

MELIKE EROL-KANTARCI, *PhD, P.Eng., SMIEEE, SM-ACM*

Canada Research Chair in AI-Enabled Next-Generation Wireless Networks, Full Professor at uOttawa
Chief Cloud RAN AI\ML Data Scientist at Ericsson

[Email](#) | [Web](#) | [Google Scholar](#) | [LinkedIn](#)

Mail Address: 800 King Edward Avenue, Ottawa, ON K1N 6N5, Office: SITE 5029

PROFILE

- An innovative industry leader and an influential academic with a good understanding of emerging technologies, incubation of ideas and technology transfer in high-risk high-value domains.
- Founding director of Networked Systems and Communications Research (NETCORE) laboratory at uOttawa
- Over 8000 citations and an h-index of 43 with more than 200+ refereed publications and 10+ granted\filed patents
- 70+ keynotes, talks and panels
- \$10M+ funding in-cash as a PI/co-PI
- 10+ awards and recognitions from IEEE; incl. 2 Best Paper Awards from IEEE ICC
- Women in AI North America award 2023; N2Women Stars in Networking and Communications Award 2019
- Ericsson key contributor award in 2022
- IEEE ComSoc Distinguished Lecturer (2020-2023)
- Vice-chair for IEEE ComSoc emerging technologies initiative on Machine Learning for Communications
- Chair for SIG on Machine Learning and AI in Networking
- Steering Committee Member for IEEE Sustainable ICT Initiative
- Senior Member of IEEE and ACM
- Professional Engineer of Ontario

Expertise: wireless networks, AI\ML, 5G, 6G, ORAN, smart grid communications, cybersecurity, Internet of Things (IoT) and wireless energy harvesting.

WORK EXPERIENCE

Full Professor (Tenured) University of Ottawa School of Electrical Engineering and Computer Science	May 2023 - Present
Chief Cloud RAN AI\ML Data Scientist Ericsson	January 2022 - Present
Faculty Affiliate Vector Institute, Toronto	December 2020 - Present
Faculty Affiliate Institute for Science, Society and Policy, University of Ottawa	August 2019 - Present
Associate Professor (Tenured) University of Ottawa School of Electrical Engineering and Computer Science	May 2019-May 2023
Courtesy Faculty Clarkson University Department of Electrical and Computer Engineering	August 2016 – June 2023

Assistant Professor (Tenure-track) University of Ottawa, Canada School of Electrical Engineering and Computer Science	August 2016 - April 2019
Assistant Professor (Tenure-track) Clarkson University, USA Department of Electrical and Computer Engineering	2014-2016
Affiliated Faculty Clarkson University Institute for a Sustainable Environment (ISE)	2015-2016
Coordinator of the Smart Grid Communications Lab University of Ottawa	2013 - 2014
Postdoctoral Fellow University of Ottawa School of Electrical Engineering and Computer Science	2009 - 2014
Lecturer Istanbul Technical University Information Technologies Program	2008 - 2009
Teaching and Research Assistant Istanbul Technical University Department of Computer Engineering	2001 - 2009
Researcher University of California, Los Angeles (UCLA) Department of Computer Science Funded by Fulbright PhD. Scholarship	2006 - 2007

EDUCATION

Istanbul Technical University PhD, Computer Engineering (advisor: Dr. Sema Oktug)	2004 - 2009
University of California, Los Angeles (UCLA) PhD Thesis Study, Computer Science (supervisor: Dr. Mario Gerla) Thesis: Localization and Its Effects on Data Delivery in Underwater Sensor Networks	2006-2007
Istanbul Technical University MSc, Computer Engineering (advisor: Dr. Sema Oktug) Thesis: The Impact of Queue Management Policies on the Self-Similarity of Network Traffic	2001- 2004
Istanbul Technical University BSc, Control and Computer Engineering	1997 – 2001

GRANTS

- **NSERC Canada Research Chairs Program, CRC (Tier II) in AI-Enabled Next Generation Wireless Networks (PI, Awarded \$600,000, 5 years)** 2019-2024
- **NSERC CREATE (Co-PI, Awarded \$ 1.650.000, 6 years)** 2023
Project Title: Training and Research in Autonomous Vehicles for Reliable Services in the Air and on Land (TRAVERSAL)

- **MITACS Accelerate (PI, Awarded \$200,000, 2 years)** 2023
Project title: AI-enabled Network Slicing and Orchestration for 5G and 6G
- **Department of National Defence (co-PI, Awarded \$1.5M, 3 years)** 2022
Project title: Autonomous, Reliable, Scalable and Secure Resource Management in Multi-level 5G edge
- **Department of National Defence (co-PI, Awarded \$1.5M, 3 years)** 2022
Project title: AI-Driven Situational-Aware Security and Performance Assurance for 5G-Enabled Critical Infrastructures
- **Norwegian Directorate for Higher Education and Skills (co-PI, Awarded 3MNOK (\$400K), 3 years)** 2022
Project Title: Elevating the Quality of Education in ICT towards 2030 through Multilateral Collaborations (EQEI)
- **MITACS Accelerate (PI, Awarded \$510,000, 2 years)** 2021
Project title: AI-enabled Performance Enhancement for the Reconfigurable Multi-Player RAN
- **MITACS Accelerate (PI, Awarded \$544,000, 5 years)** 2021
Project title: Traffic Estimation and Stable Resource Allocation Using Distributed Machine Learning
- **MITACS Accelerate (PI, Awarded \$255,000, 2 years)** 2021
Project title: Machine Learning-Enhanced Anomaly Detection and Performance Optimization for Enterprise WiFi Networks
- **Academia Sinica (Taiwan)-uOttawa Mobility Program (PI, Awarded \$67,500, 2 years)** 2020
Project Title: Exploring Machine Learning Techniques for Localization of 5G-enabled Indoor Sensor Networks
- **Ontario Centers of Excellence – 5G ENCQOR Program (PI, Awarded \$148,500, 2 years)** 2019
Project Title: Self-optimized edge caching and computing fabric in 5G
- **Ontario Centers of Excellence – 5G ENCQOR Program (PI, Awarded \$148,500, 2 years)** 2019
Project Title: Enhanced Mobility Solutions for Ultra Reliable Low Latency Edge Computing Services
- **Ontario Centers of Excellence – 5G ENCQOR Program (PI, Awarded \$150,000, 2 years)** 2019
Project Title: AI-enabled Radio Resource Management in LTE-NR Dual Connectivity
- **ERASMUS+ International Mobility Grant (PI, Awarded \$3,000, one-time)** 2019
- **NSERC Engage (PI, Awarded \$25,000, 6 months)** 2018
Project Title: Smart enterprise-centric context-based fine-grained access control
- **Mitacs Globalink Research Award - National Research Foundation of Korea (Host Supervisor, \$3,000)** 2018
Project Title: Mobile Beacon-based Localization with Motion Compensation for Underwater Acoustic Sensor Networks
- **NSERC CREATE (Co-PI, Awarded \$ 1.650.000, 6 years)** 2017
Project Title: Training in Optoelectronics for Power: from Science and Engineering to Technology (TOP-SET)
- **NSERC Discovery (PI, Awarded \$145,000, 5 years)** 2017
Project Title: Peer-to-peer Energy Trading over Reliable Small Cell Networks
- **NSF (PI at University of Ottawa, Awarded \$290,000, 3 years)** 2017
Project Title: An Integrated Reconfigurable Control and Self-Organizing Communication Framework for Advanced Community Resilience Microgrids
- **Natural Resources Canada (NRCAN), Sci. and Tech. Intern. Program (PI, Awarded \$10,000, one-time)** 2017
Project Title: Energy-Efficient Ultra-Dense Wireless Networks
- **uOttawa Office of the VP Research, Visiting Researchers Program (PI, Awarded \$4,000, one-time)** 2017
- **Canada-Italy Innovation Award, (Co-PI, Awarded \$4,500, one-time)** 2017
Project Title: Privacy-Utility Trade off in Big Data for Green Smart Cities

- **QUALCOMM Inc. (Co-PI, funded \$20,000(USD))** 2015 - 2016
Project Title: Wireless Internet of Things Lab for Sensor Networks, Localization, and Mobile Computing at Clarkson University
- **NSF Industry/University Cooperative Research Center (Co-PI, funded \$40,000(USD))** 2015
Project Title: Context-aware Anomaly Detection in Internet of Biometric Things
- **Visiting Scientist Fellowship**, Scientific And Technological Research Council of Turkey (TUBITAK) 2014

AWARDS AND SCHOLARSHIPS

- Featured in IEEE ComSoc collection of videos with a citation “celebrating the achievements of female members highlighting the incredible talent and technical achievements of these women from the ComSoc community”
https://www.youtube.com/watch?v=bsatW_IuXKI 2023
- Special Jury Recognition Award, Women in AI North America 2023
(Women in AI NA awards recognize and celebrate the outstanding contributions of women in the field of Artificial Intelligence across Canada, USA, and Mexico)
- Best Paper Award of the IEEE ICC - Communication Software & Multimedia Symposium 2023
- Best Paper Award of the IEEE ICC – Next generation Networking and Internet Symposium 2023
- Ericsson Key Contributor Award 2022
- Distinguished Service Award of the International Conference on Computer, Information and Telecommunication Systems 2021
- Distinguished Service Award of the IEEE Communications Society, Technical Committee on Green Communications and Computing 2020
- Elevated to ACM Senior Member Grade 2020
- N2Women Award: 2019 Stars in Networking and Communications 2019
- Article selected to IEEE ComSoc “Best Readings in Green Communications” 2018
- IEEE Multimedia Communications Technical Committee (MMTC) Best Editor Award 2017
- IEEE ComSoc Best Tutorial Paper Award 2017
- Best Paper Award of the IEEE ComSoc Technical Committee on Communications Systems Integration and Modeling 2017
- NSF CISE CAREER workshop travel grant 2015
- Elevated to IEEE Senior Member Grade 2015
- Article selected to IEEE ComSoc “Best Readings in Smart Grid Communications” 2014
- Article selected to IEEE ComSoc Technology News (CTN) 2013
- Joint holder of the Paper Award at the IEEE Electrical Power and Energy Conference (EPEC) 2010
- Joint holder of the Best Paper Award for at the Fifth Advanced Int. Conference on Telecommunications 2009
- INFOCOM Conference Student Travel Grant, IEEE Communications Society 2008
- Fulbright Ph.D. Research Scholarship, (granted to one PhD student in the Computer Science and Engineering field among over 400 applicants), FULBRIGHT Foundation 2006-2007
- Siemens Excellence Award 2004
- ACM/SIGCOMM Conference Student Travel Grant 2004
- National University Entrance Exam Merit Grant, Istanbul Technical University 1997- 2001

SERVICE TO UNIVERSITY & OUTREACH

- University of Ottawa, the CERC Selection committee 2022- Present
- University of Ottawa, Internal Reviewer for NSERC Programs 2021 - Present
- University of Ottawa, ISSP Steering Committee Member 2021- Present
- University of Ottawa, Admission Committee 2020 - Present
- University of Ottawa, EECS, Teaching Assistantship Committee 2018-2019
- University of Ottawa, EECS, Library Committee 2018-2019
- University of Ottawa, EECS, CEG Curriculum Committee 2017-2018
- University of Ottawa, EECS, ELG Curriculum Committee 2016 - 2017
- University of Ottawa, EECS, Co-op Coordinator, CEG 2016-2017
- University of Ottawa, EECS, Co-op Coordinator, MEBT 2016
- University of Ottawa, EECS, Co-op Marking, ELG/CEG 2016-2017
- Clarkson University, ECE Graduate Committee 2015 - 2016
- Clarkson University, ECE Computer Engineering Curriculum Committee 2015 - 2016
- Clarkson University, ECE Awards Committee 2016
- Science Café Seminar February 2016

SERVICE TO FUNDING AGENCIES

- NSERC Discovery Evaluation Group Co-chair 2022 - Present
- NSERC Discovery Evaluation Group committee member 2021 - 2022
- Academy of Finland 2021
- European Science Foundation 2021
- Science Foundation of Ireland -Reviewer 2019-2021
- Canada Foundation for Innovation – Expert Panelist 2020
- NSERC Discovery - Reviewer 2016, 2018, 2019
- NSERC CRD - Reviewer 2017
- MITACS Accelerate and Elevate - Reviewer 2017,2018
- Netherlands Organisation for Scientific Research - Reviewer 2016
- Israel Science Foundation - Reviewer 2015

SUPERVISED STUDENTS

Current Supervised Students and Researchers (13):

1. Atefeh Termehchi (PDF) Research topic: Risk-aware and stable reinforcement learning for 6G
2. Tingnan Bao (PDF) Research topic: AI-enabled reconfigurable surfaces and edge computing in 6G
3. Mohammadreza Amini (Research Associate - co-supervised w\ Dr. B. Kantarci) Research topic: Secure and Trusted 5G Network
4. Pedro Iturria Rivera (PhD Student) Thesis topic: Distributed multi-agents for wireless networks
5. Hind Mukhtar (PhD Student) Thesis topic: Machine Learning-Based Localization
6. Han Zhang (PhD Student - Vector Institute Scholarship Winner) Thesis topic: AI-enabled open virtualized RAN
7. Arafat Habib (PhD Student) Thesis Topic: AI-enabled traffic steering
8. Shavbo Salehi (PhD Student) Thesis Topic: Reinforcement learning in ORAN
9. Mohammad Farzanullah (PhD Student) Thesis Topic: Explainable AI-enabled RAN slicing
10. Mohammad Ghassemi (PhD Student) Thesis Topic: AI-enabled trustworthy edge slicing
11. Anne Catherine Nguyen (MSc Student) Thesis topic: Resource allocation using machine learning
12. Luciana Nobrega (MAsc Student - AAI concentration) Thesis topic: Task offloading with stable machine

learning

13. Mafuzal Hoque (MASC Student) Thesis topic: AI-enabled 6G

Past supervised students (39):

1. Hao Zhou (PhD Student - Nominated to the 2023 University of Ottawa PhD Thesis Prize and winner of a Chinese Government Award) Thesis title: ML-based Optimization of Large-scale Systems: Case Study in Smart Microgrids and 5G RAN (August 2023)
2. Ycaro Dantas (MASC Student - AAI concentration Vector Institute Scholarship Winner) Thesis title: AI-Enabled and Integrated Sensing-Based Beam Management Strategies in Open RAN (August 2023)
3. Turgay Pamuklu (PDF) Research topic: Advanced Architectures in 6G (May 2023)
4. Tiffany Cheng (MSc Student) Thesis title: Reinforcement Learning Based Resource Allocation for Network Slicing in O-RAN (May 2023)
5. Fahimeh Khoramnejad (PhD Student) Thesis title: AI-enabled System Optimization with Carrier Aggregation and Task Offloading in 5G and 6G (March 2023)
6. Xiaoyang (Owen) Wang (BSc student) Research Topic: Access Point coordination in OpenWiFi (January-April 2023)
7. Marco Skocaj (Visiting PhD Student from University of Bologna) Research topic: Federated learning in wireless networks (June - December 2022)
8. Mohammad Akbari (PDF) Research topic: Stable learning in wireless networks (October 2022)
9. Omer Melih Gul (PDF – co-supervised) Research topic: OpenWiFi and Physical Layer Security (December 2022)
10. Roghayeh Joda (Researcher) Research topic: Multi-RAT environments (September 2022)
11. Yujie Yao (MASC Student) Thesis title: Radio Resource Allocation and Beam Management under Location Uncertainty in 5G mmWave Networks (April 2022)
12. Mohammad Sadeghi (PhD student) Thesis title: Cost and Power Loss Aware Coalitions under Uncertainty in Transactive Energy Systems (May 2022)
13. Mikhak Samadi (PhD student – co-supervised with Dr. Henry Schriemer) Thesis title: Data-driven demand management in smart grid (May 2022)
14. Long Kong (PDF) Research topic: AI and multi vendor environments (September 2021- April 2022)
15. David Chan (Undergraduate Intern) Project topic: Carrier Aggregation in 5G (April 2021 – December 2021)
16. Kareem Dabbour, (Undergraduate Honors project team): Project title: Optimized Open WiFi Performance through Anonymized Data (December 2021- May 2022)
17. Irtiza Hasan (Undergraduate Honors project team): Project title: Optimized Open WiFi Performance through Anonymized Data (December 2021- May 2022)
18. Andrea Herscovich (Undergraduate Honors project team): Project title: Optimized Open WiFi Performance through Anonymized Data (December 2021- May 2022)
19. Shahram Mollahasani (PDF) Research topic: 6G and AI-enabled Networks (November 2021)
20. Medhat Elsayed (PhD Student - Nominated to the 2021 University of Ottawa PhD Thesis Prize and Recipient of the NSERC CREATE TOPSET Graduate Research Training Scholarship) Thesis title: Machine Learning-Enabled Radio Resource Management for Next-Generation Wireless Networks (June 2021)
21. Hind Mukhtar (MASC Student - Nominated to the 2021 Faculty of Engineering Thesis Prize) Thesis topic: Machine Learning Enabled-Localization in 5G and LTE using Image Classification and Deep Learning (June 2021).
22. Kyle Quintal (MSc Student – co-supervised with Dr. Burak Kantarci) Thesis title: Context-Awareness for Adversarial and Defensive Machine Learning Methods in Cybersecurity (July 2020)
23. Kevin Shimotakahara (MASC Student – co-supervised with Dr. Karin Hinzer - Recipient of NSERC Alexander Graham Bell Scholarship and the NSERC Canada Graduate Scholarship - Nominated to the 2020 Faculty of Engineering Thesis Prize) Thesis title: Device-to-device communications for smart grid (June 2020).
24. Anne Catherine Nguyen (Undergraduate student – winner of Cognos Prize with her project) Honors project topic: Load Balancing in 5G with Reinforcement Learning (April 2020)
25. Riqiang (Richard) Liu (MASC. Student) Thesis title: Dynamic Routing with Online Traffic Estimation for Video Streaming over Software Defined Networks (March 2020)

