CURRICULUM VITAE

Dr. Nashiren Farzilah Binti Mailah
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Education

1. Ph.D in Electrical Power Engineering, 2010, Universiti Putra Malaysia, Malaysia
2. M.Eng in Electrical Engineering, 2001, Universiti Teknologi Malaysia, Malaysia
3. B.Eng (Hons)in Electrical and Electronic Engineering, 1999, University of Huddersfield, UK

Areas of Interest

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

ProfessionalQualification/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	January 2001- May 2009

Publications

Journals (30 recent journals)

1. Velu. V, Mariun, N., Amran, M., **Farzilah, N.**. “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 (IASET). Vol. 4, Issue 4, pp. 27-34.
2. M. Norhisam, C.V. Aravind, S. Khodijah, **N.F. Mailah.** “Unified Control Structure of Multi-Type Interior Permanent Magnet Motor”. Journal of Engineering Science and Technology (JESTEC). Vol.10, No.3, pp. 322-339.
3. K. Motoyama, T. Hanamoto, H. Yamada, **N.F. Mailah**, M. Norhisam. “Study of Matrix Converter Based Unified Power Flow Controller Applied PID Controller”. October 2014, pp. 30-38.
4. **N. F. Mailah**, S.S.T. Othman, I. Aris, N. Misron, T. Hanamoto, H. Yamada. “Determination of Triggering Angle through a Novel Graphical Method Analysis”. Journal of Engineering Science and Technology (JESTEC)-Special Issue on Applied Engineering and Sciences, October 2014, pp. 90-97.
5. Tsuyoshi Hanamoto, Hiroaki Yamada, **Nashiren Farzilah Mailah,** Misron Norhisam. “Controller Design using Coefficient Diagram Methods for Matrix Converter Based Unified Power Flow Controllers”. Journal of the Japan Society of Applied Electromagnetics and Machanics, Vol. 21, No. 3, pp. 369-374.
6. Aliyu Sabu, Noor Izzri Abdul Wahab, Mohd Amran Mohd Radzi, **Nashiren Farzilah Mailah**, Hamisu Usman. “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.

