CURRICULUM VITAE

Name:	Mohamed Saad, Ph.D., Senior Member, IEEE
	Professor
Address:	Department of Computer Engineering University of Sharjah P.O. Box 27272 Sharjah, UAE Office Tel: +1 (971 6) 505-0961 E-mail Address: msaad@sharjah.ac.ae
Google Scholar:	https://scholar.google.ae/citations?hl=en&pli=1&user=_bYFv6YAAAAJ
Research Gate:	https://www.researchgate.net/profile/Mohamed_Saad21/contributions
ORCD:	https://orcid.org/0000-0003-2546-4453
Citizenship:	Canada

Professional Profile

- Research interest in the union of networking, communications and optimization, leading to mathematically rigourous publications in the top journals.
- Recipient of the *Best Paper Award* at IEEE Symposium on Computers and Communications (ISCC 2010), Riccione, Italy, June 2010.
- Coordinator of the Distributed and Networked Systems (DNS) Research Group, University of Sharjah.
- Excellent teaching evaluations, excellent student comments, recipient of two teaching awards.
- Expert in engineering programs accreditation and quality assurance.

Education

Jan. 2001– Dec. 2004 **Department of Electrical and Computer Engineering**, **McMaster University**, Hamilton, Ontario, Canada
- *Ph.D. in Electrical and Computer Engineering*, completed Dec. 2004
- Supervisor: Zhi-Quan (Tom) Luo
- GPA: 12.0/12.0
- Thesis Topic: *Design of Optical Networks: Performance Bounds, Complexity and Algorithms*

Sept. 1998– Oct. 2000 **Department of Engineering Mathematics and Physics**, **Cairo University**, Giza, Egypt
- *M.Sc. in Engineering Mathematics*, completed Oct. 2000
- Thesis Topic: *Optimization of Computer Communication Network Topologies Using Genetic Algorithms*

Sept. 1991– July 1996 **Department of Electrical Communications and Electronics**, **Cairo University**, Giza, Egypt
- *B.Sc. (honors) in Electronics and Communications Engineering*, completed July 1996
- Project Topic: *Genetic Algorithms and Its Applications*

Professional Experience

Sept. 2024– present	**Dept. of Computer Engineering, University of Sharjah** *Department Chair*
Sep. 2022– Aug. 2024	**College of Computing and Informatics, University of Sharjah** *Assistant Dean for Graduate Studies*
Jan. 2021– present	**Dept. of Computer Engineering, University of Sharjah** *Professor*
Jan. 2012– Jan. 2021	**Dept. of Electrical and Computer Engineering, University of Sharjah** *Associate Professor*
Sept. 2006– Jan. 2012	**Dept. of Electrical and Computer Engineering, University of Sharjah** *Assistant Professor*
July 2005– August 2006	**Dept. of Electrical and Computer Engineering, University of Toronto** *NSERC Post Doctoral Fellow* Understanding fundamental performance limits of wireless and optical networks, and designing efficient resource allocation algorithms that allow us to approach these limits.
Dec. 2004– June 2005	**Dept. of Computing and Software, McMaster University** *Post Doctoral Fellow with the Advanced Optimization Laboratory* Designing and analyzing provably good algorithms for fundamental problems arising in the design of communication networks and VLSI circuit layouts.
Jan. 2001– Dec. 2004	**Dept. of Electrical and Computer Engineering, McMaster University** *Research Assistant - Teaching Assistant*
Feb. 1997– Dec. 2000	**Cairo University, Fayoum Campus** *Teaching Assistant*
Sept. 1998– Jan. 2000	**The American University in Cairo** *Teaching Assistant, part-time* Conducted laboratory sessions for PHYS221 (Electronic Devices and Circuits)
Nov. 1999– Dec. 2000	**Engineering and Research Solutions, Inc., Cairo Branch** *Software Developer, part-time*

Research Interests

My research interests lie in the union of networking, communications and optimization. I am currently interested in algorithmic/complexity issues arising in the design of wired and wireless (ad hoc, mesh and/or cellular) networks, with special emphasis on performance limits, resource management algorithms and quality-of-service (QoS). Other interests include approximation algorithms, QoS provisioning, spectrum-efficient routing, multihop wireless networks and 5G systems.