26. Muhammad Usama (Master's) MEng - Project topic: Energy-efficiency in 5G (September 2019)
27. Navjot Singh (MASC Student) Thesis Title: Planning of Mobile Edge Computing Resources in 5G Based on Uplink Energy Efficiency (November 2018)
28. Mahdi Sharara (Visiting PhD student from Université Paris-Saclay, February-May 2022) Research Topic: Machine learning for optimal resource allocation
29. Yonghun Kim (PhD Student at Gwangju Institute of Science and Technology, South Korea) – Visiting student supported by National Research Foundation of Korea and Globalink Research Award by Mitacs (October 2018-March 2019) Project Topic: Mobile Beacon-based Localization with Motion Compensation for Underwater Acoustic Sensor Networks
30. Ting-Hui (Jerry) Chiang (PhD Student at National Chiao Tung University, Taiwan) – Visiting student (March-May 2018) Project Topic: Advanced Indoor Localization Techniques
31. Sukhmani Sukhmani (Master's) MEng - Project topic: Caching and computing in 5G (December 2017)
32. Sukhman Kaur (Master's) MEng - Project topic: Directional cells in 5G networks (June 2017)
33. Inayat Irfan (Undergraduate Summer Intern – BSc at McGill) Project topic: NS3-based 5G Simulation Environment Enhancement (July 2020-August 2020)
34. Hazal Saygili (Undergraduate) Summer Intern – 3rd year UG at Bilkent University (July 2017)
35. Meesam Haider (Undergraduate) NSERC CREATE - TOPSET Trainee (January 2018) Project Title: Enhanced LBT Mechanism for LTE-Unclicensed using Reinforcement Learning
36. Keivan Bahmani (PhD) at Clarkson University
37. Anwar Parvej (MS) at Clarkson University
38. Jayesh Bokhira (Undergraduate) at Clarkson University
39. Andy Hoang (Undergraduate) at Clarkson University

THESIS EXAMINATION COMMITTEES

- Abdul Mutakabbir, MASC, “Multi-Modality Federated Learning with Multi-Source Data for Forest Fire Prediction,” Carleton University (supervisor: C.-H. Lung), 2023.
- Arda Onsu, MASC, “Malicious & Cooperative Client Behavior Under Federated Learning with Score-Based Aggregation and Cluster Elimination”(supervisor: B. Kantarci), 2023.
- Jinxin Liu, PhD, “Machine Learning-Enabled Security in Internet of Things and Cyber-Physical Systems” (supervisor: B. Kantarci), 2023.
- Mohsen Shahbazi Dastjerdi, MASC, “AI-Enabled Planning and Control for Aeronautical Ad-Hoc Networks,” University of Ottawa (supervisor: B. Kantarci), 2023.
- Elie El Haber, PhD, “Latency and Reliability Aware Edge Computation Offloading in 5G Networks,” Concordia University (supervisor: Chadi Assi), 2022.
- Nhat Hieu Le, MASC, “Performance Analysis for Supporting Ultra-Reliable Low-Latency Communications in Advanced Wireless Networks,” Carleton University (supervisor: C. Huang), 2022.
- Palwasha Waheed Shaikh, MASC, “Intelligent Infrastructures for Charging Reservation and Trip Planning of Connected Autonomous Electric Vehicles,” University of Ottawa (supervisor: H. Mouftah), 2021.
- Shady Elkamhawy, MASC, “Power Gain Optimization for Multiple Active Multiple Passive Dipole Antenna Arrays, Carleton University (supervisor: R. Gohary), 2021.
- Yonghun Kim, PhD, “Acoustic Ranging Issues Based on Time-of-Arrival for Underwater Localization,” Gwangju Institute of Science and Technology (supervisor: Kiseon Kim), 2020.
- Rawan Alkurd, PhD, “Big Data-Driven AI-based Wireless Network Personalization,” Carleton University (supervisors: H. Yanikomeroglu and I. Abualhaol), 2020.
- Rachel Beverly Belcher, MASC. “Fuzzy Logic Based Module-Level Power Electronics for Mitigation of Rapid Cloud Shading in Photovoltaic Systems,” University of Ottawa (supervisors: K. Hinzer and H. Schriemer), 2020.
- Alan Zhang, MASC. “Urban and Indoor Vehicular Navigation using IMU, GNSS, LiDAR, and Radar,” Department of Systems and Computer Engineering, Carleton University (supervisor: M. Atia), 2020.
- Yanan Sun, PhD. “Application of Behind-the-Meter Energy Storage Systems for Household Load Hiding and Frequency Regulation Service” Department of Electrical and Computer Engineering, University of British

- Columbia (Supervisors: L. Lampe and V. Wong), 2020.
- Elham Kalantari, PhD. “Placement of Air and Ground Base Stations in Integrated Aerial and Terrestrial Wireless Cellular Networks,” School of Electrical Engineering and Computer Science, University of Ottawa (supervisor: A. Yongacoglu), 2020.
 - Isam Mashhour Hasan Al Jawarneh, PhD. “Quality of Service Aware Data Stream Processing for Highly Dynamic and Scalable Applications,” Department of Computer Science and Engineering, University of Bologna (supervisor: R. Montanari), 2019.
 - Mitchell Fantuz, MSc. “Multi-User Detection of Overloaded Systems with Low Density Spreading,” School of Electrical Engineering and Computer Science, University of Ottawa (supervisor: C. D’Amours), 2019.
 - Maryam Hezaveh, PhD, “Privacy Preservation for Nearby-Friend and Nearby-Places Location-Based Services,” School of Electrical Engineering and Computer Science, University of Ottawa (supervisor: C. Adams), 2019.
 - Riccardo Venanzi, PhD, “Device as a Service and Fog Computing Middleware for the Internet of Things,” Engineering Sciences, University of Ferrara, 2018.
 - Faraj Lagum, PhD, “Stochastic Geometry-Based Tools for Spatial Modeling and Planning of Future Cellular Networks: Opportunistic Cell Switch-off and Strategic Deployment of Flying Base Stations,” Department of Systems and Computer Engineering, Carleton University (supervisor: H. Yanikomeroglu), 2018.
 - He Li, MSc, “A Resilience-oriented and NFV-supported Scheme for Failure Detection in Software-Dened Networking,” School of Electrical Engineering and Computer Science, University of Ottawa (supervisor: A. Boukerche), 2018.
 - Xiangshen Yu, MSc, “Efficient Interest Forwarding for Vehicular Information-Centric Networks,” School of Electrical Engineering and Computer Science, University of Ottawa (supervisor: A. Boukerche), 2018.
 - Meron Gessesse, MSc, “Multi-sensor Attitude and Heading Reference System Design using Genetically Optimized Kalman Filter,” Carleton University (supervisor: M Atia), 2018.
 - Ioannis Zenginidis, PhD, “Optimal sizing and operation planning of microgrids and operation analysis of charging stations for electric vehicles,” Universitat Politècnica de Catalunya (supervisor: C. Verikoukis), 2018 (external referee).
 - Fazel Anjomshoa, PhD, “Behavioral User Profiling and Energy Efficient Incentives in Mobile Crowd-sensing,” Department of Electrical and Computer Engineering (supervisor: B. Kantarci), Clarkson University, 2018.
 - Maryam Pouryazdanpanah Kermani, PhD, “Effective incentives to maximize trustworthy participation in mobile crowd-sensing,” Department of Electrical and Computer Engineering, Clarkson University (supervisor: B. Kantarci), 2018.
 - Yamen Nasrallah, PhD, “Enhanced IEEE 802.11.p-Based Mac Protocols For Vehicular Ad Hoc Networks,” School of Electrical Engineering and Computer Science, University of Ottawa (supervisor: H. Mouftah), 2017.
 - Suzan Ureten, PhD, “Single and Multiple Emitter Localization in Cognitive Radio Networks,” School of Electrical Engineering and Computer Science, University of Ottawa (supervisor: A. Yongacoglu), 2017.
 - Maryam M. Alotaibi, PhD, “Relay Selection for Heterogeneous Transmission Powers in Connected Vehicles,” School of Electrical Engineering and Computer Science, University of Ottawa (supervisors: H. Mouftah and A. Boukerche), 2017.
 - Anastassia Gharib, MSc, “Distributed Learning-based Cooperative Spectrum Sensing for Cognitive Internet of Things Systems,” Department of Systems and Computer Engineering, Carleton University (supervisor: M. Ibnkhala), 2017.
 - Fayzah Alshammari, MSc, “Towards an Evaluation of a Recommended Tor Browser Configuration in Light of Website Fingerprinting Attacks,” School of Electrical Engineering and Computer Science, University of Ottawa (supervisor: C. Adams), 2017.
 - Ziwen Zhao, MSc, “Spatial in Slotted ALOHA Two-Hop Random Access for Machine Type Communications,” Department of Systems and Computer Engineering, Carleton University (supervisor: H. Yanikomeroglu), 2017.

TEACHING

UNIVERSITY OF OTTAWA (2016 - Present)

- AI-enabled Wireless Networks (CSI 5140/ELG5143 – Falls in 2019 - 2021)
- Wireless Networks (CEG 4186 – Winters in 2017 - 2021)
- ComNet-IPS: Communications and Networking for Intelligent Physical Systems (CSI 5140 – Fall 2018)
- Introduction to Data Communications and Networking (CEG3185 – Summer 2017)
- Computer Communications (ELG 5374 - Fall 2016)

CLARKSON UNIVERSITY (2014-2016)

- Database Systems (EE 468)
- Wireless Sensor Networks (EE 511) - Developed this course for the first time for Clarkson University

INDUSTRY WHITEPAPERS

[WP01] M. Iovene, L. Jonsson, D. Roeland, M. D'Angelo, G. Hall, Melike Erol-Kantarci, J. Manocha, “Defining AI native: A key enabler for advanced intelligent telecom networks”, February 2023 [Online]: <https://www.ericsson.com/49341a/assets/local/reports-papers/white-papers/ai-native.pdf>

PATENTS AND INVENTION DISCLOSURES

[P13] H. Zhang, M. Erol-Kantarci, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, “Dual Attention model-based Federated Learning, US provisional patent filed on 9 November 2023.

[P12] P. E. Iturria Rivera, M. Erol-Kantarci, M. Bavand, R. Gaigalas, M. Elsayed, Y. Ozcan, “XR Codec Adaptation Using Multi-Agent Reinforcement Learning with Attention Action Selection in 5G Networks”, US provisional patent filed on 9 November 2023.

[P11] H. Zhang, H. Zhou, M. Erol-Kantarci, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, “Attacks and defense in federated reinforcement learning-based wireless networks, US provisional patent filed on 5 May 2023.

[P10] Y. Dandas, P. E. Iturria Rivera, H. Zhou, M. Erol-Kantarci, M. Bavand, M. Elsayed, R. Gaigalas, Y. Ozcan, “Split Learning for Sensing-Aided Beam Selection”, US provisional patent filed on 29 April 2023.

[P9] H. Zhang, H. Zhou, M. Erol-Kantarci, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, “System and Method for UE-centric Traffic Steering for 5G RAN”, US provisional patent filed on 18 April 2023.

[P08] A. Habib, H. Zhou, P. E. Iturria Rivera, M. Erol-Kantarci, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, “System and Method for Intelligent Recommendation System for Intent Orchestration in Wireless Networks”, US provisional patent filed on 14 April 2023.

[P07] A. Habib, H. Zhou, P. E. Iturria Rivera, M. Erol-Kantarci, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, “System and Method for Intelligent Traffic Steering in RAT”, US provisional patent filed on 10 November 2022, US patent filed on 11 November 2023.

[P06] H. Zhou, Melike Erol-Kantarci, M. Elsayed, M. Bavand, R. Gaigalas, S. Furr, “System and Method for Intelligent Joint Sleep, Power and RIS Control”, US provisional patent filed on 11 August 2022, US patent filed on 11 August 2023.

[P05] H. Zhou, L. Kong, Melike Erol-Kantarci, M. Bavand, R. Gaigalas, M. Elsayed, S. Furr, “System and Method for RIS-Assisted Energy-Efficient RAN Using Hierarchical Reinforcement Learning”, US provisional patent filed on 07 May 2022, US patent filed on 06 May 2023.

[P04] P. E. Iturria Rivera, M. Erol-Kantarci, M. Bavand, R. Gaigalas, M. Elsayed, S. Furr, “Dual Connectivity Handover Optimization using Reinforcement Learning”, US provisional patent filed on 14 April 2022, US patent filed on 13 April 2023.

[P03] A. Walenstein, A. Malton, B. Kantarci, Melike Erol-Kantarci, J. Liu, M. Simsek, “Risk-Aware Access Control

System and Related Methods,” US Patent no: 20220201004, filed on 21 December 2020, granted on 23 June 2022.

[P02] Melike Erol-Kantarci, M. Elsayed, “System and Method for Joint Power and Resource Allocation Using Reinforcement Learning,” US patent no: 20210136785 filed on 30 October 2020, granted on May 6, 2021.

[P01] A. Malton, A. Walenstein, K. Quintal, Melike Erol-Kantarci, B. Kantarci, “Document Management System Having Context-Based Access Control and Related Methods,” US patent no: US 11341255, filed on 11 July 2019, granted on 24 May 2022.

Defensive publications:

[D01] Y. Dandas, P. E. Iturria Rivera, H. Zhou, M. Erol-Kantarci, M. Bavand, M. Elsayed, R. Gaigalas, “Grid-of-Beams Optimization for Energy-Efficient mmWave Communications”, US provisional patent filed on 01 November 2022, defensive publication on 09 September 2023.

PUBLICATION LIST

Edited Books:

[B03] H. T. Mouftah, M. Erol-Kantarci, S. Sorour, “**Connected and Autonomous Vehicles in Smart Cities**,” CRC Press, 2020. ISBN: 9780429329401.

[B02] H. T. Mouftah, M. Erol-Kantarci, M. H. Rehmani, “**Transportation and Power Grid in Smart Cities: Communication Networks and Services**,” Wiley, 2018, ISBN: 9781119360087.

