

① Name & Rank: Mohamad Awad, Associate Professor

② Education

Degree	Discipline	Institution	Year
Ph.D.	Electrical and Computer Engineering	University of Waterloo	2009
Certificate	University Teaching Certificate	University of Waterloo	2008
M.Sc.	Electrical and Computer Engineering	University of Waterloo	2006
B.Sc.	Electrical and Computer Engineering	University of Windsor	2004

③ Academic Experience

Institution	Designation	Year/Period	FT/PT
Kuwait University	Associate Professor	2018 – Present	FT
Kuwait University	Assistant Professor	2012 – 2018	FT
American University of Kuwait	Assistant Professor	2010 – 2012	FT

④ Non-Academic Experience:

Institution	Designation	Year/Period	FT/PT
Kuwait University	Graduate Program Director	2024 - Present	FT
Public Authority for Fishery and Agriculture	Consultant	2023 - 2024	PT
Kuwait University	Graduate Program Director	2018 - 2021	FT
Experts Dept., Ministry of Justice	Consultant	2018 – 2020	PT

⑤ Certifications / professional registrations:

- Symantec Endpoint Protection, BROADCOM, 2023.
- Cisco, CCNA Certification, 2020.
- Professional Engineers of Ontario (PEO), EIT, 2008.
- American Red Cross, Disaster Response, 2000.

⑥ Membership in Professional Organization:

- IEEE, Student Member, 2000 – 2004
- IEEE, Member, 2004 – 2015
- IEEE, Senior Member, 2015 – Present

⑦ Honors and Awards:

- Final Research Project Report Reward - Project KU EO-02/20, 2020
- The Funded Research Incentive Reward (Q1 Publication Award), 2020
- The Best Young Researcher Award, 2017
- Kuwait University Teaching Excellence Award, 2015
- Dartmouth-AUK Research Fellowship Award, 2011
- Ontario Research & Development Challenge Fund Bell Scholarship, 2009
- University of Waterloo Graduate Scholarship, 2009
- Ontario Research & Development Challenge Fund Bell Scholarship, 2008
- On the Faculty of Engineering dean's list, 2002 and 2003

8 Service Activities:

- a. Member of the judging committee, Kuwait Science and Engineering Competition (2017-present)
- b. Member of an Investigation Committee, Advising committee to the president of Kuwait University.
- c. Member of the Degrees Evaluation and GPA Conversion University Committee, Kuwait University, 2015--2021.
- d. Consultant to Vice President for Academic Affairs, Kuwait University, 2012--16.