Teaching Interests

Computer and Communication Networks, Optical Networks, Engineering Optimization, Probability and Stochastic Processes, Circuits and Systems, Signals and Systems, Communication Systems, Logic Design, and Introduction to Electrical Engineering

Courses Taught (at the University of Sharjah)

1. 0403443–Computer Networks Design and Analysis (inaugural development and offering)
2. 0403464–Special Topics in Computer Networks (inaugural development and offering)
3. 0403346–Computer Communications and Networks
4. 0403544–Computer Networks Design and Performance (graduate course) (inaugural development and offering)
5. 0403549–Special Topics in Computer Networks (graduate course) (inaugural development and offering)
6. 0403540–Computer Networks (graduate course)
7. 0403346–Computer Communications and Networks Laboratory
8. 0402202–Circuit Analysis I
9. 0402203–Circuit Analysis I Laboratory
10. 0403201–Digital Logic Design Laboratory

Teaching Evaluation and Recognition

- *I was twice the recipient of the Best Teaching Award by the IEEE Women in Engineering Society, University of Sharjah, May 2009 and May 2007.*
- *My average overall student evaluation for all 126 course offerings at the University of Sharjah is 93%.*
- **Sample Student Comments:**

- *"Useful course that offers an insight into the networks side of things. Instructor was very kind and humble, delivered the material smoothly in an easy to understand manner. Wish him all the best."*
- *"Good course and it wasn't stressful as the dr delivered the best hybrid learning I have ever got in this university."*
- *"This the most useful course I took since I entered university, I like how it's linked with real life applications and real issues. The way of delivering information was so suitable and great."*
- *"The course was very well organized and the professor taught with a lot of enthusiasm."*
- *"The doctor explains pretty well. I love how he can make concepts much simpler by connecting them to real life application and examples."*
- *"This is the best course I have ever taken in this university. The professor is the best!"*
- *"The instructor is great. I liked his method of course delivery. I wish to take other courses with him."*
- *"The instructor was great, well organized, very cooperative – he is excellent."*
- *"Although I have taken/read many networks courses/books, but I feel that it is the first time that I understand computer networks. I really enjoy this course, even if I get an F."*
- *"Once I told my friends, I think Dr.Mohamed Saad is a good candidate to make a training program for some proff on 'how to introduce new ideas to students' "*

- **Sample Dean's Comments:**
  - *"Super teaching evaluation, reflecting a super teaching performance. Well done. Thanks."* **Prof. S. Alkass, College Dean**.
  - *"The enclosed evaluations are pleasing and reflect the students' appreciation of your efforts. The College is very pleased and appreciative of your dedication and commitment to teaching excellence."* **Prof. B. Boashash, College Dean**.

Awards

1. Recipient of the "Distinguished Service Award", in recognition to the outstanding services to the College of Computing and Informatics, June 2021.
2. Recipient of the "Best Research Paper Award in Engineering", 8th Scientific Research Forum 2012, College of Graduate Studies, University of Sharjah, May 2012. Paper: M. Saad, "On Optimal Spectrum-Efficient Routing in TDMA and FDMA Multihop Wireless Networks", *Computer Communications*, vol. 35, no. 5, pp. 628–636, March 2012.
3. Elevation to "*Senior Member of IEEE*" grade. Only 8% of IEEE members achieve senior membership.
4. Recipient of the *Best Paper Award* at IEEE Symposium on Computers and Communications (ISCC 2010), Riccione, Italy, June 2010. Paper: M. Saad, "Reduced-Complexity Spectrum-Efficient Routing in TDMA Multihop Wireless Networks".

5. Recipient of the University of Sharjah "Annual Incentive Award for Distinguished Faculty Members", for excellence in research, April 2010.

6. Nominated for inclusion in the 2015 Edition of **Who's Who in the World**.

7. Nominated for inclusion in the 2013 Edition of **Who's Who in the World**.

8. Nominated for inclusion in the 2012 Edition of **Who's Who in the World**.

9. Nominated for inclusion in the 2011 Edition of **Who's Who in the World**.

10. Nominated for inclusion in the 2010 Edition of **Who's Who in the World**.

11. Nominated by the College of Engineering, University of Sharjah, for the *Sharjah Islamic Bank Award for Distinguished Scientific Research*, April 2008. The College of Engineering nominates only *one* of its faculty members to be considered for the award.

