

# METİN ÖZTÜRK

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Assistant Professor of Telecommunications, AYBU

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## WORK EXPERIENCE

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**Ankara Yıldırım Beyazıt University, Turkey**

October 2021 - Present

*Assistant Professor*

- Research on AI-integrated wireless communication networks: publications in top-tier journals and conferences (see “List of Publications” section).
- In collaboration with world-class universities from across the world.
- Teaching graduate and undergraduate courses (see “Teaching Experience” section).

**Ankara Yıldırım Beyazıt University, Turkey**

September 2020 - October 2021

*Lecturer*

- Research activities about various aspects of 5G networks; energy efficiency, radio resource management, mobility management, IoT (see “List of Publications” section).
- Strong international collaboration with well-established research groups.
- Teaching graduate and undergraduate courses (see “Teaching Experience” section).

**Ajman University, UAE**

September 2019 - September 2020

*Project Research Assistant - Remote*

- Project title: Artificial Intelligence Aided Radio Resource and Mobility Management for Future Cellular Networks.
- System level simulations for mobility management and energy efficient networking.
- Implemented machine learning based solutions.
- Produced term reports, prepared presentations, and produced a comprehensive final report.

**University of Jyväskylä, Finland**

September 2018 - January 2019

*Project Researcher - Remote*

- Project title: Cognitive Self-Organizing Networks.
- System level simulations for mobility load balancing.
- Developed and implemented reinforcement learning based optimization techniques.
- Wrote brief daily reports, prepared presentations, and produced a comprehensive final report.
- Focused on optimized/vectorized coding to shorten the simulation time.

**Ankara Yıldırım Beyazıt University, Turkey**

November 2013 - October 2016

*Research Assistant*

- Teaching and research assistance.
- Taught two undergraduate courses for three semesters each (see “Teaching Experience” section).
- Demonstrated experiments on electrical and electronic circuit in laboratories (see “Demonstration Experience” section).
- Presented a conference paper in Sarajevo, Bosnia and Herzegovina (see “List of Publications” section).

**Turk Telekom, Turkey**

July 2012 - August 2012

*Intern Electrical and Electronics Engineer*

- Both on-site and office-based internship under a leading telecommunication company.

- On-site duties include fixing the telecommunication network related problems reported by customers.

**Eskişehir Tepebaşı City Council, Turkey**

June 2012 - July 2012

*Intern Electrical and Electronics Engineer*

- Reviewed electrical instalment plans of the new constructions.
- Researched about a planned solar-based renewable energy plant instalments.

## EDUCATION

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**University of Glasgow, Glasgow, United Kingdom**

October 2016 - June 2020

Doctor of Philosophy (Ph.D.)

Electronics and Electrical Engineering

Thesis Title: Cognitive networking for next generation of cellular communication systems

Supervisor: Prof. Muhammad Ali Imran (IEEE Fellow, CEng, FRSE, FRSA, FIET, SFHEA)

External Examiner: Prof. Jaafar Elmighani (IEEE Fellow, FIET, FIOP)

- Focused on self-organizing networking in cellular communication systems.
- Application of ML algorithms to optimize the networks in energy efficiency, spectrum access, and capacity enhancement.
- Employ reinforcement learning predominantly along with supervised and unsupervised learning;
- Published/Accepted for publications: 7 journal papers, 11 conference papers, and 6 book chapters.
- Received IEEE WCNC 2019 Workshop best paper award.
- Collaborated with more than 25 researchers from 10 different countries.

**Ankara Yıldırım Beyazıt University, Ankara, Turkey**

July 2013 - May 2016

Master in Science (M.Sc.)

Electronics and Communication Engineering

Thesis Title: Optical power distribution and OFDM/OFDMA modulation for VLC

Supervisor: Prof. Remzi Yıldırım

- Took 7 courses, which are predominantly related to telecommunications.
- Presented a conference paper in an internationally organized conference.

