "Transmission Lines Modeling Based on Vector Fitting Algorithm and RLC Active/Passive Filter Design", *International Journal of Simulation Systems, Science & Technology (IJSSST)* (ISSN 14738031 print, 1473804x online), Vol. 17, No. 41, pp.42.1-42.6. DOI: 10.5013/IJSSST.a.17.41.42
13. Ehsan Mohsin, Nashiren Farzilah Binti Mailah, Amran Mohd Radzi, Suhaidi Bin Shafie, Hajighorbani Shahrooz and Ahmed Qasim Turki, (2016). "Comparison of Developed FLC and P&O MPPT Algorithms for Improving PV System Performance at Variable Irradiation Conditions", World Journal of Engineering (ISSN 1708-5284), Vol. 13, Issue 6, pp. 1-9.
14. Yap Hoon, Mohd Amran Mohd Radzi, Mohd Khair Hassan and **Nashiren Farzilah Mailah**, (2016). "Enhanced Instantaneous Power Theory with Average Algorithm for Indirect Current Controlled Three-Level Inverter-Based Shunt Active Power Filter under Dynamic State Conditions" *(Article ID 9682512)*, *Mathematical Problems in Engineering (ISSN 1024123X),* Vol. 2016, pp. 1-12.
15. Vengadeshwaran Velu, Norman Mariun, Mohd Amran and **Nashiren Farzilah**, (2016). "Realization of Single Phase to Three Phase Matrix Converter using SVPWM Algorithm" (DOI:10.7305/automatika.2016.07.791), *Automatika (Online ISSN 1848-3380, Print ISSN 0005-1144),* Vol. 57, Issue 1, pp. 129-140.
16. Y. Hoon, M. A. M. Radzi, M. K. Hassan, **N.F. Mailah** and N. I. A. Wahab, (2016). "A Simplified Synchronous Reference Frame for Indirect Current Controlled Three Level Inverter Based Shunt Active Power Filters" (DOI:106113/JPE.2016.16.5.1964), *Journal of Power Electronics (ISSN 15982092),* Vol. 16, Issue 5, pp. 1964 – 1980.
17. Norhisam Misron, Chockalingam Aravind Vaithilingam, **Nashiren Farzilah Mailah**, Kudo Masaya and Tsuyushi Hanamoto, (2016). "A New Maximum Power Point Estimator Control Strategy to Maximize Output Power of the Double Stator Permanent Magnet Generator" (DOI:10.3390/app6080218) (Article No. 218), *Applied Sciences (ISSN 20763417),* Vol. 6, Issue 8, pp. 1-12.
18. Y. Hoon, Mohd Amran Mohd Radzi, Mohd Khair Hassan and **N. F. Mailah**, (2016). "DC Link Capacitor Voltage Regulation for Three Phase Three Level Inverter Based Shunt Active Power Filter with Inverted Error Deviation Control" (DOI:10.3390/en9070533), *Energies*, Vol. 9, Issue 7, Article 533, pp. 1-25.
19. V. Velu, N. Mariun, M. A. Mohd Radzi and **N. F. Mailah**, (2016). "Equalization Technique for Balancing the Modulation Ratio Characteristics of the Single Phase to Three Phase Matrix Converter"(Article ID 6187926) (DOI:10.1155/2016/6187926),*Scientific Programming (ISSN 10589244),* Vol. 2016, pp. 1-10.
20. M. Norhisam, R. N. Firdaus, **N. F. Mailah**, H. Yamada and T. Hanamoto, (2015). "Power Mapping Characteristics of Double Stator Permanent Magnet Generator for Electrical Harvesting Machine", *Journal of the Japan Society of Applied Electromagnetics and Mechanics,* Vol.23, Issue 3, pp. 510-515.
21. T. Hanamoto, H. Yamada, S. Toosi, **N. F. Mailah** and M. Norhisam, (2015). "DDPWM-Based Power Conversion System using a Matrix Converter for an Isolated Power Supply", *Journal of the Japan Society of Applied Electromagnetics and Mechanics,* Vol. 23, Issue 3, pp. 573-578.
22. Velu. V, Mariun, N., Amran, M., and **Farzilah, N.**, (Jun-Jul 2015)."Topologies Adopted in the Design and Development of the Single Phase to Three Phase Direct AC-AC Matrix Converters for Poly Phase Loads",*International Journal of Electrical and Electronics Engineering (IJEEE)(ISSN (P) 2278-9944, ISSN (E)*