12. Recipient of the *Best Teaching Award* by the IEEE Women in Engineering Society, University of Sharjah, May 2009.

13. Recipient of the *Best Teaching Award* by the IEEE Women in Engineering Society, University of Sharjah, May 2007.

14. Recipient of the *Natural Sciences and Engineering Research Council of Canada* (*NSERC*) *Post Doctoral Fellowship*, July 2005. This is a prestigious award offered by Canada's federal government to the most promising researchers.

15. Recipient of the *Nortel Networks Ontario Graduate Scholarship in Science and Technology* (OGSST), Sept. 2004

16. Nominated for the *Mary Keyes Award for Leadership and Service to McMaster*, May 2004

17. Medal of Honor for Excellence in Undergraduate Education, Faculty of Engineering, Cairo University, Dec. 1996. This medal is awarded by Cairo University to the top 10% students in their respective departments.

18. The Egyptian Government Awards of Excellence in Undergraduate Education, Cairo University, 1995-1996, 1994-1995, 1993-1994, 1992-1993 and 1991-1992. These are awarded by the Egyptian government to the top 2% students in their respective universities.

Scholarly Activities

1. Principal Investigator of the University of Sharjah Targeted Project "Optimal Resource Management for Cloud-Based Fifth Generation Wireless Networks", AED 130,000, 2016-2018.

2. Coordinator, "Distributed and Networked Systems Research Group", AED 100,000 per annum, University of Sharjah, 2015-2017.

3. Principal Investigator of the University of Sharjah Seed Project "Resource Management in Wireless Networks: Performance Limits and Algorithms", AED 20,000, 2006-2008.

4. Was involved in the MITACS (*Mathematics of Information Technology and Complex Systems*) project on "New Interior-Point Optimization Methods and Software for Convex Conic-Linear Optimization with Applications to Solving VLSI Circuit Layout Problems and Digital Communication Systems Design".

5. *Associate Editor* for Frontiers in Communications and Networks.

6. *Journal Reviewer* for the IEEE/ACM Transactions on Networking; IEEE Transactions on Wireless Communications; IEEE Journal on Selected Areas in Communications; IEEE Transactions on Network and Service Management; EURASIP Journal on Wireless Communications and Networking; Optics Communications; Operations Research; and Optimization and Engineering, Canadian Journal of Electrical and Computer Engineering.

7. *Conference Reviewer* for IEEE GLOBECOM; IEEE ICC; IEEE VTC; IFIP Networking; IFIP International Conference on New Technologies, Mobility and Security (NTMS); IEEE International Symposium on Circuits and Systems (ISCAS); International Conference on Embedded Software and Systems (ICESS); IEEE GCC Conference and Exhibition Center (IEEE GCC); and the International Workshop on Signal Processing and its Applications (WOSPA).

8. *Technical Program Committee Member* for IEEE 2015 International Conference on Connected Vehicles & Expo (ICCVE 2015), October 19-23, 2015, Shenzhen, China

9. *Technical Program Committee Member* for M2M and H2H communications coexistence on 5G cellular networks workshop, in conjunction with Fifth International Conference on Selected Topics in Mobile & Wireless Networking (MoWNet'2016), April 11-13, 2016, Cairo, Egypt.

10. *Technical Program Committee Member* for International Conference on Connected Vehicles & Expo (ICCVE 2013), Las Vegas, 2-6 December 2013.

11. *Technical Program Committee Member* for 5th International Conference on Smart Communications in Network Technologies (SaCoNeT 2014), June 18-20 2014, Vilanova i la Geltrú, Spain.

12. *Technical Program Committee Member* for IEEE Global Communications Conference (Globecom 2013), Atlanta, Georgia, USA, Dec. 2013.

13. *Technical Program Committee Member* for IEEE International Workshop on SmArt COmmunications in NEtwork Technologies (SaCoNeT-IV), in conjunction with IEEE International Conference on Communication (ICC 2013), Paris, France, June 2013.