**Eskişehir Osmangazi University, Eskişehir, Turkey**

September 2007 - July 2013

Bachelor of Science (B.Sc.)

Electrical and Electronics Engineering

Graduation Project Title: A new model-based approach using TMS320F28035 Kit

Supervisor: Prof. Bünyamin Tamyürek

- Final year project on the maximum power point tracking for solar panels – received the highest score.
- Formed a research group among peer students under the supervision of a research assistant.
- Voluntarily served as a president of a student society in the university for about 2 years.

## VOLUNTARY WORK

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**Electronics Student Society, Eskişehir Osmangazi Uni.**

September 2011 - June 2013

*President*

- Led the student society with members from various departments across the university.
- Organized a massive 2-day career event with more than 300 attendees.
- Held a meeting with a city council to introduce intelligent engineering solutions for their problems.
- Became a partner with a shopping centre – surveyed their customers to identify the major problems.

- A senior-student demonstrator for Digital Systems Laboratory.
- A project supervisor for the undergraduate students taking Digital Systems module.

## SKILLS

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- **Software:** Long-term experience with **MATLAB** and **L<sup>A</sup>T<sub>E</sub>X**; good notions of **Python** and **C/C++** programming and **Linux** operating system; and worked with **OptiSystems** for 2 years
- **Language:** Turkish: Native, English: Fluent

## TEACHING EXPERIENCE

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### Graduate Level Courses

- **Artificial Intelligence and Security:** Institute for International Relations and Strategic Research, Ankara Yıldırım Beyazıt University, 2022-2023/Fall  
Graduate level course. Content: Fundamentals of artificial intelligence, Machine learning algorithms, Machine learning applications to security problems.
- **Machine Learning for Wireless Communication Networks:** Electrical and Electronics Engineering, Ankara Yıldırım Beyazıt University, 2021-2022/Fall, 2022-2023/Fall  
Graduate level course. Content: Machine learning, Propagation modelling, Resource management, UAV-assisted networking, Energy efficiency, IoT networks.
- **Wireless Communications:** Defence Technologies, Graduate School, Ankara Yıldırım Beyazıt University, 2021-2022/Fall  
Graduate level course. Content: Signal types, Path loss and shadowing, Multipath fading, Capacity of wireless channels.
- **Tactical Wireless Communications and 5G Networks:** Defence Technologies, Graduate School, Ankara Yıldırım Beyazıt University, 2020-2021/Spring  
Graduate level course. Content: Characteristics of tactical wireless networks, OSI model, Physical layer of tactical networks, Fundamentals of MAC layer; Cognitive radio networking, Internet of military things.

### Undergraduate Level Courses

- **Mobile Communications:** Electrical and Electronics Engineering, Ankara Yıldırım Beyazıt University, 2022-2023/Spring  
Undergrad level course. Content: Wireless transmission basics, Cellular concept, Frequency reuse, Propagation modeling, Multi-antenna systems, Multi-user systems, 5G&6G networks, Role of artificial intelligence in mobile communications.
- **Analog Electronics:** Electrical and Electronics Engineering, Ankara Yıldırım Beyazıt University, 2021-2022/Spring  
Undergrad level course. Content: MOS transistors, CMOS amplifiers, Operational amplifiers, Cascode stage and current mirrors, Differential amplifiers, Frequency response.
- **Electronic Circuits-II:** Electrical and Electronics Engineering, University of Turkish Aeronautical Association, 2021-2022/Summer