9 Publications and Presentations (from past five years):

- a. M. K. Awad, Mohammed W. Baidas, Ahmad A. El-Amine, Nourah Al-Mubarak, "A Matching- Theoretic Approach to Resource Allocation in D2D-Enabled Downlink NOMA Cellular Networks", Elsevier Physical Communication, Volume 54, 2022. [Q3, IF=1.810]
- b. Osamah S. Badarneh, M. K. Awad, Sami Muhaidat, and Fares S. Almeahmadi "Performance Analysis of Intelligent Reflecting Surface-Aided Decode-and-Forward UAV Communication Systems", IEEE Systems Journal, Volume 17, 1, 2022.
- c. M. K. Awad, Ali A.M.R. Behiry, Mohammed W. Baidas, "User association for load balancing in coordinated multipoint green HetNets: A Quasi-Newton-based approach", Elsevier Physical Commu- nication, Volume 49, 2021, DOI: 10.1016/j.phycom.2021.101464) [Q3, IF=1.810]
- d. M. K. Awad, Marwa Hassan Hafez Ahmed, Ali F. Almutairi, Imtiaz Ahmad, "Machine Learning- Based Multipath Routing for Software Defined Networks". Springer Journal of Network and Systems Management, 29, 18, 2021. DOI: (10.1007/s10922-020-09583-4) [Q3, IF=2.026]
- e. M. K. Awad, Mohammed W. Baidas, Ahmad A. El-Amine, Resource allocation for downlink non- orthogonal multiple access in joint transmission coordinated multi-point networks, Elsevier Computer Communications, Volume 173, 2021, Pages 134-149, DOI: (10.1016/j.comcom.2021.03.025). [Q2, IF=3.167]
- f. M. K. Awad, A. A. M. R. Behiry and E. A. Alrashed, "A Robust and Resilient Load Balancing Framework for SoftRAN-based HetNets with Hybrid Energy Supplies", in IEEE Transactions on Network and Service Management, vol. 17, no. 3, pp. 1403-1417, 2020, DOI: (10.1109/ TNSM. 2020. 2991339). [Q1, IF=3.878]
- g. M. W. Baidas, M. Al-Mubarak, E. Alsusa and M. K. Awad, "Joint Subcarrier Assignment and Global Energy-Efficient Power Allocation for Energy-Harvesting Two-Tier Downlink NOMA Het- nets" in IEEE Access, vol. 7, pp. 163556-163577, November 2019, DOI: (10.1109/ ACCESS. 2019. 2952293). [Q1, IF=3.745]
- h. Mohammed W. Baidas, M. K. Awad, Ahmad El-Amine, Omar A. Hassan, Xuemin Sherman Shen, "Joint node selection, flow routing, and cell coverage optimisation for network sum- rate max- imisation in wireless sensor networks", IET Wireless Sensor Systems, Vol. 9, no. 6, Pages 424 437, December, 2019, DOI: (10.1049 / iet-wss.2019.0072). [Scopus, SiteScore=3.7]
- i. D. Zhang, J. R. L. Tan, M. K. Awad, S. Zhang, Y. Zhang, P. Wan, "Near-optimal and Truthful On- line Auction for Computation Offloading in Green Edge-Computing Systems", IEEE Transactions on Mobile Computing, Vol. 19, no. 4, Pages 880 - 893, February, 2019, DOI: (10.1109/TMC.2019.2901474). [Q1, IF=3.822]

- j. Y. Wu, X. Yang, L. Qian, H. Zhou, x. Shen, M. K. Awad, "Optimal Dual-Connectivity Traffic Of- flooding in Energy-Harvesting Small-Cell Networks", IEEE Transactions on Green Communications and Networking, Vol. 2, no.4, Pages 1041 - 1058, December 2018.
- k. Gi-Ren Liu, Phone Lin, M. K. Awad "Modeling Energy Saving Mechanism for Green Routers",
IEEE Transactions on Green Communications and Networking, Vol. 2, no. 3 , Pages 817 - 829, September 2018.
- m. M. K. Awad, Y. Rafique, R. A. MHallah "Energy-aware Routing for Software-defined Networks with Discrete Link Rates: A Benders Decomposition-based Heuristic Approach", Elsevier, Sustain- able Computing: Informatics and Systems, Vol. 13, Pages 31 - 41, March 2017, DOI:(10.1016/j.suscom. 2016.11.003). [Q3, IF=0.569]
- n. Deyu Zhang, Zhigang Chen, Ju Ren, Ning Zhang, M. K. Awad, Haibo Zhou, Xuemin (Sherman) Shen "Energy Harvesting-Aided Spectrum Sensing and Data Transmission in Heterogeneous Cog- nitive Radio Sensor Network", IEEE Transactions on Vehicular Technology, Vol. 66, no. 1, Pages 831 - 843, January, 2017. DOI: (10.1109/TVT.2016.2551721). [Q1, IF=2.273]
- o. H. Peng, S. Si, M. K. Awad, N. Zhang, H. Zhao, S. Shen, "Towards Energy-Efficient and Robust Large-Scale WSNs: A Scale-Free Network Approach", IEEE Journal on Selected Areas in Commu- nications, Vol. 34, no. 12, Pages 4035 - 4047, December 2016. [Q1, IF=3.672]
- p. D. Zhang and Z. Chen and M. K. Awad and N. Zhang and H. Zhou and X. S. Shen "Utility- optimal Resource Management and Allocation Algorithm for Energy Harvesting Cognitive Radio Sensor Networks", IEEE Journal on Selected Areas in Communications, Vol. 34, no. 12, Pages 3552 - 3565, December 2016. [Q1, IF=3.672]
- q. M. K. Awad, Phone Lin, Gi-Ren Liu "Distributed and Load Adaptive Energy Management Algo- rithm for Ethernet Green Routers", Journal of Internet Technology, March 2017. [Q4, IF=0.533]
- r. M. K. Awad, Mohammed El-Shafei, Tassos Dimitriou, Yousef Rafique, Mohammed W. Baidas, Ammar H. Alhusaini "Power-efficient Routing for SDN with Discrete Link Rates and Size-limited Flow Tables: a Tree-based Particle Swarm Optimization Approach", International Journal of Net- work Management, Vol. 2, Issue 5, March 2017, DOI:10.1002/nem.1972. [Q4, IF=0.681]
- s. Tassos Dimitriou, M. K. Awad "Secure and Scalable Aggregation in the Smart Grid Resilient against Malicious Entities", Elsevier Ad-hoc Networks, Volume 50, no. 1, Pages 58–67, November 2016. [Q2, IF=1.660]
- t. M. K. Awad, B. Zogheib, and H. AlAzemi, "On the Optimality of Escalating Penalties for Repeat Offenses Against the Academic Honor Code", Taylor and Francis Group, Applied Economics, November 2015. [Q3, IF=0.586].
- u. M. K. Awad, K. T. Wong, "Errata: Recursive Least-Squares Source Tracking Using One Acoustic Vector Sensor," IEEE Transactions on Aerospace and Electronic Systems, Volume 49, no.5, Pages 668–692, January 2013. [Q1, IF=1.672]
- v. M. K. Awad, K. T. Wong, " Recursive Least-Squares Source Tracking Using One Acoustic Vector Sensor," IEEE Transactions on Aerospace and Electronic Systems, Volume 48, no.4, Pages 3073- 3083, October 2012. [Q1, IF=1.672]
- w. M. Mehrjoo, M. K. Awad, M. Dianati, and X. Shen, "Design of fair weights for heterogeneous traf- fic scheduling in multichannel wireless networks," IEEE Transactions on Communications, Volume 58, Issue 10, Pages: 2892-2902, October 2010. [Q1, IF=2.298]