*2278-9952),*Vol. 4, Issue 4, pp. 27-34. (Impact Factor (JCC) 2015 : 2.7964, Index Copernicus Value (ICV) 2015 : 3.0)

23. M. Norhisam, C.V. Aravind, S. Khodijah and **N.F. Mailah**, (March 2015). "Unified Control Structure of Multi-Type Interior Permanent Magnet Motor", *Journal of Engineering Science and Technology (JESTEC) (ISSN 18234690),* Vol. 10, Issue 3, pp. 322-339.
24. K. Motoyama, T. Hanamoto, H. Yamada, **N.F. Mailah** and M. Norhisam, (Oct 2014). "Study of Matrix Converter Based Unified Power Flow Controller Applied PID Controller", *Journal of Engineering Science and Technology (JESTEC)- Special Issue on Applied Engineering and Sciences,* Vol.9,Oct 2014, pp. 30 – 38.
25. **N. F. Mailah**, S.S.T. Othman, I. Aris, N. Misron, T. Hanamoto andH. Yamada, (Oct 2014). "Determination of Triggering Angle through a Novel Graphical Method Analysis", *Journal of Engineering Science and Technology (JESTEC)-Special Issue on Applied Engineering and Sciences,* Vol.9,Oct 2014, pp. 90 – 97.
26. Tsuyoshi Hanamoto, Hiroaki Yamada, **Nashiren Farzilah Mailah** and Misron Norhisam, (2013). "Controller Design using Coefficient Diagram Methods for Matrix Converter Based Unified Power Flow Controllers", *Journal of the Japan Society of Applied Electromagnetics and Mechanics,* Vol. 21, No. 3, pp. 369-374.
27. Aliyu Sabu, Noor Izzri Abdul Wahab, Mohd Amran Mohd Radzi, **Nashiren Farzilah Mailah** and Hamisu Usman, (2013). "Artificial Neutral Network (ANN) Based Algorithm in Single Phase Shunt Active Power Filter (SAPF) Control", *International Journal of Electrical Components and Sustainable Energy*, Vol. 1, No. 2, pp. 1-7.
28. Aliyu Sabu, Noor Izzri Abdul Wahab, Hamisu Usman, Mohd Amran Mohd Radzi and **Nashiren Farzilah Mailah**, (Nov 2013). "Comparative Study Between Fuzzy Logic and Artificial Neutral Network (ANN) Algoritms for Single Phase Shunt Active Power Filters (SAPFs)", *Jokull Journal*, Vol. 63, No. 11, pp. 377-387.
29. **Nashiren F. Mailah**, Senan M. Bashi, M. Norhisam, Tsuyoshi Hanamoto and Hiroaki Yamada, (April 2012). "Closed-Loop Controllable Unified Power Flow Controller (UPFC) Based on Load Changes", *International Review on Modelling and Simulations (I.R.E. MO. S.) (ISSN 1974-9821),* Vol. 5, No. 2, pp. 743-750.
30. M. Norhisam, S. Khodijah, **Nashiren F. Mailah**, D. Ahmad, Aravind C.V., M. R. Zare and H. Wakiwaka, (March-April 2012). "Performance Improvement of Torque Characteristics Using the Multi Type Interior Permanent Magnet Motor", *International Review of Electrical Engineering (I.R.E.E.) (ISSN 18276660),* Vol. 7, No. 2, pp. 3877-3884.

