

CURRICULUM VITAE



Dr. Norhafiz bin Azis
 Centre for Electromagnetic and Lightning Protection Research (CELP),
 Institute of Advanced Technology (ITMA)
 Department of Electrical and Electronic Engineering,
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Education

1. PhD. Electrical and Electronic Engineering, 2012, The University of Manchester, United Kingdom
2. B. Eng. Electrical Engineering, 2007, Universiti Putra Malaysia, Malaysia

Areas of Interest

1. Transformer condition monitoring
2. Insulation ageing and diagnostics
3. Transformer asset management
4. Alternative insulation materials for transformer and high voltage power equipment

Professional Qualification/ Membership/ Affiliation

1. Member, Institute of Electrical and Electronics Engineers (IEEE)
2. Member, Institute of Electrical and Electronics Engineers Power Energy and Society (IEEE PES) Malaysia
3. Member, Institute of Electrical and Electronics Engineers Dielectric and Insulation (IEEE DEIS) Malaysia
4. Member, Institute of Electrical and Electronics Engineers Circuit and System (IEEE CAS) Malaysia
5. Graduate Member, Board of Engineers Malaysia (BEM)
6. Research Associate, Institute of Advanced Technology (ITMA), Universiti Putra Malaysia
7. Member, Malaysian High Voltage Network (MyHVnet) Malaysia
8. Member, Persatuan Pegawai Akademik (PPA) Universiti Putra Malaysia

Appointments

Position	Duration
1. Industrial and Community Linkages Coordinator, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	November 2015 to date
2. Research Coordinator, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	April 2014 to October 2015
3. Research Member, Centre for Electromagnetic and Lightning Protection (CELP)	December 2013 to date
4. Electrical Power Laboratory Head, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	August 2013 to April 2014
5. Research Assistant, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	June 2007– December 2007

Teaching Experience

Subject/Laboratory	Semester (credit hours)/Year
1. Industrial Training – Universiti Putra Malaysia (Undergraduate)	2015/2016-1 and 2016/2017-1
2. Electronic System Design – Universiti Putra Malaysia (Undergraduate)	2016/2017-2



3. Power System Analysis – Universiti Putra Malaysia 2013/2014-2, 2014/2015-2, 2015/2016-2 and 2016/2017-2 (Undergraduate)
4. Power Generation and Utilization – Universiti Putra Malaysia (Undergraduate) 2013/2014-1, 2014/2015-1, 2015/2016-1, 2016/2017-1 and 2017/2018-1
5. High Voltage Laboratory – Universiti Putra Malaysia (Undergraduate UPM) 2013, 2014 and 2015
6. Power Generation and Utilization – Universiti Putra Malaysia (Postgraduate) 2013/2014-1
7. High Voltage AC Testing Laboratory – University of Manchester (Postgraduate) 2011

Publications

Journals (Scopus and ISI)

