

Mustafa Özger

Assistant Professor | Department of Electronic Systems | Aalborg University, Copenhagen, Denmark

mozger@es.aau.dk • +45 52 81 82 18 • ORCID: 0000-0001-8517-7996

Research focus: Machine learning for engineering systems, information-theoretic learning, wireless communications, AI-native network management, non-terrestrial networks, uncertainty-aware inference, localisation, and engineering decision support.

Bibliometrics: 96 research items; 2,173 citations; h-index 23.

Professional Profile

Researcher in future telecommunication systems and machine learning for engineering, with a profile spanning wireless and networked systems, 5G/6G and non-terrestrial networks, AI-native network management, mobility management, localisation, and system-level optimisation. A cross-cutting thread in my work is the use of information-theoretic reasoning to guide the design of learning methods: how channel structure, coding principles, and measures of informativeness can improve model selection, dataset design, and reliable inference in safety-critical and resource-constrained engineering environments. I have experience in industrially motivated projects, multi-partner research coordination, and engineering teaching and supervision across BSc, MSc, PhD, and postdoctoral levels, with applications spanning communications, defence-relevant autonomous systems, and cyber-physical infrastructures.

Research Expertise

- **Machine learning for engineering systems:** Reinforcement learning, multi-agent and hierarchical RL, data-driven control, uncertainty-aware modelling, explainability, engineering inference, and domain-grounded learning for complex systems.
- **Information-theoretic learning and uncertainty:** Information-theoretic measures for model selection and dataset design, channel and signal classification, representation learning for physical-layer data, and reliable inference under data scarcity and distributional shift.
- **Communication systems and networked engineering:** Wireless networks, non-terrestrial networks, resource allocation, mobility management, URLLC, localisation, sensing, and signal processing.
- **System-level networking and network management:** Reliability, traffic management, network architecture, AI-assisted resource allocation, and control across terrestrial, aerial, and non-terrestrial systems.
- **Industrial and collaborative research:** Project leadership and collaboration with Airbus, Ericsson, Deutsche Telekom, Turkcell, Viavi, and other stakeholders through national and international consortia.
- **Engineering teaching and supervision:** Teaching across telecommunications, networking, IoT, probability and statistics, computer architecture, and machine learning, with course leadership and extensive student supervision.

Selected Contributions in Machine Learning for Engineering and Communications

- Developed learning-based and model-based methods for mobility management and service availability in cellular-connected UAV systems, establishing under which conditions machine learning provides reliable operational gains over analytical control design.
- Advanced multi-agent and hierarchical deep reinforcement learning for communication-system control problems including handover management, dynamic cluster reconfiguration, power allocation, and trajectory-aware optimisation.
- Contributed information-theoretic and machine-learning methods for engineering inference and representation, including channel classification via Hankelization, learnability-oriented dataset clustering, denoising-autoencoder methods, AI-assisted localisation, and uncertainty-aware decision support.

- Addressed the intersection of reliability and learning for safety-critical communications, including risk-aware resource allocation for URLLC and dependability-oriented AI-native network design.
- Combined communication-theoretic modelling with machine learning in application areas including wireless sensing, non-terrestrial networks, spectrum sharing, and intelligent network management.

Academic Appointments

Assistant Professor

Aalborg University

Sep. 2024–Present
Copenhagen, Denmark

- Research and teaching in wireless communications, networking, Internet of Things, and machine learning for communication systems.
- Course responsible / teacher in Probability and Statistics; Internet of Things; Computer Architecture and Operating Systems; Mobile Communication Systems; Internetworking and Web-Programming; and AI & Advanced Machine Learning.
- Semester coordinator for Cyber- og Computerteknologi – 5.
- Supervision of semester projects for BSc and MSc students.

Researcher

KTH Royal Institute of Technology

Jan. 2018–Present
Stockholm, Sweden

- Research on aerial communications and networking, non-terrestrial networks, wireless power transfer, machine learning, and IoT.
- Technical coordination and project leadership in multi-partner academic–industry research collaborations.
- Supervision of MSc theses, PhD students, postdoctoral researchers, and research engineers.