Conference Proceedings (30 recent Conference Proceedings)

1. Shaker M. Khudher, Ishak Aris, **Nashiren F. Mailah**, R.K. Z Sahbudin and Mohammad Lutfi Othman, "Analysis of AC-to-DC Uncontrolled Converters Harmonics for Electric Vehicles Applications", *International Conference on Electrical and Electronic Technology 2016 (ICEETech 2016)*, UPM, 23rd -25th Aug 2016, paper 1095.
2. Ahmed Qasim Turki, **Nashiren Farzilah Mailah**, Mohammad Lutfi Othman and Ahmed H. Sabry, "Transmission Lines Modeling Based in RLC Passive and Active Filter Design", *International Conference on Electrical and Electronic Technology 2016 (ICEETech 2016)*, UPM, 23rd -25th Aug 2016, paper 1087.
3. Y. Hoon, M. A. M. Radzi, M. K. Hassan and **N. F. Mailah**, "DC-link Capacitor Voltage Regulation with Effort-reduction Fuzzy Logic Control for Three-Level Inverter-based Shunt Active Power Filter", *International Conference on Electrical and Electronic Technology 2016 (ICEETech 2016)*, UPM, 23rd -25th Aug 2016, paper 1003.
4. Ahmed Qasim Turki, **Nashiren Farzilah Mailah** and Mohammad Lutfi Othman, "Transmission Lines Modeling Based on VectorFitting Algorithm and RLC Active/Passive Filter Design", *10th International Power Engineering and Optimization Conference 2016 (PEOCO 2016)*, Shah Alam, 26th Mac 2016, 3A-6, pp. 1-6.
5. Y. Hoon, M.A.M. Radzi, M.K. Hassan and **N.F. Mailah**, "A Simple Neutral-Point Voltage Deviation Minimization Method for Three-Level Inverter-based Shunt Active Power Filter", *10th International Power Engineering and Optimization Conference 2016 (PEOCO 2016)*, Shah Alam, 26th Mac 2016,2B-6, pp. 1-5.
6. Ehsan Mohsin, **Nashiren F. Mailah**, M.A.M. Radzi, S. Shafie and Shahrooz Hajighorbani, "Comparison of Developed FLC and P&O MPPT Algorithms for Improving PV System Performance at Variable Irradiation Conditions", *2015 International Conference of Advanced Mechanics, Power and Energy (AMPE2015)*, 5th Dec 2015, Shah Alam, 3B-4, pp. 1-9.
7. Ehsan Mohsin, **Nashiren F. Mailah**, M. A. M. Radzi, S. Shafie and Shahrooz Hajighorbani, "Development of Fuzzy Based Maximum Power Point Tracking Controller for Photovoltaic System", *7th International Conference on Sustainable Agriculture for Food, Energy and Industry in Regional and Global Context 2015 (ICSAFEI 2015),* UPM, 25th – 27th Aug 2015, ICSAFEI-201, pp. 1-8.
8. Ehsan Mohsin, **Nashiren F. Mailah**, M. A. M. Radzi and S. Shafie, "Development of Fuzzy Logic Controller

for Maximum Power Point Tracking Technique of Photovoltaic System", *3rdInternational Symposium on Applied Engineering and Sciences 2015 (SAES 2015)*, 23rd – 24th Nov 2015, UPM, pp. 1-2.

