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International Researcher IDs

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Biography

Serdar Özyurt received the B.Sc. degree in electrical and electronics engineering from Sakarya University, Turkey, in 2001, the M.Sc. degree in electronics engineering from Gebze Institute of Technology, Turkey, in 2005, and the Ph.D. degree in electrical engineering from University of Texas at Dallas, USA, in 2012. He is now an Assistant Professor at the Faculty of Engineering and Natural Sciences, Yıldırım Beyazıt University, Ankara, Turkey. His research interests include multiantenna communications, diversity techniques, spatial multiplexing methods, and multi-carrier communications.

Education Information

Doctorate, University of Texas at Dallas, Faculty of Engineering and Computer Science, Electrical Engineering, United States Of America 2006 - 2012

Postgraduate, Gebze Yüksek Teknoloji Enstitüsü, Mühendislik Ve Fen Bilimleri Enstitüsü, Elektronik Mühendisliği (YI) (Tezli), Turkey 2001 - 2005

Undergraduate, Sakarya University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, Turkey 1997 - 2001

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, Performance Analysis of Multiantenna Transmission Strategies with Ordering, University Of Texas At Dallas, Mühendislik Ve Bilgisayar Bilimleri Fakültesi, Elektrik Mühendisliği, 2012

Postgraduate, İşaret diyagramı döndürülmüş faz kaydırmalı anahtarlama modülasyonunun sönümlenmeli kanallardaki performansı, Gebze Yüksek Teknoloji Enstitüsü, Mühendislik Ve Fen Bilimleri Enstitüsü, Elektronik Mühendisliği (YI) (Tezli), 2005

Research Areas

Electrical and Electronics Engineering, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Yıldırım Beyazıt Üniversitesi, 2019 - Continues

Assistant Professor, 2012 - Continues

Courses

GRADUATION PROJECT II, Undergraduate, 2017 - 2018, 2016 - 2017

DIGITAL COMMUNICATIONS, Postgraduate, 2017 - 2018

GRADUATION PROJECT I, Undergraduate, 2017 - 2018, 2016 - 2017

Telecommunications II, Undergraduate, 2017 - 2018, 2016 - 2017

Random Processes, Postgraduate, 2017 - 2018

Probability and Random Variables, Undergraduate, 2017 - 2018, 2016 - 2017

Kablosuz Haberleşmeye Giriş, Undergraduate, 2016 - 2017

Olasılık ve Rastgele Değişkenler, Undergraduate, 2016 - 2017

Introduction to Wireless Communications, Undergraduate, 2016 - 2017

Advising Theses

Özyurt S., Orthogonal Frequency Division Multiplexing with Signal Space Diversity, Postgraduate, M.CAN(Student), 2018

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Adaptive power permutation modulation: A novel transmission technique for increased spectral efficiency over fading channels**
ÖZYURT S.
International Journal of Communication Systems, vol.37, no.3, 2024 (SCI-Expanded)
- II. **On the performance of layered transmission with optimum decoding ordering and multiuser diversity for a K-user downlink scenario**
ÖZYURT S., Amelia K., Namdar M.
Telecommunication Systems, 2024 (SCI-Expanded)
- III. **Error performance enhancement and complexity reduction in OFDM systems via coordinate interleaving under practical impairments**
REŞAT M. A., Tusha A., Doğan Tusha S., ÖZYURT S., ARSLAN H.
Turkish Journal of Electrical Engineering and Computer Sciences, vol.32, no.1, pp.21-33, 2024 (SCI-Expanded)
- IV. **A Hybrid Uplink Multiple Access Method based on NOMA and SDMA**
ÖZYURT S., Simon E. P., Torlak M.
IEEE Access, vol.11, pp.89265-89276, 2023 (SCI-Expanded)
- V. **A Survey on Multiuser SWIPT Communications for 5G+**
ÖZYURT S., Coskun A., Buyukcorak S., Karabulut Kurt G., Kucur O.
IEEE Access, vol.10, pp.109814-109849, 2022 (SCI-Expanded)
- VI. **Low-Complexity MIMO MMSE Receiver with Performance Enhancement via Coordinate Interleaving**
ÖZYURT S., Öztürk M., ÇAVUŞ E.
Journal of Circuits, Systems and Computers, vol.29, no.14, 2020 (SCI-Expanded)
- VII. **Improving physical layer security in Alamouti OFDM systems with subcarrier coordinate interleaving**

REŞAT M. A., KARAKOÇ M. C., ÖZYURT S.