7. Aliyu Sabu, Noor Izzri Abdul Wahab, Hamisu Usman, Mohd Amran Mohd Radzi, **Nashiren Farzilah Mailah. "**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.
8. **Nashiren F. Mailah**, Senan M. Bashi, M. Norhisam, Tsuyoshi Hanamoto, Hiroaki Yamada. "Closed-Loop Controllable Unified Power Flow Controller (UPFC) Based on Load Changes". Ineternational Review on Modelling and Simulations (IREMOS), Vol.5, No.2, April 2012, pp. 743-750.
9. M. Norhisam, S. Khodijah, **Nashiren F. Mailah**, D. Ahmad, Aravind C.V., M. R. Zare, H. Wakiwaka. "Performance Improvement of Torque Characteristics Using the Multi Type Interior Permanent Magnet Motor". International Review of Electrical Engineering (I.R.E.E.), Vol. 7, N. 2, March-April 2012, pp. 3877-3884
10. M. Norhisam, M. Norafiza, F. Azhar, **Nashiren F. Mailah**, H. Wakiwaka, M. Nirei. "Optimization of Pole Numbers and Rotor Size for a Single Phase Slot-less Permanent Magnet Generator". International Review of Electrical Engineering (I.R.E.E), Vol.6, No.5, pp. 2253-2260.
11. F. Azhar, M. Norhisam, **N.F. Mailah**, M.R. Zare, H. Wakiwaka, M. Nirei. "Thrust Optimization of Linear Oscillatory Actuator Using Permeance Analysis Method". International Review of Electrical Engineering (I.R.E.E.), Vol. 6, N. 7, November-December 2011, pp. 2929-2938.
12. Norhisam Misron, Loo Qian Ying, Raja Nor Firdaus, Norrimah Abdullah, **Nashiren Farzilah Mailah**, Hiroyuki Wakiwaka. "Effect of Inductive Coil Shape on Sensing Performance of Linear Displacement Sensor Using Thin Inductive Coil and Pattern Guide". Sensors, 11(11), pp. 10522-10533.
13. Norhisam Misron, Ng Wei Shin, Suhaidi Shafie, Mohd Hamiruce Marhaban, **Nashiren Farzilah Mailah**. "A Mobile Ferromagnetic Shape Detection Sensor Using a Hall Sensor Array and Magnetic Imaging". Sensors, 11 (11), pp. 10474-10489.
14. Norhisam Misron**,** Suhairi Rizuan**,** Aravind Vaithilingam**, Nashiren Farzilah Mailah,** Hanamoto Tsuyoshi**,** Yamada Hiroaki, Shirai Yoshihito. "Performance Improvement of a Portable Electric Generator Using an Optimized Bio-Fuel Ratio in a Single Cylinder Two-Stroke Engine". Energies,4(11), pp. 1937-1949.
15. M. Norhisam, S. Khodijah, I. Aris, **N. F. Mailah**, H. Wakiwaka, M. Nirei. "Driving System Configuration for Multi-type Interior Permanent Magnet Motor". Journal of the Japan Society of Applied Electromagnetics and Mechanics, Vol. 19, Supplementary, pp. S219-S222.
16. **Nashiren F. Mailah**, Senan M. Bashi, IshakAris and Norman Mariun. "Neutral-Point-Clamped Multilevel Inverter Using Space Vector Modulation". European Journal of Scientific Research, Vol. 28, No. 1, pp. 82-91.
17. **Nashiren F. Mailah** and S.M. Bashi. "Single Phase Unified Power Flow Controller (UPFC): Simulation and Construction". European Journal of Scientific Research, Vol. 30, No. 4, pp. 677-684.
18. **Nashiren F. Mailah**, Senan M. Bashi, Norman Mariun, IshakAris. "Static Synchronous Series Compensator (SSSC) with Low Harmonic Inverter". International Review on Modelling and Simulations (I.R.E. MO. S.), Vol. 2, N. 6, pp. 633-638.
19. **N.F. Mailah**, S.M. Bashi, N. Mariun and I.Aris. "Simulation of a Three-Phase Multilevel Unified Power Flow Controller (UPFC)". Journal of Applied Sciences 8(3), pp. 503-509.
20. S.M. Bashi,N. Mariun, **N.F. Mailah** and S. Alhalali. "Low Harmonics Single Phase Multilevel Power Inverter". Asian Journal of Scientific Research 1(3), pp. 274-280.
21. S.M. Bashi, **N.F. Mailah** and W.B. Cheng. "Development of a Single Phase PWM AC Controller". Journal of Science and Technology, Pertanika, 16 (2), pp. 119-127.
22. S.A. Bashi, **N.F. Mailah,** M.Z. Kadir, K.H. Leong. "Generation of Triggering Signals for Multilevel Converter". European Journal of Scientific Research, Vol. 24, No. 4, pp. 548-555.
23. S.M Bashi, A.U.M. Al-Abulaziz and **N.F. Mailah. "**Effects of High Power Electronics Converters on PLC Signals". Journal of Applied Sciences 6(9), pp. 1881 – 1891.
24. S.M. Bashi, N. Mariun, **N.F. Mailah** and A.F. Huweg. "Voltage Sag Mitigation Due to Starting of an Induction Motor Load". Journal of Industrial Technology, Vol. 15, No. 2, pp. 67 – 76.
25. **Nashiren Farzilah Mailah** and Senan Mahmod Bashi. "Cathodic Protection System : A Study of Impressed Current System". Journal of Industrial Technology, Vol. 14, No. 2, pp. 47-59.
26. S.M. Bashi and **N.F. Mailah**. "Simulation of Lightning Surges on Power Transmission Tower Using EMTDC". Sudan Engineering Society Journal, Vol. 50, No. 42, pp. 9-13.
27. Mohibullah, Norman Mariun, **Nashiren Farzilah** and C.S. Siew. "Study of Degradation Rate of AMTEC for Different Electrode Material". Sudan Engineering Society Journal, Vol. 50, No. 42, pp. 25-29.

28. Mohibullah, Norman Mariun, **Nashiren Farzilah** and C.S. Siew. "Study of Electrode Material Degradation Rate of AMTEC". Ciencia&Technologia dos Materiais, Vol. 16, no.1.

Conference Proceedings (30 recent Conference Proceedings)