Research and Teaching Assistant

Koç University

Sep. 2011–Dec. 2017
Istanbul, Turkey

- Conducted doctoral research in next-generation cognitive wireless networks under the supervision of Prof. Ozgur B. Akan.
- Supported teaching activities in electrical and electronics engineering courses.

Education

Ph.D. in Electrical & Electronics Engineering

Koç University

Sep. 2013–Nov. 2017
Istanbul, Turkey

- Dissertation: *Advanced Communication Techniques for Next-Generation Cognitive Wireless Networks*.
- Supervisor: Prof. Ozgur B. Akan.
- Defense: 14 November 2017.

M.Sc. in Electrical & Electronics Engineering

Koç University

Sep. 2011–Sep. 2013
Istanbul, Turkey

- Thesis: *Clustering, Coverage and Network Coding in Cognitive Radio Sensor Networks*.
- Supervisor: Prof. Ozgur B. Akan.

B.S. in Electrical & Electronics Engineering

Middle East Technical University

Sep. 2006–Jun. 2011
Ankara, Turkey

- GPA: 3.75/4.00.
- Graduated among the top 10 students in a class of over 200.
- High Honor Degree.

Research Leadership, Funding & Industrial Engagement

3D NETworks for 6G Mobile Communications Applications (3D-NET) *Dec. 2025–Nov. 2027*
Eureka CELTIC-NEXT – approx. EUR 14M, C2025/1-11

- Primary author and one of the technical coordinators.
- Led proposal preparation and coordinated collaboration among 20+ partner entities from 8 countries.

Self-Learning Drone Surveillance *Jul. 2024–Dec. 2025*
Vinnova Project – 1 MSEK

- Co-applicant and proposal writer.

6G for Connected Sky (6G-SKY) *May 2022–Apr. 2025*
Eureka CELTIC-NEXT – approx. EUR 9M, C2021/1-9

- Primary author and coordinator for the Swedish national funding submission.
- Project manager and technical coordinator responsible for consortium meetings, workshops, stakeholder communication, deliverables, and milestone follow-up.

Techno-Economic Analysis to Provide Aerial Connectivity *May 2022–Dec. 2022*
Bilateral Airbus Project – EUR 48K

Security Architectures Applicable to Heterogeneous Networks *Mar. 2021–Sep. 2021*
Bilateral Airbus Project – EUR 48K

Selected Research Achievements

- Led or co-led major collaborative research and innovation activities in future telecommunications through 3D-NET, 6G-SKY, Vinnova-funded work, and bilateral Airbus projects.
- Built a research profile at the intersection of communication-network theory, system-level network management, AI-native control, sustainable and dependable communications, and future wireless/network architectures.
- Developed a strong record of collaboration with industrial partners and large consortia, supporting research translation, externally relevant project development, and interdisciplinary teamwork.
- Supervised a broad pipeline of researchers and students, including postdoctoral researchers, PhD students, research engineers, MSc students, and BSc students.
- Established academic visibility through associate editorships, invited tutorials, workshops, session chairing, and conference organisation in communications and networking.

Research Supervision

Doctoral and Postdoctoral Supervision

- **Irshad A. Meer** (Jan. 2025–Present), postdoctoral researcher (co-advisor), KTH Royal Institute of Technology. Machine Learning Algorithms for Wireless Networks.
- **Satya Seeram** (Sep. 2022–Present), PhD student (co-advisor), KTH Royal Institute of Technology. Non-terrestrial network architecture and design for terrestrial users.
- **Qichen Wang** (Jun. 2023–Present), PhD student (co-advisor), KTH Royal Institute of Technology. AI-based wireless network management schemes.
- **Irshad A. Meer** (Jan. 2021–Jan. 2025), PhD student (co-advisor), KTH Royal Institute of Technology. Radio Resource Allocation in Vehicular and Aerial Networks.