1. N. A. Raof, R. Yunus, U. Rashid, **N. Azis** and Z. Yaakub, "Palm-Based Neopentyl Glycol Diester: A Potential Green Insulating Oil", Protein and Peptide Letters, Vol. 25, 2018. (IF: 1.069)
2. N. H. Zaini, M. Z. A. Ab Kadir, M. A. M. Radzi, M. Izadi, **N. Azis** and N. I. Ahmad, " Lightning Surge Analysis on a Large Scale Grid-Connected Solar PV System," Energies, 10, p. 2149, 2017. (IF: 2.077)
3. O. I. Dallal Bashi, W. Z. Wan Hasan, **N. Azis**, S. Shafie and H. Wagatsuma, "UAV Quadcopter: A Review", J. Comput. Theor. Nanosci., Vol. 14, pp. 5563-5675, 2017. (IF: 1.666)
4. M.S. Yahaya, **N. Azis**, M.Z.A. Ab. Kadir, J. Jasni, M.H. Hairi and M.A. Talib, "Estimation of Transformers Health Index Based on the Markov Chain", Energies, 10, p. 1824, 2017. (IF: 2.077)
5. M.H. Roslan, **N. Azis**, M.Z.A. Ab. Kadir, J. Jasni, Z. Ibrahim and A. Ahmad, "A Simplified Top-Oil Temperature Model for Transformers Based on the Pathway of Energy Transfer Concept and the Thermal-Electrical Analogy", Energies, 10, p. 1843, 2017. (IF: 2.077)
6. F.A. Jamaludin, M. Z. A. Ab-Kadir, M. Izadi, **N. Azis**, J. Jasni and M. S. A. Rahman, "Effects of RTV coating on the electrical performance of polymer insulator under lightning impulse voltage condition", PLOS ONE, 12 (11), e0187892, 2017. (IF: 3.057)
7. **N. Azis**, Y.V. Thien, J. Jasni and R. Yunus, "Lightning Breakdown Voltages of Refined Bleached and Deodorised Palm Oil under Needle-plane Configuration", Pertanika Journal of Science & Technology, 25 (S), pp. 69-78, 2017. (Scopus)
8. M.H. Roslan, **N. Azis**, J. Jasni and Z. Ibrahim, "Top-oil Temperature Model for Transformers based on Nonlinear Thermal Resistance, Lumped Capacitance and Thermal-electrical Analogy", Pertanika Journal of Science & Technology, 25 (S), pp. 151-160, 2017. (Scopus)
9. J. Jasni, A. Azmi, **N. Azis**, M.S. Yahaya and M.A. Talib, "Assessment of Transformer Health Index using Different Model", Pertanika Journal of Science & Technology, 25 (S), pp. 143-150, 2017. (Scopus)
10. A. Azmi, J. Jasni, **N. Azis** and M.Z.A. Ab. Kadir, "Evolution of transformer health index in the form of mathematical equation", Renewable and Sustainable Energy Reviews, Vol. 76, pp. 687-700, 2017. (IF: 6.798)
11. N.I. Ahmad, M.Z.A. Ab-Kadir, M. Izadi, **N. Azis**, M.A.M. Radzi, N.H. Zaini and M.S.M. Nasir, "Lightning protection on photovoltaic systems: A review on current and recommended practices," Renewable and Sustainable Energy Reviews, Renewable and Sustainable Energy Reviews, Available online 12 July 2017. (IF: 6.798)
12. A.S. Al-Ogaili, I.B. Aris, A.H. Sabry, M.L.B. Othman, **N.B. Azis**, D. Isa and Y. Hoon, "Design and development of three levels universal electric vehicle charger based on integration of VOC and SPWM techniques", J. Comput. Theor. Nanosci. , Vol. 14, pp. 4674-4685, 2017. (IF: 1.666)
13. M.H.M. Sidek, **N. Azis**, W.Z.W. Hasan, M.Z.A. Ab Kadir, S. Shafie and M.A.M. Radzi, "Automated positioning dual-axis solar tracking system with precision elevation and azimuth angle control", Energy, pp. 160-170, Vol. 124, 2017. (IF: 4.292)
14. Y.V. Thien, **N. Azis**, J. Jasni, M.Z.A. Ab Kadir, R. Yunus, M.T. Ishak and Z. Yaakub, " The effect of polarity on the lightning breakdown voltages of palm oil and coconut oil under a non-uniform field for transformers application", Industrial Crops and Products, Vol. 89, pp. 250-256, 2016. (IF: 2.837)
15. N. A. Raof, R. Yunus, U. Rashid, **N. Azis** and Z. Yaakub, "Development of palm-based neopentyl glycol diester as dielectric fluid and its thermal aging performance", IEEE Transactions on Dielectric and Electrical Insulation, vol. 23, pp. 2051-2058, 2016. (IF: 1.278)
16. Y.V. Thien, **N. Azis**, J. Jasni, M.Z.A. Ab Kadir, R. Yunus, M.T. Ishak and Z. Yaakub, " Evaluation on the Lightning Breakdown Voltages of Palm Oil and Coconut Oil under Non-Uniform Field at Small Gap Distances", J Electr Eng Technol, vol. 11, pp. 184-191, 2016. (IF: 0.528)