14. *Technical Program Committee Member* for International Conference on Communications, Signal Processing and their Applications (ICCSPA 2013), Sharjah, UAE, April 2013.

15. *Technical Program Committee Member* for 6^{th} Joint IFIP Wireless and Mobile Networking Conference (WMNC 2013), Dubai, UAE., April 2013.

16. *Technical Program Committee Member* for IEEE International Workshop on SmArt COmmunications in NEtwork Technologies (SaCoNeT-III), in conjunction with IEEE International Conference on Communication (ICC 2012), Ottawa, Canada, June 2012.

17. *Technical Program Committee Member* for International Conference on Multimedia Computing and Information Technology (MCIT 2010), Sharjah, UAE.

18. *Technical Program Committee Member* for IEEE International Conference on Signal Processing and Communications (IEEE ICSPC 2007), Dubai, UAE, Nov. 2007.

19. *Organizing Committee Member* (*Chair of Publications and Web*) for International Workshop on Signal Processing and its Applications (WoSPA 2008).

20. *Judge* in the competitions of 11th IEEE UAE Student Day, May 2015.

21. *Judge* in the competitions of 8th IEEE UAE Student Day, May 2013.

22. *Judge* in the competitions of 5th IEEE UAE Student Day, May 2010.

23. *Judge* in the competitions of 4th IEEE UAE Student Day, May 2009.

24. *Judge* in the competitions of 3d IEEE UAE Student Day, May 2008.

Administrative Responsibilities

1. *Member* of the College Council, College of Computing and Informatics, University of Sharjah, 2020-present, (**college level**).

2. *Member* of the University of Sharjah Advisory Council, 2019-2020, (**university level**).

3. *Member* of the University of Sharjah Study Plans and Curricula Committee, 2020-present, (**university level**).

4. *Member* of the University of Sharjah Information technology Governance Committee, 2020-present, (**university level**).

5. *Chair* of the College Curriculum Committee, 2020-present, (**college level**).

6. *Chair* of the Department Curriculum Committee, 2020-present, (**department level**).

7. *Graduate Studies Coordinator*, 2017-2020, (**department level**).

8. *Chair* of the Research and Conferences Committee, 2019-2020, (**college level**).

9. *Chair* of the ABET Accreditation Committee, 2015-2017, (**department level**). Responsible for preparing of the self-study reports for the EEE and CPE programs, preparing for the ABET visit and co-representing the department in the ABET visit.

10. *Member* of the ABET Accreditation Committee, 2015-2017, (**college level**).

11. *Member* of the Curriculum Committee, 2015-present, (**department level**).

12. *Member* of the *University of Sharjah Strategic Research Domains' Committees* (infrastructure domain), 2009-2014 (**university level**).

13. *Member* of the College Council, College of Engineering, University of Sharjah, 2010-2011 and 2013-2015 (**college level**).

14. *Chair* of the Strategic Planning Committee, 2013-2014 (**department level**).

15. *Member* of the Strategic Planning Committee, 2013-2014 (**college level**).

16. *Chair* of the *Research and Scholarship Committee*, College of Engineering, University of Sharjah, 2009-2010 (**college level**).

17. *Chair* of the *Student Welfare Committee*, College of Engineering, University of Sharjah, 2011-2012 (**college level**).

18. *Research and Scholarship Coordinator*, Department of Electrical and Computer Engineering, University of Sharjah, 2008-2009, 2009-2010 (**department level**).

19. *Chair* of the *Research and Scholarship Committee*, Department of Electrical and Computer Engineering, University of Sharjah, 2007-2008 (**department level**).

20. *Chair* of the *Computer Engineering Program Review Committee*, College of Engineering, University of Sharjah, Fall 2007-2008 (**college level**).

21. *Coordinator* of the *Networking Specialty Group*, Department of Electrical and Computer Engineering, University of Sharjah, 2006-present (**department level**).

22. *Member* of the Computer Engineering Faculty Recruitment Committee, Department of Electrical and Computer Engineering, University of Sharjah, 2006-2007, 2007-2008, 2008-2009, 2012-2013, 2013-2014 (**department level**).

23. *Member* of the *Faculty Affairs Committee*, University of Sharjah, 2009-2011 (**university level**).