- Undergrad level course. Content: MOS transistors, CMOS amplifiers, Operational amplifiers, Cascode stage and current mirrors, Differential amplifiers, Frequency response.
- **Introduction to Electronics:** Electrical and Electronics Engineering, Ankara Yıldırım Beyazıt University, 2021-2022/Fall, 2022-2023/Fall  
Undergraduate level course. Content: Physics of semiconductor materials, semiconductor diodes, Zener diodes, Physics of BJTs, BJT amplifiers.
  - **Coding Theory:** Electrical and Electronics Engineering, Ankara Yıldırım Beyazıt University, 2021-2022/Fall, 2022-2023/Fall  
Undergraduate level course. Content: Error correcting codes, Finite fields, Vector spaces, Linear codes, Syndrome coding, Block codes, Convolutions codes, Turbo coding, LDPC codes.
  - **Electronics:** Energy Systems Engineering, Ankara Yıldırım Beyazıt University, 2020-2021/Spring  
Undergraduate level course. Content: Semiconductor diodes, Logic gates, Zener diodes, Physics of BJTs, BJT biasing .
  - **Materials Science for Electrical and Electronics Engineers:** Electrical and Electronics Engineering, Ankara Yıldırım Beyazıt University, 2020-2021/Spring  
Undergraduate level course. Content: Atom models and energy levels, Basics of electromagnetism, Magnetic materials, Semiconductor materials, Application of semiconductor materials in electrical and electronics engineering.
  - **Fundamentals of Electrical and Electronics Engineering:** Energy Systems Engineering, Ankara Yıldırım Beyazıt University, 2020-2021/Fall  
Undergraduate level course. Content: Electrical circuit components, Ohm’s law, Kirchhoff’s laws, Nodal analysis, Mesh analysis, Thévenin’s and Norton’s theorems, Superposition technique.
  - **Electrical Circuits and Electronic Devices:** Computer Engineering, Ankara Yıldırım Beyazıt University, 2013-2014/Fall, 2014-2015/Fall, 2015-2016/Fall  
Undergraduate level course. Content: Kirchhoff’s voltage and current laws, Nodal and mesh analyses, Thévenin’s and Norton’s theorems, Opamps, Capacitors and inductors, AC power analysis.
  - **Electronic Circuits:** Computer Engineering, Ankara Yıldırım Beyazıt University, 2013-2014/Spring, 2014-2015/Spring, 2015-2016/Spring  
Undergraduate level course. Content: Semiconductor diodes, BJTs (DC and AC analyses), FETs; (MOSFETS, JFETS), FET amplifiers, BJT and JFET frequency responses.

## DEMONSTRATING AND ORGANIZATION

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- **Creativity Event:** University of Glasgow, December 2019 - January 2020  
Undergraduate students are asked to carry out various exercises in creativity as part of their groups, including activity that supports development of estimating and sketching skills.
- **Electrical Circuits Laboratory:** Ankara Yıldırım Beyazıt University, 2013 - 2016  
Basic DC circuit design experiments – Two different modules for electrical & electronics engineering and computer engineering students.
- **Electronic Circuits Laboratory:** Ankara Yıldırım Beyazıt University, 2013 - 2016  
Fundamental electronic circuit designs with diodes, LEDs, BJTs, and FETs.
- **Event Organizer:** “Graduate-to-be?”, A 2-day career HR managers of leading companies and students at the university, Eskişehir, Turkey, April 2012.

### Talks & Seminars Given

- **Guest Lecturer in PhD Course:** Title: *Machine Learning Based Predictive and Requirement-Specific Spectrum Access*. Course Title: Machine Learning for Wireless Communications (ML4WC). Graduate School, University of Science and Technology of China (USTC), 2022-2023/Spring
- **Seminar:** Title: *Artificial Intelligence in the Perspective of Law and Engineering: Can AI think?* School of Law, Ankara Yıldırım Beyazıt University, December-2022.
- **Seminar:** Title: *Artificial Intelligence Strategies for Security, Health and Economy*. Institute for International Relations and Strategic Studies (ULISA), Ankara Yıldırım Beyazıt University, November-2022.
- **Invited Talk:** Title: *The Role of AI in Shaping the 5G+ Communication Networks*. Training on 5G+ communication systems and their applications, Abdullah Gül University, May-2022.
- **Keynote Speech:** Title: *Intelligent Wireless Connectivity in 5G-enabled Smart Cities* 5G-enabled Smart Cities Workshop in IEEE International Smart Cities Conference, September-2021.
- **Guest Lecturer in PhD Course:** Title: *QoS-Aware Proactive Cognitive Radio Spectrum Access with Machine Learning*. Course Title: Machine Learning for Wireless Communications (ML4WC). Graduate School, University of Science and Technology of China (USTC), 2020-2021/Spring