[B01] H. T. Mouftah, Melike Erol-Kantarci, “**Smart Grid: Networking, Data Management, and Business Models**,” CRC Press, 2016. ISBN: 9781498719704.

Editorial Articles:

[E011] M. Polese , M. Dohler , F. Dressler , Melike Erol-Kantarci , R. Jana , R. Knopp , T. Melodia, “Guest Editorial Open RAN: A New Paradigm for Open, Virtualized, Programmable, and Intelligent Cellular Networks,” **IEEE Journal of Selected Areas in Communications (JSAC)**, November 2023.

[E010] C. Fischione, M. Chafii, Y. Deng, Melike Erol-Kantarci, “**Special Issue Editorial: Data Sets for Machine Learning in Wireless Communications and Networks**,” IEEE Communications Magazine, vol. 61, no. 9, pp. 80-81, September 2023.

[E009] F. Granelli, C. Costa, M. Erol-Kantarci, Jun Zheng, “**Special Issue Editorial: AI for Open Programmable Virtualized Networks in 6G**,” IEEE Wireless Communications Magazine, vol. 29, no. 5, October 2022.

[E008] Melike Erol-Kantarci, G. Alexandropoulos, P. Chong, A. Tonello, Y. Zhang, “**Special Issue Editorial for Communications and Computing for Green Industrial IoT and Smart Grids**,” IEEE Transactions on Green Communications and Computing, vol. 6, no. 1, pp. 3-5, March 2022.

[E007] Melike Erol-Kantarci, “**Special Issue on Mobile AR/VR/MR and Haptics over 5G and Beyond**,” IEEE MMTc Communications Frontiers Journal, March 2019.

[E006] Melike Erol-Kantarci, “**Special Issue on Data Analytics for Smart Grid and Electric Vehicles**,” IEEE MMTc Communications Frontiers Journal, November 2017.

[E005] M. H. Rehmani, M. Reisslein, A. Rachedi, Melike Erol-Kantarci, M. Radenkovic, “Guest Editorial Special Section on Smart Grid and Renewable Energy Resources: Information and Communication Technologies with Industry Perspective,” in **IEEE Transactions on Industrial Informatics**, vol. 13, no. 6, pp. 3119-3123, Dec. 2017.

[E004] Melike Erol-Kantarci, “**Special Issue on Recent Activities in Mobile Edge Computing and Edge Caching**,” IEEE MMTc Communications Frontiers Journal, July 2017.

[E003] Y. Zhang, D. Yau, S. Zonouz, D. Jin, M. Qiu and Melike Erol-Kantarci, “Guest Editorial Smart Grid Cyber-Physical Security,” in **IEEE Transactions on Smart Grid**, vol. 8, no. 5, pp. 2409-2410, Sept. 2017.

[E002] M. H. Rehmani, A. Rachedi, M. Erol-Kantarci, M. Radenkovic, M. Reisslein, "Cognitive radio based smart grid: The future of the traditional electrical grid," **Elsevier Ad Hoc Networks**, vol. 41, pp. 1-4, 2016.

[E001] M. H. Rehmani, M. Erol-Kantarci, A. Rachedi, M. Radenkovic, M. Reisslein, "Smart Grids: a Hub of Interdisciplinary Research," **IEEE Access**, vol. 3, pp. 3114-3118, 2015.

Refereed Journal Papers:

[J72] M. Polese, M. Dohler, F. Dressler, Melike Erol-Kantarci, R. Jana, R. Knopp, T. Melodia, "Empowering the 6G Cellular Architecture with Open RAN," **IEEE Journal of Selected Areas in Communications (JSAC)**, November 2023.

[J71] H. Zhou, Melike Erol-Kantarci, Y. Liu, H. V. Poor, "Heuristic Algorithms for RIS-assisted Wireless Networks: Exploring Heuristic-aided Machine Learning," accepted to **IEEE Wireless Communications Magazine**, October 2023.

[J70] A. Nouruzi, N. Mokari, P. Azmi, E. A. Jorswieck, Melike Erol-Kantarci, "Smart Dynamic Pricing and Cooperative Resource Management for Mobility-aware and Multi-tier Slice-enabled 5G and Beyond Networks," accepted to **IEEE Transactions on Network and Service Management**, October 2023.

[J69] M. Akbari, A. Syed, S. Kennedy, Melike Erol-Kantarci, "Constrained Federated Learning for AoI-limited SFC in UAV-aided MEC for Smart Agriculture," accepted to **IEEE Transactions on Machine Learning in Communications and Networking**, vol 1, pp. 277-295, August 2023.

[J68] F. Khoramnejad, R. Joda, A. Bin Sediq, G. Boudreau, Melike Erol-Kantarci, "AI-enabled Energy-aware Carrier Aggregation in 5G New Radio with Dual Connectivity," in **IEEE Access**, vol (11), pp. 74768-74783, July 2023.

[J67] T. Pamuklu, A. Syed, S. Kennedy, Melike Erol-Kantarci, "Heterogeneous GNN-RL Based Task Offloading for UAV-aided Smart Agriculture," accepted to **IEEE Networking Letters**, June 2023.

[J66] M. Razghandi, H. Zhou, Melike Erol-Kantarci, D. Turgut, "Smart Home Energy Management: VAE-GAN synthetic dataset generator and Q-learning," accepted to **IEEE Transactions on Smart Grid**, May 2023.

[J65] P. E. Iturria-Rivera, M. Chenier, B. Herscovici, B. Kantarci and Melike Erol-Kantarci, "Meta-Bandit: Spatial Reuse Adaptation via Meta-Learning in Distributed Wi-Fi 802.11ax," accepted to **IEEE Networking Letters**, April 2023.

[J64] H. Zhou, Melike Erol-Kantarci, V. Poor, "Knowledge Transfer and Reuse: A Case Study of AI-enabled Resource Management in RAN Slicing," accepted to **IEEE Wireless Communications Magazine**, December 2022.

[J63] R. Joda, M. Elsayed, H. Abou-zeid, R. Atawia, A. Bin Sediq, G. Boudreau, Melike Erol-Kantarci, L. Hanzo, "The Internet of Senses: Building on Semantic Communications and Edge Intelligence," accepted to **IEEE Network Magazine**, December 2022.

[J62] T. Pamuklu, A. Nguyen, A. Syed, S. W. Kennedy, Melike Erol-Kantarci, "IoT-Aerial Base Station Task Offloading with Risk-Sensitive Reinforcement Learning for Smart Agriculture," in **IEEE Transactions on Green Communications and Networking**, vol. 7, no. 1, pp. 171-182, March 2023.

[J61] H. Zhou, Melike Erol-Kantarci, V. Poor, "Learning from Peers: Deep Transfer Reinforcement Learning for Joint Radio and Cache Resource Allocation in 5G RAN Slicing," in **IEEE Transactions on Cognitive Communications and Networking**, vol. 8, no. 4, pp. 1925-1941, December 2022.

[J60] R. Joda, T. Pamuklu, P. E. Iturria-Rivera, Melike Erol-Kantarci, "Deep Reinforcement Learning-based Joint User Association and CU-DU Placement in O-RAN," **IEEE Transactions on Network and Service Management**, vol.19, no.4. pp. 4097-4110, December 2022.

[J59] F. Khoramnejad R. Joda, Akram Bin Sediq H. Abou-zeid, R. Atawia, G. Boudreau, Melike Erol-Kantarci, "Delay-Aware and Energy-Efficient Carrier Aggregation in 5G using Double Deep Q-Network," **IEEE Transactions on Communications**, vol. 70, no. 10, pp. 6615-6629, October 2022.

[J58] M. Samadi, H. Kebriaei, H. Schriemer, M. Erol-Kantarci, "Stochastic Demand Response Management using Mixed-Strategy Stackelberg Game," **IEEE Systems Journal**, vol. 16, no. 3, pp. 4708-4718, September 2022.

- [J57] P. E. Iturria-Rivera, H. Zhang, H. Zhou, S. Mollahasani, M. Erol-Kantarci, "Multi-Agent Team Learning in Virtualized Open Radio Access Networks (O-RAN)," **Sensors**, vol. 22, no. 14, p. 5375, July 2022.
- [J56] S. Mollahasani, T. Pamuklu, R. Wilson, M. Erol-Kantarci, "Energy-Aware Dynamic DU Selection and NF Relocation in O-RAN Using Actor-Critic Learning," **Sensors**, vol. 22, 5029, July 2022.
- [J55] H. Apaydin-Ozkan, M. Erol-Kantarci, "A Novel Electric Vehicle Charging/Discharging Scheme with Incentivization and Complementary Energy Sources," **Elsevier Journal of Energy Storage**, vol 51, March 2022.
- [J54] F. Khoramnejad, Melike Erol-Kantarci, "On Joint Offloading and Resource Allocation: A Double Deep Q-Network Approach," **IEEE Transactions on Cognitive Communications and Networking**, vol. 7, no. 4, pp. 1126-1141, Dec. 2021.
- [J53] H. Zhou, A. Aral, I. Brandic, M. Erol-Kantarci, "Multi-agent Bayesian Deep Reinforcement Learning for Microgrid Energy Management under Communication Failures," **IEEE Internet of Things Journal**, vol. 9, no. 14, pp. 11685-11698, July 2022.
- [J52] J. Liu, M. Simsek, B. Kantarci, Melike Erol-Kantarci, A. Malton, A. Walenstein, "Risk-Aware Fine-Grained Access Control in Cyber-Physical Contexts" in **ACM Digital Threats: Research and Practice**, vol. 3, no.4, December 2022.
- [J51] S. Mollahasani, Melike Erol-Kantarci, M. Hirab, H. Dehghan, R. Wilson, "Actor-Critic Learning Based QoS-Aware Scheduler for Reconfigurable Wireless Networks," **Transactions on Network Science and Engineering**, vol. 9, no. 1, pp. 45-54, 2022.
- [J50] M. Sadeghi, S. Mollahasani, M. Erol-Kantarci, "Cost-Optimized Microgrid Coalitions Using Bayesian Reinforcement Learning," **Energies**, November 2021.
- [J49] M. Akbari, M. R. Abedi, R. Joda, M. Pourghasemian, N. Mokari, Melike Erol-Kantarci, "Age of Information Aware VNF Scheduling in Industrial IoT Using Deep Reinforcement Learning," **IEEE Journal on Selected Areas in Communications (JSAC)**, vol. 39, no. 8, pp. 2487-2500, August 2021.
- [J48] R. Joda, M. Elsayed, H. Abou-zeid, R. Atawia, A. Bin Sediq, G. Boudreau, Melike Erol-Kantarci, "Carrier Aggregation with Optimized UE Power Consumption in 5G," **IEEE Networking Letters**, vol. 3, no. 2, pp. 61-65, June 2021.
- [J47] M. Elsayed, Melike Erol-Kantarci, H. Yanikomeroglu, "Transfer Reinforcement Learning for 5G-NR mm-Wave Networks," **IEEE Transactions on Wireless Communications**, vol. 20, no. 5, pp. 2838-2849, May 2021.
- [J46] K. Shimotakahara, M. Elsayed, K. Hinzer, Melike Erol-Kantarci, "Mobile Communications-Enabled Smart Grid Co-Simulator System Design," **IEEE Systems Journal**, vol. 15, no. 2, June 2021.
- [J45] Y. Kim, Melike Erol-Kantarci, Y. Noh, K. Kim, "Range-Free Localization with a Mobile Beacon via Motion Compensation in Underwater Sensor Networks," **IEEE Wireless Communications Letters**, vol:10, no:1, pp.6-10, Jan 2021.
- [J44] M. Samadi, J. Fattahi, H. Schriemer, Melike Erol-Kantarci, "Demand Management for Optimized Energy Usage and Consumer Comfort Using Sequential Optimization," **Sensors**, 21(1), 130, December 2020.
- [J43] M. Sadeghi, S. Mollahasani, Melike Erol-Kantarci, "Power Loss-Aware Transactive Microgrid Coalitions under Uncertainty," **Energies**, 13(21), 5782, November 2020.
- [J42] J. Fattahi, M. Samadi, Melike Erol-Kantarci, H. Schriemer, "Transactive Demand Response Operation at the Grid Edge using the IEEE 2030.5 Standard," **Elsevier Engineering**, vol. 6, no. 7, pp. 801-811 July 2020.
- [J41] M. Elsayed, Melike Erol-Kantarci, B. Kantarci, L. Wu, J. Li, "Low-latency Communications for Community Resilience Microgrids: A Reinforcement Learning Approach," **IEEE Transactions on Smart Grid**, vol.11, no. 2, pp. 1091-1099, March 2020.
- [J40] K. Shimotakahara, M. Elsayed, K. Hinzer, Melike Erol-Kantarci, "High-Reliability Multi-Agent Q-Learning-based Scheduling for LTE-Compliant D2D Microgrid Communications," **IEEE Access**, vol. 7, no. 1, pp. 74412-74421, December 2019.
- [J39] M. Akerele, I. Al-Anbagi, Melike Erol-Kantarci, "A Fiber-Wireless Sensor Networks QoS Mechanism for Delay-Critical Smart Grid Applications," **IEEE Access**, vol. 7, no. 1, pp. 37601-37610, December 2019.
- [J38] K. Quintal, B. Kantarci, Melike Erol-Kantarci, A. Malton, A. Walenstein, "Contextual, Behavioral, and

Biometric Signatures for Continuous Authentication,” **IEEE Internet Computing**, vol. 23, no. 5, pp. 18-28, 1 Sept.-Oct. 2019.

[J37] M. Elsayed, Melike Erol-Kantarci, “AI-enabled Future Wireless Networks: Challenges, Opportunities and Open Issues,” **IEEE Vehicular Technology Magazine**, Special Issue on 6G: What is Next?, Volume: 14 , Issue: 3 , pp. 70-77, Sept. 2019.

[J36] M. Usama, Melike Erol-Kantarci, “A survey on Recent Trends and Open Issues in Energy Efficiency of 5G,” **Sensors**, Special Issue on Green, Energy-Efficient and Sustainable Networks, vol. 19, July 2019.

[J35] S. Sukhmani, M. Sadeghi, Melike Erol-Kantarci, A. El-Saddik, “Edge Caching and Computing in 5G for Mobile AR/VR and Tactile Internet,” **IEEE Multimedia**, vol. 26, no.1, pp. 21-30, January 2019.

[J34] S. Mousavian, Melike Erol-Kantarci, L. Wu, T. Ortmeier, “A Risk-based Optimization Model for Electric Vehicle Infrastructure Response to Cyber Attacks,” **IEEE Transactions on Smart Grid**, vol. 9, no. 6, pp. 6160-6169, November 2018.

[J33] M. H. Rehmani, M. Reisslein, A. Rachedi, Melike Erol-Kantarci, M. Radenkovic, “Integrating Renewable Energy Resources into the Smart Grid: Recent Developments in Information and Communication Technologies,” **IEEE Transactions in Industrial Informatics**, Vol 14, no.7, pp. 2814 - 2825, 2018.

[J32] B. Li, M. Kisacikoglu, C. Liu, N. Singh, Melike Erol-Kantarci, “Big Data Analytics for Electric Vehicle Integration in Green Smart Cities,” **IEEE Communication Magazine**, vol. 55, no. 11, pp. 19-25, November 2017.

[J31] F. Anjomshoa, M. Aloqaily, B. Kantarci, Melike Erol-Kantarci, S. Schuckers, “Social Behaviometrics for Personalized Devices in the Internet of Things Era,” **IEEE Access**, vol. 5, pp. 12199-12213, June 2017.

[J30] L. Wu, J. Li, Melike Erol Kantarci, B. Kantarci, “An Integrated Reconfigurable Control and Self-Organizing Communication Framework for Community Resilience Microgrids,” **The Electricity Journal**, Vol. 30, no. 4, pp. 27-34, May 2017.

[J29] N. Nezamoddini, S. Mousavian, Melike Erol-Kantarci, “A Risk Optimization Model for Enhanced Power Grid Resilience Against Physical Attacks,” **Electric Power Systems Research**, vol. 143, pp. 329–338, February 2017.