9. T. Hanamoto, K. Motoyama, S. Toosi, **N. F. Mailah** and M. Norhisam, "A Matrix Converter Based Power Conversion System for an Isolated Power Supply", *2nd International Symposium on Applied Engineering and Sciences 2014 (SAES 2014)*, 20th - 21st Dec 2014, Kyutech, Japan, pp. 66-67.
10. **Nashiren F. Mailah**, M. Norhisam, T. Hanamoto and K. Motoyama, "Frequency and Voltage Control of Matrix Converter Through Frequency and Duty Cycle", 2nd *International Symposium on Applied Engineering and Sciences 2014 (SAES 2014)*, 20th - 21st Dec 2014, Kyutech, Japan, pp. 68-69.
11. T. Hanamoto, H. Yamada, S. Toosi, **N. F. Mailah** and M. Norhisam, "DDPWM-Based Power Conversion System using a Matrix Converter for an Isolated Power Supply", *8th Asia-Pacific Symposium on Applied Electromagnetics and Mechanics 2014 (APSAEM 2014)*, 22-25 July 2014, National Chung Hsing University, Taiwan, pp.118 - 119.
12. A. Sabo, N. I. Abdulwahab, M. A. M. Radzi, **N.F. Mailah** and N.F.A.A. Rahman, "A Modified Digital Hysteresis and Artificial Neutral Network (ANN) Algorithms in Single Phase Shunt Active Power Filter Control", *IEEE Innovative Smart Grid Technologies – Asia 2014 (ISGT ASIA 2014)*, 20th – 23rd May 2014, Kuala Lumpur, pp. 198 – 203.
13. **Nashiren F. Mailah,** M. Norhisam, T. Hanamoto and H. Yamada,"Auxiliary Route for Output Voltage Spike Reduction of Matrix Converter", *UPM-KIT Symposium of Applied Engineering and Sciences 2013 (SAES 2013),* 30th Sep – 1st Oct 2013, pp. 068.
14. **Nashiren F. Mailah,** Sh. Sakinah T. Othman,I. Aris, M. Norhisam, T. Hanamoto andH. Yamada, "Determination of Triggering Angle through Graphical Method Analysis", *UPM-KIT Symposium of Applied Engineering and Sciences 2013 (SAES 2013),* 30th Sep – 1st Oct 2013, pp. 115.
15. AliyuSabu, Noor Izzri Abdul Wahab, Mohd Amran Mohd Radzi and **Nashiren Farzilah Mailah,**"A Modified Artificial Neutral Network (ANN) Algorithm to Control Shunt Active Power Filter (SAPF) for Current Harmonics Reduction", *IEEE Conference on Clean Energy and Technology 2013 (CEAT 2013)*, Langkawi, Malaysia, 18th-20th Nov 2013, pp. 334-339.
16. Vengadeshwaran Velu, Norman Mariun, Mohd Amran and **Nashiren Farzilah**, "A Novel Topology to Implement the Space Vector Pulse Width Modulation Based Matrix Converter System for Direct Conversion of Single Phase to Three Phase System", *6th International Engineering Conference Energy and Environment (ENCON) 2013, Kuching, Sarawak, Malaysia,*2nd-4th Jul 2013, pp. 431-438.
17. Tsuyoshi Hanamoto, Hiroaki Yamada, **Farzailah Mailah Nashiren** and Misron Norhisam, "Controller Design Using Coefficient Diagram Methods for Matrix Converter Based Unified Power Flow Controllers (Full Paper)", Asia-Pacific Symposium on Applied Electromagnetics and Mechanics 2012, Ho Chi Minh, Vietnam, 25th-27th Jul 2012, pp. 162-167.
18. T. Hanamoto, H. Yamada, **N.F. Mailah** and M. Norhisam, "Controller Design Using Coefficient Diagram Methods for Matrix Converter Based Unified Power Flow Controllers (Abstract)", *Asia-Pacific Symposium on Applied Electromagnetics and Mechanics 2012 (APSAEM 2012),Ho Chi Minh, Vietnam,*25th-27thJul 2012, pp. 76-77.
19. **Nashiren Farzilah Mailah**, Sh. Sakinah Tuan Othman, Ishak Aris, M. Norhisam, M.Z.A. Abdul Kadir, Hanamoto Tsuyoshi and Yamada Hiroaki, "Harmonics Reduction of Three Phase Five--Level Neutral-Point-Clamped Multilevel Inverter", *IEEE International Conference on Power and Energy 2012 (PECon 2012),Kota Kinabalu, Sabah, Malaysia,*2nd-5th Dec 2012, pp. 13-17.
20. Vengadeshwaran, Norman Mariun, Mohd Amran Mohd Radzi and **Nashiren Farzilah Mailah,** "Review of Single Phase to Three Phase Matrix Converter for Polyphase Induction Motor Drives", *International Engineering Education Conference 2011*, 25th-27th Dec 2011, pp. 1-4.
21. **N.F. Mailah**, S.M. Bashi, I. Aris and N. Mariun, "Effect of UPFC's Series Converter Phase Shift on Output Voltage and Current's Total Harmonics Distortion (Abstract)", *Asia Pacific Symposium of Applied Electromagnetics and Mechanics (APSAEM 2010), Kuala Lumpur, Malaysia*, 28th-30th Jul 2010, pp. 230-231.
22. **Nashiren F. Mailah**, Senan M. Bashi, IshakAris and Norman Mariun, "Effect of UPFC's Series Converter Phase Shift on Output Voltage and Current's Total Harmonics Distortion (Full Paper)", *Asia Pacific Symposium of Applied Electromagnetics and Mechanics (APSAEM 2010), Kuala Lumpur, Malaysia*, 28th-30th Jul 2010, pp. 541-544.
23. M. Norhisam, S. Khodijah, I. Aris, **N.F. Mailah** and H. Wakiwaka, "Multi-Type Interior Permanent Magnet Motor Driver (Abstract)", *Asia Pacific Symposium of Applied Electromagnetics and Mechanics (APSAEM 2010), Kuala Lumpur, Malaysia*, 28th-30th Jul 2010, pp. 232-233.
24. M. Norhisam, S. Khodijah, I. Aris, **N. F. Mailah**, H. Wakiwaka and M. Nirei, "Driving System Configuration