24. *Member* of the *Student Affairs Committee*, University of Sharjah, 2007-2008, 2008-2009 (**university level**).

25. *Chair* of the *Graduate Student Committee* in the Department of Electrical and Computer Engineering, McMaster University, July 2002–Dec. 2004 (**department level**).

26. *Member* of the *Faculty of Engineering Graduate Curriculum and Policy Committee*, and member of the *Faculty of Engineering*, July 2002–Dec. 2004 (**college/faculty level**).

27. *Member* of the *Committee to Select a New Chair for the Electrical and Computer Engineering Department*, McMaster University, Nov. 2002–March 2003 (**university level**).

Graduate Student Supervision

6 M.Sc. student (4 graduated, 2 in progress)

Undergraduate Student Supervision

I have supervised *101* senior design/graduation project students at the University of Sharjah. Topics included Internet-of-Things (IoT), network resource management, soft computing/optimization tools (e.g., genetic algorithms and particle swarm optimization), autonomic communications, topology adaptation in peer-to-peer networks, cross-layer design in wireless networks, robotics, and autonomous quadcopter/drone.

Professional Membership

Senior Member, IEEE;
Member, Egyptian Syndicate of Engineers

Publications

Submitted and Working Journal Papers

[1] S. Abdallah, A.I. Salameh, M. Saad, M. N. Hindia, "Joint Semi-blind Channel and CFO Estimation in Amplify-and-Forward Two-Way Relay Networks", submitted for journal publication, Aug. 2018.

[2] K. Alnajjar, S. Abdallah, M. Saad and A. El-Moursy, "Low Complexity Receivers for Massive MIMO Cloud Radio Access Systems", April 2018.

[3] S. Muhaureq, M. Saad and A. El-Saddik, "Echolocation Optimziation Algorithm", Manuscript, Department of Electrical and Computer Engineering, University of Sharjah, 2010.

[4] M. Saad, Z.-Q. Luo, "Wavelength-Selective WDM Network Design: How Bad is Shortest Path Routing?", Manuscript, Department of Electrical and Computer Engineering, University of Sharjah, 2008.

Journal Papers

[5] M. Saad, S. Abdallah and H. Dahrouj, "Multihop Routing for Maximum Semantic Spectral Efficiency", *IEEE Wireless Communications Letters*, vol. 15, pp. 2473–2477, April 2026.

[6] A.M. Khedr, D. Vijayan and M. Saad, "OIM-BCI: Optimized Influence Maximization with a Budget Constrained Improved Capuchin Approach", accepted for publication in *Neural Computing and Applications*, Feb. 2026.

[7] A. El-Moursy, O. Alfawaz, K. Alnajjar, S. Abdallah, M. Saad, and F. Sibai, "Hybrid Parallel Model of Semi-blind Joint Timing-Offset and Channel Estimation for AF-TWRNs", accepted for publication in *IEEE Access*, Dec. 2025, Early Access DOI: 10.1109/ACCESS.2026.3652267.

[8] D. Abueida, M.A. Albreem, S. Abdallah, A.A. Salem, K. Alnajjar, and M. Saad, "Data Detection Techniques for Scalable Cell-free Massive MIMO Systems", accepted for publication in *Journal of Communications and Networks*, Nov. 2025.

[9] A.A. Salem, M. Saad, S. Abdallah, M.A. Albreem, K. Alnajjar, H. Dahrouj, and H. Elsawy, "Movable-Antenna-Aided Covert ISAC-NOMA Networks: Joint Antenna Positioning and Resource Allocation", *IEEE Open Journal of the Communications Society*, vol. 6, pp. 9373–9391, Oct. 2025, DOI: 10.1109/OJCOMS.2025.3627607.

[10] D. Abueida, M.A. Albreem, S. Abdallah, A.A. Salem, S. Shahabuddin, K. Alnajjar, M. Saad, N.T.h Nguyen, and M. Juntti, "Signal Processing for Cell-Free Massive MIMO: Techniques and Trends in Estimation, Detection, and Precoding", *IEEE Open Journal of the Communications Society*, vol. 6, pp. 9392–9434, Nov. 2025, DOI: 10.1109/OJCOMS.2025.3625823.