- **Aunas Manzoor** (Dec. 2022–Dec. 2024), postdoctoral researcher (co-advisor), KTH Royal Institute of Technology. Ultra-Reliable Low-Latency Communication for Aerial Vehicles with Multi-Connectivity.
- **Zinat Behdad** (Jun. 2021–Dec. 2021), PhD student (co-advisor), KTH Royal Institute of Technology. Ultra-Reliable Low-Latency Communication in Vehicular Networks.
- **Ozan Alp Topal** (Feb. 2021–Dec. 2021), PhD student (co-advisor), KTH Royal Institute of Technology. mmWave Communications in Indoor Dense Spaces.

Selected MSc / BSc / Research Engineering Supervision

- **Lucas Pelz** (Jan. 2025–Aug. 2025), MSc, KTH. A Neuromorphic Approach to LDPC Decoding with Spiking Belief Propagation.
- **Fangpu Zhang** (Jan. 2025–Aug. 2025), MSc, KTH. Adaptive Carrier Assignment and Video Quality Control for NTN-Enabled UAVs via Multi-Agent Reinforcement Learning.
- **Federico Giarre** (Jan. 2024–Jun. 2024), MSc, KTH. Soft Handover for Cellular-Connected Flying Vehicles.
- **Tawsiful Islam** (Jan. 2024–Jun. 2024), MSc, KTH. 5G Reliability Improvement via Spatial Diversity & Hardware.
- **Menglu Chen** (Jan. 2024–Jun. 2024), MSc, KTH. Precoding Design and Analysis for Simultaneous Wireless Information and Power Transfer by Extremely Large Antenna Arrays.
- **Linyi Zhang** (Jan. 2024–Jun. 2024), MSc, KTH. Machine Learning-Based Interference Identification Techniques in Spectrum Sharing Integrated Sensing and Communication Systems.
- **Jinxuan Chen** (Jan. 2023–Jun. 2023), MSc, KTH. LEO Satellite Connectivity for Flying Vehicles.
- **Yuhang Deng** (Jan. 2023–Dec. 2023), MSc, KTH. Multi-Agent Reinforcement Learning Assisted Interference Management for UAVs in Cooperation and Competition.
- **Sareh Jalalizad & Kiana Khorsandi** (Nov. 2022–Jun. 2023), BSc, KTH. Performance Evaluation of LoRa Networks for Air-to-Ground Communications.
- **Mattia Dalla Via** (Jan. 2021–Oct. 2021), MSc, KTH. Water Quality Monitoring in the Smart City.
- **Lingling Ai** (Jan. 2021–Nov. 2021), MSc, KTH. AI-Driven Network Management and Admission Control.
- **Canberk Okur** (Jan. 2021–Nov. 2021), MSc, KTH. Interference-Aware Aeronautical Mobile Ad-Hoc Network Formation and Rate Allocation with Machine Learning.
- **Amin Bolakhrif** (Jan. 2021–Jul. 2021), MSc, KTH. AI-Powered Network Traffic Prediction.
- **Fredrik Biten** (Jan. 2020–Oct. 2020), MSc, KTH. Trampoline Jump Classification Using Sparse Data in Machine Learning.
- **Wenhao Li** (Jan. 2020–Aug. 2020), MSc, KTH. Edge Service Selection in a Virtual Service Marketplace.
- **Faizan Ahmed** (Jan. 2020–Aug. 2020), MSc, KTH. Global IoT Coverage through Heterogeneous Aerial & Satellite Networks.
- **Davide Brunello** (Jan. 2020–Aug. 2020), MSc, KTH. Low-Latency Low-Loss Scalable Throughput in 5G Networks.
- **Morteza Tavana** (Aug. 2019–Oct. 2020), Research Engineer, KTH. Wireless Power Transfer System Design for Low-Rate In-Cabin Applications.
- **Irshad A. Meer** (Sep. 2019–Dec. 2020), Research Engineer, KTH. Localization of Unmanned Aerial Vehicles with Cellular Networks.
- **Elias Chahine & William Lewin** (Mar. 2019–Jun. 2019), BSc, KTH. Evaluating P2P LoRa for Geolocation Usage in a Rural Environment.
- **Irshad A. Meer** (Sep. 2018–Apr. 2019), MSc Erasmus (Politecnico di Milano), KTH. Integration of Unmanned Aerial Vehicles into the National Airspace.
- **David Tomic** (Apr. 2018–Feb. 2019), MSc, KTH. Service-Aware Traffic Distribution in Heterogeneous A2G Networks.
- **Vasileios Megias** (Apr. 2018–Oct. 2018), MSc, KTH. Aircraft-to-Aircraft Connectivity Analysis.
- **Rasmus Olsson & Jens Egeland** (Mar. 2018–Jun. 2018), BSc, KTH. Intelligent Routing and Topology Formation for Mesh Internet of Things Networks.