1. Ehsan Mohsin, **Nashiren F. Mailah**, M. A. M. Radzi, S. Shafie, 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 (ICSAFEI 2014), ICSAFEI-201.
2. T. Hanamoto, H. Yamada, S. Toosi, **N. F. Mailah**, 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 (APSAEM), pp. 118-119.
3. T. Hanamoto, K. Motoyama, S. Toosi, **N.F. Mailah**, M. Norhisam. "A Matrix Converter Based Power Conversion System for an Isolated Power Supply". 2014 UPM-KIT Symposium of Applied Engineering and Sciences 2014 (SAES 2014), pp. 66-67.
4. **Nashiren F. Mailah**, M. Norhisam, T. Hanamoto, K. Motoyama. "Frequency and Voltage Control of Matrix Converter through Switching Frequency and Duty Cycle". 2014 UPM-KIT Symposium of Applied Engineering and Sciences 2014 (SAES 2014), pp. 68-69.
5. **Nashiren F. Mailah,** M. Norhisam, T. Hanamoto, H. Yamada. "Auxiliary Route for Output Voltage Spike Reduction of Matrix Converter". 2013 UPM-KIT Symposium of Applied Engineering and Sciences 2013 (SAES 2013), pp. 068.
6. **Nashiren F. Mailah,** Sh. Sakinah T. Othman, I. Aris, M. Norhisam, T. Hanamoto, H. Yamada. "Determination of Triggering Angle through Graphical Method Analysis". 2013 UPM-KIT Symposium of Applied Engineering and Sciences 2013 (SAES 2013), pp. 115.
7. Aliyu Sabu, Noor Izzri Abdul Wahab, Mohd Amran Mohd Radzi, **Nashiren Farzilah Mailah**. "A Modified Artificial Neutral Network (ANN) Algorithm to Control Shunt Active Power Filter (SAPF) for Current Harmonics Reduction". 2013 IEEE Conference on Clean Energy and Technology (CEAT), pp. 334-339.
8. Vengadeshwaran Velu, Norman Mariun, MohdAmran, **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, pp. 431-438.
9. Tsuyoshi Hanamoto, Hiroaki Yamada, **Farzailah Mailah Nashiren**, 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, 25-27 July 2012, pp. 162-167.
10. T. Hanamoto, H. Yamada, **N.F. Mailah**, 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, Ho Chi Minh, Vietnam, 25-27 July 2012, pp. 76-77.
11. **Nashiren Farzilah Mailah**, Sh. Sakinah Tuan Othman, Ishak Aris, M. Norhisam, M.Z.A. Abdul Kadir, Hanamoto Tsuyoshi, Yamada Hiroaki. "Harmonics Reduction of Three Phase Five-Level Neutral-Point-Clamped Multilevel Inverter". 2012 IEEE International Conference on Power and Energy (PECon), 2-5 December 2012, Kota Kinabalu, Sabah, Malaysia, pp.13-17.
12. Vengadeshwaran, Norman Mariun, Mohd Amran Mohd Radzi, **Nashiren Farzilah Mailah. "**Review of Single Phase to Three Phase Matrix Converter for Polyphase Induction Motor Drives". International Engineering Education Conference 2011, 25-27 December 2011.
13. **N.F. Mailah**, S.M. Bashi, I. Aris, 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, 28-30 July 2010, pp. 230-231.
14. **Nashiren F. Mailah**, Senan M. Bashi, IshakAris, 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, 28-30 July 2010, pp. 541-544.
15. M. Norhisam, S. Khodijah, I. Aris, **N.F. Mailah**, H. Wakiwaka. "Multi-Type Interior Permanent Magnet Motor Driver (Abstract)". Asia Pacific Symposium of Applied Electromagnetics and Mechanics (APSAEM 2010), Kuala Lumpur, Malaysia, 28-30 July 2010, pp.232-233.
16. M. Norhisam, S. Khodijah, I. Aris, **N. F. Mailah**, H. Wakiwaka, 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, 28-30 July 2010, pp. 545-548.