### Editorial Duties

- **Research Topic Editor:** Title: Energy Efficiency of Open Radio Access Networks (O-RAN). Frontiers in Communications and Networks, Frontiers, March 2023 - Present.
- **Special Issue Editor:** Title: Advanced Technologies in AI-Assisted 5G/6G Networking. Electronics, MDPI, February 2021 - Present.
- **Review Editor:** Frontiers in IoT and Sensor Networks, Frontiers, 2020 - Present.

### International Conference Duties

- **Workshop Co-Organizer:** Title: AI-Enabled Network Orchestration: Design Challenges and Opportunities for 6G Networks. 2023 IEEE Wireless Communications and Networking Conference (IEEE WCNC), Glasgow, United Kingdom, March-2023.
- **Technical Program Committee (TPC) Membership:**
  - The Fifth International Conference on Blockchain Computation and Applications 2023 (BCCA 2023), Kuwait City, Kuwait, October-2023.
  - Selected Areas in Communications - Big Data. 2023 IEEE International Conference on Communications (IEEE ICC), Rome, Italy, May/June-2023.
  - 1st IEEE International Workshop on Artificial Intelligence Enabled Autonomous Networks and Systems (IWAANETS 2022). Workshop in IEEE 95th Vehicular Technology Conference (IEEE VTC2022-Spring), Helsinki, Finland, June-2022.

- IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids (IEEE SmartGridComm), Singapore, October-2022.
- The 4<sup>th</sup> International Conference on UK-China Emerging Technologies (UCET), Glasgow, United Kingdom, August-2019.
- **Conference Session Chair:** Wireless Sensor Networks, IEEE Vehicular Technology Conference (VTC) 2017-Fall, Toronto, Canada, September-2017.

## Additional Activities

- **Project Examiner:** The Scientific and Technological Research Council of Turkey (TUBITAK), Turkey, October-2022.
- **Expert Project Reviewer:** Small and Medium Industry Development Organization (KOSGEB), Turkey, April-2022.
- **Expert Project Reviewer:** National Science Centre, Poland, April-2020.
- **Advisory Board Member:** Teknofest Aerospace and Technology Festival, Turkey, 2023, 2022, 2021.

## Academic Reviewing

Reviewing for many top-level journals and conferences. Some examples are:

Journals: IEEE Journal of Selected Areas in Communications (IEEE JSAC), IEEE Transactions on Vehicular Technology (IEEE TVT), IEEE Wireless Communications Magazine (IEEE WCM), IEEE Transactions on Cognitive Communications and Networking (IEEE TCCN), IEEE Internet of Things Journal (IEEE IoT-J), IEEE Access, IEEE Communication Letters, IEEE Wireless Communications Letters.

Conferences: IEEE IEEE International Conference on Communications (IEEE ICC), IEEE Vehicular Technology Conference (IEEE VTC), IEEE Global Communications Conference (IEEE GlobeCom), IEEE Wireless Communications and Networking Conference (IEEE WCNC).

## ADMINISTRATIVE

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- **Deputy Head of Department:** Electrical-Electronics Engineering, Ankara Yıldırım Beyazıt University. Responsibility: Academic Affairs of the Department. 2022-Present.
- **Ethical Committee Member (Science and Engineering Division):** Ankara Yıldırım Beyazıt University. May 2023-Present.
- **Coordinator:** Communication and Sensing Technologies (CosetLab) Research Group, Electrical-Electronics Engineering, Ankara Yıldırım Beyazıt University. 2022-Present.
- **Co-Coordinator:** Teknofest-2022 Coordination for Ankara Yıldırım Beyazıt University. 2022.

