

## CURRICULUM VITAE



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### Education

1. PhD Electrical Power Engineering, 2011, Universiti Putra Malaysia.
2. MSc Electrical Power Engineering, 2004, Universiti Putra Malaysia.
3. BSc Electrical Engineering, 1991, (CGPA: 3.72, Honor: *Magna Cum Laude*), University of Arizona, Tucson Az, USA

### Areas of Interest

1. Power System Protection: Protective relay operation modelling and analysis; computational-intelligence-based data mining for knowledge discovery in relay database; application of artificial intelligence in protection algorithms; development of numerical protective relays.
2. Power System Operation: Power Quality, Smart Grid, Distributed Generation.
3. Electrical Services Installation Works: Building Energy Management System; Design and Project Administration Consultancy.

### Professional Qualification/ Membership/ Affiliation

1. Phi Kappa Phi ( $\Phi\Kappa\Phi$ ) Honor Society, the University of Arizona.
  - Member, 1991 to date.
2. Board of Engineers, Malaysia (BEM).
  - Professional Engineer with Practicing Certificate (P. Eng.): reg. no. C19682, 22 Dec 2015 to date
  - Professional Engineer (P. Eng.): reg. no. 9682, 12 Aug 1998 to 21 Dec 2015.
  - Graduate Member: 1 Sep 1994 – 12 Aug 1998.
3. Institution of Engineers, Malaysia (IEM).
  - Corporate Member (MIEM) – reg. no. 16417, 16 Mar 1998 to date.
  - Graduate Member: 15 Jan 1996 – 16 Mar 1998.
4. Institution of Engineering and Technology (IET), UK.
  - Member (MIET): mem. no. 1100249740, June 2012 to date.
5. Engineering Council UK (thru IET)
  - Chartered Engineer (CEng): reg. no. 616140, 6 August 2014 to date.
6. The Institute of Electrical and Electronics Engineers (IEEE), USA.
  - Member (MIEEE): mem. no. 80000516, 2004 to date.
7. IEEE Power and Energy Society (IEEE-PES).
  - Member, 2004 to date.
8. IEEE Computational Intelligence Society (IEEE-CIS).
  - Member, 2012 to date.

9. International Rough Set Society (IRSS).
  - Member, 2006 to date.
10. AcademicKeys Who's Who in Engineering Higher Education (WWEHE)
  - Member, 2013 to date.
11. Persatuan Pegawai Akademik UPM (PPAUPM).
  - Member: mem. no. PPA-FK-A02863, since Feb 2014.
12. Asian Council of Science Editors (ACSE)
  - Member: mem. no. 60.10191, since July 2015.
13. Marquis Who's Who in the World
  - Biographical profile listed in Who's Who in the World 2016 (33rd Edition)
  - VIP no. 37000758, since September 2015.

Appointments	
Position	Duration
1. Technical Evaluation Expert, Malaysian Technology Development Corporation Sdn. Bhd.	Mar 2015 to date
2. Research Fellow / Founding Member, Center of Advanced Power and Energy Research (CAPER).	Dec 2012 to date
3. Associate Member, Center for Electromagnetic and Lightning Protection (CELP)	Jun 2014 to date
4. Electrical Director / Advisor for electrical engineering consultancy, Sigma Jelas Engineers Sdn. Bhd. (Engineering Consulting Firm).	1998 to date
5. Head of Academic Power Unit, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM.	18 Aug 2011 to Sep 2014
6. Mentor for: <ul style="list-style-type: none"> <li>- The Institution of Engineers Malaysia (IEM) Log Book Training Scheme for Professional Interview.</li> <li>- "English Language Immersion" program (for undergraduate engineering students to improve their performance in shaping self-excellence and confidence so as to be able to communicate proficiently in English in line with the university's needs.)</li> </ul>	1998 to date 2012 to 2013
7. Interviewer for the Institution of Engineers Malaysia (IEM) Professional Interview (PI).	1998 to date
8. Keynote/Lecture/Plenary Speaker for: <ul style="list-style-type: none"> <li>- Keynote speech: IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT-2014), 20–21 March 2014, Noorul Islam University, Kumaracoil, Kanyakumari, Tamilnadu, India.</li> <li>- Plenary speech: IEEE 2015 International Symposium on Advances in Power Distribution Engineering: Distributed Generation, MicroGrid and Renewable Integration (ISAPDE2015), 28–29 August 2015, The National Institute of Engineering, Mysuru, Karnataka, India.</li> </ul>	20 to 21 Mar 2014 28 to 29 August 2015
9. Session Chair for: <ul style="list-style-type: none"> <li>- Renewable Energy parallel session - IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT-2014).</li> </ul>	20 to 21 Mar 2014
10. Editorial Committee for : <ul style="list-style-type: none"> <li>- International Conference on Sustainable Mobility 2010, ICSM2010, 29 Nov – 3 Dec 2010, Seri Pacific Hotel, Kuala Lumpur. UTM, SAE International Malaysia Section &amp; Proton.</li> </ul>	2010
11. Technical Program Committee (including Designated Reviewer) for: <ul style="list-style-type: none"> <li>- 2012 IEEE International Conference on Power and Energy (PECON 2012), IEEE Power &amp; Energy Society.</li> <li>- 2014 IEEE Student Conference on Research and Development (SCOReD 2014).</li> <li>- 2014 IEEE Innovative Smart Grid Technologies Conference - Asia (2014 ISGT ASIA), IEEE Power &amp; Energy Society.</li> <li>- 2014 IEEE International Power and Energy Conference (PECON 2014), IEEE Power &amp; Energy Society.</li> </ul>	2012 2014 2014 2014