Teaching Experience

Course Responsible / Teacher / Semester Coordinator

Aalborg University

Fall 2024–Spring 2026

Copenhagen, Denmark

- AI and Advanced Machine Learning (Deep Reinforcement Learning), Spring 2026.
- Cyber- og Computerteknologi – 5, Semester Coordinator, Fall 2025.
- Internet of Things, Course Responsible and Teacher, Fall 2025; teacher in Fall 2024 (MQTT, CoAP, hands-on exercises, course materials).
- Computer Architecture and Operating Systems, Course Responsible and Teacher, Spring 2025/2026.
- Internetworking and Web-Programming, Teacher, Spring 2025.
- Probability and Statistics, Course Responsible and Teacher, Spring 2025/2026.
- Mobile Communication Systems, Teacher, Spring 2025/2026.

Teaching and Course Coordination

KTH Royal Institute of Technology

Spring 2020–Fall 2023

Stockholm, Sweden

- Wireless Networks (IK2510): taught Medium Access Control module; prepared quizzes and lecture slides; cohort $\approx$ 20 MSc students.
- Internet of Things (IK1332): course coordinator and teacher; coordinated course delivery, taught multiple modules, prepared quizzes and course materials, developed course projects; cohort $\approx$ 20 MSc students.
- Project in Information and Communication Technology (II1305): guided project definition and completion; responsible for approx. 50 of 100 BSc students.
- Research Methodology and Scientific Writing (II2202): guided students in project definition and scientific writing; responsible for approx. 20 of 100 MSc students.

Editorial Leadership, Professional Service & External Visibility

- Associate Editor, *IEEE Transactions on Vehicular Technology*, Aug. 2025–Present.
- Associate Editor, *IEEE Transactions on Mobile Computing*, Dec. 2024–Present.
- TPC Co-Chair, Track 11: Satellite Networks and Integrated Space-Air-Ground Networks, IEEE Consumer Communications and Networking Conference 2027.
- Scientific Advisory Board Member, SMART 6G-SAT Center, Stockholm, Sweden, Sep. 2025–Present.
- Tutorial – “6G Connectivity for Flying Vehicles: Integrated Architecture, Mobility Intelligence, and Operational Reliability,” IEEE EuCNC 2026, Malaga, Spain, Jun. 2026.
- Organizer – Special Session on “Unified Terrestrial and Non-Terrestrial Networks for 6G: Towards Seamless 3D Connectivity,” IEEE EuCNC 2026, Malaga, Spain, Jun. 2026.
- Tutorial – “6G Non-Terrestrial Networks: Open RAN, Handover, and Service Availability for LEO Satellites and HAPS,” IEEE VTC-Spring 2026, Nice, France, Jun. 2026.
- Organizer – Workshop on “Near-Field Communications, Localization, and Sensing for 6G and Beyond,” IEEE VTC-Spring 2026, Nice, France, Jun. 2026.
- Organizer – Workshop on “Near Field Communications for 6G and Beyond,” IEEE PIMRC 2025, Istanbul, Turkey, Sep. 2025.
- Tutorial – “6G for Connected Sky: Multi-Layered Architectures, Network Design, Management and Open Issues,” IEEE PIMRC 2025, Istanbul, Turkey, Sep. 2025.
- Project Reviewer, FNR CORE programme of Luxembourg, 2023.
- Opponent, Licentiate thesis defense by Chao Zhang, Lund University, Sweden, 24 May 2023.
- Session Chair, EuCNC & 6G Summit – “Beamforming and Energy Efficiency,” 2022.
- Session Chair, IEEE VTC-Spring – “Radio Access,” 2022; “Emerging Topics in 5G and Beyond - I,” 2021.
- Journal Reviewer: *IEEE Trans. Vehicular Technology*, *IEEE Trans. Wireless Communications*, *IEEE IoT Journal*, *IEEE Trans. Network Science and Engineering*, *IEEE Trans. Cognitive Communications and Networking*, *IEEE Communications Letters*, *IEEE Access*, *Elsevier Computer Networks*, *Ad Hoc Networks*, *Springer Wireless Networks*, *IET Communications*.

