

Res. Asst. Burak Ahmet ÖZDEN

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International Researcher IDs

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Publons / Web Of Science ResearcherID: HHY-7232-2022

ScopusID: 57985978900

Yoksis Researcher ID: 352680

Biography

Burak Ahmet Ozden was born in Istanbul, Turkey. He received the B.S. degree (Highest Hons.) and the M.S. degree in electrical and electronics engineering from Istanbul Medeniyet University in 2020 and 2022, respectively, where he is currently pursuing the Ph.D. degree in electrical and electronics engineering. He is also working as a Research Assistant with the Computer Engineering Department, Yıldız Technical University. His research interests comprise index modulation, wireless communication, reconfigurable intelligent surface, signal processing, MIMO systems, and cooperative communication. Also, Burak Ahmet Ozden serves as a Reviewer of the IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS, IEEE WIRELESS COMMUNICATIONS LETTERS, IEEE TRANSACTIONS ON COMMUNICATIONS, and IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY.

Education Information

Doctorate, Istanbul Medeniyet University, Lisansüstü Eğitim Enstitüsü, Elektrik-Elektronik Mühendisliği, Turkey 2023 - Continues

Postgraduate, Istanbul Medeniyet University, Faculty Of Engineering And Natural Sciences , Electrical And Electronics Engineering , Turkey 2020 - 2022

Undergraduate, Istanbul Medeniyet University, Faculty Of Engineering And Natural Sciences , Electrical And Electronics Engineering , Turkey 2017 - 2020

Undergraduate, Anadolu University, İşletme Fakültesi, İşletme Bölümü, Turkey 2016 - 2018

Associate Degree, İstanbul University-Cerrahpaşa, Vocational School Of Technical Sciences, Department Of Electronics And Automation, Turkey 2014 - 2016

Dissertations

Postgraduate, PERFORMANCE ANALYSIS OF ADVANCED INDEX MODULATION SYSTEMS FOR NEXT GENERATION WIRELESS COMMUNICATION SYSTEMS, Istanbul Medeniyet University, Lisansüstü Eğitim Enstitüsü, Elektrik-Elektronik Mühendisliği, 2022

Research Areas

Information Systems, Communication and Control Engineering, Communication Engineering, Information Theory, Communication Networks, Communication System Theory, Wireless Communication, Quantum Communication, Modulation Methods, Telecommunication Applications, Signal Processing, Electrical and Electronics Engineering, Nanotechnology, Physics, Engineering and Technology

Academic Titles / Tasks

Research Assistant, Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering, 2021 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Antenna Selection For Receive Spatial Modulation System Empowered By Reconfigurable Intelligent Surface**
ÖZDEN B. A., AYDIN E.
IEEE Transactions on Vehicular Technology, vol.74, no.1, pp.1169-1179, 2025 (SCI-Expanded)
- II. **Reconfigurable Intelligent Surface-Empowered Code Index Modulation for High-Rate SISO Systems**
Cogen F., ÖZDEN B. A., AYDIN E., KABAOĞLU N.
IEEE Transactions on Cognitive Communications and Networking, vol.10, no.5, pp.1856-1866, 2024 (SCI-Expanded)
- III. **Reconfigurable Intelligent Surface-Aided Spatial Media-Based Modulation**
ÖZDEN B. A., AYDIN E., Cogen F.
IEEE Transactions on Green Communications and Networking, vol.7, no.4, pp.1971-1980, 2023 (SCI-Expanded)
- IV. **Code Index Modulation-Aided Spatial Media-Based Modulation System for Future Wireless Networks**
Özden B. A., Aydin E., Cogen F.
IEEE SYSTEMS JOURNAL, vol.17, no.3, pp.3762-3770, 2023 (SCI-Expanded)
- V. **Mirror activation pattern selection for energy efficient hexagonal QAM aided media-based modulation**
Özden B. A., Cogen F., Aydin E.
Transactions on Emerging Telecommunications Technologies, vol.34, no.7, 2023 (SCI-Expanded)

Papers Published in Refereed Scientific Meetings

- I. **Energy-Efficient and Low-Complexity Spatial Modulation System with Deep Neural Network-Based Capacity-Optimized Antenna Selection**
ÇÖGEN F., ÖZDEN B. A., AYDIN E.
2024 15th National Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 28 - 30 November 2024, pp.1-5
- II. **Overview of Hexagonal QAM Based Constellation Schemes and Applications for Index Modulation**
ÇÖGEN F., ÖZDEN B. A., AYDIN E.
2024 15th National Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 28 - 30 November 2024, pp.1-5
- III. **RIS-Assisted Hexagonal Receive QSM Technique with Perfect and Imperfect Channel Estimation**
ÇÖGEN F., ÖZDEN B. A., AYDIN E.
6th International Conference on Communications, Signal Processing, and their Applications, ICCSPA 2024, İstanbul, Turkey, 8 - 11 July 2024