17. N.A. Mohamad, **N. Azis**, J. Jasni, M.Z.A. Ab Kadir, R. Yunus, M.T. Ishak and Z. Yaakub, " Investigation on the Dielectric, Physical and Chemical Properties of Palm Oil and Coconut Oil under Open Thermal Ageing Condition", J Electr Eng Technol, vol. 11, pp. 690-698, 2016. (IF: 0.528)
18. O.S. Alyozbaky, M.Z.A. Ab Kadir, M. Izadi, C.Gomes and **N. Azis**, " The Behaviour of Three Phase Three-Leg 11KV Transformer Core Type Design Under Sinusoidal and Non-Sinusoidal Operating Conditions for Different Core Materials.," International Journal of Simulation Systems, Science & Technology, vol. 17, pp. 27.1-27.8, 2016. (Scopus)
19. M.A. Nazir, N. A. Kamsani, **N. Azis**, M.A. M. Radzi and W.Z.W. Hasan "Integration of Ultra-Capacitor and Battery as Hybrid Energy Storage with Intelligent Controller for Effecient Electric Vehicle Application", International Journal of Control Theory and Applications, Vol. 9, No. 5, pp. 345-355, 2016. (Scopus)
20. I. Aris, M. R. Maghami, M. L. Othman and **N. Azis** " Third Harmonic Injection Feedback to Input Technique for Input Current Improvement in Phase Bridge Rectifier," Journal of Electrical System, Special issue 3, pp.129-139, 2015. (Scopus)
21. N. Rameli, M.Z.A. Ab Kadir, M. Izadi, C. Gomes and **N. Azis**., "Effect of the grounding system on the lightning current profile along a tall structure", IET Science, Measurement & Technology, 2015. (IF: 0.954)
22. Y.V. Thien, **N. Azis**, J. Jasni, M.Z.A. Ab Kadir, R. Yunus, M.T. Ishak, Z. Yaakub and N. R. Hamzah, "A study on the lightning impulse breakdown voltages of palm oil and coconut oil by different methods," Applied Mechanics and Materials, vol.793, pp.9-13, 2015. (Scopus)
23. N.A. Mohamad, **N. Azis**, J. Jasni, M.Z.A. Ab Kadir, R. Yunus, M.T. Ishak and Z. Yaakub, "A study on the dielectric properties of RBDPO Olein under low temperature thermal ageing," Applied Mechanics and Materials, vol.793, pp.14-18, 2015. (Scopus)
24. N. Rameli, M. Z. A. Ab Kadir, M. Izadi, C. Gomes, **N. Azis** and S.N.M Arshad, "Consideration of lightning current along a tall structure in the presence of horizontal arrangement grounding," Applied Mechanics and Materials, vol.793, pp.34-38, 2015. (Scopus)
25. S.S. Sinan, S. N. Shawaludin, J. Jasni, **N. Azis**, M.Z.A. Ab Kadir and M.N. Mohtar, " Effect of Particles on the AC Breakdown Voltage of Palm Oil and Coconut Oil," Applied Mechanics and Materials, vol.793, pp.70-74, 2015. (Scopus)
26. **N. Azis**, Q. Liu and Z.D. Wang "Ageing assessment of transformer paper insulation through post mortem analysis", IEEE Transaction on Dielectric and Electrical Insulation, vol. 21, pp. 845-853, 2014. (IF: 1.360)
27. **N. Azis**, J. Jasni, M. Z. A. A. Kadir and M. N. Mohtar, "Suitability of Palm Based Oil as Dielectric Insulating Fluid in Transformers" J Electr Eng Technol, vol. 9, pp. 662-669, 2014. (IF: 0.725)

Journal (Others)

1. M.H.A. Hamid, M.T. Ishak, M.M. Arifin, N.A.M. Amin, N.I.A Katim, **N. Azis**, F.R. Hashim, and M.F. Md Din, "Dissolved Gas Analysis (DGA) of Natural Ester Oils under Arcing Faults", Journal of Fundamental and Applied Sciences, 9 (3S), pp. 105-115, 2017. (Others)
2. S. H. Alwan, J. Jasni, **N. Azis**, and M.Z.A. Ab Kadir, "Factors Affecting Current Ratings for Underground and Air Cables", International Journal of Electrical, Computer, Energetic, Electronic and Communication Engineering, No. 11, Vol. 10, 2016. (Others)
3. J.Jasni, **N.Azis**, H.Hizam, M.Z.A. Kadir, M.N. Mariun, S.B.M. Noor and S. Sobri, "An efficient generalized minimized residual simulation technique for continuation power flow studies", Asian Journal of Applied Sciences, v1(2), pp 136- 146, 2008. (Others)

Conference Proceedings

1. O. I. Dallal Bashi, W. Z. Wan Hasan, S. Shafie and **N. Azis**, "Pattern investigation for landfill of methane gas concentration measurement," 2016 2nd IEEE International Symposium on Robotics and Manufacturing Automation (ROMA), Ipoh, pp. 1-4, 2016.
2. A.S. Al-Ogaili, I.B. Aris, A.H. Sabry, M.L.B. Othman, **N.B. Azis**, D. Isa and Y. Hoon, "New technique for decreasing of total harmonic distortion of three-phases bridge rectifier by using the method of harmonic injection", 2016 IEEE Conference on Systems, Process and Control, ICSPC 2016, Melaka, no. 7920738, pp. 248-253, 2016.
3. M. M. Isa, M. Z. A. A. Kadir, C. Gomes, **N. Azis**, M. Izadi and O. S. H. Alyozbaky, "Analysis on magnetic flux density and core loss for hexagonal and butt-lap core joint transformers," 2016 IEEE 2nd Annual Southern Power Electronics Conference (SPEC), Auckland, pp. 1-4, 2016.
4. N. I. Ahmad, M. Z. A. Ab Kadir, M. Izadi, N. H. Zaini, M. A. M. Radzi, **N. Azis**, W. Z. W. Hasan, "On the performance of a polycrystalline PV panel under different impulse voltages and