- TPC Member: IEEE ICC, IEEE PIMRC, IEEE GLOBECOM, IEEE GreenCom, IEEE MeditCom, and related venues.

Pedagogical Training

- University Pedagogy Program, Aalborg University, Spring 2025.
- LH207V – Doctoral Supervision, KTH, Spring 2022.
- LH207V – Teaching and Learning in Higher Education, KTH, Spring 2022.
- LH215V – Learning for Sustainable Development, KTH, Fall 2022.

Honors & Awards

- Best Paper Award, IEEE 12th Advanced Satellite Multimedia Systems Conference and the 18th Signal Processing for Space Communications Workshop (ASMS/SPSC), Sitges, Spain, Feb. 2025.
- Exemplary Reviewer, IEEE Communications Letters, 2017.
- Best Paper Award, IEEE ISCC 2016, Messina, Italy, Jul. 2016.
- National Graduate Scholarship, Turkish Scientific and Technical Research Council (TÜBİTAK), Sep. 2011–Nov. 2017.
- Merit-Based Full Scholarship, Koç University, Sep. 2011–Nov. 2017.
- High Honor Degree, Middle East Technical University, Jun. 2011.
- Dean's High Honour List (7 times), Middle East Technical University, Sep. 2007–Jun. 2011.
- Dr. Bülent Kerim Altay Award, Middle East Technical University, Sep. 2008.

Complete Publication List

Peer-Reviewed Journal Articles

1. Q. Wang, S. Zhang, M. Ozger and C. Cavdar, "Independent PPO-based Robust and Scalable Three-dimensional Configuration for Green Massive MIMO Networks," *IEEE Transactions on Green Communications and Networking*, Early Access, 2026.
2. I. A. Meer, K.-L. Besser, M. Ozger, D. Schupke, H. V. Poor, and C. Cavdar, "Hierarchical Multi-Agent DRL-Based Dynamic Cluster Reconfiguration for UAV Mobility Management," *IEEE Transactions on Cognitive Communications and Networking*, vol. 12, pp. 4957–4971, 2025.
3. S. S. S. G. Seeram, L. Feltrin, M. Ozger, and C. Cavdar, "Digital Twin-Based Optimization of Service Availability in LEO Mega-Constellations Considering Handover Delays in Open RAN," *International Journal of Satellite Communications and Networking*, vol. 0, pp. 1–19, 2025.
4. O. T. Demir, M. Ozger, F. Kara, W.-H. Lee, and E. Björnson, "Near-Field SWIPT with gMIMO in the Upper Mid-Band: Opportunities, Challenges, and the Way Forward," *IEEE Wireless Communications*, Early Access, pp. 1–8, 2025.
5. D. H. Kim, J.-H. Kim, M. Ozger, E. Björnson, and W.-H. Lee, "Level Test-Inspired SNR Estimation-Based Dataset Clustering Algorithms for Learnability Maximization in Neural Network Design," *IEEE Internet of Things Journal*, vol. 12, no. 23, pp. 50836–50851, 2025.
6. S. S. S. G. Seeram, L. Feltrin, M. Ozger, S. Zhang, and C. Cavdar, "Handover Challenges in Disaggregated Open RAN for LEO Satellites: Tradeoff Between Handover Delay and Onboard Processing," *Frontiers in Space Technologies*, vol. 6, p. 1580005, 2025.
7. Y. Deng, S. Zhang, I. A. Meer, M. Ozger, and C. Cavdar, "Joint Trajectory and Handover Management for UAVs Co-Existing with Terrestrial Users: A Multi-Agent DRL Approach," *IEEE Transactions on Cognitive Communications and Networking*, vol. 12, pp. 1195–1210, 2025.
8. L. Zhang, M. Ozger, and W.-H. Lee, "A Hankelization-Based Neural Network-Assisted Signal Classification in Integrated Sensing and Communication Systems," *IEEE Access*, vol. 13, pp. 94648–94657, 2025.
9. S. Zhang, M. Ozger, S. S. S. G. Seeram, I. Godor, L. Feltrin, A. Nordlow, J. Pfeifle, L. Toka, G. Biczok, D. A. Schupke, and C. Cavdar, "6G for Connected Sky: Holistic Adaptive Combined Airspace and Non-Terrestrial Network Architecture," *IEEE Wireless Communications*, vol. 32, no. 5, pp. 204–211, 2025.
10. C. Koca, M. Ozger, O. Cetinkaya, and O. B. Akan, "Information-Theoretic Lifetime Maximization for IoBNT-Enabled Sensing," *IEEE Transactions on Molecular, Biological, and Multi-Scale Communications*, vol. 11, no. 3, pp. 462–466, 2025.
11. W.-H. Lee, M. Ozger, U. Challita, and T. Song, "Denoising-Autoencoder-Aided Euclidean Distance Matrix Reconstruction for Connectivity-Based Localization: A Low-Rank Perspective," *Applied Sciences*, vol. 15, no. 5, p. 2656, 2025.