[J28] J. Yang, S. He, Z. Lv, W. Wei, H. Song, Melike Erol-Kantarci, B. Kantarci, “Multimedia recommendation and transmission system based on cloud platform,” **Elsevier Journal on Future Generation Computer Systems**, vol. 70, pp. 94-103, 2017.

[J27] P. Shams, Melike Erol-Kantarci, M. Uysal, “MAC Layer Performance of the IEEE 802.15.7 Visible Light Communication Standard,” **Wiley Transactions on Emerging Telecommunications Technologies**, vol. 27, no. 5, pp. 662–674, May 2016.

[J26] I. Butun, Melike Erol-Kantarci, B. Kantarci, H. Song, “Cloud-centric Multi-level Authentication as a Service for Secure Public Safety Device Networks,” **IEEE Communications Magazine**, vol. 54, no.4, April 2016.

[J25] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, “A Survey on Cross-layer Quality of Service Approaches in WSNs for Delay and Reliability Aware Applications,” **IEEE Communications Surveys and Tutorials**, vol.18, no.1, First Quarter 2016. **This article received the Best Paper Award of the IEEE ComSoc Technical Committee on Communications Systems Integration and Modeling 2017.**

[J24] Melike Erol-Kantarci, “Cache-At-Relay: Energy-Efficient Content Placement for Next-Generation Wireless Relays,” **Wiley International Journal of Network Management**, vol. 25, no 6, pp. 454–470, Nov./Dec. 2015.

[J23] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, “Delay Critical Smart Grid Applications and Adaptive QoS Provisioning,” **IEEE Access**, vol. 3, pp. 1367 - 1378, 2015.

[J22] F. Senel, K. Akkaya, Melike Erol-Kantarci, T. Yilmaz, “Self-deployment of Mobile Underwater Acoustic Sensor Networks for Maximized Coverage and Guaranteed Connectivity,” **Elsevier Ad Hoc Networks Journal**, vol. 34, pp 170-183, November 2015.

[J21] M. I. Akbas, Melike Erol-Kantarci, D. Turgut, “Localization for Wireless Sensor and Actor Networks with Meandering Mobility,” **IEEE Transactions on Computers**, vol. 64, no 4, pp. 1015-1028, April 2015.

[J20] Melike Erol-Kantarci, H. T. Mouftah, “Energy-Efficient Information and Communication Infrastructures in the Smart Grid: A Survey on Interactions and Open Issues,” **IEEE Communications Surveys and Tutorials**, vol. 17, no. 1, pp. 179-197, February 2015. **This article received the 2017 IEEE ComSoc Best Tutorial Award and is included**

in the [IEEE ComSoc Best Readings in Green Communications](#) collection.

- [J19] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, "A Delay-aware Medium Access Scheme for WSN-based Partial Discharge Measurement," **IEEE Transactions on Instrumentation and Measurement**, vol. 63, no. 12, December 2014.
- [J18] Melike Erol-Kantarci, J. H. Sarker, H. T. Mouftah, "A Four-way-handshake Protocol for Energy Forwarding Networks in the Smart Grid", **Elsevier Ad Hoc Networks Journal**, vol. 22, pp. 83-92, November 2014.
- [J17] N. Zaker, B. Kantarci, Melike Erol-Kantarci, H. T. Mouftah, "Smart Grid Monitoring with Service Differentiation via EPON and Wireless Sensor Network Convergence," **Elsevier Optical Switching and Networking**, vol. 14, pp. 53-68, August 2014.
- [J16] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, "Priority and Delay Aware Medium Access for Wireless Sensor Networks in the Smart Grid", **IEEE Systems Journal**, vol.8, no.2, pp. 608 - 618, June 2014.
- [J15] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, "A Reliable IEEE 802.15.4 Model for Cyber Physical Power Grid Monitoring Systems," **IEEE Transactions on Emerging Topics in Computing**, vol. 1, no.2, Dec. 2013.
- [J14] O. Asad, M. Erol-Kantarci, H. T. Mouftah, "A Survey of Sensor Web Services for the Smart Grid," **Journal of Sensor and Actuator Networks**, vol. 2, no. 1, March 2013.
- [J13] Melike Erol-Kantarci, H. T. Mouftah, "Smart Grid Forensic Science: Applications, Challenges and Open Issues", **IEEE Communications Magazine**, vol 51, no.1, pp. 68-74, January 2013. [This paper was featured in IEEE ComSoc Technology News \(CTN\) in March 2013.](#)
- [J12] Melike Erol-Kantarci, H. T. Mouftah, "SuReSense: Sustainable Wireless Rechargeable Sensor Networks for the Smart Grid," **IEEE Wireless Communications**, vol.19, no. 3, pp. 30-36, June 2012.
- [J11] Melike Erol-Kantarci, O Asad, H. T. Mouftah, "Sensor Web Services for a Smarter Planet," Institute for Computer Sciences, **Social Informatics and Telecommunications Engineering ICaST Magazine**, 2012.
- [J10] Melike Erol-Kantarci, B. Kantarci, H. T. Mouftah, "Reliable Overlay Topology Design for the Smart Microgrid Network," **IEEE Network**, Special issue on Communication Infrastructures for Smart Grid, vol. 25, no.5, pp.38-43, September/October 2011.
- [J09] Melike Erol-Kantarci, H. T. Mouftah, "Wireless Sensor Networks for Cost-Efficient Residential Energy Management in the Smart Grid", **IEEE Transactions on Smart Grid**, vol.2, no.2, pp.314-325, June 2011. [This paper is listed in IEEE ComSoc Best Readings in Smart Grid Communications.](#)
- [J08] Melike Erol-Kantarci, H. T. Mouftah, S. Oktug, "A Survey of Architectures and Localization Techniques for Underwater Acoustic Sensor Networks," **IEEE Communications Surveys and Tutorials**, vol.13, no.3, pp. 487-502, 2011.
- [J07] Melike Erol-Kantarci, H. T. Mouftah, "Wireless Multimedia Sensor and Actor Networks for the Next-Generation Power Grid," **Elsevier Ad Hoc Networks Journal**, vol.9 no.4, pp. 542-551, June 2011. [This paper was listed by Elsevier Ad Hoc Networks journal as fourth most downloaded article of 2011 and in most cited articles since 2010.](#)
- [J06] T. Akgül, S. Baykut, Melike Erol-Kantarci, S. Oktug, "Periodicity-based Anomalies in Self-similar Network Traffic Flow Measurements," **IEEE Transactions on Instrumentation and Measurement**, vol.60, no.4, pp.1358-1366, April 2011.
- [J05] Melike Erol-Kantarci, S. Oktug, L. Vieira, M. Gerla, "Performance Evaluation of Distributed Localization Techniques for Mobile Underwater Acoustic Sensor Networks", **Elsevier Ad Hoc Networks Journal**, vol.9 no.1, pp. 61-72, Jan 2011.
- [J04] A. Elmoudi, O. Asad, Melike Erol-Kantarci, H. T. Mouftah, "Energy Consumption Control of an Air Conditioner using Web Services," **Journal of Smart Grid and Renewable Energy**, vol. 2, no.3, pp. 255-260, Aug. 2011. (ISSN Online: 2151-4844)
- [J03] Melike Erol-Kantarci, H. T. Mouftah, S. Oktug, "Localization Techniques for Underwater Acoustic Sensor Networks," **IEEE Communications Magazine**, vol. 48, no.12, pp. 152-158, 2010.
- [J02] Melike Erol, T. Akgül, S. Oktug, S. Baykut, "On the Use of Principle Component Analysis for the Hurst Parameter Estimation of Long-Range Dependent Network Traffic", **Lecture Notes on Computer Science**,

Vol.4263, pp. 464-473, 2006.

[J01] Melike Erol, S. Oktug, T. Akgul, "Analyzing the Impacts of Queue Management Policies on the Self-similarity of Aggregate Network Traffic," **WSEAS Transactions on Communications**, Vol.3, No.3, pp. 918-924, 2004.

Refereed Conference Papers:

[C121] H. Zhang, H. Zhou, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, and Melike Erol-Kantarci, "Distributed Attacks over Federated Reinforcement Learning-enabled Cell Sleep Control," accepted to IEEE Globecom Workshops, December 2023.

[C120] S. Salehi, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, and Melike Erol-Kantarci, "Policy Poisoning Attacks on Transfer Learning enabled Resource Allocation for Network Slicing," accepted to IEEE Globecom, December 2023.

[C119] Y. Dantas, P. E. Iturria-Rivera, H. Zhou, Y. Ozcan, M. Bavand, M. Elsayed, R. Gaigalas and Melike Erol-Kantarci, "Split Learning for Sensing-Aided Single and Multi-Level Beam Selection in Multi-Vendor RAN," accepted to IEEE Globecom, December 2023.

[C118] M. A. Habib, H. Zhou, P. E. Iturria-Rivera, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, and Melike Erol-Kantarci, "Intent-driven Intelligent Control and Orchestration in O-RAN via Hierarchical Reinforcement Learning," accepted to IEEE MASS, September 2023. (Invited Paper)

[C117] P. E. Iturria-Rivera, M. Chenier, B. Herscovici, B. Kantarci and Melike Erol-Kantarci, "Channel Selection for Wi-Fi 7 Multi-Link Operation via Optimistic-Weighted VDN and Parallel Transfer Reinforcement Learning," accepted to IEEE PIMRC, September 2023.

[C116] M. Skocaj, P. Iturria-Rivera, R. Verdone, Melike Erol-Kantarci, "Uplink Scheduling in Federated Learning: an Importance-Aware Approach via Graph Representation Learning," in Proc. of IEEE ICC Workshops, May 2023.

[C115] M. A. Habib, H. Zhou, P. E. Iturria-Rivera, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, and M. Erol-Kantarci, "Hierarchical Reinforcement Learning Based Traffic Steering in Multi-RAT 5G Deployments," in Proc. of IEEE ICC, May 2023. (Best Paper Award)

[C114] S. Kuili, B. Kantarci M. Chenier, M. Erol-Kantarci, B. Herscovici, "On augmented intelligence and performance anomaly detection in unlabeled OpenWiFi Data," in Proc. of IEEE ICC, May 2023.

[C113] Y. Dantas, P. Iturria-Rivera, H. Zhou, M. Bavand, M. Elsayed, R. Gaigalas, Melike Erol-Kantarci, "Beam Selection for Energy-Efficient mmWave Network Using Advantage Actor Critic Learning," in Proc. of IEEE ICC, May 2023.

[C112] P. E. Iturria-Rivera, M. Chenier, B. Herscovici, B. Kantarci and M. Erol-Kantarci, "RL meets Multi-Link Operation in IEEE 802.11be: Multi-Headed Recurrent Soft-Actor Critic-based Traffic Allocation," in Proc. of IEEE ICC, May 2023. (Best Paper Award)

[C111] A. C. Nguyen, T. Pamuklu, A. Syed, S. Kennedy, Melike Erol-Kantarci, "To Risk or Not to Risk: Learning with Risk Quantification for IoT Task Offloading in UAVs," in Proc. of IEEE ICC, May 2023.

[C110] A. Habib, H. Zhou, P. Iturria-Rivera, M. Elsayed, M. Bavand, R. Gaigalas, S. Furr, Melike Erol-Kantarci, "Traffic Steering for 5G Multi-RAT Deployments using Deep Reinforcement Learning," in Proc. of IEEE CCNC, January 2023.

[C109] N. F. Cheng, T. Pamuklu, Melike Erol-Kantarci, "Reinforcement Learning Based Resource Allocation for Network Slices in O-RAN Midhaul," in Proc. of IEEE CCNC, January 2023.

[C108] P. Iturria-Rivera, M. Elsayed, M. Bavand, R. Gaigalas, S. Furr, Melike Erol-Kantarci, "Hierarchical Deep Q-Learning Based Handover in Wireless Networks with Dual Connectivity," in Proc. of IEEE Globecom, December 2022.

[C107] H. Zhou, L. Kong, M. Elsayed, M. Bavand, R. Gaigalas, S. Furr, Melike Erol-Kantarci, "Hierarchical Reinforcement Learning for RIS-Assisted Energy-Efficient RAN," in Proc. of IEEE Globecom, December 2022.

[C106] H. Zhang, H. Zhou, Melike Erol-Kantarci, "Federated Deep Reinforcement Learning for Resource Allocation in O-RAN Slicing," in Proc. of IEEE Globecom, December 2022.

- [C105] Y. Yao, H. Zhou, Melike Erol-Kantarci, “Joint Sensing and Communications for Deep Reinforcement Learning based Beam Management in 6G,” in Proc. of IEEE Globecom, December 2022.
- [C104] M. Sharara, T. Pamuklu, S. Hoteit, V. Veque, Melike Erol-Kantarci, “Policy-Gradient-Based Reinforcement Learning for Computing Resources Allocation in O-RAN,” in Proc. of IEEE 11th International Conference on Cloud Networking (CloudNet), November 2022.
- [C103] L. Ismail, D. Niyato, S. Sun, D. I. Kim, Melike Erol-Kantarci, C. Miao, “Semantic Information Market For The Metaverse: An Auction Based Approach,” in Proc. of IEEE Future Networks World Forum (FNWF), October 2022.
- [C102] A. C. Nguyen, T. Pamuklu, A. Syed, S. Kennedy, Melike Erol-Kantarci, “Deep Reinforcement Learning for Task Offloading in UAV-Aided Smart Farm Networks,” in Proc. of IEEE Future Networks World Forum (FNWF), October 2022.
- [C101] Y. Yao, H. Zhou, Melike Erol-Kantarci, “Deep Reinforcement Learning-Based Radio Resource Allocation and Beam Management Under Location Uncertainty in 5G mmWave Networks,” in Proc. of IEEE ISCC, July 2022.
- [C100] L. Kong, S. Kisseleff, S. Chatzinotas, B. Ottersten, Melike Erol-Kantarci, “On the Impacts of Phase Shifting Design and Eavesdropping Uncertainty on Secrecy Metrics of RIS-Aided Systems,” in Proc. of European Conference on Networks and Communications and 6G Summit, July 2022.
- [C99] H. Zhang, H. Zhou, Melike Erol-Kantarci, “Team Learning-Based Resource Allocation for Open Radio Access Network (O-RAN),” in Proc. of IEEE ICC, May 2022.
- [C98] A. C. Nguyen, T. Pamuklu, A. Syed, S. Kennedy, Melike Erol-Kantarci, “Reinforcement Learning-Based Deadline and Battery-Aware Offloading in Smart Farm IoT-UAV Networks,” in Proc. of IEEE ICC, May 2022.
- [C97] M. Razghandi, H. Zhou, Melike Erol-Kantarci, D. Turgut, “Variational Autoencoder Generative Adversarial Network for Synthetic Data Generation in Smart Home,” in Proc. of IEEE ICC, May 2022.
- [C96] L. Kong, S. Kisseleff, S. Chatzinotas, B. Ottersten, Melike Erol-Kantarci, “Effective Rate of RIS-aided Networks with Location and Phase Estimation Uncertainty,” in Proc. of IEEE WCNC 2022, April 10-13, 2022.
- [C95] S. Kuili, M. Chenier, B. Herscovici, B. Kantarci, Melike Erol-Kantarci, “A holistic machine learning approach to identify performance anomalies in enterprise WiFi deployments,” in Proc. of SPIE Defense and Commercial Sensing Symposium, Big Data IV: Learning, Analytics, and Applications Track, May 2022. (Invited Paper)
- [C94] P. Iturria Rivera, Melike Erol-Kantarci, “Competitive Multi-Agent Load Balancing with Adaptive Policies in Wireless Networks,” in Proc. of IEEE CCNC, January 2022.
- [C93] H. Zhou, Melike Erol-Kantarci, “Knowledge Transfer based Radio and Computation Resource Allocation for 5G RAN Slicing,” in Proc. of IEEE CCNC, January 2022.
- [C92] M. Elsayed, R. Joda, H. Abou-zeid, R. Atawia, A. Bin Sediq, G. Boudreau, Melike Erol-Kantarci, “Reinforcement Learning Based Energy-Efficient Component Carrier Activation-Deactivation in 5G,” in Proc. of IEEE Globecom, December 2021.
- [C91] S. Mollahasani, Melike Erol-Kantarci, R. Wilson, “Dynamic CU-DU Selection for Resource Allocation in O-RAN Using Actor-Critic Learning,” in Proc. of IEEE Globecom, December 2021.
- [C90] M. Razghandi, H. Zhou, Melike Erol-Kantarci, D. Turgut, “Smart Home Energy Management: Sequence-to-Sequence Load Forecasting and Q-Learning,” in Proc. of IEEE Globecom, December 2021.
- [C89] T. Pamuklu, S. Mollahasani, Melike Erol-Kantarci, “Energy-Efficient and Delay-Guaranteed Joint Resource Allocation and DU Selection in O-RAN,” in Proc. of IEEE 5G World Forum, October 2021.
- [C88] M. Sadeghi, Melike Erol-Kantarci, “Deep Reinforcement Learning Based Coalition Formation for Energy Trading in Smart Grid,” in Proc. of IEEE 5G World Forum, October 2021.
- [C87] M. Samadi, H. Schriemer, S. Ruj, Melike Erol-Kantarci, “Energy Blockchain for Demand Response and Distributed Energy Resource Management,” in Proc. of IEEE SmartGridComm, October 2021.
- [C86] H. Mukhtar, Melike Erol-Kantarci, “Satellite Image and Received Signal-Based Outdoor Localization Using Deep Neural Networks,” in Proc. of IEEE CCECE, September 2021.
- [C85] H. Mukhtar, Melike Erol-Kantarci, “Machine Learning-Enabled Localization in 5G Using LIDAR and RSS Data,” in Proc. of IEEE ISCC, September 2021.