## PUBLIC ENGAGEMENT

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- **Invited Speaker:** *Title:* Artificial Intelligence.  
Ergün Öner Mehmet Öner Anatolian High School, Istanbul, Turkey, February-2022.

## GRANTS & PROJECTS

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- Type: Research Project. Project Title: Artificial Intelligence Based License Plate Recognition System Using Security Camera. Funding Body: Ankara Yıldırım Beyazıt University, Scientific Research Projects (Undergraduate student participation). Duration: 10 months. Duty: Principle Investigator.
- Type: Research Fellowship/Mobility Grant. Project Title: Sustainable Design of Future Wireless Communication Networks. Funding Body: The Scientific and Technological Research Council of Turkey (TUBITAK)-2219. Duration: 12 months. Duty: Principle Investigator.
- Type: Research Project. Project Title: Development of Experimental Communication System Based on Faster than Nyquist Signaling with Constructive Interference. Funding Body: The Scientific and Technological Research Council of Turkey (TUBITAK)-1001. Duration: 36 months (2022-2025). Duty: Expert Researcher.
- Type: Research Project. Project Title: Artificial Intelligence Aided Radio Resource and Mobility Management for Future Cellular Networks. Funding Body: Ajman University, UAE. Duration: 12 months (2019-2020). Duty: Researcher Assistant.
- Type: Travel Grant (Conference Attendance). IEEE VTC 2017-Fall, 24–27 September 2017, Toronto, Canada. Funding Body: James Watt School of Engineering & EPSRC DARE Project Grant no. EP/ P028764/1.
- Type: Ph.D. Fellowship. Funding Body: Republic of Türkiye Ministry of National Education (MoNE – 1416/YLSY), 2015 (Ranked 1st). Duration: 48 months (2016-2020).

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## ACADEMIC AWARDS

- **Workshop Best Paper Award**: Paper Title: Handover Management in Dense Networks with Coverage Prediction from Sparse Networks. Awarding Body: IEEE WCNC 2019 Workshops, 15-19 April 2019, Marrakesh, Morocco. Authors: Mollel, M., Ozturk, M., Kajjage, S., Kisangiri, M., Onireti, O., Imran, M. A., and Abbasi, Q.

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## LIST OF PUBLICATIONS

**Total**: 39 research items (all international and peer-reviewed).

**Breakdown**: 17 journal papers, 15 conference proceedings, 7 book chapters.

### Journal Publications

[J-17] Cagan, A. T., Koc, G. B., Yakın, H., Ciloglu, B., Ashgar, M. Z., Ersoy, O., Hämäläinen, J., **Ozturk, M.** (2023) UAV-based Maritime Communications: Relaying to Enhance the Link Quality. *Under review - IEEE Access*.

[J-16] Abubakar, A., Mollel, M. S., Oniretti, O., **Ozturk, M.**, Ahmad, I., Asad, S. M., Sambo, Y., Zoha, A., Hussain, S., Imran, M. A. (2023) Coverage and Throughput Analysis of an Energy Efficient UAV Base Station Positioning Scheme. *Computer Networks, Elsevier*.

[J-15] Abubakar, A., Ahmad, I., Omeke, K. G., **Ozturk, M.**, Ozturk, C., Abdel-Salam, A. M., Mollel, M. S., Abbasi, Q. H., Hussain, S., Imran, M. A. (2023) A Survey on Energy Optimization Techniques in UAV-Based Cellular Networks: From Conventional to Machine Learning Approaches. *Drones, MDPI*.

