Abdelwahab Fawzy, Ph.D.

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Employment History

2024 – · · · · **Assistant Professor.** Electronics and Communication Engineering Department, Faculty of Electronic Engineering, Menoufia University.

2019 – 2024 **Research Assistant.** Institute for Infocomm Research (I2R), Agency for Science, Technology and Research (A*STAR), Singapore.

2019 – 2023 **Teaching Assistant.** Electrical and Computer Engineering Department, College of Design and Engineering, National University of Singapore.

2017 – 2018 **Assistant Lecturer.** Faculty of Electronic Engineering, Menoufia University.

2013 – 2017 **Demonstrator.** Electronics and Communication Engineering Department, Faculty of Electronic Engineering, Menoufia University.

Education

2019 – 2024 **Ph.D. National University of Singapore**.
Thesis title: *Efficient Learning-Based Digital Pre-Distortion and Multi-Impairment Compensation for MIMO Transmitters*

2015 – 2017 **M.Sc. Faculty of Electronic Engineering, Menoufia University**.
Thesis title: *Performance Study of Wireless Sensor Network in Machine Type Communication*

2009 – 2013 **B.Sc. Faculty of Electronic Engineering, Menoufia University** in Electronics and Electrical Communication Engineering, with EXCELLENT with honour degree.

Research Publications

Journal Articles

1. A. Fawzy, S. Sun, T. J. Lim, Y. Yu, C. Yu, and Y. Guo, "Iterative learning control based digital pre-distortion for mitigating impairments in MIMO wireless transmitters," *IEEE Transactions on Vehicular Technology*, vol. 72, no. 6, pp. 6933–6947, 2023.

2. A. E. Fawzy, M. Shokair, and W. Saad, "Balanced and energy-efficient multi-hop techniques for routing in wireless sensor networks," *IET Networks*, vol. 7, no. 1, pp. 33–43, 2018.

3. A. E. Fawzy, M. Shokair, and W. Saad, "Specifying the optimal transmission manner in WSNs: Analysis and simulation," *Wireless Personal Communications*, vol. 103, pp. 1657–1675, 2018.

4. A. Amer, A. E. Fawzy, M. Shokair, W. Saad, S. El-Halafawy, and A. Elkorany, "Balanced energy efficient grid based clustering protocol for wireless sensor network," *International Journal of Computing and Digital Systems*, vol. 6, no. 01, pp. 1–12, 2017.

5. A. Amer, A. Fawzy, M. Shokair, W. Saad, S. ELHalafawy, and A. Elkorany, "Proposed sink controlled uniform cluster head distribution routing protocol for WSNs," *Menoufia Journal of Electronic Engineering Research*, vol. 26, no. 2, pp. 413–426, 2017.

6. A. A. Qasem, A. E. Fawzy, M. Shokair, W. Saad, S. El-Halafawy, and A. Elkorany, "Energy efficient intra cluster transmission in grid clustering protocol for wireless sensor networks," *Wireless Personal Communications*, vol. 97, pp. 915–932, 2017.

7. A. E. Fawzy, A. Amer, M. Shokair, and W. Saad, "An efficient design of cluster size for maximizing outcomes of direct transmission in cluster-based wireless sensor networks," *International Journal of Computing and Digital Systems*, vol. 5, no. 05, 2016.

Conference Proceedings

1. A. Fawzy, S. Sun, T. J. Lim, and Y. Guo, "Low-complexity beam-oriented linearization approaches for massive MIMO transmission," in *2023 IEEE 97th Vehicular Technology Conference (VTC2023-Spring)*, IEEE, 2023, pp. 1–6.
2. A. Fawzy, S. Sun, T. J. Lim, and Y. X. Guo, "An efficient deep neural network structure for RF power amplifier linearization," in *2021 IEEE Global Communications Conference (GLOBECOM)*, IEEE, 2021, pp. 1–6.
3. A. Fawzy, S. Sun, T. J. Lim, Y. X. Guo, and P. H. Tan, "Iterative learning control for pre-distortion design in wideband direct-conversion transmitters," in *2020 IEEE Global Communications Conference (GLOBECOM)*, IEEE, 2021, pp. 1–6.
4. A. Amer, M. Shokair, W. Saad, *et al.*, "Proposed intermittent cluster head selection scheme for efficient energy consumption in WSNs," in *2017 34th National Radio Science Conference (NRSC)*, IEEE, 2017, pp. 275–283.
5. A. E. Fawzy, A. Amer, M. Shokair, and W. Saad, "Four-layer routing protocol with location based topology control of active nodes in WSN," in *Proceedings of the 2016 11th International Conference on Computer Engineering & Systems (ICCES)*, 2016, pp. 66–72.

Skills

Languages	Strong reading, writing and speaking competencies in English.
Coding	MATLAB, Python, LaTeX, Office.
Misc.	Academic research, teaching, training, consultation, LaTeX typesetting and publishing.

Miscellaneous Experience

Selected Technical Experience

2019 – 2024	**Research Assistant.** Institute for Infocomm Research (I2R), Agency for Science, Technology and Research (A*STAR), Singapore.
2019 – · · · ·	**Reviewer for Many Journals**, such as IEEE TVT Journal and Wireless Personal Communications.

Certification

2023	**Teaching Assistants' Programme – Foundation (TAP-F)**. Awarded by NUS Centre for Teaching, Learning and Technology, Singapore.
2020	**Responsible Conduct of Research**. Awarded by The Collaborative Institutional Training Initiative (CITI Program), Singapore.
2018	**IELTS**. Score: 6.

References

Available on Request