- [C84] P. Iturria Rivera, Melike Erol-Kantarci, “QoS-Aware Load Balancing in Wireless Networks using Clipped Double Q-Learning,” in Proc. of IEEE MASS, 2021 (Invited Paper).
- [C83] H. Zhou, M. Elsayed, Melike Erol-Kantarci, “RAN Resource Slicing in 5G Using Multi-Agent Correlated Q-Learning,” in Proc. of IEEE PIMRC, September 2021.
- [C82] F. Khoramnejad, R. Joda, Melike Erol-Kantarci, “Distributed Multi-Agent Learning for Service Function Chain Partial Offloading at the Edge,” in Proc. of IEEE ICC Workshops, 2021.
- [C81] M. Sadeghi, S. Mollahasani, Melike Erol-Kantarci, “Cost-Aware Dynamic Bayesian Coalitional Game for Energy Trading among Microgrids,” in Proc. of IEEE ICC Workshops, 2021.
- [C80] T. Pamuklu, Melike Erol-Kantarci, C. Ersoy, “Reinforcement Learning Based Dynamic Function Splitting in Disaggregated Green Open RANs,” in Proc. of IEEE ICC, 2021.
- [C79] R. Joda, M. Elsayed, H. Abou-zeid, R. Atawia, A. Bin Sediq, G. Boudreau, Melike Erol-Kantarci, “QoS-Aware Joint Component Carrier Selection and Resource Allocation for Carrier Aggregation in 5G,” in Proc. of IEEE ICC, 2021.
- [C78] M. Razghandi, H. Zhou, Melike Erol-Kantarci, D. Turgut, “Short-Term Load Forecasting for Smart Home Appliances with Sequence to Sequence Learning,” in Proc. of IEEE ICC, 2021.
- [C77] M. Elsayed, Melike Erol-Kantarci, “Radio Resource and Beam Management in 5G mmWave Using Clustering and Deep Reinforcement Learning,” in Proc. of IEEE Globecom, December 2020.
- [C76] H. Zhou, Melike Erol-Kantarci, “Decentralized Microgrid Energy Management: A Multi-agent Correlated Q-learning Approach,” in Proc. of IEEE SmartGridComm, November 2020.
- [C75] K. Shimotakahara, A. Surmann, R. Kohrs, Melike Erol-Kantarci, K. Hinzer, “Improving Microgrid Autonomy with Reinforcement Learning Electric Vehicle (Dis)Charging Algorithms,” in Abstracts from the 9th DACH+ Conference on Energy Informatics, Sierre, Switzerland, October 29-30, 2020.
- [C74] H. Zhou, Melike Erol-Kantarci, “Correlated Deep Q-learning based Microgrid Energy Management,” in Proc. of IEEE International Workshop on Computer Aided Modeling and Design of Communication Links and Networks (CAMAD), September 2020.
- [C73] R. Liu, Melike Erol-Kantarci, “Dynamic Routing with Online Traffic Estimation for Video Streaming over Software Defined Networks,” in Proc. of IEEE ISCC, July 2020.
- [C72] A. Aral, Melike Erol-Kantarci, I. Brandic, “Staleness Control for Edge Data Analytic,” in Proc. of the ACM on Measurement and Analysis of Computing Systems (ACM SIGMETRICS), vol. 4(2), pp. 38:1-38:24. 10.1145/3392156, June 2020.
- [C71] M. Elsayed, K. Shimotakahara, Melike Erol-Kantarci, “Machine Learning-based Inter-Beam Inter-Cell Interference Mitigation in mmWave,” in Proc. of IEEE ICC, Dublin, June 2020.
- [C70] T.-H. Chiang, H.-R. Shiu, Melike Erol-Kantarci, Y.-C. Tseng, “Fusing Multi-Sensory Data for Precision Indoor Localization,” in Proc. of IEEE ICC Workshops, Dublin, June 2020.
- [C69] K. Quintal, B. Kantarci, Melike Erol-Kantarci, A. Malton, A. Walenstein, “Enterprise Security with Adaptive Ensemble Learning on Cooperation and Interaction Patterns,” in Proc. of IEEE Consumer Communications & Networking Conference (CCNC), January 2020.
- [C68] M. Elsayed, Melike Erol-Kantarci, “Reinforcement Learning-based Joint Power and Resource Allocation for URLLC in 5G,” in Proc. of IEEE Globecom, Waikoloa, HI, USA, December 2019.
- [C67] K. Shimotakahara, M. Elsayed, K. Hinzer, Melike Erol-Kantarci, “Integrated Power and D2D Communications Simulator for Future Power Systems,” in Proc. of IEEE Global Conference on Signal and Information Processing (GlobalSIP), Ottawa, ON, November 2019.
- [C66] M. Elsayed, Melike Erol-Kantarci, “AI-Enabled Radio Resource Allocation in 5G for URLLC and eMBB Users,” in Proc. of IEEE 5G World Forum, Dresden, Germany, October 2019.
- [C65] M. Sadeghi, Melike Erol-Kantarci, “Power Loss Minimization in Microgrids Using Bayesian Reinforcement Learning with Coalition Formation,” in Proc. of IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Istanbul, Turkey, September 2019.
- [C64] J. Zhang, J. Li, L. Wu, Melike Erol-Kantarci, B. Kantarci, “Hierarchical Optimal Control of the Resilient

Community Microgrid in Islanded Mode,” in Proc. of IEEE PES General Meeting, Atlanta, August 2019.

[C63] A. Omara, B. Kantarci, M. Nogueira, Melike Erol-Kantarci, L. Wu, J. Li “Delay Sensitivity-aware Aggregation of Smart Microgrid Data over Heterogeneous Networks,” in Proc. of IEEE ICC, Shanghai, China, May 2019.

[C62] M. Elsayed, Melike Erol-Kantarci, “Deep Reinforcement Learning for Reducing Latency in Mission Critical Services,” in Proc. of IEEE Globecom, Abu Dhabi, December 2018.

[C61] M. Elsayed, Melike Erol-Kantarci, “Deep Q-Learning for Low-Latency Tactile Applications: Microgrid Communications,” in Proc. of IEEE SmartGridComm Workshops, Aalborg, Denmark, October 2018.

[C60] M. Elsayed, Melike Erol-Kantarci, “Learning-Based Resource Allocation for Data-Intensive and Immersive Tactile Applications,” in Proc. of IEEE 5G-Forum Workshops, July 2018.

[C59] M. Haider, Melike Erol-Kantarci, “Enhanced LBT Mechanism for LTE-Unlicensed using Reinforcement Learning,” in Proc. of IEEE Canadian Conference on Electrical and Computer Engineering (CCECE), Quebec City, QC, May 2018.

[C58] Melike Erol-Kantarci, S. Sukhmani, “Caching and Computing at the Edge for Mobile Augmented Reality and Virtual Reality in 5G,” in Proc. of ADHOCNETS, Niagara Falls, ON, September 2017.

[C57] F. Anjomshoa, B. Kantarci, Melike Erol-Kantarci, S. Schuckers, “Detection of Spoofed Identities on Smartphones via Sociability Metrics,” in Proc. of IEEE ICC, Paris, France, May 2017.

[C56] A. Argyriou, Melike Erol-Kantarci, Y. Liu, “Spectrally-Efficient Cooperative Video Delivery in 5G Heterogeneous Wireless Networks,” in Proc. of Globecom Workshops, Washington, DC., December 2016.

[C55] F. Anjomshoa, B. Kantarci, Melike Erol-Kantarci, S. Schuckers, “A mobile platform for sociability-based continuous identification,” in Proc. of IEEE International Workshop on Computer Aided Modelling and Design of Communication Links and Networks (CAMAD)- Demo Track, Toronto, ON, October 2016.

[C54] A. A. AlMomani, A. Argyriou, Melike Erol-Kantarci, “A Heuristic Approach for Overlay Content-Caching Network Design in 5G Wireless Networks,” in Proc. of IEEE Symposium on Computers and Communications (ISCC), Messina, Italy, 27-30 June 2016.

[C53] F. Anjomshoa, M. Catalfamo, D. Hecker, N. Helgeland, A. Rasch, B. Kantarci, Melike Erol-Kantarci, S. Schuckers, “Mobile Behaviometric Framework for Sociability Assessment and Identification of Smartphone Users,” in Proc. of IEEE Symposium on Computers and Communications (ISCC), Messina, Italy, 27-30 June 2016.

[C52] J. Bokhiria, M A. Parvej, Melike Erol-Kantarci, “Project-based Approach in Teaching Energy-Harvesting Wireless Sensor Networks,” in Proc. of IEEE Integrated STEM Education Conference (ISEC), pp. 22-25, New Jersey, March 2016.

[C051] A. Mousavian, Melike Erol-Kantarci, T. Ortmeier, “Cyber Attack Protection for a Resilient Electric Vehicle Infrastructure,” in Proc. of IEEE Globecom - Workshop on SmartGrid Resilience, San Diego, CA, December 2015.

[C050] B. Kantarci, Melike Erol-Kantarci, S. Schuckers, “Towards secure cloud-centric Internet of Biometric Things,” in Proc. of IEEE International Conference on Cloud Networking, pp.81-83, Niagara Falls, ON, 2015.

[C049] P. Shams, O. Narmanlioglu, M. Uysal, Melike Erol-Kantarci, “Markov-based performance analysis of medium access in visible light communications (Invited)” in Proc. of 17th International Conference on Transparent Optical Networks (ICTON), pp.1-4, Budapest, Hungary, 2015.

[C048] I. Butun, B. Kantarci, Melike Erol-Kantarci, “Anomaly detection and privacy preservation in cloud-centric Internet of Things,” in Proc. of IEEE ICC 2015 - First Workshop on Security and Privacy for Internet of Things and Cyber-Physical Systems, pp. 2610 – 2615, London, UK, 2015.

[C047] Melike Erol-Kantarci, “Content Caching in Small Cells with Optimized Uplink and Caching Power,” in Proc. of IEEE Wireless Communications and Networking Conference (WCNC), pp. 2173 – 2178, New Orleans, USA, 2015.

[C046] Melike Erol-Kantarci, “Uplink Power Optimized In-Network Content Caching for HetNets,” in Proc. of IEEE International Conference on Computing, Networking and Communications (ICNC) - Workshop on Computing, Networking and Communications (CNC), pp. 270 – 274, Anaheim, CA, USA, 2015.

- [C045] Melike Erol-Kantarci, H. T. Mouftah, “Challenges of Wireless Power Transfer for Prolonging User Equipment (UE) Lifetime in Wireless Networks,” in Proc. of IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) – Workshop on Current Challenges for Wireless Power Transfer, pp. 2140 – 2144, Washington DC, USA, 2014.
- [C044] Melike Erol-Kantarci, H. T. Mouftah, “Overlay Energy Circle Formation for Cloud Data Centers with Renewable Energy Futures Contracts,” in Proc. of IEEE Symposium on Computers and Communications (ISCC) – Workshop on Management of Cloud Systems, Portugal, June 23-26, 2014.
- [C043] Melike Erol-Kantarci, H. T. Mouftah, “Radio-Frequency-Based Wireless Energy Transfer in LTE-A Heterogeneous Networks,” in Proc. of IEEE Symposium on Computers and Communications (ISCC), Portugal, June 23-26, 2014.
- [C042] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, “Tuning Guaranteed Time Slots of IEEE 802.15.4 for Transformer Health Monitoring in the Smart Grid”, in Proc. of IEEE Wireless Communications and Networking Conference (WCNC), pp. 3420 – 3425, Istanbul, Turkey, April 6-9, 2014.
- [C041] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, “QoS-aware Inter-Cluster Head Scheduling in WSNs for High Data Rate Smart Grid Applications,” in Proc. of IEEE GLOBECOM, Atlanta, GA, December 9-13, 2013.
- [C040] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, “Time Slot Allocation in WSNs for Differentiated Smart Grid Traffic,” in Proc. of IEEE Electrical Power and Energy Conference (EPEC), Halifax, NS, Canada, August 21-23, 2013.
- [C039] Melike Erol-Kantarci, J. H. Sarker, H. T. Mouftah, “Energy Routing in the Smart Grid for Delay-Tolerant Loads and Mobile Energy Buffers,” in Proc. of IEEE Symposium on Computers and Communications (ISCC), pp. 149-154, Split, Croatia, July 7-10, 2013.
- [C038] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, “A Traffic Adaptive Inter-Cluster Head Delay Control Scheme in WSNs,” in Proc. of IEEE Symposium on Computers and Communications (ISCC), pp. 1-6, Split, Croatia, July 7-10, 2013.
- [C037] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, “A Delay Mitigation Scheme for WSN-based Smart Grid Substation Monitoring,” in Proc of the International Wireless Communications & Mobile Computing Conference (IWCMC), pp. 1470 – 1475, Cagliari, Italy, July 2013.
- [C036] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, “An Adaptive QoS Scheme for WSN-based Smart Grid Monitoring,” in Proc. of IEEE ICC - Workshop on Smart Communication Protocols and Algorithms, pp. 1046 – 1051, Budapest, Hungary, June 2013.
- [C035] N. Zaker, B. Kantarci, M. Erol-Kantarci, H. T. Mouftah, “Quality-of-Service-Aware Fiber Wireless Sensor Network Gateway Design for the Smart Grid,” in Proc. of IEEE ICC - Workshop on Optical-Wireless Integrated Technology for Systems and Networks, Budapest, Hungary, June 2013.
- [C034] Melike Erol-Kantarci, H. T. Mouftah, “DRIFT: Differentiated RF Power Transmission for Wireless Sensor Network Deployment in the Smart Grid,” in Proc. of IEEE GLOBECOM, - Workshop on Smart Grid Communications: Design for Performance, pp. 1491-1495, Anaheim, CA, December 3-7, 2012.
- [C033] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, “A Low Latency Data Transmission Scheme for Smart Grid Condition Monitoring Applications,” in Proc. of IEEE Electrical Power and Energy Conference (EPEC), pp. 20-25, London, ON, Canada, October 8-12, 2012.
- [C032] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, “Low-Latency Smart Grid Asset Monitoring for Load Control of Energy-Efficient Buildings,” in Proc. of IEEE International Conference on Smart Grid Engineering (SGE), Oshawa, ON, Canada, August 27-29, 2012.
- [C031] Melike Erol-Kantarci, H. T. Mouftah, “Mission-Aware Placement of RF-based Power Transmitters in Wireless Sensor Networks,” in Proc. of IEEE Symposium on Computers and Communications (ISCC), pp.12-17, Cappadocia, Turkey, July 1-4, 2012.