- x. M. K. Awad, V. Mahinthan, M. Mehrjoo, X. Shen, and J. W. Mark, "A dual decomposition-based resource allocation for OFDMA networks with imperfect CSI," IEEE Transactions on Vehicular Technology, Volume 59, Issue 5, Page(s):1451 - 1468, June 2010. [Q1, IF=2.273]
- y. M. K. Awad, X. Shen, and B. Zogheib, "Ergodic mutual information of OFDMA-based selection- decode-and-forward cooperative relay networks with imperfect CSI," Elsevier Physical Communication, vol. 2, issue. 3, pp. 184 – 193, September 2009. [Q3, IF=0.802]
- z. M. K. Awad, K. T. Wong, and Z. Li, "An integrated overview of the open literature's empirical data on the indoor radiowave channel's delay properties," IEEE Transactions on Antennas and Propagation, vol. 56, no. 5, pp. 1451 – 1468, May 2008. [Q1, IF=2.053]

10 Recent Professional Development Activities:

- a. Attendance, Cybersecurity Education and Research Conference (CERC), Kuwait University, College of Life Sciences, November 2021.
- b. Participant, Two days Workshop on Research Publication Workshop, American Association for Advancement of Science, KFAS, Fall 2017
- c. Participant, Three days Workshop on Developing Competitive Research Proposal, American Association for Advancement of Science (AAAS), KFAS, Fall 2016.
- d. Participant, Three days Teaching Excellence Program, University of California - Berkeley, KFAS, Spring 2016.
- e. Participant, Academic Ranking in the Middle East: Kuwait University, College of Computing Sciences & Engineering, Spring 2016.
- f. Participant, Workshop on Engineering Professional Skills Assessment (EPSA) related to ABET Engineering Accreditation, College of Computing Sciences & Engineering, Spring 2014.
- g. Attendee "The first Workshop on Pricing and Incentives in Networks", held on June 11, 2012, in conjunction with ACM SIGMETRICS/Performance, London, 2012.