- 2015 IEEE Conference on Energy Conversion (CENCON 2015), IEEE Malaysia Power Electronics (PEL) Chapter. 2015
  - 2015 Progress in Applied Mathematics in Science and Engineering (PIAMSE2015), Newcastle University and Malaysia Technical Scientist Association (MALTESAS). 2015
  - 2015 International Conference on Intelligent System and Information System (ICIS 2015), American Society of Science and Engineering. 2015
  - IEEE 2015 International Symposium on Advances in Power Distribution Engineering: Distributed Generation, MicroGrid and Renewable Integration (ISAPDE2015), IEEE Power & Energy Society, India & National Institute of Engineering, Mysuru, India. 2015
  - 2015 IEEE Student Conference on Research and Development (SCOReD 2015), IEEE Malaysian Section and IEEE Asia Pacific University of Technology & Innovation Student Branch. 2015
  - 2016 International Conference on Applied Mathematics, Simulation and Modelling (AMSM2016), Mahidol University and Macquarie University. 2016
  - 2016 International Conference on Electrical Power, Communication and Computing Technologies (ICEC2T), IEEE Power & Energy Society, India & National Institute of Engineering, Mysuru, India. 2016
  - 2016 International Conference on Mechanical, Electronic and Information Technology (MEIT2016), August 28-29, 2016, Phuket, Thailand. 2016
12. Journal Manuscript Reviewer for:
- IJET/Pertanika journal, UPM. 2007 to date
  - International Journal of Electrical Power and Energy Systems (Elsevier). Active
  - Majlesi Journal of Electrical Engineering (MJEE), Islamic Azad University Majlesi Branch. Jul 2012 to date
  - Journal of Engineering Science and Technology (Kyushu Institute of Technology). Active
  - International Journal of Physical Sciences (Academic Journals - Open Access Journals). Active
  - International Transactions on Electrical Energy Systems (formerly European Transactions on Electrical Power) (John Wiley & Sons). Active
  - IET Generation, Transmission & Distribution (Institution of Engineering and Technology, IET). 2014 to date
  - Journal of Electrical Systems, Q3 IF, (Engineering and Scientific Research Groups (ESRGroups) – from AMPE2015).
13. Conference Manuscript Reviewer for:
- World Engineering Congress 2007 (WEC 2007), Penang, Malaysia, 5-9 August 2007. 2007
  - Australia Australasian Universities Power Engineering Conference (AUPEC2006), Victoria University, 10–13 December, 2006. 2006
  - 2012 IEEE International Power Engineering and Optimization Conference (PEOCO2012), April 2012. 2012
  - 4th International Conference on Intelligent and Advanced Systems (ICIAS2012), Feb 2012. 2012
  - 2013 IEEE International Power Engineering and Optimization Conference (PEOCO2013), April 2013. 2013
  - 2013 IEEE Conference on Clean Energy and Technology (CEAT 2013), 18–20 Nov 2013. 2013
  - 2014 Innovative Smart Grid Technologies Asia Conference (ISGT Asia), 20–23 May, 2014, Kuala Lumpur, Malaysia. 2014



- 2014 IEEE International Power and Energy Conference (PECON 2014) 2014
  - 2014 IEEE Student Conference on Research and Development IEEE (SCoReD 2014) 2014
  - 2015 10th Asian Control Conference (ASCC 2015), 31 May – 3 June 2015, Kota Kinabalu, Sabah, Malaysia. 2015
  - 2015 7th International Conference on Sustainable Agriculture for Food, Energy and Industry (ICSAFEI 2015), 25–27 August 2015, Universiti Putra Malaysia. 2015
  - 2015 Malaysian Technical Universities Conference on Engineering and Technology (MUCET 2015), Malaysian Technical Universities Network (MTUN), 11–13 October 2015, Johor Bahru, Malaysia.
  - 2015 International Conference on Advanced Mechanics, Power and Energy (AMPE 2015), 5-6 December 2015, Hotel Holiday Inn Kuala Lumpur, Glenmarie, Malaysia.
14. Technical Editor for:
- Asian Journal of Scientific Research (publisher: Asian Network for Scientific Information) 2011 to date
  - Asian Journal of Artificial Intelligence (publisher: Asian Network for Scientific Information) 2011 to date
  - Journal of Applied Sciences (publisher: Asian Network for Scientific Information) 2011 to date
15. Review Editor for:
- The Editorial Board of the Frontiers in Energy Systems and Policy (publisher: Frontiers). Oct 2013 to date
  - **The Editorial Board Member of the Annals of Applied Mathematics and Management (publisher: xx to date**
16. Research Proposal Evaluator for:
- "The 2011 Schneider Electric Malaysia University Challenge" program, Department of Electrical and Electronics Engineering, Fac. Of Eng., UPM and Schneider Electric Malaysia. 2011
  - Fundamental Research Grant Scheme (FRGS) application by Kolej Universiti Kejuruteraan & Teknologi Malaysia (KUKTEM). 2006
17. Advising Officer for:
- UPM Postgraduate Study Exhibition, 9–10 Jun 2012. 9 – 10 Jun 2012
18. Committee Member for:
- UPM Consultant Evaluation for Physical Development/Study – Appointment by Vice Chancellor UPM. 10 Jan 2012 to 9 Jan 2015,  
3 Jun 2015 to 2 Jun 2018
  - Specialist Member (Pakar Bidang Khusus) in Power System Protection and Building Electrical Installation Works for Value Engineering Lab for infrastructural projects in UPM – Appointment by Vice Chancellor UPM. 1 Feb 2012 to date
  - Accreditation review of Bachelor of Electrical Engineering Program by the Engineering Accreditation Council (EAC) Malaysia (by virtue of being Head of Academic Power Unit). 2013 to date
  - Faculty of Engineering Open Day – Final Year Project Exhibition', Department of Electrical and Electronic Engineering, Faculty of Engineering (25 Jun 2013). 2013
  - 'Faculty of Engineering Open Day – Final Year Project Exhibition', Department of Electrical and Electronic Engineering, Faculty of Engineering (26 Jun 2012). 2012
  - Proposal Evaluator for the "2011 Schneider Electric Malaysia University Challenge". 2011
  - Electricity Supply Disturbance Investigation, Block C laboratories, Eng. Fac., UPM. 2011
19. Lab. Coordinator for:
- Electrical Power Laboratories, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM.