- [C030] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, "Fairness in Delay-Aware Cross Layer Data Transmission Scheme for Wireless Sensor Networks," in Proc. of 26th Biennial Symposium on Communications, pp. 146-149, Kingston, ON, Canada, May 28-29, 2012.
- [C029] Melike Erol-Kantarci, H. T. Mouftah, "Supply and Load Management for the Smart Distribution Grid Using Wireless Networks," in Proc. of Japan-Egypt Conference on Electronics, Communications and Computers, pp. 145-150, Alexandria, Egypt, March 6-9, 2012.
- [C028] Melike Erol-Kantarci, J. H. Sarker, H. T. Mouftah, "Quality of Service in Plug-in Electric Vehicle Charging Infrastructure," in Proc. of IEEE International Electric Vehicle Conference, pp. 1-5, Greenville, SC, March 4-8, 2012.
- [C027] Melike Erol-Kantarci, B. Kantarci, H. T. Mouftah, "Cost-Aware Smart Microgrid Network Design for a Sustainable Smart Grid," in Proc. of IEEE GLOBECOM - Workshop on Smart Grid Communications and Networks, pp. 1223-1227, Houston, TX, USA, Dec. 5-9, 2011.
- [C026] Melike Erol-Kantarci, H. T. Mouftah, "Management of PHEV Batteries in the Smart Grid: Towards a Cyber-Physical Power Infrastructure," in Proc. of Workshop on Design, Modeling and Evaluation of Cyber Physical Systems (in IWCMC11), pp. 795-800, Istanbul, Turkey, July 5-8, 2011.
- [C025] Melike Erol-Kantarci, J. H. Sarker, H. T. Mouftah, "Communication-based Plug-in Hybrid Electrical Vehicle Load Management in the Smart Grid," in Proc. of IEEE Symposium on Computers and Communications (ISCC), pp. 404-409, Corfu, Greece, June 28- July 1, 2011.
- [C024] Melike Erol-Kantarci, J. H. Sarker, H. T. Mouftah, "Analysis of Plug-in Hybrid Electrical Vehicle Admission Control in the Smart Grid," in Proc. of International Workshop on Computer-Aided Modeling Analysis and Design of Communication Links and Networks (CAMAD), pp. 1370-1373, Kyoto, Japan, June 10-11, 2011.
- [C023] I. Al-Anbagi, H. T. Mouftah, Melike Erol-Kantarci, "Design of a Delay-Sensitive WSN for Wind Generation Monitoring in The Smart Grid," in Proc. of IEEE Canadian Conference on Electrical and Computer Engineering (CCECE), Niagara Falls, ON, Canada, May 8-11, 2011.
- [C022] O. Asad, Melike Erol-Kantarci, H. T. Mouftah, "Management of PHEV Charging from the Smart Grid Using Sensor Web Services," in Proc. of IEEE Canadian Conference on Electrical and Computer Engineering (CCECE), pp. 1246-1249, Niagara Falls, ON, Canada, May 8-11, 2011.
- [C021] Melike Erol-Kantarci, H. T. Mouftah, "Wireless Sensor Networks for Smart Grid Applications," in Proc. of International Electronics, Communications and Photonics Conference (SIEPC), pp.1-6, Riyadh, Saudi Arabia, April 23-26, 2011.
- [C020] O. Asad, Melike Erol-Kantarci, H. T. Mouftah, "Sensor Network Web Services for Demand-Side Energy Management Applications in the Smart Grid," in Proc. of IEEE Consumer Communications and Networking Conference (CCNC), pp. 1176-1180, Las Vegas, USA, January 2011.
- [C019] Melike Erol-Kantarci, H. T. Mouftah, "Prediction-Based Charging of PHEVs from the Smart Grid with Dynamic Pricing," in Proc. of First Workshop on Smart Grid Networking Infrastructure in LCN, pp. 1032-1039, Denver, Colorado, USA, October 2010.
- [C018] Melike Erol-Kantarci, H. T. Mouftah, "TOU-Aware Energy Management and Wireless Sensor Networks for Reducing Peak Load in Smart Grids," in Proc. of Green Wireless Communications and Networks Workshop (GreeNet) in IEEE VTC2010-Fall, pp. 1-5, Ottawa, ON, Canada, September 6-9, 2010.
- [C017] Melike Erol-Kantarci, H. T. Mouftah, "The Impact of Smart Grid Residential Energy Management Schemes on the Carbon Footprint of the Household Electricity Consumption," in Proc. of IEEE Electrical Power and Energy Conference (EPEC), pp. 1-6, Halifax, NS, Canada, August 25-27, 2010. **This paper received an outstanding paper award.**
- [C016] Melike Erol-Kantarci, H. T. Mouftah, "Using Wireless Sensor Networks for Energy-Aware Homes in Smart Grids," in Proc. of IEEE symposium on Computers and Communications (ISCC), pp. 456-458, Riccioni, Italy, June 22-25, 2010.

[C015] Melike Erol-Kantarci, H. T. Mouftah, “Wireless Sensor Networks for Domestic Energy Management in Smart Grids”, in Proc. of 25th Biennial Symposium on Communications, pp. 63-66, Kingston, ON, Canada, May 12-14, 2010.

[C014] S. Kuruoglu, Melike Erol, S. Oktug, “Three Dimensional Localization in Wireless Sensor Networks using the Adapted Multi-Lateration Technique Considering Range Measurement Errors”, in Proc. of IEEE GLOBECOM Workshops, pp. 1-5, Hawaii, Dec. 2009.

[C013] Melike Erol, Sema Oktug, “Localization in Underwater Sensor Networks” (in Turkish: Sualtı Duyarga Ağlarında Konumlandırma), IEEE 17th Signal Processing and Communications Applications Conference (IEEE Sinyal İşleme ve Uygulamaları Kurultayı), April 9-11, 2009, Antalya, Turkey.

[C012] S. Kuruoglu, Melike Erol, S. Oktug, “Localization in Wireless Sensor Networks with Range Measurement Errors,” in Proc. of The Fifth Advanced International Conference on Telecommunications (AICT), pp. 261-266, May 24-28, 2009, Venice, Italy. **This paper received the Best Paper Award.**

[C011] Melike Erol, L. Vieira, A. Caruso, F. Paparella, M. Gerla, S. Oktug, “Multi Stage Underwater Sensor Localization Using Mobile Beacons”, in Proc. of The Second International Workshop on Under Water Sensors and Systems workshop (in conjunction with the Second International Conference on Sensor Technologies and Applications (SENSORCOMM’08), pp. 710-714, August 25-31, 2008, Cap Esterel, France.

[C010] Melike Erol, S. Oktug, “Sualtı Duyarga Ağları İçin Konumlandırma (SDAK) Protokolü” (A Localization Protocol for Underwater Sensor Networks), Proc. of. 4. Savunma Teknolojileri Kongresi (SAVTEK – 4th Defense Technologies Conference), pp. 257-265, 26-27 June 2008, Ankara, Türkiye.

[C009] A. Caruso, F. Paparella, L. Vieira, Melike Erol, M. Gerla, “The Meandering Current Mobility Model and its Impact on Underwater Mobile Sensor Networks,” in Proc. of IEEE INFOCOM, pp. 221-225, 13-19 April 2008, Phoenix, AZ.

[C008] Melike Erol, S. Oktug, “A Localization and Routing Framework for Mobile Underwater Sensor Networks,” in Proc. of IEEE INFOCOM Workshops, pp. 1-3, 13-19 April 2008, Phoenix, AZ.

[C007] Melike Erol, L. Vieira, M. Gerla, “Localization with Dive’N’Rise (DNR) Beacons for Underwater Acoustic Sensor Networks,” in Proc. of The Second ACM International Workshop on UnderWater Networks WUWNet (in conjunction with ACM MobiCom 2007), pp. 97-100, September 14 2007, Montreal, Quebec, Canada.

[C006] Melike Erol, L. Vieira, M. Gerla, “AUV-Aided Localization for Underwater Sensor Networks”, in Proc. of International Conference on Wireless Algorithms, Systems, and Applications, pp. 44-54, Aug. 1-3, 2007, Chicago, IL.

[C005] I. Cevizci, Melike Erol, S. Oktug, “Analysis of Multi-Player Online Game Traffic Based on Self-similarity”, in Proc. of Netgames 06, October 30-31, 2006, Singapore.

[C004] S. Baykut, Melike Erol, T. Akgul, “Estimation of the Spectral Exponent of $1/f$ Process corrupted by White Noise”, in Proc. of European Signal Processing Conference (EUSIPCO), Sept. 4-8, 2006, Florence, Italy.

[C003] Melike Erol, S. Oktug, T. Akgul, “Self-Similarity of AQM Filtered Traffic,” in Proc. of International Working Conference on Performance Modelling and Evaluation of Heterogeneous Networks (HET-NETs), July 18-20, 2005, Ilkley, England.

[C002] S. Baykut, T. E. Ozkurt, Melike Erol, T. Akgul , “The Influence of a Single Tone Sinusoid Over Hurst Estimators,” in Proc. of European Signal Processing Conference (EUSIPCO), Sept. 4-8, 2005, Antalya, Turkey.

[C001] S. Baykut, Melike Erol, T. E. Ozkurt, T. Akgul, “The Estimation of H for fBm Processes: a Comparative Study,” (in Turkish), in Proc. of IEEE 13. Sinyal İşleme Kurultayı (Signal Processing and Applications Conference), May 16-18, 2005, Erciyes, Turkey.

Book Chapters:

[BC15] M. Sadeghi, Melike Erol-Kantarci, H. T. Mouftah, “Connected and Autonomous Electric Vehicle Charging

Infrastructure Integration to Microgrids in Future Smart Cities,” in Connected and Autonomous Vehicles in Smart Cities, Eds. H. T. Mouftah, M. Erol-Kantarci, S. Sorour, CRC Press, 2020.

[BC14] Melike Erol-Kantarci, A. Caruso, “Ultra Reliable and Low Latency Communications for the Smart Grid,” in Encyclopedia of Wireless Networks, Ed. V. Wong, Springer, 2018.

[BC13] S. Mousavian, Melike Erol-Kantarci, H. T. Mouftah, “Cyber-Security and Resiliency of Transportation and Power Systems in Smart Cities,” in Transportation and Power Grid in Smart Cities: Communication Networks and Services, Eds. H. T. Mouftah, M. Erol-Kantarci, M. H. Rehmani, Wiley, 2018.

[BC12] K. Bahmani, A. Argyriou, M. Erol-Kantarci, “Backhaul Relaxation through Caching,” in Access, Fronthaul and Backhaul for 5G Wireless Networks, Eds. M. Imran, S. A. Raza, M. Z. Shakir, IET, 2017.

[BC11] Melike Erol-Kantarci, D. W. Illig, L. Rumbaugh, W. D. Jemison, “RF-Powered Mobile Sensors and Cyber-Physical Systems,” in Cyber-Physical Systems: Foundations, Principles, and Applications, Eds. H. Song, D. B. Rawat, S. Jeschke, C. Btecher, Elsevier, 2016.

[BC10] Melike Erol-Kantarci, H. T. Mouftah, “Toward Low-Carbon Economy and Green Smart Grid through Pervasive Demand Management,” in Smart Grid: Networking, Data Management, and Business Models,” Eds. M. Erol-Kantarci, H. T. Mouftah, CRC, 2016. ISBN: 9781498719704. (Reprint from the chapter in Pervasive Communications Handbook.)

[BC09] Melike Erol-Kantarci, M. Uysal, “Multiple Access in Visible Light Communication Networks,” in Optical Wireless Communications, Eds. M. Uysal, C. Capsoni, Z. Ghassemlooy, A. Boucouvalas, E. G. Udvary, Springer, 2016.

[BC08] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, “Future Wireless Sensor Networks For The Smart Grid,” The Future of Wireless Networks: Architectures, Protocols, and Services, (ISBN 9781482220940), Eds. M. Guizani, H.-H. Chen, C. Wang CRC Press, 2015.

[BC07] Melike Erol-Kantarci, H. T. Mouftah, “Wireless Rechargeable Sensor Networks in the Smart Grid” Rechargeable Sensor Networks: Technology, Theory and Application, (ISBN-13: 978-9814525459), Eds. J. Chen, S. He, Y. Sun, World Scientific, 2014.

[BC06] Melike Erol-Kantarci, H. T. Mouftah, “Wireless Sensor and Actor Networks for Monitoring and Controlling Energy Use in the Smart Grid,” Sensor Networks for Sustainable Development, (ISBN-13: 978-1466582064), Eds. M. Ilyas, S. Alwakeel, M. Alwakeel, M. Aggoune, CRC Press, 2014.

[BC05] Melike Erol-Kantarci, H. T. Mouftah, “Machine-to-machine communications in the smart grid,” Machine-To-Machine Communications – Architectures, Technology, Standards, and Applications, (ISBN-13: 978-1466561236), Eds. J. Mistic, V. Mistic, CRC Press, 2014.

[BC04] H. T. Mouftah, Melike Erol-Kantarci, “Wireless Sensor Networks for Consumer Applications in the Smart Grid,” Smart Grid Infrastructure and Networking, (ISBN-13: 978-0071787741), Ed. K. Iniewski, McGraw-Hill, 2012.

[BC03] H. T. Mouftah, Melike Erol-Kantarci, “Smart Grid Communications: Opportunities and Challenges,” Handbook of Green Information and Communication Systems, (ISBN-13: 978-0124158443), Eds. M. S. Obaidat, A. Anpalagan and I. Woungang, Elsevier, 2012.

[BC02] Melike Erol-Kantarci, H. T. Mouftah, “Pervasive Energy Management for the Smart Grid: Towards a Low Carbon Economy,” Pervasive Communications Handbook, (ISBN 9781420051094), Eds. S. I. A. Shah, M. Ilyas, H. T. Mouftah, CRC Press, 2011.

[BC01] Melike Erol-Kantarci, H. T. Mouftah, “Demand Management and Wireless Sensor Networks in the Smart Grid,” Energy Management Systems, (ISBN 978-953-307-579-2), Eds. P. Giridhar Kini. (Ed.), InTech, 2011. (Downloaded 6,000 times as of February 2014.)

Non-Refereed Journal Papers:

[NRJ05] N. Singh, M. Kisacikoglu, Melike Erol-Kantarci, "Big Data for Electric Vehicle-Grid Integration (EVGI) Decision Making," IEEE MMTC Communications Frontiers Journal, November 2017.

[NRJ04] I. Al-Anbagi, Melike Erol-Kantarci, H.T. Mouftah, "QoS in Wireless Multimedia Sensor and Actuator Networks for Smart Grids and Critical Infrastructures," IEEE MMTC Newsletter, pp. 28-32, September 2015.

[NRJ03] Melike Erol-Kantarci, H.T. Mouftah, "Electric Vehicles in the Smart Grid and Energy Trading Communities," IEEE MMTC Newsletter, 2015.

[NRJ02] Melike Erol-Kantarci, O. Asad and H.T. Mouftah, "Residential Power Trading Will Depend on Wireless Sensor Networks", IEEE Smart Grid Newsletter, September 2011.

[NRJ01] Melike Erol-Kantarci, S. Oktug, "Analyzing the performance of localization protocols for underwater acoustic sensor networks," ITU Journal, vol 9, issue 5, June 2010, pp.1726.

Non-Refereed/Non-Indexed Conferences and Poster Presentations:

[NRC24] H. Zhou, M. Erol-Kantarci, "Multi-agent Correlated Deep Q-learning for Microgrid Energy Management," in Vector Institute 2021 Research Symposium, February 2021.

