Prof. Dr. Mohamed Ashour

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Mohamed Ashour is Professor of Distributed Systems at the German International University in Berlin. Previously Prof. Ashour worked as the head of the networking department in the Faculty of Information Engineering and Technology in the German University in Cairo. Professionally Mohamed Ashour worked as a senior network engineer for Hughes Electronic system (USA), General dynamics (USA), and Information and Decision Support Center (Egypt).

Education

PhD Electrical and Computer Engineering, McGill University, Montreal, Canda

M.Sc. Electrical and Computer Engineering, Ain Shams University Cairo, Egypt

Research Interests

Ashour's main area of research is in network resource allocation and optimization, an area of research between computer engineering and telecommunication network engineering. It covers topics such as Machine learning, Edge computing, Distributed Network Optimization, Wireless network design and Network performance analysis. As a researcher Prof. Ashour has an H index equal to 12 with a number of citations equal to 647. He published 71 refereed journal and conference papers. He has been the supervisor for numerous PhD, Master and Bachelor theses. This research included cooperation with the Canadian Institute for Telecommunication Research, Ericsson Research Canada, Fraunhofer Institute of Technology IIS, Vodafone, and Dell technologies. It also included research funded by NSERC Canada, German DAAD, Egyptian ITIDA, and a Joint German BMBF and Egyptian STDF fund. During his teaching career, Prof. Ashour taught core courses such as random signals, introduction to communication networks, mobile communication systems and transmission and switching. He also teaches Master and PhD level courses such as optimization, network planning, network management, network performance modeling, sensor networks, machine learning, cloud computing and big data analysis.

Selected Research

- Yves Lemieux, Mohamed Ashour Tallal Elshabrawy, "Quality of service (QoS) mechanism in an internet protocol (IP) network", *United States Patent No: US* 6,968,374 B2, Issued: November 22, 2005
- S. M. Azzam, T. Elshabrawy and M. Ashour, "A Bi-Level Framework for Supply and Demand Side Energy Management in an Islanded Microgrid," in *IEEE Transactions on Industrial Informatics*, vol. 19, no. 1, pp. 220-231, Jan. 2023
- M. Zamzam, T. Elshabrawy and M. Ashour, "A Minimized Latency Collaborative Computation Offloading Game Under Mobile Edge Computing for Indoor Localization," in *IEEE Access*, vol. 9, pp. 133861-133874, 2021
- P. Edward, M. El-Aasser, M. Ashour, and T. Elshabrawy, "Interleaved Chirp Spreading LoRa as a Parallel Network to Enhance LoRa Capacity," in IEEE Internet of Things Journal, vol. 8, no. 5, pp. 3864-3874, March, 2021
- T Elshabrawy, E Shereen, M Ashour, J Robert, "Report success probability/battery lifetime analysis of dense IEEE 802.15. 4-based metering networks with hidden nodes", IEEE Sensors Journal 17 (7), 2017 2259-2266
- Mohamed Ashour, Tho Le-Ngoc, "End-to-end delay margin balancing approach for routing in multi-class networks" ACM Wireless Networks, 2007 Vol 13 issue 3 pp. 311-322
- Nicolae Iuoras, Tho Le-Ngoc, Mohamed Ashour, Tallal Elshabrawy, "An IP-Based Satellite Communication System Architecture For Interactive Multimedia Services", International Journal of Satellite Communications (Special Issue on QoS for Satellite IP), Vol 21, Issue 4-5 , Pages 401 – 426