12. B. Mölleryd, M. Ozger, M. Westring, A. Nordlöw, D. Schupke, U. Engström, C. Cavdar, M. Lindborg, and N. Sciammetta, "Regulatory and Spectrum Policy Challenges for Combined Airspace and Non-Terrestrial Networks," *Telecommunications Policy*, vol. 49, no. 11, 2025.
13. O. A. Topal, Z. Li, M. Ozger, D. Schupke, E. Björnson, and C. Cavdar, "Millimeter-Wave Channel Modeling and Coverage Analysis for Indoor Dense Spaces," *IEEE Transactions on Vehicular Technology*, vol. 74, no. 1, pp. 5–20, Jan. 2025.
14. J.-H. Kim, M. Ozger, and W.-H. Lee, "CR2Net: A Neural Network Based Classifier for Rician and Rayleigh Channels via Hankelization," *IEEE Wireless Communications Letters*, vol. 13, no. 5, pp. 1235–1239, 2024.
15. J.-Y. Jeong, M. Ozger, and W.-H. Lee, "Compressed Sensing vs. Auto-Encoder: On the Perspective of Signal Compression and Restoration," *IEEE Access*, vol. 12, pp. 41967–41979, 2024.
16. J.-H. Kim, D.-H. Kim, M. Ozger, and W.-H. Lee, "An NN-Aided Near-and-Far-Field Classifier via Channel Hankelization in XL-MIMO Systems," *IEEE Access*, vol. 12, pp. 41934–41941, 2024.
17. I. A. Meer, M. Ozger, D. Schupke, and C. Cavdar, "Mobility Management for Cellular-Connected UAVs: Model-Based Versus Learning-Based Approaches for Service Availability," *IEEE Transactions on Network and Service Management*, vol. 21, no. 2, pp. 2125–2139, 2024.
18. K.-J. Cha, J.-B. Lee, M. Ozger, and W.-H. Lee, "When Wireless Localization Meets Artificial Intelligence: Basics, Challenges, Synergies, and Prospects," *Applied Sciences*, vol. 13, no. 23, p. 12734, 2023.
19. I. A. Meer, M. Ozger, and C. Cavdar, "Cellular Localizability of Unmanned Aerial Vehicles," *Vehicular Communications*, vol. 44, 2023.
20. F. Salehi, M. Ozger, and C. Cavdar, "Reliability and Delay Analysis of 3-Dimensional Networks with Multi-Connectivity: Satellite, HAPs, and Cellular Communications," *IEEE Transactions on Network and Service Management*, vol. 21, no. 1, pp. 437–450, 2023.
21. V. Megas, S. Hoppe, M. Ozger, D. Schupke, and C. Cavdar, "A Combined Topology Formation and Rate Allocation Algorithm for Aeronautical Ad Hoc Networks," *IEEE Transactions on Mobile Computing*, vol. 23, no. 1, pp. 12–28, 2022.
22. M. Ozger, E. B. Pehlivanoglu, and O. B. Akan, "Energy-Efficient Transmission Range and Duration for Cognitive Radio Sensor Networks," *IEEE Transactions on Cognitive Communications and Networking*, vol. 8, no. 2, pp. 907–918, Jun. 2022.
23. W. Li, H. Faragardi, M. Ozger, C. Cavdar, and B. Skubic, "Cost-Aware Service Selection in a Mobile Edge Marketplace," *Computer Networks*, vol. 205, pp. 1–10, Aug. 2021.