[NRC23] H. Zhou, M. Erol-Kantarci "Decentralized Microgrid Energy Management Using A Multi-agent Correlated Q-learning Approach" Deep Learning Reinforcement Learning Summer School, August 2020.

[NRC22] H. Zhou, M. Erol-Kantarci "Decentralized Microgrid Energy Management Using A Multi-agent Correlated Q-learning Approach" NSERC CREATE TOPSET Summer School, July 2020.

[NRC21] M. Elsayed, M. Erol-Kantarci, "Artificial Intelligence (AI)-enabled Wireless Networks," 2019 Deep Learning and Reinforcement Learning Summer School, Edmonton, Alberta, 2019.

[NRC20] M. Sadeghi, M. Erol-Kantarci, "Edge Caching and Computing for AR/VR and Tactile Internet Applications in E-Health," CRETE BEST and MDII Poster day, September 2018.

[NRC19] M. Elsayed, M. Erol-Kantarci, "AI-Enabled 5G and Beyond Wireless Networks for Microgrid Communications," NSERC CREATE TOPSET Summer School, May 2018.

[NRC18] M. Samadi, H. Schriemer, M. Erol-Kantarci, "Demand response approach using non-cooperative game theory and machine learning algorithm," NSERC CREATE TOPSET Summer School, May 2018.

[NRC17] M. Sadeghi, M. Erol-Kantarci, "Coalitional Energy Trading in Microgrids Using Q-Learning," NSERC CREATE TOPSET Summer School, May 2018.

[NRC16] R. Liu, M. Erol-Kantarci, "5G Network Slicing in Renewable Energy Distribution," NSERC CREATE TOPSET Summer School, May 2018.

[NRC15] M. Haider, M. Erol-Kantarci, "Enhanced LBT Mechanism for LTE-Unlicensed using Reinforcement Learning," NSERC CREATE TOPSET Summer School, May 2018.

[NRC14] M. Elsayed, M. Erol-Kantarci, "Reinforcement learning in wireless networks for smart health applications," CRETE BEST and MDII Poster day, September 2017.

[NRC13] A. M. Caruso, M. Erol-Kantarci, "Privacy-Utility Trade off in Big Data of Smart Cities," 3rd Italian Conference on ICT for Smart Cities & Communities, Bari, Italy, September 27-29, 2017.

[NRC12] Md A. Parvej, J. Bokharia, M. Erol-Kantarci, "RF Energy Harvesting Sensors under In-Band and Out-of-Band WiFi Existence," Clarkson Graduate Symposium, Sept. 2015.

[NRC11] T. Yang, A. R. Momani, B. Li, M. Erol-Kantarci, "Packet Reception Performance of ZigBee Networks under Interference from Beamforming WiFi Routers," Clarkson Graduate Symposium, Sept. 2015.

[NRC10] Melike Erol-Kantarci, H. T. Mouftah, "Sustainable Wireless Sensor Networks for Long-Term Smart Grid Applications", 4th WiSense Workshop, Ottawa, ON, Canada, September 8, 2012.

[NRC09] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, "Low-Latency WSN Communication Schemes for Condition Monitoring Applications in the Smart Grid", 4th WiSense Workshop, Ottawa, ON, Canada, September 8, 2012.

[NRC08] N. Zaker, B. Kantarci, Melike Erol-Kantarci, H. T. Mouftah, "Fiber-Wireless Sensor Network Integration

(Fi-WSN) For the Smart Grid", 4th WiSense Workshop, Ottawa, ON, Canada, September 8, 2012.

[NRC07] Melike Erol-Kantarci, H. T. Mouftah, "Wireless Sensor Networks for Demand-side Smart Grid Applications", 3rd WiSense Workshop, Ottawa, ON, Canada, September 2, 2011.

[NRC06] Melike Erol-Kantarci, B. Kantarci, H. T. Mouftah, "Reliable Overlay Topology Design for Interconnected Microgrids", 3rd WiSense Workshop, Ottawa, ON, Canada, September 2, 2011.

[NRC05] Melike Erol-Kantarci, J. Sarker, H. T. Mouftah, "Communication-based Admission Control for Plug-in Hybrid Electric Vehicles in the Smart Grid", 3rd WiSense Workshop, Ottawa, ON, Canada, September 2, 2011.

[NRC04] I. Al-Anbagi, Melike Erol-Kantarci, H. T. Mouftah, "Delay-Sensitive WSN Design for Wind Farm Monitoring in the Smart Grid", 3rd WiSense Workshop, Ottawa, ON, Canada, September 2, 2011.

[NRC03] Melike Erol-Kantarci and H.T. Mouftah, "Wireless Sensor Networks (WSNs) in the Smart Grid", NRC-uOttawa WiSense Workshop, Ottawa, March 2, 2011.

[NRC02] H.T. Mouftah and Melike Erol-Kantarci, "Wireless Sensor Networks for the Smart Power Grid", Poster in Canada Research Chairs Thinking Ahead for a Strong Future Conference, Toronto, Nov. 2010.

[NRC01] Melike Erol-Kantarci and H.T. Mouftah, "Wireless Sensor Networks for Residential Energy Management in Smart Grids", 2nd WiSense Workshop, Kingston, ON, Canada, May 2010.

KEYNOTES AND PLENARY TALKS

[KN18] Keynote on "Paving the AI-Native Way in 6G," Ericsson Autumn Hackathon, talk displayed in Sweden, Spain, China and Italy Ericsson sites in October- November 2023.

[KN17] Keynote on "Paving the AI-Native Way in B5G and 6G," IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom), Istanbul, Turkey, July 7th 2023.

[KN16] Keynote on "Paving the Road To 6G – The Role of Automation & AI," Fierce Wireless, November 1st 2022.

[KN15] Keynote on "AI-Enabled Smart Grid Communications and Transactive Energy Systems," IEEE SmartGridComm, October 26th 2022.

[KN14] Plenary Keynote on "Deep and Reinforcement Learning in 5G and 6G: New Horizons with Transfer Learning," IEEE Future Networks World Forum, Montreal, October 12th, 2022.

[KN13] Keynote on "The Nexus of AI and Wireless: A Sneak Peek into 6G," Ericsson Research Day in Turkey, December 2021.

[KN12] Keynote on "AI-Enabled Wireless Networks: A Vision for 6G," 10th IFIP/IEEE International Conference On Performance Evaluation And Modeling In Wired And Wireless Networks, November 2021.

[KN11] Keynote on "The Nexus of AI and Communications: A Frontier for 6G", IEEE International Conference on Computer Science and Information Technologies (CSIT), November 2021.

[KN10] Keynote on "AI-Enabled Wireless Networks: A Vision for 6G", IEEE Local Computer Networks (LCN), October 2021.

[KN09] Keynote on "AI-enabled Energy Trading for Microgrids and Transactive Energy Systems," at IEEE 3rd Global Power, Energy and Communication Conference, October 2021.

[KN08] Keynote on "The Nexus of AI and Communications: The Frontier for 6G," at Royal Bank of Canada (RBC) Tech Expo Catalyst, September 2021.

[KN07] Keynote on "AI-Enabled Wireless Networks: A Bridge from 5G to 6G," at IEEE International Conference on INnovations in Intelligent SysTems and Applications (INISTA), August 2021.

[KN06] Keynote on "AI-Enabled Future Wireless Networks and Security," at IEEE ICC 4th Workshop on 5G and Beyond Wireless Security (IEEE WIRELESS-SEC), June 2021.

[KN05] Distinguished speaker on "Security in the Era of Hyperconnected World," in Underrepresented Groups in

Cybersecurity Panel, Silicon Valley Cybersecurity Conference, December 2020.

[**KN04**] Keynote on “AI-Enabled Future Wireless Networks,” 16th IFIP International Conference on Network and Service Management (CSNM), November 2020.

[**KN03**] Keynote on “AI-Enabled Wireless Networks: A Bridge from 5G to 6G,” Global Information Infrastructure Networking Symposium (GIIS), October 2020.

[**KN02**] Plenary Talk on “AI-enabled Transactive Energy Systems and the Role of Communications”, IEEE International Conference on Advanced Communication Technologies and Networking (CommNet'20), September 2020.

[**KN01**] Plenary Talk on “AI-enabled Energy Trading for Microgrids and Transactive Energy Systems,” IEEE Smart Energy Grid Engineering, August 2020.

TUTORIALS

[**T13**] Melike Erol-Kantarci and M. Simsek, “AI-enabled Optimization in Virtualized Wireless Networks: An Open RAN Perspective,” IEEE Globecom, December 2021.

[**T12**] Melike Erol-Kantarci and M. Simsek, “AI-enabled Optimization in Virtualized Wireless Networks: An Open RAN Perspective,” European Wireless, Verona, Italy, November 2021.

[**T11**] Melike Erol-Kantarci and M. Simsek, “AI-enabled Open Virtualized Wireless Networks,” IEEE PIMRC, virtual conference due to COVID-19, September 2021.

[**T10**] Melike Erol-Kantarci and M. Simsek, “AI-enabled Open Virtualized Wireless Networks,” IEEE ICC, virtual conference due to COVID-19, June 2021.

[**T09**] Melike Erol-Kantarci and M. Simsek, “AI-enabled Future Wireless Networks: Opportunities and Challenges Towards 6G,” IEEE CCNC, virtual conference due to COVID-19, January 2021.

[**T08**] Melike Erol-Kantarci and M. Elsayed, “AI-enabled Wireless Networks: Towards 6G,” **Ottawa AI Workshop**, Ottawa, ON, November 2019.

[**T07**] H. T. Mouftah and Melike Erol-Kantarci, “Connected Electric Vehicles Vehicle-to-Grid and Grid-to-Vehicle Applications,” **IEEE CCECE**, Windsor, ON, May 2017.

[**T06**] H. T. Mouftah and Melike Erol-Kantarci, “Communication Architectures and Networking for Electric Vehicles in the Smart Grid,” **IEEE ICUWB**, Montreal, QC, October 2015.

[**T05**] H. T. Mouftah and Melike Erol-Kantarci, “Communication Architectures and Networking for Electric Vehicles in the Smart Grid,” **IEEE ICC**, London, England, June 2015.

[**T04**] H. T. Mouftah and Melike Erol-Kantarci, “Communication Architectures and Networks for Electric Vehicles in the Smart Grid,” **IEEE Vehicular Technology Conference (VTC) Spring**, Glasgow, Scotland, May 2015.

[**T03**] H. T. Mouftah and Melike Erol-Kantarci, “Communication Architectures and Networking for Electric Vehicles in the Smart Grid,” **IEEE WCNC**, New Orleans, LA, March 2015.

[**T02**] H. T. Mouftah and Melike Erol-Kantarci, “Architectures, Models and Networks for Electric Vehicles in the Smart Grid,” **IEEE Vehicular Technology Conference (VTC) Fall**, Vancouver, BC, September 2014.

[**T01**] H. T. Mouftah and Melike Erol-Kantarci, “Architectures, Models and Networks for Electric Vehicles in the Smart Grid,” **IEEE Canadian Conference on Electrical and Computer Engineering (CCECE)**, Toronto, ON, May 2014.

IEEE DISTINGUISHED LECTURES

[**DL7**] “Deep and Reinforcement Learning in 5G and 6G,” IEEE Distinguished Lecturer Series – IEEE ComSoc Atlanta and Virginia Sections, 26 May 2022.

[DL6] “Deep and Reinforcement Learning in 5G and 6G,” IEEE Distinguished Lecturer Series – IEEE ComSoc Oregon, Santa Clara Valley, Seattle Foothill, San Fernando Valley Chapters, 27 April 2022.

[DL5] “Deep and Reinforcement Learning in 5G and 6G,” IEEE Distinguished Lecturer Series – IEEE ComSoc Bangalore Chapter, 8 January 2022.

[DL4] “Recent advances in Smart Grid Communications,” IEEE Distinguished Lecturer Series – IEEE Sacramento Valley Section Chapter, New Orleans Section Chapter, Central Texas Section Chapter, Central Texas Section Joint Chapter, 8 November 2021.

[DL3] “Deep and Reinforcement Learning in 5G and 6G,” IEEE Distinguished Lecturer Series – IEEE Egypt Chapter, 2 June 2021.

[DL2] “AI-Enabled Wireless Networks,” IEEE Distinguished Lecturer Series – IEEE Seattle Section Joint Chapter, IEEE Vancouver Joint Chapter and IEEE Victoria Section Joint Chapter, 20 May 2021.

[DL1] “AI-Enabled Wireless Networks: A Bridge from 5G to 6G,” IEEE Distinguished Lecturer Series - IEEE Sri Lanka Section, 8 April 2021.

INVITED TALKS

[INV42] “AI and Automation in B5G and 6G,” Kanata North R&D Council, April 2023.

[INV41] “Bolstering Enterprise Digitization with AI and 5G Convergence,” NVIDIA GTC Conference, March 23rd 2022. [Co-presented w\ Eric Parsons, Ericsson].

[INV40] “O-RAN: A Great Playground for AI – Let’s Play,” Northeastern University Open 5G Forum, November 2021.

[INV39] “Advances in AI-enabled Radio Access,” IEEE 5G World Forum - Systems Optimization for 5G and Beyond Track, 13 October 2021.

[INV38] “The Role of AI, Communication and Transactive Energy Systems in Sustainability,” IEEE Sustainable ICT Webinar, 14 September 2021.

[INV37] “AI-Enabled Wireless Networks: A Bridge from 5G to 6G,” IEEE Communications Society, Special Interest Group on Machine Learning for AHSN & IoT Online Webinar, 19 July 2021.

[INV36] “AI-Enabled Wireless Networks: A Bridge from 5G to 6G,” IEEE Communications Systems Integration and Modeling Technical Committee Online Webinar, 28 June 2021.

[INV35] “The Nexus of Connected Autonomous Electric Vehicles and AI-enabled Transactive Energy Systems,” Vector Institute Mobility Symposium, 8 June 2021.

[INV34] “The role of AI in 5G and 6G: Research, Development and Testbeds,” Industry Research and Development - Canadian Perspective on B5G, SCC-NRC Canada Beyond Workshop, 26 May 2021.

[INV33] “AI-Enabled Wireless Networks: A Bridge from 5G to 6G,” IEEE Montreal Chapter, 10 May 2021.

[INV32] “Towards Autonomous 6G Networks and the Role of Advanced Machine Learning Techniques,” International Telecommunications Union (ITU) AI for Good Webinar Series, 21 April 2021.

[INV31] “AI-Enabled Wireless Networks: A Bridge from 5G to 6G,” IEEE Santa Clara Valley Section, 14 April 2021.

[INV30] “AI-Enabled Wireless Networks: A Bridge from 5G to 6G,” IEEE Training School in Machine Learning for Wireless Communications, 24-26 March 2021.

[INV29] “Towards Autonomous 6G Networks and the Role of Advanced Machine Learning Techniques,” Lakehead University, Computer Science Speaker Series, January 2021.

[INV28] “Internet Protocol and IP Addressing” Guest Lecture at International Hellenic University, January 2021.

[INV27] “Reinforcement Learning and Deep Learning: A holistic landscape for networks,” Ciena Tech Forum, network Intelligence Think Tank, September 2020.

[INV26] “Machine Learning for Resource Allocation and Scheduling in Device-to-Device (D2D) Microgrid Communications,” IEEE GlobalSIP, November 2019, Ottawa, ON.

[INV25] “AI-enabled Wireless Networks: Opportunities and Challenges Towards 6G,” IEEE 5G World Forum, Systems Optimization, October 2019, Dresden, Germany.

[INV24] “AI-enabled Wireless Networks: A Case Study on Resource Allocation using Deep Reinforcement Learning,” Middle East Technical University, June 2019, Ankara, Turkey.

[INV23] “AI-enabled Wireless Networks: A Case Study on Resource Allocation using Deep Reinforcement Learning,” BlackBerry Innovate Technology Series (BITS), December 2018, Ottawa, ON.