- [J-14] Abubakar, A., Ozturk, C., **Ozturk, M.**, Mollel, M. S., Asad, S. M., Ul Hassan, N., Hussain, S. and Imran, M. A. (2022) Revenue Maximization through Cell Switching and Spectrum Leasing in 5G Heterogeneous Cellular Networks. *IEEE Access*.
- [J-13] **Ozturk, M.**, Abubakar, A. I., Rais, R. N. B., Jaber, M., Hussain, S. and Imran, M. A. (2022) Context-Aware Connectivity and Processing Optimization for IoT Networks. *IEEE Internet of Things Journal*.
- [J-12] Abubakar, A. I., Mollel, M. S., **Ozturk, M.**, Hussain, S., Imran, M. A., (2022) A lightweight cell switching and traffic offloading scheme for energy optimization in ultra-dense heterogeneous networks. *Physical Communication, Elsevier*.
- [J-11] Atli, I., **Ozturk, M.**, Valastro, G. C., & Asghar, M. Z. (2021). Multi-objective uav positioning mechanism for sustainable wireless connectivity in environments with forbidden flying zones. *Algorithms, MDPI*.
- [J-10] Mollel, M. S., Abubakar, A. I., **Ozturk, M.**, Kaijage, S., Kisangiri, M., Hussain, S., Imran, M. A. and Abbasi, Q. H. (2021) A Survey of Machine Learning Applications to Handover Management in 5G and Beyond. *IEEE Access*.
- [J-09] Abubakar, A. I., Omeke, K. G., **Ozturk, M.**, Hussain, S., and Imran, M. A. (2020) The Role of Artificial Intelligence Driven 5G Networks in COVID-19 Outbreak: Opportunities, Challenges, and Future Outlook. *Frontiers in Communications and Networks, Frontiers*.
- [J-08] **Ozturk, M.**, Abubakar, A., Nadas, J. P.B., Rais, R. N. B., Hussain, S. and Imran, M. A. (2021) Energy optimization in Ultra-Dense Radio Access Networks via Traffic-Aware Cell Switching. *IEEE Transactions on Green Communications and Networking*.
- [J-07] Omeke, K. G., Mollel, M. S., **Ozturk, M.**, Ansari, S., Zhang, L., Abbasi, Q. H., Imran, M. A. (2021) DEKCS: A Dynamic Clustering Protocol to Prolong Underwater Sensor Networks. *IEEE Sensors Journal*.
- [J-06] Asad, S. M., Ansari, S., **Ozturk, M.**, Rais, R. N. B., Zoha, A., Hussain, S., Abbasi, Q. H. and Imran, M. A. (2020) Mobility Management-Based Autonomous Energy-Aware Framework Using Machine Learning Approach in Dense Mobile Networks, *Signals, MDPI*.
- [J-05] Mollel, M. S., Abubakar, A. I., **Ozturk, M.**, Kaijage, S., Kisangiri, M., Zoha, A., Imran, M. A. and Abbasi, Q. H. (2020) Intelligent handover decision scheme using double deep reinforcement learning. *Physical Communication, Elsevier*.
- [J-04] Rizwan, A., Ali, N. A., Zoha, A., **Ozturk, M.**, Alomaniy, A., Imran, M. A. and Abbasi, Q. H. (2020) Non-invasive hydration level estimation in human body using Galvanic Skin Response. *IEEE Sensors Journal*.
- [J-03] **Ozturk, M.**, Gogate, M., Onireti, O., Adeel, A., Hussain, A. and Imran, M. A. (2019) A novel deep learning driven low-cost mobility prediction approach for 5G cellular networks: The case of the Control/Data Separation Architecture (CDSA). *Neurocomputing, Elsevier*.
- [J-02] **Ozturk, M.**, Akram, M., Hussain, S. and Imran, M. A. (2019) Novel QoS-aware proactive spectrum access techniques for cognitive radio using machine learning. *IEEE Access*.
- [J-01] **Ozturk, M.**, Imran, M. and Jaber, M. (2018) Energy-aware smart connectivity for IoT networks: enabling smart ports. *Wireless Communications and Mobile Computing, Hindawi-Wiley*.