[11] D. Vijayan, M. Saad, and A.M. Khedr, "SSARO-SE: Sparrow Search Algorithm-based Routing Optimization for Maximizing end-to-end Spectral Efficiency in Wireless Networks", *Wireless Networks*, Nov. 2025, https://doi.org/10.1007/s11276-025-04037-8.

[12] A.A. Salem, S. Abdallah, M. Saad, K. Alnajjar, and M.A. Albreem, "Robust Secure ISAC: How RSMA and Active RIS Manage Eavesdropper's Spatial Uncertainty", accepted for publication in *IEEE Transactions on Vehicular Technology*, Sept. 2025, Early Access DOI: 10.1109/TVT.2025.3610863.

[13] A.A. Salem, K. Alnajjar, M.A. Albreem, Mohamed Saad, and Saeed Abdallah, "Active RIS Enabled RSMA Integrated Sensing, Communication, and Power Transfer", accepted for publication in *IEEE Transactions on Communications*, Aug. 2025,
Early Access doi: 10.1109/TCOMM.2025.3597647.

[14] M.A. Albreem, S. Abdallah, M. Saad, M. Aldababsa, and K. Alnajjar, "Low Complexity Detectors for Uplink Massive MIMO Based on a Refinement of Linear Algorithms and Efficient Initialization", accepted for publication in *Journal of Communications and Networks*, July 2025.

[15] O. Alfawaza, A. El-Moursyb, M. Saad, and A.M. Khedr, "VFCkM: A Federated Clustering Framework Based on k-Means Algorithm for Vertically Partitioned Data with Shared Attributes", *Journal of Supercomputing*, vol. 81, no. 7, article number 855, May 2025,
https://doi.org/10.1007/s11227-025-07296-6.

[16] D. Vijayan, A.M. Khedr, and M. Saad, "Bayesian Optimized Enhanced Ensemble Multi-Layer Perceptron for Rear-End Collision Prediction in IoV", *IEEE Access*, vol. 12, pp. 193693–193706, 2024, Dec. 2024, doi: 10.1109/ACCESS.2024.3519177.

[17] A.M. Khedr, D. Vijayan, and M. Saad, "ECapRO-SEM: Enhanced Capuchin Route Optimizer for Spectral Efficiency Maximization in Wireless Networks", *IEEE Sensors Journal*, vol. 25, no. 2, pp. 3659–3671, Jan. 2025, DOI: 10.1109/JSEN.2024.3510547.

[18] A.A. Salem, M.A. Albreem, K. Alnajjar, S. Abdallah, and M. Saad, "Integrated Cooperative Sensing and Communication for RIS-Enabled Full-Duplex Cell-Free MIMO Systems", accepted for publication in *IEEE Transactions on Communications*, Oct. 2024.

[19] M. Saad and S. Abdallah, "Optimal Secure Spectrum-Efficient Routing in Multihop Wireless Networks", *IEEE Sensors Journal*, vol. 24, no. 23, pp. 39798–39810, Dec. 2024, DOI: 10.1109/JSEN.2024.3474922.

[20] S. Abdallah, Ahmed I. Salameh, M. Saad, and M.A. Albreem, "Asynchronous Ambient Backscatter Communication Systems: Joint Timing Offset and Channel Estimation", *IEEE Transactions on Communications*, vol. 72, no. 9, pp. 5365–5379, Sept. 2024.

[21] S. Abdallah, M. Albreem, M. Saad, and M. Aldababsa, "Channel Estimation for Full-duplex OFDM-based Ambient Backscatter Communication Systems with I/Q Imbalance", *IEEE Transactions on Communications*, vol. 72, no. 9, pp. 5302–5318, Sept. 2024

[22] S.A. Aboulrous, A. Abdelsamea, A.A. El-Moursy, M. Saad, F.N. Sibai, S.M. Nassar, and H. Abbas, "Parallel Deployment and Performance Analysis of a Multi-Hop Routing Protocol for 5G Backhaul Networks using Cloud and HPC Platforms", *IEEE Access*, vol. 12, pp. 16696–16714, Jan. 2024.

[23] M. Saad, S. Abdallah, and M. Albreem, "On Spectrum-Efficient Routing and Power Allocation in a Multihop Network of Passive Backscatter Tags", *IEEE Sensors Journal*, vol. 23, no. 18, pp. 21924–21935, Sept. 2023.