for Multi-type Interior Permanent Magnet Motor (Full Paper)", *Asia Pacific Symposium of Applied Electromagnetics and Mechanics (APSAEM 2010), Kuala Lumpur, Malaysia,* 28th-30th Jul 2010, pp. 545-548.

25. **Nashiren F. Mailah**, Mohamad Suhairy Saidin and Sharifah Sakinah Tuan Othman, "Simulation and Construction of Single Phase Flying Capacitor Multilevel Inverter", *IEEE Student Conference on Research and Development (SCOReD 2010), Putrajaya, Malaysia,* 13th-14th Dec 2010, pp. 401-404.
26. **N. F. Mailah**, S. M. Bashi, N. Mariun and I. Aris, "Simulation of a Three-Phase UPFC", *1st Engineering Conference of Energy and Environment 2007 (EnCON 2007), Kuching, Sarawak, Malaysia*, 27th-28thDec 2007, pp. 400-403.
27. S.M. Bashi, N. Mariun, **N.F. Mailah** and S. Alhalali, "Single Phase Multilevel Power Inverter", *1st Engineering Conference of Energy and Environment 2007 (EnCON 2007), Kuching, Sarawak, Malaysia*,27th-28th Dec 2007, pp. 368-371.
28. S. M. Bashi, **N. F. Mailah** and L. S. Tieng, "Single Phase Unified Power Flow Controller : Simulation and Construction", *1st International Conference on Control, Instrumentation and Mechatronics Engineering 2007 (CIM 2007), Johor Bahru, Johor, Malaysia*, 28th-29th May 2007, pp. 384 – 388.
29. Hamad S. H., S. M. Bashi, I. Arisand **N. F. Mailah**, "Speed Drive of Single-Phase Induction Motor", *National Power and Energy Conference 2004 (PECon 2004), Kuala Lumpur, Malaysia*, 29th-30th Nov 2004, pp. 121-125.
30. **N. F. Mailah,** S.M. Bashi and W. H. Meng, "Microcontroller Based Semiconductor Tap Changer for Power Transformer", *PowerTech 2003, Bologna, Italy*, 23th-26th June 2003, pp. 495-500.