## Conference Proceedings (Peer Reviewed & Full-Paper)

- [C-15] Cagan, A. T., Kaymak, O., Ersoy, O., **Ozturk, M.** (2023) Enabling Smart Port Connectivity via UAV-IRS Assisted Relaying. In: 2023 Innovations in Intelligent Systems and Applications Conference (ASYU-2023) (Co-organized by IEEE), Sivas, Turkiye, 11–12 October 2023. *Accepted for Publication- to appear in IEEEExplore.*
- [C-14] Koc, G. B., Ciloglu, B., **Ozturk, M.**, Yanikomeoglu, H. (2023) HAPS-enabled Sustainability Provision in Cellular Networks through Cell-Switching. In: IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom) 2023, Istanbul, Turkiye, 04–07 July 2023. *Accepted for Publication- to appear in IEEEExplore.*
- [C-13] Ashgari, M. Z., **Ozturk, M.**, Hämäläinen, J. (2021) Reinforcement Learning Based Mobility Load Balancing with the Cell Individual Offset. In: 2021 IEEE VTC-Spring ICNET Workshop, Helsinki, Finland, 25-28 April, 2021.
- [C-12] Abubakar, A., **Ozturk, M.**, Rais, R. N. B., Hussain, S. and Imran, M. (2020) Load-Aware Cell Switching in Ultra-Dense Networks: An Artificial Neural Network Approach. In: 2020 International Conference on UK-China Emerging Technologies (UCET), Glasgow, United Kingdom, 20-21 August, 2020.
- [C-11] Asad, S. M., **Ozturk, M.**, Rais, R. N. B., Zoha, A., Hussain, S., Abbasi, Q. H. and Imran, M. A. (2019) Reinforcement Learning Driven Energy Efficient Mobile Communication and Applications. In: 2019 IEEE International Symposium on Signal Processing and Information Technology (ISSPIT), Ajman, United Arab Emirates, 10-12 December 2019.
- [C-10] **Ozturk, M.**, Nadas, J. P.B., Klaine, P. H.V., Hussain, S. and Imran, M. A. (2019) Clustering Based UAV Base Station Positioning for Enhanced Network Capacity. In: International Conference on Advances in the Emerging Computing Technologies (AECT 2019), Medina, Saudi Arabia, 08-10 December, 2019.
- [C-09] Abubakar, A., **Ozturk, M.**, Hussain, S. and Imran, M. (2019) Q-learning Assisted Energy-Aware Traffic Offloading and Cell Switching in Heterogeneous Networks. In: 2019 IEEE 24th International Workshop on Computer Aided Modeling and Design of Communication Links and Networks (CAMAD), Limassol, Cyprus, 11-13 September 2019.
- [C-08] Sambo, Y. A., Valastro, G. C., Patane, G. M. M., **Ozturk, M.**, Hussain, S., Imran, M. A. and Panno, D. (2019) Motion Sensor-based Small Cell Sleep Scheduling for 5G Networks. In: 2019 IEEE 24th International Workshop on Computer Aided Modeling and Design of Communication Links and Networks (CAMAD), Limassol, Cyprus, 11-13 September 2019.
- [C-07] Patané, G. M. M., Valastro, G. C., Sambo, Y. A., **Ozturk, M.**, Hussain, S., Imran, M. A., Panno, D. (2019) Flexible SDN/NFV-based testbed for 5G mobile networks, IEEE/ACM DS-RT 2019, Cosenza, Italy, 7-9 October 2019.
- [C-06] Mollé, M., **Ozturk, M.**, Kaijage, S., Kisangiri, M., Onireti, O., Imran, M. A. and Abbasi, Q. H. (2019) Handover Management in Dense Networks with Coverage Prediction from Sparse Networks. In: IEEE Wireless Communications and Networking Conference (IEEE WCNC 2019), Marrakech, Morocco, 15-18 April 2019.
- [C-05] **Ozturk, M.**, Abubakar, I., Hassan, N. U., Hussain, S., Imran, M. A. and Yuen, C. (2019) Spectrum Cost Optimization for Cognitive Radio Transmission over TV White Spaces Using

Artificial Neural Networks. In: 4th International Conference on UK - China Emerging Technologies (UCET 2019), Glasgow, UK, 21-22 August 2019.