- temperatures," 2016 33rd International Conference on Lightning Protection (ICLP), Estoril, pp. 1-6, 2016.
5. F. A. Jamaludin, M. Z. A. Ab-Kadir, M. Izadi, **N. Azis**, J. Jasni and M. S. A. Rahman, "Considering the effects of a RTV coating to improve electrical insulation against lightning," 2016 33rd International Conference on Lightning Protection (ICLP), Estoril, pp. 1-5, 2016.
 6. N. Rameli, M. Z. A. Ab-Kadir, M. Izadi, C. Gomes and **N. Azis**, "Variations in return stroke velocity and its effect on the return stroke current along lightning channel," 2016 33rd International Conference on Lightning Protection (ICLP), Estoril, pp. 1-5, 2016.
 7. N. Rameli, M. Z. A. Ab-Kadir, M. Izadi, C. Gomes and **N. Azis**, "Effect of soil resistivity on magnetic field in the case of lightning strike to a tall structure," 2016 33rd International Conference on Lightning Protection (ICLP), Estoril, pp. 1-6, 2016.
 8. N. H. Zaini, M. Z. A. Ab Kadir, M. Izadi, N. I. Ahmad, M. A. M. Radzi, **N. Azis** and W. Z. W. Hasan, "On the effect of lightning on a solar photovoltaic system," 2016 33rd International Conference on Lightning Protection (ICLP), Estoril, pp. 1-4, 2016.
 9. Z. Burhanuddin, C. Gomes, A. Gomes, M. Z. A. Ab Kadir, W. F. W. Ahmad and **N. Azis**, "Characteristics of fulgurite-like structures under HV conditions: Effects on electrical earthing systems," 2016 33rd International Conference on Lightning Protection (ICLP), Estoril, pp. 1-4, 2016.
 10. N. A. Mohamad, **N. Azis**, J. Jasni, M. Z. A. Ab Kadir, R. Yunus, M. T. Ishak, and Z. Yaakub, "Analysis on The Degradation of Insulation Paper in Palm Oil and Coconut Oil under High Temperature Ageing", International Conference on Power, Energy & Communication Systems (IPECS), UniMAP, Perlis, 2015.
 11. Y. V. Thien, **N. Azis**, J. Jasni, M. Z. A. Ab Kadir, R. Yunus, M. T. Ishak, and Z. Yaakub, "Investigation on the Lightning Breakdown Voltages of Palm Oil and Coconut Oil under Positive and Negative Polarities", International Conference on Power, Energy & Communication Systems (IPECS), UniMAP, Perlis, 2015.
 12. S. F. M. Nor, **N. Azis**, J. Jasni, M. Z. A. Ab Kadir, R. Yunus, M. T. Ishak, and Z. Yaakub, "Investigation on the Electrical Properties of Palm Oil and Coconut Oil under Presence of TiO₂", International Conference on Power, Energy & Communication Systems (IPECS), UniMAP, Perlis, 2015.
 13. E. J. Kadim, **N. Azis**, J. Jasni, S. A. Ahmad and M. Z. A. Ab Kadir, "Assessment On The Artificial Neural Networks Structures For Transformers Health Index Estimation", International Conference on Power, Energy & Communication Systems (IPECS), UniMAP, Perlis, 2015.
 14. S. F. M. Nor, **N. Azis**, J. Jasni, M. Z. A. Ab Kadir R. Yunus, M. T. Ishak and Z. Yaakub, "A Study on the AC Breakdown Voltages of As-Received Palm Oil and Coconut Oil Under Presence of TiO₂", IEEE Conference on Energy Conversion (CENCON), Johor Bahru, pp. 354-357, 2015.
 15. E. J. Kadim, **N. Azis**, J. Jasni, S. A. Ahmad and M. Z. A. Ab Kadir, "Dissolved Gas Analysis of Transformers Based on Rough Set and Fuzzy Logic Methods", IEEE Conference on Energy Conversion (CENCON), Johor Bahru, pp. 268-271, 2015.
 16. N. H. Zaini, M. Z. A. Ab Kadir, M. Izadi, N. I. Ahmad, M. A. M. Radzi and **N. Azis**, "The Effect of Temperature on a Mono-crystalline Solar PV Panel", IEEE Conference on Energy Conversion (CENCON), Johor Bahru, pp. 249-253, 2015.
 17. F. A. Jamaludin, M. S. Abd Rahman, M. Z. A. Ab Kadir, M. Izadi, **N. Azis** and J. Jasni, "Considering the Effects of a Cross-Arm on a Contaminated Polymer Insulator At Different Angles", IEEE Conference on Energy Conversion (CENCON), Johor Bahru, pp. 263-267, 2015.
 18. N. I. Ahmad, M. Z. A. Ab Kadir, M. Izadi, N. H. Zaini, M. A. M. Radzi and **N. Azis**, "Effect of Temperature on a Poly-crystalline Solar Panel in Large Scale Solar Plants in Malaysia", IEEE Conference on Energy Conversion (CENCON), Johor Bahru, pp. 244-248, 2015.
 19. S. S. Sinan, S. N. Shawaludin, J. Jasni, N. Azis, M.Z.A. Ab Kadir and M.N. Mohtar, " Assessment on the AC Breakdown Voltage of Liquid Insulation System," IEEE International Circuits and Systems Symposium (ICSyS), 2015.
 20. N. A. Mohamad, **N. Azis**, J. Jasni, M. Z. A. Ab Kadir, R. Yunus, M. T. Ishak and Z. Yaakub, " Dielectric Properties of Palm Oil and Coconut Oil under Thermal Ageing", 7th International Conference on Engineering and Technology (ICET), Phuket, Thailand, 2015.
 21. Y. V. Thien, **N. Azis**, J. Jasni, M. Z. A. Ab Kadir, R. Yunus, M. T. Ishak and Z. Yaakub, "Investigation on the lightning breakdown voltage of Palm Oil and Coconut Oil under non-uniform field," 2014 IEEE International Conference on Power and Energy (PECon), pp.1 – 4, 1-3 Dec. 2014.
 22. N. A. Ahmad, **N. Azis**, J. Jasni, M. Z. A. Ab Kadir, R. Yunus, M. T. Ishak and Z. Yaakub, "A study on the dielectric properties of Palm Oil and Coconut Oil," 2014 IEEE International Conference on