- Lab D2.3 16 Feb 2011 to Dec 2014
  - Lab KEE 008 19 Sep 2006 to Jan 2007
  - Lab KEE 009 17 Aug 2005 to Sep 2006
20. Webmaster (Publicity Representative), Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM. 17 Dec 2005 to Jan 2007
21. Academic Advisor for:
- Electrical and Electronic Eng. BSc students, UPM. 2005 to date
22. Examiner for :
- Industrial Training of final year students – visiting/report examiner at training venues. 2005 to date
  - Final Year Projects of Bachelor’s degree students. 2006 to date
  - PhD thesis 2014 to date
23. Supervisor and Co-Supervisor for BSc, MSc and PhD students, both local and international. 2011 to date

## Publications

### Journals

1. Kaigama, M., Abdul Wahab, N. I., Othman, M. L. Conventional Appliance Operation Modifier from Conventional Grid to Smart Grid Operation Mode. Journal of Electrical Systems. ?? (??), pp. ??-??, 2015 (to be submitted from AMPE2015). (SCOPUS indexed).
2. Zahurul, S., Mariun, N., Grozescu, I. V., Tsuyoshi, H., Mitani, Y., **Othman, M. L.**, Hizam, H., Abidin, I. Z. Future Strategic Plan Analysis for Integrating Distributed Renewable Generation to Smart Grid through Wireless Sensor Network: Malaysia Prospect. Renewable and Sustainable Energy Reviews (Elsevier), 53, pp. 978-992, 2016. (IF: 5.901)
3. Othman, M. M., Hilmi Harun, M. H., Salim, N. A., **Othman, M. L.** Sequential Process Of Feature Extraction Methods For Artificial Neural Network In Short Term Load Forecasting. ARPN Journal of Engineering and Applied Sciences, 10 (19), pp. 8830-8838, 2015. (SCOPUS indexed)
4. Ali, N. H., Ali, B. M., Basir, O., **Othman, M. L.**, Hashim, F. IEC 61850-Based WLAN Peer-To-Peer Feeder Protection Improvement in Smart Grid Substation Automation System. Journal of Theoretical and Applied Information Technology, 80 (3), pp. 510-520, 2015. (SCOPUS indexed)
5. **Othman, M. L.**, Olufemi, O. E., Hizam, H., Othman, M. M. Protection Coordination Improvement on Interconnected Distribution System with Smart Power Supply Sources. Agriculture and Agricultural Science Procedia (Elsevier), ?? (??), pp. ??-??, 2015 (accepted). (SCOPUS indexed).
6. Olufemi, O. E., **Othman, M. L.**, Hizam, H., Othman, M. M. Time–Current Characteristic Curve Prediction for Directional Overcurrent Relays in interconnected Network using Artificial Neural Network. ARPN Journal of Engineering and Applied Sciences, 10 (22), pp. 10679-10685, 2015.
7. Yahya, M. A., Othman, M. M., Abdul Razak M. A., Zakaria, Z., Musirin, I., Kari, M. N., Osman, M. F., Abu Hassan, M. Z., Mohd Dzin, S. H., Azrae, B., Wan Ismail, W. S., Salleh, M. H., Jafar, S., **Othman, M. L.** Ant Colony Optimization Technique in Optimal Capacitor Placement and Sizing Problem in Unbalanced Electrical Distribution System. Applied Mechanics and Materials: Recent Trends in Power Engineering, 785, pp. 78-82, 2015. (SCOPUS indexed)
8. Olufemi, O. E., **Othman, M. L.**, Hizam, H., Othman, M. M. Artificial Neural Network Application in Optimal Coordination of Directional Overcurrent Protective Relays in Electrical Mesh Distribution Network. Applied Mechanics and Materials: Recent Trends in Power Engineering, 785, pp. 48-52, 2015. (SCOPUS indexed).
9. Tariq, W., **Othman, M. L.**, Mariun, N., Abdul Wahab, N. I. Standby Mode Minimization and Periodic Controlling for Efficient Building Energy Management System Using Fuzzy Logic and Image Processing Tool. Anais da Academia Brasileira de Ciências (Annals of the Brazilian Academy of Sciences), 2015 (accepted). (IF: 0.875).
10. Zahurul, S., Mariun, N., **Othman, M. L.**, Hizam, H., Valeriu, I., Zainal, I., Tsuyoshi, H., Mitani, Y. Analytical Modeling Based on Experimental Data for Photovoltaic Powered Battery in Smart Grid. Jokull Journal, 2015 (accepted). (IF: 1.63).
11. Tariq, W., **Othman, M. L.**, Mariun, N., Abdul Wahab, N. I. What Smart Building Management System can offer to overcome Power and Economical Wastage : Brief Discussion by Taking Malaysian Power Infrastructure as a Sample. The SIJ Transactions on Industrial, Financial & Business Management, 3 (3), pp. 27-31, 2015.
12. Ali, N.H., Mohd Ali, B., Abdala, M. A., **Othman, M.L.**, Hashim, F. Comparisons Process-to-Bay Level Peer-to-Peer Network Delay in IEC 61850 Substation Communication Systems. Journal of