[24] S. Alzaabi, N.A.H. El Chihabi, M. Elsalhy, and M. Saad, "Istighatha – IoT-Enabled Emergency Response System", *Internet of Things*, vol. 23, 2023.

[25] A.M. Khedr, S. Rani S., and M. Saad, "Hybridized Dragonfly and Jaya algorithm for Optimal Sensor Node Location Identification in Mobile Wireless Sensor Networks", *Journal of Supercomputing*, vol. 2023, May 2023, https://doi.org/10.1007/s11227-023-05326-9.

[26] O. Alfawaz, W. Osamy, M. Saad and A.M. Khedr, "Modified Rat Swarm Optimization Based Localization Algorithm for Wireless Sensor Networks", *Wireless Personal Communications*, vol. 2023, March 2023.

[27] S. Abdallah, Z. Verboven, M. Saad, and M. Albreem, "Channel Estimation for Full-duplex Multi-Antenna Ambient Backscatter Communication Systems", *IEEE Transactions on Communications*, vol. 71, no. 5, pp. 3051–3072, May 2023.

[28] S. Rani S., M. Saad, and A.M. Khedr, "Optimized Deep Learning for Congestion-aware Continuous Target Tracking and Boundary Detection in IoT Assisted WSN", *IEEE Sensors Journal*, vol. 23, no. 7, pp. 7938–7948, April 2023.

[29] S. Ansari, K. Alnajjar, M. Saad, S. Abdallah, and A. El-Moursy, "Automatic Digital Modulation Recognition Based on Genetic-Algorithm-Optimized Machine Learning Models", *IEEE Access*, vol. 10, pp. 50265–50277, May 2022.

[30] M. Saad, A. El-Moursy, O. Alfawaz, S. Abdallah, and K. Alnajjar, "Wireless Link Scheduling via Parallel Genetic Algorithm", *Concurrency and Computation: Practice and Experience*, vol. 34, no. 6, pp. 2250–2254 March 2022. Available: https://doi.org/10.1002/cpe.6783.

[31] H. Dahrouj, A. Douik, M. El-Hajjar, M. Kaneko, Y. Li, D.T. Ngo, M. Saad, K. Sheng and J. Zhang, "Editorial: Resource Allocation in Cloud-Radio Access Networks and Fog-Radio Access Networks for B5G Systems", *Frontiers in Communications and Networks*, vol. 2, Nov. 2021.

[32] M. Saad, A. I. Salameh, S. Abdallah, A. El-Moursy, and C.-T. Cheng, "A Composite Metric Routing Approach for Energy-Efficient Shortest Path Planning on Natural Terrains", *Applied Sciences*, vol. 11, no. 15, p. 6939, Jul. 2021 [Online]. Available: http://dx.doi.org/10.3390/app11156939.

[33] S. Abdallah, A. I. Salameh, M. Saad, and A. El-Moursy, "Joint Estimation of the Channel and I/Q Imbalance for Two-way Relay Networks", *Telecommunication Systems* (*Springer*), vol. 78, pp. 449—462 Aug. 2021.

[34] S. Abdallah, M. Saad, K. Alnajjar, and A. El-Moursy, "Joint Timing-Offset and Channel Estimation for Physical Layer Network Coding in Frequency Selective Environments", *IET Communications*, vol. 2021, pp. 1–13, https://doi.org/10.1049/cmu2.12203.

[35] S. Abdallah, A.I. Salameh, and M. Saad, "Joint Channel, Carrier Frequency Offset and I/Q Imbalance Estimation in Ambient Backscatter Communication Systems", *IEEE Communications Letters*, vol. 25, no. 7, pp. 2250–2254, July 2021, DOI: 10.1109/LCOMM.2021.3075493.

[36] M. Baziyad, M. Saad, R. Fareh, T. Rabie and I. Kamel, "Addressing Real-Time Demands for Multi-Robot Path Planning Systems: A Routing Protocol Approach", *IEEE Access*, vol. 9, pp. 38132–38143, Feb. 2021.