- Power and Energy (PECon), pp.109 - 112, 1-3 Dec. 2014.
23. N. I. A. Katim, M. T. Ishak, A. M. Ishak, Y. V. Thein, **N. Azis**, M. Z. A. Ab Kadir, J. Jasni, R. Yunus and Z. Yaakub, "Examination on the lightning breakdown strength of biodegradable oil under quasi-uniform field," 2014 IEEE International Conference on Power and Energy (PECon), 1-3 Dec. 2014.
 24. N. Rameli, M. Z. A. Ab Kadir, M. Izadi, C. Gomes and **N. Azis**, "Effect of the grounding system arrangement on the lightning current along tall structures," 2014 International Conference on Lightning Protection (ICLP), pp.456 - 460, 11-18 Oct. 2014.
 25. I. M. Rawi, M. Z. A. Ab Kadir, and **N. Azis**, "Lightning study and experience on the first 500kV transmission line arrester in Malaysia," 2014 International Conference on Lightning Protection (ICLP), pp.1106 - 1109, 11-18 Oct. 2014.
 26. I. M. Rawi, M. P. Yahaya, M. Z. A. Ab Kadir, and **N. Azis**, "Experience and long term performance of 132kV overhead lines gapless-type surge arrester," 2014 International Conference on Lightning Protection (ICLP), pp.517 - 520, 11-18 Oct. 2014.
 27. I. M. Rawi, M. Z. A. Ab Kadir, and **N. Azis**, "Continuous monitoring on 132kV line in reducing flashovers due to lightning," 2014 International Conference on Lightning Protection (ICLP), pp.1198 - 1200, 11-18 Oct. 2014.
 28. Siow Chun Lim, C. Gomes, M. Z. A. Abd Kadir, **N. Azis**, "Steady state performance of improvised slow grounding practice," 2014 International Conference on Lightning Protection (ICLP), pp.572 - 580, 11-18 Oct. 2014.
 29. S. S. Sinan, S. N. Shawaludin, J. Jasni, **N. Azis**, M.Z.A. Ab Kadir and M.N. Mohtar, "Investigation on the AC Breakdown Voltage of RBDPO Olein," IEEE Innovative Smart Grid Technologies (ISGT) Asia, 2014.
 30. N. Rameli, M. Z. A. Abkadir, M. Izadi, C. Gomes, **N. Azis**, N. A. Rahim, and S. N. M. Arshad, "Modelling of lightning current in the case of striking to a tall structure," IEEE International Power Engineering and Optimization Conference (PEOCO), pp. 166-171, 2014.
 31. Y. Gao, **N. Azis** and Z.D. Wang, "Impact of Electric Vehicles on the Thermal Performance of 11 kV Distribution Transformers," in Euro TechCon 2012, Glasgow, United Kingdom, 8 - 10 November, 2012.
 32. **N. Azis**, D. Zhou, Z.D. Wang, D. Jones, B. Wells and G.M. Wallwork "Operation condition assessment of in-service distribution transformers", IEEE International Conference of Condition Monitoring and Diagnostics (CMD), Bali, Indonesia, 23rd - 27th September, 2012.
 33. D. Zhou, **N. Azis**, G.Y. Yang, Z.D. Wang, D. Jones, B. Wells and G.M. Wallwork "Examining acceptable dissolved gas analysis level of in-service transformers", IEEE International Conference of High Voltage and Engineering and Application (ICHVE), Chongqing University, China, 17th - 20th September, 2012.
 34. **N. Azis** and Z. Wang, "Acid generation study of natural ester", International Symposium on High Voltage Engineering (ISH), Hannover, Germany, 22nd - 26th August, 2011.
 35. **N. Azis** and Z. D. Wang, "Examining paper ageing in service", Euro TechCon 2010, Chester, United Kingdom, 8th - 10th November, 2010.
 36. Q. Liu, Z.D. Wang, P. Jarman, **N. Azis**, W.W. Sampson and R. Heywood, "Assessment of ageing conditions through paper tensile strength analysis of scrapped transformers", International Symposium on High Voltage Engineering (ISH), Cape Town, South Africa, 24th - 28th August, 2009.
 37. Hashim Hizam, Jasonita Jasni, **Norhafiz Azis**, M. Zainal Ab Kadir and W F Wan Ahmad, "Determination of proximity to static voltage collapse using continuation power flow method", World Engineering Congress (WEC) 3, 5-9 August 2007, Penang, Malaysia.