- Electrical System and Information Technology (Elsevier), 1 (3), pp. 266-275, 2014. (SCOPUS indexed).
13. Rezaei, N., **Othman, M. L.**, Abdul Wahab, N. I., Hizam, H., Olufemi, O. E. Wind Power Plants Protection Using Overcurrent Relays. *Universal Journal of Electrical and Electronic Engineering*, 2(8), pp. 311-319, 2014.
  14. Badar, Q., **Othman, M. L.**, Mohd Radzi, M. A., Abdul Wahab, N. I. Wireless Communication of Transformer Differential Protection. *Journal of Theoretical and Applied Information Technology*, 2014 (accepted). (SCOPUS indexed)
  15. **Othman, M. L.**, Aris, I., Abdul Wahab, N. I. Modeling and Simulation of Industrial Numerical Distance Relay Aimed at Knowledge Discovery in Resident Event Report. *Simulation: Transactions of Society for Modelling and Simulation International*, 90(6), pp. 660-686, 2014. (IF: 0.737).
  16. Mirfendereski, S., Abdul Wahab, N. I., Jasni, J., **Othman, M. L.** Mitigation Of Power System Small Signal Oscillation Using Posicast Controller And Evolutionary Programming. *Journal of Engineering Science and Technology*, 10 (1), pp. 50–67, 2014. (SCOPUS indexed)
  17. Rezaei, N., **Othman, M. L.**, Abdul Wahab, N. I., Hizam, H., Maghami, M., Hajighorbani, S., Olufemi, O. E. Optimal Coordination of Overcurrent Relays in Power Systems Protection: A Review. *Jokull Journal*, 64(4), pp. 159-183, 2014. (IF: 1.00).
  18. Islam, S. Z., Mariun, N., **Othman, M. L.**, Hizam, H., Zainal, I. Dynamic Communication for Smart Metering: Leading Edge for Sustainable Energy and PHEV. *Journal of Advanced Materials Research*, 805–806, pp. 1107–1115, 2013. (SCOPUS indexed).
  19. Islam, S. Z., Mariun, N., Grozescu, V., **Othman, M. L.**, Hizam, H., Mohd Radzi, M. A., Izham. Development of a prototype for remote current measurements of PV panel using WSN. *International Journal of Smart Grid and Clean Energy*, 3 (2), pp. 241-246, 2013.
  20. **Othman, M. L.**, Aris, I. Novel Rule Base Maintenance of Protective Relay Analysis Expert System. *European Transactions on Electrical Power (International Transactions on Electrical Energy Systems)* (John Wiley & Sons, Ltd), 2013 (submitted). (IF: 0.63).
  21. **Othman, M. L.**, Aris, I., Othman, M. R., Osman, H. Inconsistent decision system: rough set based timing characteristic analyses of distance protective relay. *Applied Soft Computing (Elsevier)*, 12 (8), pp. 2053–2062, 2012. (IF: 2.612)
  22. **Othman, M. L.**, Aris, I., Othman, M. R., Osman, H. Rough-Set-and-Genetic-Algorithm Based Data Mining and Rule Quality Measure to Hypothesize Distance Protective Relay Operation Characteristics from Relay Event Report. *Int. J. Electrical Power and Energy Systems (Elsevier)*, 33, pp. 1437-1456, 2011. (IF: 2.212)
  23. **Othman, M. L.**, Aris, I., Abdullah, S. M., Ali, M. L., Othman, M. R. Knowledge discovery in distance relay event report: a comparative data mining strategy of rough set theory with decision tree. *IEEE Trans. Power Delivery*, 25 (4), pp. 2264-2287, 2010. (IF: 1.415)
  24. **Othman, M. L.**, Aris, I., Abdullah, S. M., Ali, M. L., Othman, M. R. Making implicit knowledge of distance protective relay operations and fault characteristics explicit via rough set based discernibility relationship. *Journal of Applied Science Research*, 5 (10), pp. 1698-1708, 2009. (SCOPUS indexed)
  25. **Othman, M. L.**, Aris, I., Abdullah, S. M., Ali, M. L., Othman, M. R. Othman. Discovering decision algorithm from a distance relay event report. *Journal of Applied Science*, 9 (19), pp. 3433-3453, 2009. (SCOPUS indexed)
  26. **Othman, M. L.**, Aris, I., Abdullah, S. M., Ali, M. L., Othman, M. R. Discovering decision algorithm from a distance relay event report. *European Journal of Scientific Research*, 3 (1), pp. 30-56, 2009. (SCOPUS indexed)
  27. **Othman, M. L.**, Aris, I., Mariun, N., Sahbudin, R. K. Z. Knowledge-based power sytem protection design courseware. *Journal of Applied Science*, 6 (15), pp. 2963-2977, 2006. (SCOPUS indexed).

#### Conference Proceedings

1. Kaigama, M., Abdul Wahab, N. I., **Othman, M. L.** Conventional Appliance Operation Modifier from Conventional Grid to Smart Grid Operation Mode. 2015 International Conference on Advanced Mechanics, Power and Energy (AMPE2015), Hotel Holiday Inn Kuala Lumpur, Glenmarie, Shah Alam, Malaysia, 5-6 Dec 2015, pp xxx-xxx.
2. Al Ogoili, A. S., Aris, I., **Othman, M. L.**, Maghami, M. R. The Method of Third Harmonic Injection Feedback to Input of Three Phase Bridge Rectifier to Improve the Input Current. IEEE 3rd International Conference on Artificial Intelligence, Modelling and Simulation (AIMS2015), Kota Kinabalu, Sabah, Malaysia, 2-4 Dec 2015. Pp. xx-xx.