24. A. Baltaci, E. Dinc, M. Ozger, A. Alabbasi, C. Cavdar, and D. Schupke, "A Survey of Wireless Networks for Future Aerial Communications (FACOM)," *IEEE Communications Surveys & Tutorials*, vol. 23, no. 4, pp. 2833–2884, 2021.
25. W.-H. Lee, M. Ozger, U. Challita, and K. W. Sung, "Noise Learning-Based Denoising Autoencoder," *IEEE Communications Letters*, vol. 25, no. 9, pp. 2983–2987, Sept. 2021.
26. M. Tavana, M. Ozger, A. Baltaci, B. Schleicher, D. Schupke, and C. Cavdar, "Wireless Power Transfer for Aircraft IoT Applications: System Design and Measurements," *IEEE Internet of Things Journal*, vol. 8, no. 15, pp. 11834–11846, Aug. 2021.
27. W.-H. Lee, M. Ozger, and U. Challita, "Geometric Sequential Learning Dynamics," *IEEE Communications Letters*, vol. 25, no. 2, pp. 542–545, Feb. 2021.
28. A. Azari, M. Ozger, and C. Cavdar, "Risk-Aware Resource Allocation for URLLC: Challenges and Strategies with Machine Learning," *IEEE Communications Magazine*, vol. 57, no. 3, pp. 42–48, Mar. 2019.
29. M. Vondra, M. Ozger, D. Schupke, and C. Cavdar, "Integration of Satellite and Aerial Communications for Heterogeneous Flying Vehicles," *IEEE Network*, vol. 32, no. 5, pp. 62–69, Sep. 2018.
30. K. Cepni, M. Ozger, and O. B. Akan, "Event Estimation Accuracy of Social Sensing with Facebook for Social Internet of Vehicles," *IEEE Internet of Things Journal*, vol. 5, no. 4, pp. 2449–2456, Aug. 2018.
31. M. Ozger, O. Cetinkaya, and O. B. Akan, "Energy Harvesting Cognitive Radio Networking for IoT-Enabled Smart Grid," *Mobile Networks and Applications*, vol. 23, no. 4, pp. 956–966, Aug. 2018.
32. M. Ozger, F. Alagoz, and O. B. Akan, "Clustering in Multi-Channel Cognitive Radio Ad Hoc and Sensor Networks," *IEEE Communications Magazine*, vol. 56, no. 4, pp. 156–162, Apr. 2018.
33. O. B. Akan, O. Cetinkaya, C. Koca, and M. Ozger, "Internet of Hybrid Energy Harvesting Things," *IEEE Internet of Things Journal*, vol. 5, no. 2, pp. 736–746, Apr. 2018.
34. T. Long, M. Ozger, and O. B. Akan, "Energy Neutral Internet of Drones," *IEEE Communications Magazine*, vol. 56, no. 1, pp. 22–28, Jan. 2018.
35. M. Ozger, E. Fadel, and O. B. Akan, "Event-to-Sink Spectrum-Aware Clustering in Mobile Cognitive Radio Sensor Networks," *IEEE Transactions on Mobile Computing*, vol. 15, no. 9, pp. 2221–2233, Sep. 2016.
36. M. Ozger and O. B. Akan, "On the Utilization of Spectrum Opportunity in Cognitive Radio Networks," *IEEE Communications Letters*, vol. 20, no. 1, pp. 157–160, Jan. 2016.
37. D. Kilinc, M. Ozger, and O. B. Akan, "On the Maximum Coverage Area of Wireless Networked Control Systems with Maximum Cost-Efficiency under Convergence Constraint," *IEEE Transactions on Automatic Control*, vol. 60, no. 7, pp. 1910–1914, Nov. 2014.

