


Curriculum Vitae

	Name	Assoc. Prof. Ir. Ts. Dr. Wong Shen Yuong
	Current Position	Associate Professor
	Administrative Position	Head of Electrical & Electronics Engineering
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	Programme	Electrical and Electronics Engineering, School of Electrical Engineering and Artificial Intelligence
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BIOGRAPHY

Associate Professor Ir. Ts. Dr. Wong Shen Yuong has more than 10 years of working experience in the industry and academia. Currently, she is a Professional Engineer (PEng) in Electrical Engineering registered to the Board of Engineers Malaysia (BEM), a registered ASEAN Chartered Professional Engineer (ACPE), a Senior Member of The Institute of Electrical and Electronics Engineer (IEEE), Corporate Member of Institutions of Engineers Malaysia (IEM), and a Professional Technologist registered to the Malaysia Board of Technologists (MBOT). She enjoys conducting research related to frontier technologies for sustainable development. She also serves as an Editorial Board Member for several journals.

RESEARCH INTERESTS

Smart Grid, Hydrogen production, Renewable Energy, Electric Vehicle, Power System Faults Detection and Diagnosis, Artificial Intelligence, Computational Intelligence, Computer Vision, Extreme Learning Machine, Neural Networks, Internet of Things (IOT), Smart Healthcare, Sustainable Waste Management.

EDUCATIONAL BACKGROUND

- Doctor of Philosophy in Engineering, National Energy University (UNITEN), Malaysia.
- Master of Electrical Engineering, National Energy University (UNITEN), Malaysia.
- Bachelor of Electrical & Electronic Engineering (Hons), National Energy University (UNITEN), Malaysia.

REPRESENTATIVE PUBLICATIONS

1. B. Zhang, X. Qu, C. Li, H. Cao, S. Y. Wong*, "Flexibly, Intelligently Controlled: Hybrid Battery-Supercapacitor Energy Storage System," *Advances in Science, Technology & Innovation*, Springer, 2023.
2. KM Cheng, AC Koo, JSBM Nasir, S. Y. Wong*, "An evaluation of online Edcraft gamified learning (EGL) to understand the motivation and intention of recycling," *Scientific Reports*, 2023.
3. S. Y. Wong*, X. Ye, F. Guo, H. H. Goh, "Computational Intelligence for Preventive Maintenance of Power Transformers," *Applied Soft Computing*, 2022.
4. S. Y. Wong*, "Digitalisation & Computational Intelligence Revolutionise Power Transformer Maintenance," *COVER FEATURE* in BEM Magazine Jan-Mar 2022.
5. H. H. Goh, S Shi, X. Liang, D. Zhang, W. Dai, S. Y. Wong*, "Optimal energy scheduling of grid-connected microgrids with demand side response considering uncertainty," *Applied Energy*, 2022.
6. S. Y. Wong*, H. H. Shuo, K. M. Cheng, A. C. Koo, S. Yussof, "ESS-IoT: The Smart Waste Management System for General Household," *Pertanika Journal Science and Technology*, 2022.
7. K.M. Cheng, J. Y. Tan, S. Y. Wong, A.C. Koo, E Amir Sharji, "A review of future household waste management for sustainable environment in Malaysian Cities," *Sustainability*, 14 (11), 2022.
8. KM Cheng, AC Koo, JSBM Nasir, S. Y. Wong*, "Playing Edcraft at Home: Gamified online learning for recycling intention during lockdown," *F1000*, Taylor & Francis, 2022.
9. JY Fam, S. Y. Wong*, HM Basri, MO Abdullah, K. Lias, S. Mekhilef, "Predictive Maximum Power Point Tracking for Proton Exchange Membrane Fuel Cell System," *IEEE Access*, 2021.
10. HY Chong, HJ Yap, SC Tan, KS Yap, S. Y. Wong*, "Advances of metaheuristic algorithms in training neural networks for industrial applications", *Soft Computing*, pp. 1-25, 2021.
11. S. Y. Wong*, C.W.C. Choe, H.H. Goh, et al., "Power Transmission Line Fault Detection and Diagnosis Based on Artificial Intelligence Approach and its Development in UAV: A Review," *Arab J Sci Eng*, 2021.
12. M. Wu, Y. Lu, W. Yang, S. Y. Wong*, "A study on Arrhythmia via ECG Signal Classification using the Convolutional Neural Network," *Frontiers in Computational Neuroscience*, 2021.
13. S. Y. Wong*, M. Y. Soh, J. M. Wong, "Internet of Medical Things (IoMT) : Brief Overview and the Future," *2021 IEEE 19th Conf. on Res. and Dev., Malaysia*, 2021, pp. 427-432.
14. KM Cheng, AC Koo, JS binti M. Nasir, S. Y. Wong, "Playing Edcraft at Home: Gamified Online Learning for Recycling Intention during lockdown", *F1000 Research*, pp. 1-11, 2021.
15. C. T. Yaw, K. S. Yap, S. Y. Wong*, H. J. Yap, S. P. Koh, "Enhancement for Neural Network Based Multi Agent System for Classification and Regression in Energy System", *IEEE Access*, July 2020.
16. S. Y. Wong*, K. S. Yap, X. Li, "A New Probabilistic Output Constrained Optimization Extreme Learning Machine," *IEEE Access*, Feb 2020.
17. W. Fangrit, H. J. Yao, M. F. Hamza, S. W. Chang, K. S. Yap, S. Y. Wong, "An efficiency improvement of flexible flow shop scheduling in automotive part company", *International Intelligent Decision Technologies*, Dec 2020.
18. X. Li, K. Wu, Q. Zhang, S. Lin, Y. Chen, and S. Y. Wong*, "A High Throughput and Pipelined Implementation of the LUKS on FPGA," *Journal of Circuits, Systems and Computers*, 2020.
19. S. Y. Wong*, K. S. Yap, C. P. Lim, E. W. M. Lee, "Hybrid Data Regression Model Based on the Generalized Adaptive Resonance Theory Neural Network," *IEEE Access*, Aug. 2019.