3. Maghami, M. R., Gomes C., Hizam, H., **Othman, M. L.** Design of 24 Hour Energy Generation from Renewable Energy. 2015 9th European Modelling Symposium (EMS2015), Madrid, Spain, 6-8 Oct 2015. pp. 284.
4. Olufemi, O. E., **Othman, M. L.**, Hizam, H., Othman, M. M. Time-Current Characteristic Prediction for Directional Overcurrent Relays in Interconnected Network Using Artificial Neural Network. Joint International Conference on Electrical Control and Computer Engineering 2015 (InECCE 2015), Bukit Gambang Resort City, Pahang, Malaysia, 27-28 Oct 2015, pp. xxx-xxx.
5. Ali, N.H., Mohd Ali, B., Basir, O., **Othman, M.L.**, Hashim, F. WLAN Oriented Optimization of Process Bus in IEC 61850 Based Substation Communication Network. 2015 3rd International Renewable and Sustainable Energy Conference (IRSEC'15), Marrakech & Ouarzazate, Morocco, 10-13 Dec 2015, pp. xx-xx.
6. Islam, S. Z., Mariun, N., Kah, L., Hizam, H., **Othman, M. L.**, Zainal Abidin, I., Norman, Y. A Novel Zigbee-based Data Acquisition System for Distributed Photovoltaic Generation in Smart Grid. IEEE PES Innovative Smart Grid Technologies in Asia (ISGT Asia 2015), Bangkok, Thailand, 4-6 Nov 2015, pp. xxx-xxx.
7. Islam, S. Z., Mariun, N., **Othman, M. L.**, Hizam, H., Zainal Abidin, I., Toudeshki, A. Ambient Temperature Effect on Amorphous Silicon (A-Si) Photovoltaic Module Using Sensing Technology. 2015 9th International Conference on Sensing Technology (ICST2015), Auckland, New Zealand, 8-10 Dec 2015, pp. 247-253.
8. Islam, S. Z., Mariun, N., **Othman, M. L.**, Hizam, H., Zainal Abidin, I. Outcome Based Approach for FYP Project: A Quality Assurance Protocol for Electrical Engineering Education in Malaysia. FEIC International Conference on Engineering Education & Research 2015 (FICEER2015), Madinah, Kingdom of Saudi Arabia, 19-21 Dec 2015, pp. xxx-xxx.
9. **Othman, M. L.** Intelligent Knowledge Discovery for Decision Support System in Protection Performance Analysis. 2015 IEEE International Symposium on Advances in Power Distribution Engineering: Distributed Generation, MicroGrid and Renewable Integration, the National Institute of Engineering, Mysuru, Karnataka, India. 28-29 August, 2015, pp. 9-10.
10. Kaigama, M., Abdul Wahab, N. I., **Othman, M. L.** Design Concept of Robust Hybrid Power Supply System for Medium-Scale Industries and Farms. 7th International Conference on Sustainable Agriculture for Food, Energy and Industry in Regional and Global Context (7th ICSAFEI2015), Faculty of Engineering, Universiti Putra Malaysia, 25-27 Aug 2015, pp xxx-xxx.
11. **Othman, M. L.**, Olufemi, O. E., Hizam, H., Othman, M. M. Protection Coordination Improvement On Interconnected Distribution System With Smart Power Supply Sources. 7th International Conference on Sustainable Agriculture for Food, Energy and Industry in Regional and Global Context (7th ICSAFEI2015), Faculty of Engineering, Universiti Putra Malaysia, 25-27 Aug 2015, pp xxx-xxx.
12. Yahya, M. A., Othman, M. M., Abdul Razak M. A., Zakaria, Z., Musirin, I., Kari, M. N., Osman, M. F., Abu Hassan, M. Z., Mohd Dzin, S. H., Azrae, B., Wan Ismail, W. S., Salleh, M. H., Jafar, S., **Othman, M. L.** Ant Colony Optimization Technique in Optimal Capacitor Placement and Sizing Problem in Unbalanced Electrical Distribution System. 2015 9th International Power Engineering And Optimization Conference (PEOCO2015), Melaka, Malaysia, 18-19 Mar 2015, pp. xxx-xxx.
13. Olufemi, O. E., **Othman, M. L.**, Hizam, H., Othman, M. M. Artificial Neural Network Application in Optimal Coordination of Directional Overcurrent Protective Relays in Electrical Mesh Distribution Network. 2015 9th International Power Engineering And Optimization Conference (PEOCO2015), Melaka, Malaysia, 18-19 Mar 2015, pp. xxx-xxx.
14. Islam, S. Z., Mariun, N., **Othman, M. L.**, Hizam, H., Zainal Abidin, I., Toudeshki, A. Experimental Analysis for Temperature Effect on Amorphous Silicon (A-Si) Photovoltaic Module Using Automatic Load Selection System. 2nd AUN/SEED-Net Regional Conference on Energy Engineering (RCEnE-2014), Bangkok, Thailand, 13-14 Nov 2014, pp. xxx-xxx.
15. Rezaei, N., **Othman, M. L.**, Abdul Wahab, N. I., Hizam, H. Coordination of Overcurrent Relays Protection Systems for Wind Power Plants. 2014 IEEE International Conference on Power and Energy (PECON 2014) – Power Quality, Power System Protection track, Kuching, Sarawak, Malaysia, 1-3 December 2014, pp. 394-399.
16. Rezaei, N., **Othman, M. L.**, Abdul Wahab, N. I., Hizam, H. Wind Power Plants Protection using Overcurrent Relays. Seoul International Conference on Applied Science and Engineering (SICASE2014), Seoul, South Korea, 29-31 August 2014, pp xx-xx.
17. Tariq, W., **Othman, M. L.**, Mariun, N., Abd. Wahab, N. I., Rasool, Z. What Smart Building Management System Can Offer: Brief Discussion By Taking Malaysian Power Infrastructure As A Sample. 2<sup>nd</sup> International Symposium on Computer Science and Electrical Engineering (ISCSEE 2014), Phuket, Thailand, 14-16 March 2014, pp. 76-84.