Books

1. Guideline on Lightning Protection for Photovoltaic (PV) Systems, SEDA Malaysia 2016

Patents

1. A Transformers Core - PI 2017700114 (Filing)
2. A Solar Tracker and A Method for Controlling Thereof - PI 2017700249 (Filing)

Research Grants

Government/University

No	Project Title	Role	Year	Source of Fund
1.	Development of Transformer Winding	Leader	2017- 2019	Putra Berimpak



Deformation Model based on Frequency Response Analysis				
2.	Investigation on the Electrical Performances of Nano Filled Palm Oil and Coconut Oil	Leader	2016-2018	Putra IPS
3.	Development of Palm and Kenaf Fibre Based Insulation Paper for Power Transformers Applications	Leader	2016-2018	Putra IPS
4.	Investigation on the Electrical Performances of Nano Filled Palm Oil	Leader	2015-2016	Putra IPS
5.	Investigation on the suitability of palm oil as a dielectric insulating liquid in transformers	Leader	2015-2017	Putra IPB
6.	Investigation on the Electrical and Physical Characteristics of Coconut Oil used as a Dielectric Insulating Liquid in a Transformer	Leader	2013-2016	FRGS
7.	Investigation on the Electrical Performance of Palm Oil as a Dielectric Insulating Liquid in a Transformer	Leader	2013-2015	Putra IPM
8.	Investigation on the induced voltage and electromagnetic field effect on power line due to lightning strike to a tall structure	Member	2017-2019	FRGS
9.	Fundamental aspects of distribution power transformer condition assessment and risk management.	Member	2016-2018	FRGS
10.	A new approach of power transformer asset management using health index	Member	2015-2017	Putra IPB
11.	New Approach For Evaluating The Leakage Current And Ageing Of Polymer Insulators Under Polluted Weather Conditions	Member	2015-2017	Putra IPI
12.	Establishment of electrical and physical characterization of Kenaf-seeds oil based dielectric liquid insulation	Member	2014-2017	FRGS
13.	Separation Distance Study for Safety Purposes of Distribution Substation Earth Grid	Member	2014-2016	FRGS
14.	Intelligent Control and Communication System for Smart Grid Power System	Member	2013-2015	Putra IPB
15.	The study of Atmospheric electric field: Feasibility for energy harvesting	Member	2013-2015	FRGS

Industry

No	Project Title	Role	Year	Source of Fund
1.	Installation of water fountain and MOU signing with AS Engineering	Leader	2014- 2016	AS Engineering

Awards/Recognition

No	Name of awards	Title	Award Authority	Award Type	Year
1	Anugerah perkhidmatan cemerlang	Lecturer	Universiti Putra Malaysia	National	2014, 2015 and 2016
2	Anugerah kecemerlangan dalam pengajaran	Lecturer	Universiti Putra Malaysia	University	2016
3.	Anugerah jaringan industri dan komuniti berimpak tinggi (5 bintang)	Leader	Universiti Putra Malaysia	University	2016