20. S. Y. Wong*, K. S. Yap, Q. Zhai, X. Li, "Realization of a Hybrid Locally Connected Extreme Learning Machine with DeepID for Face Verification," IEEE Access, June 2019.
21. S. Y. Wong*, K. S. Yap, X. Li, "Classification of the Harmonic Load Types using Multi-Layer Extreme Learning Machine," in Proc. of 5th IET International Conference on Clean Energy and Technology (IEEE Xplore), Malaysia, 2018.
22. S. Y. Wong*, K. S. Yap, C. H. Tan, "Hybrid Genetic Algorithm based Fuzzy Inference System for Data Regression," in Proc. of IEEE Conference on Systems, Process and Control (IEEE Xplore), Malaysia, 2018.
23. C T Yaw, S. Y. Wong*, K S Yap, H. J. Yap, UAU Amirulddin, "An ELM Based Multi Agent System and Its Applications to Power Generation," International Intelligent Decision Technologies, vol. 11, no. 3, pp. 297-305, 2017.
24. S. Abolfazli, S. Y. Wong*, A. Tabassi, S. Rosen, "Throughput Measurement in 4G Wireless Data Networks: Performance Evaluation and Validation," in Proc. of IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE), vol. 1, pp. 27-32, 2016.
25. S. Y. Wong*, K S Yap, H. J. Yap, "A Constrained Optimization based Extreme Learning Machine for noisy data regression," Neurocomputing, vol. 171, pp. 1431-1443, 2016.
26. S. Y. Wong*, K S Yap, H. J. Yap, S. C. Tan, C. S. Wee, "On Equivalence of FIS and ELM for Interpretable Rule-Based Knowledge Representation," IEEE Transactions on Neural Networks and Learning Systems, vol. 27, no. 7, pp. 1417-1430, 2016.
27. S. Y. Wong*, K S Yap, H. J. Yap, S. C. Tan, "A Truly Online Learning Algorithm using Hybrid Fuzzy ARTMAP and Online Extreme Learning Machine for Pattern Classification," Neural Processing Letters, vol. 42, no. 3, pp. 585-602, 2015.

HONORS/AWARDS

- **Gold Medal Award**, Research Innovation Commercialisation & Entrepreneurship Showcase, 2021.
- **Bronze Medal Award**, The 4th China Jinan New Kinetic Energy International High-Level Talent Innovation and Entrepreneurship Competition, 2021.
- **Best Presenter Award**, IEEE Conference on Systems, Process, and Controls, Dec 2018.
- **Editorial Board Member**, Elsevier, 2019 till present.
- **Top Reviewer Award**, Elsevier, 2018 and 2019.
- **Innovation and Invention Award**, Malaysia Technology Expo (MTE), Malaysian Association of Research Scientists, 2016.
- **Highest ISI Ranking Journal Award**, National Energy University, July 2015.
- **Gold Medal Award**, Institution of Engineers Malaysia (**IEM**).
- **Technical Conference Committee**, International Conference on Biomedical Engineering and Bioinformatics (ICBEB), Berlin, Germany, 2022.
- **Technical Conference Committee**, International Conference on Biomedical Engineering and Bioinformatics (ICBEB), Berlin, Germany, 2021.
- **Technical Conference Committee**, International Conference on Biomedical Engineering and Bioinformatics (ICBEB), Universiti Sains Malaysia (USM), 2019.