18. **Othman M. L.** From Computational Intelligence to Intelligent Data Mining in Protection Performance Analysis: Challenges and Motivations in Review. IEEE International Conference on Circuit, Power and Computing Technologies, 2014 (ICCPCT-2014), Noorul Islam University, Kanyakumari, Tamil Nadu, India, 20-21 March 2014.  
(Keynote Address)
19. Mirfendereski, S., Abdul Wahab, N. I., Jasni, J., **Othman, M. L.** Application of Posicast Controller on Power System Stabilizer and Its Effect on Oscillatory Stability. 7th Global Conference on Power Control and Optimization, Prague, Czech Republic, 25-26 Aug 2013.
20. Farzan, P., Soheilrad, M., **Othman, M. L.**, Hojabri, M., Broujerdian, M. M. CFD analysis of Wind blocking vs. Venturi effect: A Case Study in Tropical Climate. 2013 International Conference on Renewable Energy and Sustainable Energy (ICRESE'13), Karunya University Coimbatore, India, 5-6 Dec 2013, pp. 192-195.
21. Islam, S. Z., Mariun, N., **Othman, M. L.**, Hizam, H., Zainal, I. Dynamic Communication for Smart Metering: Leading Edge for Sustainable Energy and PHEV. 2013 International Conference on Advances in Energy and Environmental Science (ICAEEES 2013), Guangzhou, China, 30-31 July 2013.
22. Karami, K., Farzan, P., **Othman, M. L.**, Soheilrad, M., Ahmadi, M. PID Controller Adjustment for MA-LFC by Using a Hybrid Genetic-Tabu Search Algorithm. 2013 International Conference on System Engineering and Technology (ICSET 2013), Faculty of Electrical Engineering, Universiti Teknologi Mara, Shah Alam, Malaysia, 19-20 August 2013, pp. 197-202.
23. Soheilrad, M., Farzan, P., **Othman, M. L.**, Karami, K., Hojabri, M. PID controller adjustment for MA-LFC by using Imperialist Competitive Algorithm. 2013 IEEE 7th International Power Engineering and Optimization Conference (PEOCO2013), Langkawi, Malaysia, 4-5 June 2013, pp. 507-512.
24. Saberian, A. M., Farzan, P., Nejad, M. F., Hizam, H., Gomes, C., **Othman, M. L.**, Mohd Radzi, M. A., Ab Kadir, M. Z. A. Role of FACTS devices in improving penetration of renewable energy. 2013 IEEE International Power Engineering and Optimization Conference (PEOCO2013), Langkawi, Malaysia, 4-5 June 2013, pp. 432-437.
25. Islam, S. Z., Mariun, N., Grozescu, V., **Othman, M. L.**, Hizam, H., Abidin, I. Z. Electricity Measurement Sensor: A Review on Application to Smart Meter Communication. 3<sup>rd</sup> International Conference on Engineering Education 2013 (ICEE2013), Madinah, Kingdom of Saudi Arabia, 22-25 Dec 2013, pp. 492-500.
26. Mirfendereski, S., Wahab, N. I. A., Jasni, J., **Othman, M. L.** Small Signal Stability Assessment and Control of Power Systems. 2012 IEEE International Power Engineering and Optimization Conference (PEOCO2012), Melaka, Malaysia, 6-7 June 2012, pp.515-520.
27. Islam, S. Z., Mariun, N., Hizam, H., **Othman, M. L.**, Radzi, M. A. M., Hanif, M., Abidin, I. Z. Communication for Distributed Renewable Generations (DRGs): A Review on the Penetration to Smart Grids (SGs). 2012 IEEE International Power and Energy Conference (PECON 2012) – Smart Grid & Utility Applications, Kota Kinabalu, Malaysia, 2-5 December 2012, pp. 870-875.
28. **Othman, M. L.**, Aris, I., Abdullah, S. M., Ali, M. L., Othman, M. R. Protection decision algorithm discovery from numerical relay recorded event report. International Advanced of Technology Congress, ATCi'09, PWTC, KL, 3-5 Nov 2009.
29. **Othman, M. L.**, Aris, I., Abdullah, S. M., Ali, M. L., Othman, M. R. Rough set based data mining strategy for analyzing distance protective relay operations. International Conference on Computational Intelligence, Modelling and Simulation, CSSim'09, Brno University, Czech Republic, 7-9 September 2009.
30. **Othman, M. L.**, Aris, I., Abdullah, S. M., Ali, M. L., Othman, M. R. Rough set based data mining strategy for analyzing distance protective relay operations. International Conference on Information and Knowledge Engineering, IKE'09, Las Vegas, Nevada, USA, 13-16 July 2009.
31. **Othman, M. L.**, Aris, I., Mariun, N., Sahbudin, R. K. Z. Power System Protection Simulator and Expert System Software. Research and Innovation Exhibition, Universiti Putra Malaysia, 1-9 March 2005.
32. **Othman, M. L.**, Aris, I., Mariun, N., Sahbudin, R. K. Z. Development of Power System Protection Knowledge-Based Expert System Using Interactive Multimedia Approach.. AORC-CIGRE Regional Technical Meeting, Putrajaya, 23-25 March 2004.

## Books

## Chapter in Books



1. **Othman, M. L.**, Aris, I., “Inconsistent Decision System: Rough Set Data Mining Strategy to Extract Decision Algorithm of a Numerical Distance Relay – Tutorial”, in *Advances in Data Mining Knowledge Discovery and Applications*, Adem Karahoca (Ed.). Rijeka, Croatia: InTech, 2012, pp. 117-142. ISBN: 978-953-51-0748-4. Available from: <http://www.intechopen.com/books/advances-in-data-mining-knowledge-discovery-and-applications/inconsistent-decision-system-rough-set-data-mining-strategy-to-extract-decision-algorithm-of-a-numer>
2. Yahya, M. A., Othman, M. M., Abdul Razak M. A., Zakaria, Z., Musirin, I., Kari, M. N., Osman, M. F., Abu Hassan, M. Z., Mohd Dzin, S. H., Azrae, B., Wan Ismail, W. S., Salleh, M. H., Jafar, S., **Othman, M. L.**, “Ant Colony Optimization Technique in Optimal Capacitor Placement and Sizing Problem in Unbalanced Electrical Distribution System” in *Recent Trends in Power Engineering*, Ismail Musirin and Shahril Irwan Sulaiman (Eds.). Pfaffikon, Switzerland: Trans Tech Publications Inc, 2015, pp. 78-82. ISBN: 978-3-03835-512-0. Available from: <http://www.scientific.net/AMM.785.48>
3. Olufemi, O. E., **Othman, M. L.**, Hizam, H., Othman, M. M., “Artificial Neural Network Application in Optimal Coordination of Directional Overcurrent Protective Relays in Electrical Mesh Distribution Network” in *Recent Trends in Power Engineering*, Ismail Musirin and Shahril Irwan Sulaiman (Eds.). Pfaffikon, Switzerland: Trans Tech Publications Inc, 2015, pp. 48-52. ISBN: 978-3-03835-512-0. Available from: <http://www.scientific.net/AMM.785.48>