4.	Best student paper award "Effect of Particles on the AC Breakdown Voltage of Palm Oil and Coconut Oil"	Co-authors	International Conference on Electrical Power Engineering and Applications (ICEPEA 2014)	International	2015
5.	Best student paper award "A study on the dielectric properties of RBDPO Olein under low temperature thermal ageing"	Authors	International Conference on Electrical Power Engineering and Applications (ICEPEA 2014)	International	2015
6.	Best student paper award "Assessment on the AC Breakdown Voltage of Liquid Insulation System"	Co-authors	IEEE International Circuits and Systems Symposium (ICSyS)	International	2015
7.	Best student paper award "Investigation on the AC Breakdown Voltage of RBDPO Olein"	Co-authors	2014 IEEE Innovative Smart Grid Technologies - Asia (ISGT ASIA)	International	2014
8.	International Journal of Electrical and Electronics Engineering (IJEED)	Editorial board member	International Academy of Science, Engineering and Technology (IASET)	International	2013
9.	3rd Place for Asia-Pacific Robot Event (ABU ROBOCON 2008)	Program advisor	SIRIM	National	2008
10.	Silver medal for Invention, Research and Innovation Exhibition, Universiti Putra Malaysia, 2007	Co-Investigator	Universiti Putra Malaysia	University	2007

Consultation

No	Year	Title	Authority	Designation
1.	2017	SETARA (Malaysian University and College University Rating)	Ministry of Higher Education (MOHE)	Auditor
2.	2017	Lightning protection system installation for fire alarm system	Stenta Films (M) Sdn Bhd	Consultant
3.	2015	Development and preparation of the lightning and surge protection guideline for photovoltaic system	Sustainable Energy Development Authority (SEDA)	Consultant
4.	2015	HV safety and equipment training	Universiti Pertahanan Nasional Malaysia	Consultant
5.	2014	HV safety and equipment training	Universiti Pertahanan Nasional Malaysia	Consultant
6.	4/2012 - 5/2013	Examining Life Extension post Transformer Oil Regeneration	Electricity North West, United Kingdom	Researcher

Professional Services

No	Year	Title	Authority	Designation
1.	2018	MyHV net colloquium 2018	Malaysian High Voltage Network (MyHVnet) Malaysia	Organizing committee
2.	2018	IEEE PES Asia-Pacific Power and Energy Engineering Conference 2018	Institute of Electrical & Electronics Engineers Power Energy & Society (IEEE PES) Malaysia	Organizing committee
3.	2017, 2016,	IEEE PES Executive committee	Institute of Electrical & Electronics Engineers Power	Executive committee



	2015		Energy & Society (IEEE PES) Malaysia	
4.	2017, 2016, 2015	IEEE DEIS Executive committee	Institute of Electrical & Electronics Engineers Dielectric & Insulation (IEEE DEIS) Malaysia	Executive committee
5.	2017	MyHVnet Executive committee	Malaysian High Voltage Network (MyHVnet) Malaysia	Executive committee
6.	2017	SETARA (Malaysian university and college university rating)	Ministry of Higher Education (MOHE) & Universiti Putra Malaysia	Co-researcher & Internal auditor
7.	2017, 2016, 2015, 2014, 2013	Journal reviewer (13 manuscripts)	1. IET Generation, Transmission & Distribution 2. IET Renewable Power Generation 3. Electric Power Components and Systems 4. IET Science Measurement and Technology 5. Journal of Electrical Engineering and Technology 6. Fuel	Reviewer
8.	2017	Symposium of Advanced Materials and Nanotechnology	Institute of Advanced Technology (ITMA), UPM	Publicity chair
9.	2017	MSc examination (2 chairman & 4 examiners)	Universiti Putra Malaysia	Examiner & chairman
10.	2017	IEEE PES Distinguished Lecturer Program (Managing Uncertainties of the Future Grids "Keeping Lights On! Yesterday, Today & Tomorrow!")	Institute of Electrical & Electronics Engineers Power Energy & Society (IEEE PES) Malaysia	Publicity chair
11.	2016	International Conference on Electrical and Electronic Technology (ICEETech) 2016	Universiti Putra Malaysia	Publicity chair
12.	2016	2 nd IEEE PES Student Congress 2016	Institute of Electrical & Electronics Engineers Power Energy & Society (IEEE PES) Malaysia	Publicity chair
13.	2016	Transfer Renewable Energy & Electrical Safety (TREES) Workshop	Institute of Electrical & Electronics Engineers Power Energy & Society (IEEE PES) Malaysia	Organizing committee
14.	2016, 2015	Pameran penyelidikan dan jaringan bersama industri 2015 & 2016	Universiti Putra Malaysia	Organizing committee
15.	2015	The 7 th PSU-UNS International Conference on Engineering and Technology (ICET-2015)	Prince of Songkla University	Invited speaker
16.	2015	IEEE PES Distinguished Lecturer Program (Hybrid Renewable Energy Standalone Systems)	Institute of Electrical & Electronics Engineers Power Energy & Society (IEEE PES) Malaysia	Publicity chair
17.	2014	Pertandingan rekapipta, penyelidikan dan inovasi	Universiti Putra Malaysia	Judge panel
18.	2014	International Conference on Power & Energy (PECON 2014)	Institute of Electrical & Electronics Engineers Power	Session chair