[INV22] “Resource Allocation in Wireless Networks using Machine Learning” Istanbul Technical University, July 20 2018, Istanbul, Turkey.

[INV21] “A career in engineering. Engineering your own career!” Keynote in IEEE Electrical Power and Energy Conference- Women in Engineering, Ottawa, Canada, October 2016.

[INV20] “Cyber-Physical System Monitoring and Security,” École de technologie supérieure (ÉTS)- Montreal, QC, 4 May 2016.

[INV19] “A Short Course on Communication Systems for Connected Electric Vehicles,” Istanbul Technical University, June 24, 2015, Istanbul, Turkey.

[INV18] “Enhanced Wireless Sensor Networking for the Smart Grid,” Carleton University, July 9, 2014, Ottawa, ON, Canada.

[INV17] “Enhanced Wireless Sensor Networking for the Smart Grid,” Ryerson University, May 5, 2014, Toronto, ON, Canada.

[INV16] “Networks and Architectures for Connected Electric Vehicles in the Smart Grid,” University of Ottawa, April 24, 2014, Ottawa, ON, Canada.

[INV15] “Towards Enhanced Wireless Sensor Networks for Smart Grid Monitoring,” Istanbul Technical University, April 10, 2014, Istanbul, Turkey.

[INV14] “Wireless Sensor Networks for the Smart Grid,” Clarkson University, February 12, 2014, Potsdam, NY, US.

[INV13] “Cyber Physical System Monitoring Using Wireless Sensor Networks,” EPFL, January 31, 2014, Lausanne, Switzerland.

[INV12] “Wireless Rechargeable Sensor Networks in the Smart Grid,” University of Ottawa, September 8, 2012, Ottawa, ON, Canada.

[INV11] “How Will the Smart Grid Enable Electrification of Transportation?” University of Ottawa, October 20, 2011, Ottawa, ON, Canada.

[INV10] “Opportunities for Wireless Technologies in the Smart Grid Communications Arena,” University of Ottawa, September 2, 2011, Ottawa, ON, Canada.

[INV9] “Localization in Underwater Acoustic Sensor Networks,” University of Ottawa, March 10, 2011, Ottawa, ON, Canada.

[INV8] “Wireless Sensor Networks in the Smart Grid,” National Research Council of Canada, March 2, 2011, Ottawa, ON, Canada.

[INV7] “Localization Techniques for Underwater Acoustic Sensor Networks,” Communications Research Center of Canada, February 22, 2011, Ottawa, ON, Canada.

[INV6] “Wireless Sensor Networks for Smart Demand Response in the Smart Grid,” Carleton University, February 16, 2011, Ottawa, ON, Canada.

[INV5] “Wireless Sensor Networks (WSN) in the Power Grid,” IEEE Ottawa Chapter, November 22, 2010, Ottawa, ON, Canada.

[INV4] “Wireless Sensor Networks for In-Home Energy Management in Smart Grids,” University of Ottawa, March 18, 2010, Ottawa, ON, Canada.

[INV3] “Underwater Wireless Sensor Networks”, Bogazici University, September 17, 2009, Istanbul, Turkey.

[INV2] “Localization in Underwater Sensor Networks”, Turkish Naval Research Center Command, June 17, 2008, Istanbul, Turkey.

[INV1] “Underwater Sensor Networks”, Department of Electrical and Electronics Engineering, Bogazici University, December 2007, Istanbul, Turkey.

PANELS AND OUTREACH

- Panelist for “Getting RIS off the ground with AI and ML” Industry panel by Sparring Partners, October 2023.
- Panelist for “Openness and programmability in the RAN,” Wireless World Research Forum (WWRF), March

2023.

- Speaker for “National Engineering Month,” ACM-Women student chapter, March 2023.
- Panelist for “Green Networking in B5G: Challenges & Opportunities,” 6G Flagship Program, April 2022.
- Panelist for “Women Researchers Shaping Future ICT Panel,” Ericsson Research Day Turkey, December 2021.
- Panelist for “Next Generation Wireless Networking and Security for the Internet of Everything,” IEEE ICC 4th Workshop on 5G and Beyond Wireless Security (IEEE WIRELESS-SEC), June 2021.
- Keynote speaker for NETX Event Case Competition, 20 March 2021.
- Speaker for ITU ACM Student Chapter Women in Engineering, 11 March 2021.
- Panelist for “EV-fleet as Virtual Power Plant (VPP) for V2G services to the Grid” at IEEE Conference on Innovative Smart Grid Technologies (ISGT), February 2021.
- Panelist for “Future of Wireless Charging,” Industry Panel by AirFuel Alliance, IEEE CCNC January 2021.
- Career panel for underrepresented groups in cybersecurity, Silicon Valley Cybersecurity Conference, December 2020.
- Panelist for IEEE Toronto Section, IEEE Day, October 2020.
- Panelist for “Urban Analytics for Smart Cities: How to solve urban mobility problems through data sharing from heterogeneous systems”, IEEE International Smart Cities Conference (ISC2), September 2020.
- Co-host of IEEE ComSoc TCGCC Advanced Green Communications and Computing Seminar Series on “AI for Green 6G,” August 2020.
- Panelist for “Moving The Dial, Women in Stem”, IEEE Toronto International Women in Engineering Day Event, June 2020.
- Panelist for “360° View of Innovative Mission Critical Mobile Applications APIs,” IEEE PIMRC, Istanbul, September 2019.
- Speaker on “AI-enabled Future Networks” at uOttawa Innovates, Kanata North, February 2019.
- Panelist for “Charting AV/CV Technology Opportunities and Challenges,” Ottawa AV Summit, April 2018.
- Panelist for “Bridging the skill gap - How can the education system satisfy big data & cybersecurity industry demand?” Big Data and Cybersecurity Conference, Ottawa, February 2018.
- Girl Guides of Canada, Women in Science Night, Forrest Valley Elementary School, February 2018.
- CBC Radio, Quirks and Quarks, Annual Quirks' Question Show, Ottawa, December 2017.
- Panelist for “Developing Smart Canadian Networks,” The Centre of Excellence in Next Generation Networks (CENGN) Summit, Ottawa, December 2016.
- Women in Science and Engineering (WISE) seminar on engineering career, University of Ottawa, November 2016.

PROFESSIONAL ACTIVITIES AND MEMBERSHIPS

Leadership

Faculty Sponsor for uOttawa- ACM Women in Computing Student Chapter	2022 - Present
Advisory Board member for HORSE (Holistic, Omnipresent, Resilient Services for Future 6G Wireless and Computing Ecosystems) EU Project	2023 - Present
Delegate for Ericsson Leadership Summit	2022
IEEE ComSoc Distinguished Lecturer	2021- Present
Vice-chair, IEEE ComSoc emerging technologies initiative on Machine Learning for Communications	2021- Present
Co-Chair for SIG on AI and Computational Intelligence in Smart Grid of IEEE Technical Committee on Smart Grid Communications	2021- Present
Chair, SIG on ML and AI in Networking of IEEE Technical Committee on Communications Software	2020-Present
Chair, SIG on Green Smart Grid Communications of IEEE Technical Committee on Green Communications and Computing (TCGCC)	2019 - Present
Steering Committee Member for IEEE Sustainable ICT	2018 - Present

Research Group Leader – IEEE Smart Grid and Big Data Standardization	2016 - 2020
Vice-Chair – SIG on Green Smart Grid Communications of IEEE TCGCC	2014 - 2019
Vice-Chair - IEEE Ottawa Women in Engineering	2012 - 2014

Editorial Boards of Scientific and Scholarly Journals

Associate Editor, IEEE Transactions on Communications	2023 - Present
Specialty Chief Editor, Frontiers in Communications and Networks, Smart Grid Communications	2020 - Present
Associate Editor, IEEE Transactions on Cognitive Communications and Networking	2020 - Present
Associate Editor, IEEE Networking Letters	2020 - Present
Associate Editor, IEEE Internet of Things Journal	2020 - 2022
Associate Editor, IEEE Vehicular Technology Magazine	2020 – 2022
Associate Editor, IEEE Access	2017 - 2022
Associate Editor, IEEE Communications Letters	2016 - 2021
Co-director, IEEE MMTC Communication Frontiers	2018 - 2020
Associate Editor, International Journal of Distributed Sensor Networks	2013 - 2019
Associate Editor, IEEE MMTC Communication Frontiers	2015 - 2018

Award Committees

IEEE ComSoc EMEA Region Distinguished Service Award	2020-2023
IEEE Comsoc TC on Green Communications and Computing (early selection committee)	2020, 2021
IEEE Technical Committee on Transmission, Access and Optical Systems (TAOS) awards sub-committee	2021-2023
IEEE Technical Committee on Green Communications and Computing (TCGCC) editor selection committee	2020
IEEE GC'20 Awards Committee	2020

Guest Editorial on Special Issue

Special Issue on “Data Sets for Machine Learning in Wireless Communications and Networks” (IEEE Communications Magazine)	2023
Special Issue on “Open RAN: a New Paradigm for Open, Virtualized, Programmable, and Intelligent Cellular Networks” (IEEE JSAC)	2023
Special Issue on “AI for Open Programmable Virtualized Networks in 6G,” (IEEE Wireless Communications)	2022
Special Issue on “Integrated and autonomous network management and control for 6G time-critical applications” (ITU Journal)	2022
Special Issue on “AI and 6G Convergence: an Energy-efficiency Perspective” (IEEE Network Magazine)	2021
Special Issue on “Communications and Computing for Green Industrial IoT and Smart Grids” (IEEE Transactions on Green Communications and Networking)	2021
Special Issue on "Edge Learning for the Internet of Vehicles” (Wiley Transactions on Emerging Telecommunications Technologies)	2019
Special section on “Smart Grid Cyber-Physical Security” (IEEE Transaction on Smart Grid)	2017
Special section on “Smart Grid and Renewable Energy Resources: Information and Communication Technologies with Industry Perspective” (IEEE Transactions on Industrial Informatics)	2017
Special Issue on “Cognitive Radio Based Smart Grid: The Future of the Traditional Electrical Grid” (Elsevier Ad Hoc Networks)	2015
Special Section on “Smart Grids: A Hub of Interdisciplinary Research” (IEEE Access)	2015

General Chair:

IEEE International Conference on Machine Learning for Communication and Networking (ICMLCN)	2024
Workshop on experimental wireless platforms and testbeds (Testbeds4Wireless) (in conj. with IEEE Globecom)	2021
International Workshop on Communications in Extreme Conditions (in conj. with WCNC)	2016
International Workshop on Internet-of-Things Communications and Networking (in conj. with PIMRC)	2012

TPC Chair:

IEEE Canadian Conference on Electrical and Computer Engineering (CCECE)	2021
IEEE Int. Workshop on Computer Aided Modeling and Design of Communication Links and Networks	2020

IEEE International Conference on Wireless for Space and Extreme Environments (WISEE)	2019
5th IEEE ICC International Workshop on Internet of Things	2017
Wireless Communications and Signal Processing (WCSP), Wireless Networking Symposium	2017
IEEE/IFIP Network Operations and Management Symposium (NOMS)	2016
7th International Conference on Ad Hoc Networks (AdHocNets)	2015
6th International Conference on Ad Hoc Networks (AdHocNets)	2014
3rd IEEE ICC International Workshop on Internet of Things	2015

Track/Symposium Chair:

IEEE ICC, Selected Areas in Communications (SAC) - Machine Learning for Communications and Networking	2024
IEEE CCNC, AI/ML in Communications and Networking	2022, 2023, 2024
International Conf. on Future Communications and Networks, AI-Enabled Communications and Networks	2024
IEEE EuCNC & 6G Summit, Radio Access and Softwarisation (RAS)	2023
IEEE GLOBECOM, Wireless Communications	2022
IEEE CCNC, Next Generation Protocols: MAC and above	2021
IEEE GLOBECOM, Communication QoS, Reliability And Modeling	2020
IEEE SmartGridComm, Communications and Networking Symposium	2020
IEEE CCNC, Wireless Communications: MAC And Cross-Layer Design	2020
IEEE PIMRC, MAC and Cross-Layer Design Track	2019
IEEE Vehicular Technology Conference (VTC) Fall, Electric Vehicles, Vehicular Electronics, and Intelligent Transportation Track	2019
IEEE SmartGridComm, Communications and Networking Symposium	2018

Workshops Committee Co-Chair:

IEEE Vehicular Technology Conference - VTC2017-Fall	2017
ACM Int. Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWIM)	2015

Organizing Committee Roles

Special Sessions Co-Chair

European Conference on Networks and Communications & 6G Summit	2022
--	------

Co-Chair IEEE ComSoc TCGCC Seminar Series - AI for Green 6G (Hosted: T. Quek, W. Saad, R. Yu, J. Thompson – w/ 3000+ attendees) 2020

Chair IEEE ComSoc TCGCC Seminar Series - The Future 6G Paradigms: AI-enabled Networks, Cross-Layering and Wireless Access (Hosted: M. Medard, L. Hanzo, H. Yanikomeroglu – w/ 3163 attendees) 2021

Tutorial and Panel Co-Chair:

IEEE International Conference on High Performance Switching and Routing (HPSR)	2024
International Conference on Computing, Networking and Communications (ICNC)	2020
IEEE Symposium on Computers and Communications (ISCC)	2017

Poster Co-Chair:

IEEE ICC, 7th N2Women Workshop	2018
--------------------------------	------

Publicity Co-Chair:

IEEE VTC'16 - International Workshop on Connecting All Things for Enabling Smart Cities	2016
The International Workshop on Computer-Aided Modeling Analysis and Design of Communication Links and Networks (CAMAD)	2015
The 27th Biennial Symposium on Communications	2014
Int. Conference on Ad Hoc Networks (ADHOCNETS)	2012, 2013
Int. Conference on Wireless Communications and Signal Processing (WCSP)	2012
IEEE Symposium on Computers and Communications (ISCC)	2012

<i>Local Organizing Committee Member</i>	
Int. Sym. on Computer and Information Sciences (ISCIS)	2008
<i>Panel Co-Organizer and Mentor</i>	
IEEE Women in Engineering Mentor at Globecom	2019
IEEE Women in Engineering Panel at International Conference on Communications (ICC)	2012
Technical Program Committee Member	
IEEE Globecom	2011 - 2022
IEEE ICC	2014 - 2022
IEEE SmartGridComm	2012- 2012
IEEE ICC - International Workshop on Cloud Computing Systems, Networks, and Applications	2015
International Conference on Smart Grids for Smart Cities	2015
IEEE Vehicular Technology Conference (VTC)	2013, 2015
IEEE Consumer Communications & Networking Conference (CCNC)	2013, 2014
IEEE Canadian Conference on Electrical and Computer Engineering	2014
IEEE/SAE International Conference on Connected Vehicles and Expo	2013, 2014
IEEE Local Computer Networks (LCN)	2012 - 2015
IEEE Symposium on Computers and Communications (ISCC)	2012 - 2015
IEEE CloudCom	2013
IEEE International Symposium on Trust, Security and Privacy for Emerging Applications (TSP)	2013
Int. Conference on Cloud Computing	2013
IEEE Int. Workshop on Smart Communication Protocols and Algorithms (in conj. with ICC'13)	2013
Int. Conference on Computing, Networking and Communications (ICNC)	2013
International Conference on Emerging Ubiquitous Systems and Pervasive Networks (EUSPN)	2013
IEEE Workshop on Machine to Machine Communications Interfaces and Platforms (M2MCIP)	2013
IEEE Workshop on Internet-of-Things Networking and Control (IoT-NC)	2013
European Signal Processing Conference (EUSIPCO)	2012
Int. Conference on Ambient Systems, Networks and Technologies (ANTS)	2012
IEEE International Workshop on Integrated Enabling Technology	2012
Networking Networking Women Workshop (in conjunction with INFOCOM)	2012
The Ninth Workshop on Wireless Ad hoc and Sensor Networks	2012
Memberships	
IEEE Senior Member	2015-Present
ACM Senior Member	2020-Present
ACM Member	2015-2020
IEEE Member	2008-2015