### Research Grants

No	Project Title	Amount (RM)	Year	Source of Fund
1.	Improvement of Directional Overcurrent Relay Coordination in Mesh Distribution Network Using Artificial Intelligence with Rough Set Approach – <b>(Project Leader)</b> .	8,000	Sep 2014 – Sep 2016	Geran Putra IPS
2.	Intelligent Data-Mining-Based System Protection Scheme in Smart Grid – <b>(Project Leader)</b> .	100,000	Nov 2013 – Nov 2015	Geran Putra IPB (Sub-Project)
3.	Development of Rule Base Maintenance Strategy of a Numerical Protective Relay Analysis Expert System Using Data Mining – <b>(Project Leader)</b> .	115,000	Sep 2012 – Aug 2014	UPM, Research University Grant Scheme (RUGS)
4.	An Intelligent Data Mining Technique in Numerical Protective Relay Performance Analysis – <b>(Project Leader)</b> .	98,000	Aug 2011 – Jul 2013	Ministry of Higher Education – Fundamental Research Grant Scheme (FRGS)
5.	Automated analysis of numerical protective relay operation using FPGA – <b>(Project Leader)</b> .	60,000	Feb 2007 – Jan 2009	Ministry of Higher Education – Fundamental Research Grant Scheme (FRGS)
6.	Sustainable Hydrokinetic Renewable Energy: Hydrokinetic Power and Control Protection System (HPCPS): Lightning Surge Protection – <b>(Principal Researcher)</b> .	90,000	1 Nov 2013 – 29 Nov 2016	Research and Innovation Unit, Training & Research Division, JKR Malaysia
7.	Design and Development of Robust Communication Model and Control System with Incorporated Decentralized Renewables in Smart Grids – <b>(Project Member)</b> .	240,000	Sept 2012	Ministry of Science, Technology and Innovation – Science Fund



8.	Dynamic Vulnerability Assessment System for Electrical Power System Stability Enhancement – <b>(Project Member)</b> .	57,200	Dec 2012	UPM, Research University Grant Scheme (RUGS)
9.	Assessment and Control of Power Systems Using Hybrid Artificial Intelligence Techniques for Small Signal Stability Problem – <b>(Project Member)</b> .	13,000	Dec 2012	UPM, Research University Grant Scheme (RUGS)
10.	Intelligent Control and Communication System for Smart Grid Power System – <b>(Project Member)</b> .	100,000	Nov 2013 – Nov 2015	Geran UPM IPB (Sub-Project)
11.	<b>Dr Norhisam's</b> – <b>(Project Member)</b> .	????????	??? 2015	Ministry of Science, Technology and Innovation – Science Fund

### Awards/Recognition (Current)

No	Name of awards	Title	Award Authority	Award Type	Year
1.	Excellent Service Award 2014 (Anugerah Perkhidmatan Cemerlang 2013)	Excellent Service Award 2014	UPM	University	2015
2.	Excellent Service Award 2013 (Anugerah Perkhidmatan Cemerlang 2013)	Excellent Service Award 2013	UPM	University	2014
3.	Excellent Service Award 2012 (Anugerah Perkhidmatan Cemerlang 2012)	Excellent Service Award 2012	UPM	University	2013
4.	Nomination for Vice Chancellor Fellowship Award (Pencalonan Anugerah Felohsip Naib Canselor (Kategori Pengajaran))		UPM	University	2014
5.	Excellent Teaching Award 2012 (Anugerah Kecemerlangan Dalam Pengajaran 2012)	Excellent Teaching Award 2012	UPM	University	2012
6.	Excellent Teaching Award 2011 (Anugerah Kecemerlangan Dalam Pengajaran 2011)	Excellent Teaching Award 2011	UPM	University	2011
7.	Scholarship to pursue PhD in Power Electrical Engineering at UPM under the 'Skim Latihan Akademik IPTA (SLAI)'	Discovering Decision Algorithm Of Distance Protective Relay Based On Rough Set Theory And Rule Quality Measure	Ministry of Higher Education Malaysia (Skim Latihan Akademik IPTA (SLAI))	National	2007-2011
8.	Bronze Medal	Power System Protection Simulator and Expert	UPM	University	2005

		System Software (in Design, Research and Innovation Exhibition, 1-19 March 2005)			
9.	Patent Pending	Software for Determining the Optimal Parameters, Magnetic Field Distribution and Simulating the Behavior of Wireless Energy Transfer System, 29 August 2014, Ishak Aris, Radin Zaim Radin Umar, Mohammad Lutfi Othman.	Putra Science Park (Office of The Deputy Vice Chancellor (Research & Innovation), UPM		2014
10.	Copyright	“Phasor Comparator Algorithm for Power Swing Blocking in Distance Protection”, 15 May 2015, Mohammad Lutfi Othman, Mohammed Sani Ya’u, Nigerian, Prof. Dr. Ishak Aris, Dr. Noor Izzri Abdul Wahab.	Putra Science Park (Office of The Deputy Vice Chancellor (Research & Innovation), UPM		2015
11.	Best paper award	Best paper award for a paper titled “Coordination of Overcurrent Relays Protection Systems for Wind Power Plants” presented in “2014 IEEE International Conference on Power and Energy (PECON 2014) – Power Quality, Power System Protection track, Kuching, Sarawak, Malaysia, 1 - 3 December 2014”	IEEE (PES and PELS)	Internatio nal	2014