Student Involvement

No	Year	Title	Authority	Designation
1.	2017	Global I-Lead STEM Camp 1MALAYSIA	Persatuan ibubapa & guru SBPI Selandar Melaka	Facilitator
2.	2016, 2017	ABB Intervarsity challenge (UPM team)	ABB	Program advisor
3.	2014, 2015, 2016, 2017	UPM Robotic club	Universiti Putra Malaysia	Advisor
4.	2016	Technical visit – Sultan Yussuf (Jor) power station (UPM final year undergraduate)	Tenaga Nasional Berhad (TNB)	Program advisor
5.	2015	Robattle competition (UPM team)	UniKL	Program advisor
6.	2014	Technical visit – Tanjung Bin power station (UPM final year undergraduate)	Malakoff Sdn Bhd	Program advisor
7.	2014	Combat malaysia robotic competition (UPM team)	Universiti Tenaga Nasional	Program advisor
8.	2014	Malaysian International Robot Competitions (UPM team)	Universiti Malaysia Perlis	Program advisor
9.	2013	Taklimat Mengenai Kehidupan Sebagai Pelajar Siswazah (UPM new postgraduate)	Universiti Putra Malaysia	Speaker
10.	2008	ROBOCON 2008 (UPM team)	SIRIM	Program advisor

Student Supervision

MS with thesis

No.	Name	Designation	Status
1.	Nur Aqilah Mohamad	Chairman	Completed 2016
2.	Thein Yee Von	Chairman	Completed 2016
3.	Emran Jawad Kadim	Chairman	Completed 2016
4.	Shamsul Fahmi bin Mohd Nor	Chairman	Completed 2017
5.	Muhammad Hakirin bin Roslan	Chairman	Completed 2017
6.	Amran Mohd Selva	Chairman	On-going
7.	Nurliyana binti Abdul Raof	Member	Completed 2016
8.	Sabah Hasan Alwan	Member	Completed 2017
9.	Akmalina binti Azmi	Member	Completed 2017
10.	Nor Izzati binti Ahmad	Member	Completed 2017
11.	Siti Salhaillea binti Sinan	Member	Completed 2018
12.	Muhammad Anwer Nazir	Member	On-going
13.	Al Obaidi Mohammed Rmaez Hadi	Member	On-going

PhD

No.	Name	Designation	Status
1.	Nur Aqilah Mohamad	Chairman	On-going
2.	Thein Yee Von	Chairman	On-going
3.	Muhammad Sharil bin Yahaya	Chairman	On-going
4.	Muhammad Umair	Chairman	On-going
5.	Avinash Srikanta Murthy	Chairman	On-going
6.	Najiyah binti Saleh	Chairman	On-going
7.	Nor Shafiqin bin Shariffudin	Chairman	On-going
8.	Abdul Rashid bin Abdul Rahman	Chairman	On-going
9.	Nurliyana binti Abdul Raof	Member	On-going
10.	Omar Ibrahim Dallal Bashi	Member	On-going

No.	Name	Designation	Status
11.	Azniza binti Ahmad	Member	On-going
12.	Zaini bin Yaakub	Member	On-going
13.	Ali Saadon Mtair Al-Ogaili	Member	On-going
14.	Iryani binti Mohamed Rawi	Member	<u>Completed 2017</u>
15.	Norhidayu binti Rameli	Member	<u>Completed 2017</u>
16.	Wan Nordiyawati binti Wan Omar	Member	On-going
17.	Omar Sharaf Al-Deen Yehya	Member	<u>Completed 2017</u>
18.	Paria Piyous	Member	On-going
19.	Nur Hazirah binti Zaini	Member	On-going
20.	Farah Adilah binti Jamaludin	Member	On-going
21.	Siti Amaniah Mohd Chachuli	Member	On-going
22.	Mohd Zulfahmi Mohd Yusoff	Member	On-going
23.	Muhammad Noh Hamzah	Member	On-going
24.	Mohd Ruzaimi Mohd Ariffin	Member	On-going
25.	Ghusoon Ismail Jamil	Member	On-going
26.	Zawati Mohd Naw	Member	On-going