Peer-Reviewed Book Chapters

1. O. Cetinkaya, M. Ozger, and O. B. Akan, "Internet of Energy Harvesting Cognitive Radios," pp. 125–150, in *Towards Cognitive IoT Networks*, Springer Nature, 2019.
2. M. Ozger, O. Cetinkaya, and O. B. Akan, "Energy Harvesting Cognitive Radios in Smart Cities," pp. 3–20, in *Transportation and Power Grid in Smart Cities: Communication Networks and Services*, John Wiley, 2018.
3. K. Cepni, M. Ozger, and O. B. Akan, "Vehicular Social Sensor Networks," in *Vehicular Social Networks*, CRC Press, 2017.
4. M. Ozger, E. B. Pehlivanoglu, and O. B. Akan, "Multimedia Communication in Cognitive Radio Sensor Networks," in *Wireless Multimedia Sensor Networks (WMSNs): Architectures, Protocols and Applications*, CRC Press, 2016.
5. E. B. Pehlivanoglu, M. Ozger, and O. B. Akan, "Sensing Coverage and Connectivity in Cognitive Radio Sensor Networks," in *Cognitive Radio Sensor Networks: Applications, Architectures and Challenges*, IGI Global, 2014.

1. I. A. Meer, A. Baltaci, M. Ozger, D. Schupke, and C. Cavdar, "Multi-Connectivity for UAVs: A Measurement Study of Integrating Cellular, Aerial Mesh, and LEO Satellite Links," in IEEE EuCNC, 2026, pp. 1–6.
2. L. Pelz, A. J. Awan, and M. Ozger, "A Neuromorphic Approach to LDPC Decoding with Spiking Belief Propagation," in IEEE EuCNC, 2026, pp. 1–6.
3. Q. Wang, K. Li, O. A. Topal, O. T. Demir, M. Ozger, and C. Cavdar, "Energy Saving for Cell-Free Massive MIMO Networks: A Multi-Agent Deep Reinforcement Learning Approach," in IEEE ICC, 2026, pp. 1–6.
4. J. Liu, I. A. Meer, C. Cavdar, and M. Ozger, "Incremental Learning-Based Open-Set Classification of Unknown UAVs via RF Signal Semantics," in IEEE ICC, 2026, pp. 1–6.
5. S. S. S. G. Seeram, M. Ozger, and C. Cavdar, "In-Orbit Processing and Doppler-Adaptive Waveforms in O-RAN-Enabled LEO Networks: How Much Can We Gain?," in IEEE Asilomar, 2025, pp. 1–5.
6. I. A. Meer, B. Hörmann, M. Ozger, F. Geyer, A. Viseras, D. Schupke, and C. Cavdar, "Explainable AI for UAV Mobility Management: A Deep Q-Network Approach for Handover Minimization," in IEEE PIMRC, 2025.
7. S. T. Islam, M. Ganjalizadeh, H. S. Ghadikolaei, and M. Ozger, "Enhancing URLLC Availability in Multi-Connectivity Scenarios Using Deep Reinforcement Learning," in IEEE EuCNC, 2025.
8. A. Manzoor, M. Ozger, and C. Cavdar, "Risk-Aware Backup Path Allocation in O-RAN Based Integrated Terrestrial and Non-Terrestrial Networks," in IEEE DRCN, 2025.
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