Professional Services/Consultation				
No	Year	Title	Authority	Amount
1.	1998 to date	Electrical Project Director of Sigma Jelas Engineers Sdn Bhd, Jentrik Sdn. Bhd – To date, over 27 years of professional experience with nearly 200 projects in electrical (& mechanical) engineering consultancy works of private and government agencies.	Various private and government agencies	Hundreds of millions of RM (M&E)
2.	Jan 2016	Jurutera Professional Bagi Kajian dan Pengendorsan Lukisan Servis Elektrikal ‘Sewage Treatment Plant’ untuk: Cadangan Pembangunan Rumah Mampu Milik Bercampur Di Atas Lot 200, 448 and 449, JAWI, Mukim 6, Daerah Seberang Perai Selatan, Pulau Pinang Untuk Tetuan UNI Property Sdn. Bhd.	Pakar Management Technology (M) Sdn Bhd	
3.	April 2015	Technical Expert Report for DGS System (PoE for the control of electrical fittings especially lighting fixtures and 13A switched socket outlets) designed/produced by Digital Switch Technologies Sdn Bhd	Malaysian Technology Development Corporation Sdn Bhd (MTDC)	RM 4 mil

4.	Dec 2013	Jurutera Professional Bagi Kajian dan Pengendorsan Lukisan Servis Elektrikal untuk: Électrical Works for “Cadangan Pembinaan Tapak Pelupusan Sisa Pepejal Sanitari (Fasa 1) Di Sungai Udang, Melaka”	Pakar Management Technology (M) Sdn Bhd	
5.	Jan 2013	Jurutera Professional Bagi Kajian dan Pengendorsan Lukisan Servis Elektrikal untuk: ‘Electrical Works of Sewerage Treatment Plant for: Construction and Completion of Earthwork and Infrastructure Works for the Development of Gambang Halal Park at Taman Teknologi Gambang, Pahang Darul Makmur.’	Azmanir Service (Wastewater Engineering Specialist).	
6.	Nov 2012	Jurutera Professional Bagi Kajian dan Pengendorsan Lukisan Servis Elektrikal untuk: Cadangan Pembinaan Loji Rawatan Effluen Untuk Kerja-Kerja Ubahsuai ke atas Kilang/Stor Sediada di atas Lot No. 1, Persiaran Perusahaan, Seksyen 23, 40000 Shah Alam, Selangor Untuk Fresh Start Bakeries (M) Sdn. Bhd.	Pakar Management Technology (M) Sdn Bhd	
7.	Oct 2012	Khidmat Nasihat & Perunding Bacaan Tarif Elektrik (Meter) di Premis Koperasi Universiti Putra Malaysia	Koperasi Universiti Putra Malaysia, UPM	
8.	Oct 2012	Jurutera Professional Bagi Kajian dan Pengendorsan Lukisan Servis Elektrikal untuk: Cadangan membina dan Menyiapkan Sebuah Bangunan Loji Pandu 2 Tingkat, Sebuah Pusat Rawatan Bahan Buangan Kimia dan Sebuah Bangsal Di Atas Sebahagian Lot 52, Jalan Graduan 1/23, Seksyen 1, 40000 Shah Alam, Selangor Untuk Fakulti Kejuruteraan Kimia, Universiti Teknologi Mara (UiTM)	Pakar Management Technology (M) Sdn Bhd	
9.	Apr 2011	Jurutera Professional Bagi Kajian dan Pengendorsan Lukisan Servis Elektrikal untuk: Cadangan Merekabentuk dan Membina Stesen Pam Sistem Pembentungan di Fasa 1, Pakej 2 – Parcel L, timur@enstek, Bandar Enstek, Negeri Sembilan Darul Khusus	Pakar Management Technology (M) Sdn Bhd	
10.	May 2011	Design checker for Electrical Services Installation Works For "Kerja-kerja Membekal & Memasang Gross Pollutant Trap (GPT) dan Kerja-Kerja Berkaitan di Lembangan Sungai Klang, Daerah Gombak dan Hulu Langat, Bagi Projek River of Live (ROL) Inisiatif 4"	Pakar Management Technology (M) Sdn Bhd	
11.	Oct 2011	Design checker for Electrical Services Installation Works for “Cadangan Pemasangan Semula Lampu Taman Sediaada di Sekeliling Tasik Fakulti Kejuruteraan, UPM”	Faculty of Engineering, UPM	

### Student Supervision

#### PhD (Main Supervisor)

No.	Name	Title	Status
1.	Ghusoon Ismail Jamil (GS41131)	Adaptive Distance Relay in Smart Grid	Ongoing
2.	Elhadi M H Akeer (GS42369)	IEC61850 Based Substation Automation System Functional and Interoperability Analysis	Ongoing
3.	Okeke Chidiebere Akachukwu (GS44825)	Adaptive Protective Relay	Ongoing

## Student Supervision

### PhD (Main Supervisor)

No.	Name	Title	Status
4.	Ali Hussein Humod (GS42708)	FPGA based Protection and Control System	Ongoing

### MS with thesis (Main Supervisor)

No.	Name	Title	Status
1.	Abid Mustafa (GS41850)	WSN implementation in Building Energy Management System	Ongoing
2.	Tarig Eisa Daw Elbeit (GS44944)	IEC61850 Based Substation Automation System	Ongoing
3.	Osaji Emmanuel Olufemi (GS37749)	Improvement Of Directional Overcurrent Relay Coordination In Mesh Distribution Network Using Artificial Intelligence.	Ongoing
4.	Mahmood Khalid Hadi (GS40869)	Intelligent Data-Mining-Based System Protection Scheme in Smart Grid	Ongoing
5.	Nima Razaei (GS36415)	Wind Power Generator Protection in Smart Grid	Ongoing
6.	Qasim Badar (GS35296)	Robust Communication in Differential Relay Protection Using Wireless Technique	Completed
7.	Mohammed Sani Yau' (GS35244)	Improvement of Power Swing Blocking Scheme in Distance Protective Relay	Completed
8.	Waqar Tariq (GS33625)	Standby Mode Minimization for Efficient Building Management System Using Fuzzy Logic	Completed
9.	Ir. Saiful Zuhaimi Bin Hj. Ahmad (GS39260)	Hydrokinetic Power & Control Protection System	Ongoing

### MS without Thesis (Main Supervisor)

No.	Name	Title	Status
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