- IV. **A New Energy Efficient and Antenna Selection Based Index Modulation Technique Enerji Verimli ve Anten Seçim Tabanlı Yeni bir İndis Modülasyonu Tekniği**
Cogen F., ÖZDEN B. A., AYDIN E.
32nd IEEE Conference on Signal Processing and Communications Applications, SIU 2024, Mersin, Turkey, 15 - 18 May 2024
- V. **A Novel Reconfigurable Intelligent Surface-Supported Code Index Modulation-Based Receive Spatial Modulation System**
ÖZDEN B. A., Cogen F., AYDIN E., İLHAN H., Basar E., Wen M.
25th IEEE Wireless Communications and Networking Conference, WCNC 2024, Dubai, United Arab Emirates, 21 - 24 April 2024
- VI. **Reconfigurable Intelligent Surface-Empowered Double Spatial Modulation for MISO Systems**
Özden B. A., Aydın E., Çögen F.
ELEKTRİK-ELEKTRONİK ve BİYOMEDİKAL MÜHENDİSLİĞİ KONFERANSI, Bursa, Turkey, 24 - 26 November 2022, pp.1-5
- VII. **Performance Analysis of UAV Relaying Using Energy Harvesting Enerji Hasatlama Kullanılan Roleli İHA'larda Performans Analizi**
Ozden B. A., Tuylu M., ERDOĞAN E.
28th Signal Processing and Communications Applications Conference, SIU 2020, Gaziantep, Turkey, 5 - 07 October 2020
- VIII. **Quantum Transport Properties of InxGa1-xAs Nanowires**
Özden B. A., İpek S.
NANOTR, Antalya, Turkey, 3 - 06 November 2019, pp.31
- IX. **The Electronic Properties of InxGa1-xAs Nanowires**
Özden B. A., İpek S.
ICOLES, İstanbul, Turkey, 27 - 29 June 2019, pp.165

Supported Projects

Özden B. A., İlhan H., Aydın E., TUBITAK Project, İndis Modülasyonu ve Ayarlanabilir Akıllı Yüzey Destekli Ortogonal Zaman-Frekans Uzay Modülasyonunun Yeni Nesil Telsiz Haberleşmesi için Tasarımları, 2024 - 2027

Dinler A., TUBITAK Project, Termal Olarak İyileştirilmiş Uygulamalar İçin Arayüzey Isı Transferi Üzerindeki Yüzey Eğriliği Etkilerinin Araştırılması, 2020 - 2022

Peer Reviews in Scientific Publications

TELECOMMUNICATION SYSTEMS, SCI Journal, March 2025

ARTIFICIAL INTELLIGENCE REVIEW, SCI Journal, March 2025

IEEE WIRELESS COMMUNICATIONS LETTERS, SCI Journal, March 2025

IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS, SCI Journal, January 2025

IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, SCI Journal, January 2025

IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, SCI Journal, November 2024

IEEE WIRELESS COMMUNICATIONS LETTERS, SCI Journal, November 2024

IEEE Wireless Communications and Networking Conference, Conference Paper (Full Text), November 2024

IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, SCI Journal, October 2024

IEEE INTERNET OF THINGS JOURNAL, SCI Journal, September 2024

DIGITAL SIGNAL PROCESSING: A REVIEW JOURNAL, Journal Indexed in SSCI, August 2024

IEEE INTERNET OF THINGS JOURNAL, SCI Journal, August 2024

DIGITAL SIGNAL PROCESSING: A REVIEW JOURNAL, SCI Journal, August 2024

IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS, SCI Journal, June 2024

DIGITAL SIGNAL PROCESSING: A REVIEW JOURNAL, SCI Journal, May 2024
IEEE TRANSACTIONS ON COMMUNICATIONS, SCI Journal, March 2024
2024 IEEE International Conference on Communications, Conference Paper (Full Text), February 2024
IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS, SCI Journal, January 2024
IEEE TRANSACTIONS ON COMMUNICATIONS, SCI Journal, January 2024
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, SCI Journal, December 2023
IEEE TRANSACTIONS ON COMMUNICATIONS, SCI Journal, October 2023
IEEE WIRELESS COMMUNICATIONS LETTERS, SCI Journal, October 2023
IEEE WIRELESS COMMUNICATIONS LETTERS, SCI Journal, September 2023
IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS, SCI Journal, June 2023

Metrics

Publication: 14
Citation (WoS): 33
Citation (Scopus): 49
H-Index (WoS): 3
H-Index (Scopus): 4

Scholarships

2250-Lisansüstü Bursları Performans Programı, TÜBİTAK, 2024 - Continues
2211-A Genel Yurt İçi Doktora Bursu, TÜBİTAK, 2023 - Continues

Awards

Özden B. A., 2019-2020 Öğretim Yılı Elektrik Elektronik Mühendisliği Bölüm Birinciliği Ödülü (Türkçe Programı) , İstanbul Medeniyet Üniversitesi, June 2020
Özden B. A., İpek S., ICOLES 2019 Uluslararası Mühendislik Ve Yaşam Bilimleri Konferansı En İyi Bilimsel Poster Ödülü, Icoles, June 2019