Books (If any)

Roslina M. Sidek, Siti Anom Ahmad, Norhisam Misron and Nashiren **F. Mailah**, "Applied Electromagnetics and Mechanics", Proceedings of Asia Pacific Symposium of Applied Electromagnetics and Mechanics 2010 – ISBN 978-4-931455-16-0, Japan Society of Applied Electromagnetics and Mechanics.

Chapter in Books (If any)

None

Research Grants

No	Project Title	Amount (RM)	Year	Source of Fund
1.	Design and Development of Bidirectional Multilevel Power Converter for Energy Conversion System	50,000	2 April 2018 – 2 April 2020	Geran Putra
2.	Development of Integrated Multilevel Matrix Converter for Solar Photovoltaic Energy Conversion	25,000	15 Nov 2017 – 15 Nov 2019	Geran Putra Inisiatif Siswazah
3.	A New Smart Meter Model with Integrated Portable Communication, Geran Putra Inisiatif Siswazah IPS, No. 9494100, (RM25,000), , On-going	25,000	1 Aug 2016 - 30 June 2018	Geran Putra Inisiatif Siswazah
4.	Sustainable Hydrokinetic Renewable Energy – Hydrokinetic Green Energy Converter	204,000	17 Mac 2014 –30 June 2017	Jabatan Kerja Raya (JKR)
5.	Investigation of 3 Level Neutral Point Clamped Inverter's Performance using New Techniques of Space Vector Modulation	30,000	Nov 2009- Nov 2011	RUGS

Awards/Recognition(Current)

No	Name of awards	Award Authority	Year
1.	Sijil Penyertaan Pertandingan Fakulti/Pusat Terbaik Amalan Inovasi Pengajaran dan Pembelajaran 2017	Fakulti, Kejuruteraan, UPM	2017

2.	Sijil Perkhidmatan Cemerlang 2016	UPM	2017
3.	Sijil Perkhidmatan Cemerlang 2015	UPM	2016
4.	Sijil Perkhidmatan Cemerlang 2014	UPM	2015
5.	Sijil Perkhidmatan Cemerlang 2013	UPM	2014

Professional Services/Consultation

No	Year	Title	Authority	Amount
1.	26 Aug 2016 – 9 Sept 2016	Training and Practical Program for Japanese University Students	Smart Force Consulting Inc.	RM9000
2.	3 Jan 2017 – 31 Mac 2017	Take Photograph of Oil Palm Fresh Fruit Bunch using the Hyper Spectral Camera and Measure Oil Content Rate of Oil Palm Fruit and Measure Colour of Oil Palm Mesocarp and Demonstrate the Development Algoritm for Oil Palm Fresh Fruit Bunch Ripeness Discrimination	Sharp Electronics Malaysia Sdn. Bhd.	RM7000
3.	3 April 2017 – 2 April 2018	Training and Practical Program for Japanese University Students	Smart Force Consulting Inc.	RM10000

Student Supervision

PhD (Main Supervisor)

No.	Name	Title	Status
1.	Haizum Hanim Binti Ab Halim	Design and Development of Robust Intelligent Meter System	On-Going
2.	Akram Mohammed Abdul Aziz Al-Mahrouk	Multilevel Matrix Converter	On-Going
3.	Vissamsetti Siva Nagaraju	Multilevel Matrix Converter	On-Going

MS with thesis (Main Supervisor)

No.	Name	Title	Status
1.	Sharifah Sakinah Binti Tuan Othman	Design and Development of Neutral-Point-Clamped Multilevel Inverter	Graduated
2.	Ehsan Mohsin Obaid Alhamdawee	Efficiency Improvement of a Standalone Photovoltaic System using Fuzzy-Based Maximum Power Point Tracking Algorithm	Graduated
3.	Ahmed Qasim Turki	Transmission Line Modelling Based in Vector Fitting Algorithm and RLC Active/Passive Filter Design	Graduated
4.	Almalik Faisel Bin Mohd Saupi	Design and Development of Hybrid Renewable Energy System Based on Hydrokinetic and Solar Energy	On-Going

MS without Thesis (Main Supervisor)

No.	Name	Title	Status
1.			