17. **Nashiren F. Mailah**, Mohamad Suhairy Saidin, 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, 13-14 December 2010, pp. 401-404.
18. S.M. Bashi, **N.F. Mailah**, L.S. Tieng. "Single Phase Unified Power Flow Controller: Simulation and Construction". 1st International Conference on Control, Instrumentation and Mechatronics Engineering 2007, Johor Bahru, Johor, Malaysia, 28-29 May 2007, pp. 384-388.
19. **N.F. Mailah**, S.M. Bashi, N. Mariun, I. Aris. "Simulation of a Three-Phase UPFC". 1st Engineering Conference of Energy and Environment 2007, Kuching, Sarawak, 27-28 December 2007, pp. 400-403.
20. S.M. Bashi, N. Mariun, **N.F. Mailah,** S. Alhalali. "Single Phase Multilevel Power Inverter". 1st Engineering Conference of Energy and Environment 2007, Kuching, Sarawak, 27-28 December 2007, pp. 368-371.
21. Hamad S. H., S. M. Bashi, I. Aris, **N. F. Mailah**. "Speed Drive of Single-Phase Induction Motor". National Power and Energy Conference 2004 (PECon 2004), Kuala Lumpur, Malaysia, 29-30 Nov 2004, pp. 121-125.
22. S.M. Bashi, **N.F. Mailah**, M.A. Mohd Radzi. "Effect of High Power Converter on Power Line Carrier Signals". 4th National Conference on Telecommunication Technology, Shah Alam, Selangor, Malaysia, 14th – 15th January 2003, pp.163-167.
23. **N. F. Mailah,** S.M. Bashi, W. H. Meng. "Microcontroller Based Semiconductor Tap Changer for Power Transformer". PowerTech 2003, Bologna, Italy, 23th-26th June 2003, pp.495-500.
24. S.M. Bashi, **N.F. Mailah**, M.Y. Yusof. "Production of Hydrogen using Photovoltaic Electrolysis". 3th Student Conference on Research And Development (SCOReD2003), Putrajaya, Malaysia, 25th – 26th August 2003, pp. 282-285.
25. S.M. Bashi, **N.F. Mailah**, M.A. Mohd Radzi. "Cathodic Protection System". National Power and Energy Conference 2003 (PeCON 2003), Bangi, Selangor, Malaysia, 15th-16th December 2003, pp. 366-370.
26. Rafa, S. Mahmod, N. Mariun, W.Z Wan Hassan, **N.F. Mailah. "**Protection of Power Transformer Using Micro-controller Based Relay". 2nd Student Conference on Research and Development (SCOReD2002), Shah Alam, Selangor, Malaysia, 16th-17th July 2002, pp. 224-227.
27. Z. Zakaria, S.M. Bashi, **N.F. Mailah**, and M.R. Othman, H. Osman. "Simulation of Lightning Surges on Tower Transmission using PSCAD/EMTDC: A Comparative Study". 2nd Student Conference on Research and Development (SCOReD2002), Shah Alam, Selangor, Malaysia, 16th-17th July 2002, pp. 426-429.
28. S.A. Talib, S.M. Bashi, **N.F. Mailah**. "Simulation and Analysis of Power Converter Harmonics". 2nd Student Conference on Research and Development (SCOReD2002), Shah Alam, Selangor, Malaysia, 16th-17th July 2002, pp. 213-216.
29. Jasronita Jasni, **Nashiren Farzilah Mailah**, Norman Mariun. "Environmental Friendly Vehicle". 2nd World Engineering Congress (WEC), Kuching, Sarawak, Malaysia, 22th–25th July 2002, pp. 163-166.

Books (If any)

None

Chapter in Books (If any)

None

Research Grants

No	Project Title	Amount (RM)	Year	Source of Fund
1.	Power Flow Control With Flexible AC Transmission System Controllers		2003	UPM
2.	Automatic Semiconductor Tap Changer For Power Transformers		2003-2005	IRPA
3.	Design and Development Of Flickermeter And The Test System For Its Calibration		2003-2006	IRPA
4.	Design and Construction of a Novel 3-Phase		2006-2009	e-Science

	Unified Power Flow Controller (UPFC) System using Multilevel Structure		
5.	Investigation of 3 Level Neutral Point Clamped Inverter's Performance using New Techniques of Space Vector Modulation	Nov 2009-Nov 2011	RUGS

Awards/Recognition(Current)

No	Name of awards	Award Authority	Year
1.	Award of Excellence in Teaching	Universiti Putra Malaysia	2012
2.	Award of Excellence in Teaching	Universiti Putra Malaysia	2010
3.	Silver – International Invention, Innovation and Technology Exhibition 2010	Ministry of Science, technology and Innovation, Malaysia	2010
4.	Silver – Pameran Rekacipta, Penyelidikan dan Innovasi	Universiti Putra Malaysia	2010
5.	Bronze – Pameran Rekacipta, Penyelidikan dan Innovasi	Universiti Putra Malaysia	2009
6.	Silver – Pameran Rekacipta, Penyelidikan dan Innovasi	Universiti Putra Malaysia	2008

Professional Services/Consultation

No	Year	Title	Authority	Amount
1.				

Student Supervision

PhD (Main Supervisor)

No.	Name	Title	Status
1.			

MS with thesis (Main Supervisor)

No.	Name	Title	Status
1.	Sharifah Sakinah Binti Tuan Othman (GS24575)	Neutral-Point-Clamped Multilevel Inverter Development for Total Harmonic Distortion (THD) Reduction	Completed
2.	Ehsan Mohsin Obaid Alhamdawee (GS37492)	Control and Efficiency Improvement of Fuzzy-Based Maximum Power Point Tracking Algorithm for Photovoltaic Generation System	
3.	Ir. AlMalik Faisel Mohd Saupi (GS39256)	Design and Simulation of hybrid Renewable Energy System Based on Hydrokinetic and Solar Energy	
4.	Ahmad QasimTurki (GS40837)	Fault Location on Transmission Lines Based on Travelling Waves	

MS without Thesis (Main Supervisor)

No.	Name	Title	Status
1.			