[C-04] Turkmen, A., Mollel, M. S., **Ozturk, M.**, Yao, S., Zhang, L., Ghannam, R. and Imran, M. A. (2019) Coverage Analysis for Indoor-Outdoor Coexistence for Millimetre-Wave Communication. In: 4th International Conference on UK - China Emerging Technologies (UCET 2019), Glasgow, UK, 21-22 August 2019.

[C-03] **Ozturk, M.**, Valente Klaine, P. and Imran, M. A. (2018) Introducing a Novel Minimum Accuracy Concept for Predictive Mobility Management Schemes. In: IEEE International Conference on Communications (ICC 2018), Kansas City, MO, USA, 20-24 May 2018.

[C-02] **Ozturk, M.**, Valente Klaine, P. and Imran, M. A. (2018) 3D Transition Matrix Solution for a Path Dependency Problem of Markov Chains-Based Prediction in Cellular Networks. In: IEEE VTC 2017 BackNets Workshop, Toronto, Canada, 24-27 September 2017.

[C-01] **Ozturk, M.**, Valente Klaine, P. and Imran, M. A. (2018) Improvement on the Performance of Predictive Handover Management by Setting a Threshold. In: IEEE VTC 2017 BackNets Workshop, Toronto, Canada, 24-27 September 2017.

## Book Chapters

[B-07] **Ozturk, M.** (2023) Long Distance Power Transmission. In: *The Role of 6G and Beyond on the Road to Net-Zero Carbon*, IET. *Accepted, In-process.*

[B-06] **Ozturk, M.**, Abubakar, A., Valente Klaine, P., Hussain, S., Abbasi, Q. H. and Imran, M. A. (2020) Cognitive Radio Spectrum Sensing: From Conventional Approaches to Machine Learning-based Predictive Techniques. In: *Flexible and Cognitive Radio Access Technologies for 5G and Beyond*, IET, ISBN: 978-1839530791

[B-05] **Ozturk, M.**, Valente Klaine, P., Hussain, S. and Imran, M. A. (2020) Predictive Mobility Management in Cellular Networks. In: *AI for Emerging Verticals: Human-Robot Computing, Sensing and Networking*, IET, ISBN: 9781785619823.

[B-04] Imran, M. A., **Ozturk, M.**, Abubakar, A. I., Valente Klaine, P., Hussain, S. and Abbasi, Q. H. (2019) Mobility prediction based resource management. In: Tafazolli, R., Wang, C.-L. and Chatzimisios, P.(eds.) *Wiley 5G REF: The Essential 5G Reference Online*. Wiley. ISBN 9781119471509

[B-03] Imran, M. A., Turkmen, A., **Ozturk, M.**, Nadas, J. P. B. and Abbasi, Q. H. (2019) Seamless Indoor/Outdoor Coverage in 5G. In: Tafazolli, R., Wang, C.-L. and Chatzimisios, P. (eds.) *Wiley 5GREF: The Essential 5G Reference Online*. Wiley. ISBN 9781119471509

[B-02] **Ozturk, M.**, Jaber, M. and Imran, M. A. (2019) Life-span extension for sensor networks in the industry. In: Imran, M. A., Hussain, S. and Abbasi, Q. H. (eds.) *Wireless Automation as an Enabler for the Next Industrial Revolution*. Wiley-IEEE Press, pp. 19-45. ISBN 9781119552611

[B-01] Rizwan, A., **Ozturk, M.**, Ali, N. A., Zoha, A., Abbasi, Q. H. and Imran, M. A. (2020) Machine Learning for Decision Making in Healthcare. In: *Engineering and Technology for Healthcare*, Wiley-IEEE Press, ISBN: 9781119644248