[37] M. Saad and S. Abdallah, "On Spectrum-Efficient Routing in Interference-Limited Full-Duplex Multihop Wireless Networks", *IEEE Access*, vol. 9, pp. 11134–11143, Jan. 2021.

[38] A. El-Moursy, S. Abdallah, M. Saad and K. Alnajjar, "Parallel Two-Way Relay Channel Estimation in Cloud-based 5G Radio Access Networks", *IEEE Access*, vol. 8, pp. 144077–144091, August 2020.

[39] W.S. Afifi, A.A. El-Moursy, M. Saad, S.M. Nassar and H.M. El-Hennawy, "A Novel Scheduling Technique for Improving Cell Edge Performance in 4G/5G Systems", *Ain Shams Engineering Journal* (*Elsevier*), vol. 12, no. 1, pp. 487–495, March 2021.

[40] S. Abdallah, M. Saad, K. Alnajjar and M. Masood, "Semi-Blind Joint Timing-Offset and Channel Estimation for Amplify-and Forward Two-Way Relaying", *IEEE Transactions on Wireless Communications*, vol. 19, no. 4, pp. 2613–2627, April 2020.

[41] M. Saad and S. Abdallah, "On Millimeter Wave 5G Backhaul Link Scheduling", *IEEE Access*, vol. 7, pp. 76448–76457, June 2019.

[42] S. Abdallah, A.I. Salameh and M. Saad, "Spectrum Efficient Joint Frequency Offset and Channel Estimation for Time-Asynchronous Amplify-and Forward Two-way Relay Networks", *IEEE Access*, vol. 7, pp. 71972–71985, May 2019.

[43] A. El-Moursy, A. Abdelsamea, R. Kamran and M. Saad, "Multi-Dimensional Regression Host Utilization Algorithm (MDRHU) for Host Overload Detection in Cloud Computing", *Journal of Cloud Computing* (*Springer*), vol. 8, no. 1, June 2019. Available online: `https://rdcu.be/bGFqU`.

[44] S.T. Muhammad, M. Saad, A.A. El-Moursy, M.A. El-Moursy and H.F.A. Hamed, "CFPA: Congestion Aware, Fault Tolerant and Process Variation Aware Adaptive Routing Algorithm

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Conference Papers

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Invited Talks

1. Workshop on Advanced Topics in Wireless Communications, University of Sharjah, Sharjah, UAE, April 2009.
   Talk: "Joint Admission and Power Control for Quality-of-Service in the Wireless Downlink"

2. Selected Topics in Complex Systems and Applications Forum, University of Sharjah, Sharjah, UAE, April 2008.
   Talk: "Resource Management in Communication Networks: Performance Bounds, Complexity and Algorithms".

3. CAIMS-MITACS 2006 Joint Annual Conference, York University, Toronto, June 2006.
   Talk: "Rate Allocation Under Network End-To-End Quality-of-Service Requirements".

4. MITACS 6th Annual Conference, Calgary, May 2005.
   Talk: "Design of Optical Networks: Performance Bounds, Complexity and Algorithms".

5. SHARCNET Scientific Computing Seminar Series, McMaster University, March 2005.
   Talk: "Resource Allocation in Optical Networks: Performance Bounds, Complexity and Algorithms".

6. Advanced Optimization Laboratory (AdvOL) Seminar Series, McMaster University, Department of Computing and Software, Nov. 2004.
   Talk: "Design of Optical Networks: Performance Bounds, Complexity and Algorithms".

7. University of Waterloo, Department of Electrical and Computer Engineering, Oct. 2004.
   Talk:"Design of Optical Networks: Performance Bounds, Complexity and Algorithms".

8. McMaster University, Computer Networking Group, Nov. 2003.
   Talk:"On the Routing and Wavelength Assignment in Multifiber WDM Networks".

9. McMaster University, Department of Electrical and Computer Engineering, June 2003.
   Talk:"Analysis of the Greedy Approach in Problems of Maximum k-Coverage".

10. University of Toronto, Department of Electrical and Computer Engineering, March 2002.
    Talk: "A Lagrangean Decomposition Approach for the Routing and Wavelength Assignment in Multifiber WDM Networks".

11. McMaster University, Department of Engineering Physics, April 2001.
    Talk: "Management and Provisioning of Optical Networks".