IET COMMUNICATIONS, vol.14, no.16, pp.2687-2693, 2020 (SCI-Expanded)

- VIII. **Quadrature NOMA: A Low-Complexity Multiple Access Technique with Coordinate Interleaving**
Ozyurt S., Kucur O.
IEEE Wireless Communications Letters, vol.9, no.9, pp.1452-1456, 2020 (SCI-Expanded)
- IX. **NOMA with Zero-Forcing V-BLAST**
ÖZYURT S., Simon E. P., Farah J.
IEEE Communications Letters, vol.24, no.9, pp.2070-2074, 2020 (SCI-Expanded)
- X. **Performance of multiuser TAS/MRC with 1-bit feedback user scheduling over correlated fading channels**
ÖZYURT S., Kucur O.
AEU - International Journal of Electronics and Communications, vol.121, 2020 (SCI-Expanded)
- XI. **Analysis and FPGA Implementation of Zero-Forcing Receive Beamforming with Signal Space Diversity under Different Interleaving Techniques**
Reşat M. A., Çiçek A., Özyurt S., Çavuş E.
Journal of Circuits, Systems and Computers, vol.29, no.1, 2020 (SCI-Expanded)
- XII. **Exact Outage Probability Analysis of Dual-Transmit-Antenna V-BLAST With Optimum Ordering**
ÖZYURT S., Torlak M.
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.68, no.1, pp.977-982, 2019 (SCI-Expanded)
- XIII. **Exact joint distribution analysis of zero-forcing V-BLAST gains with greedy ordering**
Ozyurt S., Torlak M.
IEEE Transactions on Wireless Communications, vol.12, no.11, pp.5377-5385, 2013 (SCI-Expanded)
- XIV. **Unified performance analysis of orthogonal transmit beamforming methods with user selection**
Ozyurt S., Torlak M.
IEEE Transactions on Wireless Communications, vol.12, no.3, pp.1026-1037, 2013 (SCI-Expanded)
- XV. **Performance analysis of optimum zero-forcing beamforming with greedy user selection**
Ozyurt S., Torlak M.
IEEE Communications Letters, vol.16, no.4, pp.446-449, 2012 (SCI-Expanded)
- XVI. **Error performance of rotated phase shift keying modulation over fading channels**
Özyurt S., Kucur O., Altunbaş İ.
Wireless Personal Communications, vol.43, no.4, pp.1453-1463, 2007 (SCI-Expanded)

Articles Published in Other Journals

- I. **NON-ORTHOGONAL MULTIPLE ACCESS WITH V-BLAST UNDER OPTIMUM ORDERING**
Kardaş F., REŞAT M. A., ÖZYURT S.
İstanbul Ticaret Üniversitesi Fen Bilimleri Dergisi, vol.21, pp.409-421, 2022 (Peer-Reviewed Journal)
- II. **PERFORMANCE of MULTIUSER V-BLAST WITH LIMITED FEEDBACK for USER SCHEDULING over NAKAGAMI-m FADING CHANNELS**
AMELIA K., ÖZYURT S., NAMDAR M.
Journal of scientific reports-A (Online), no.51, 2022 (Peer-Reviewed Journal)
- III. **Power permutation modulation in multiple-input multiple-output systems**
ÖZYURT S., Kucur O.
Transactions on Emerging Telecommunications Technologies, vol.33, no.4, 2022 (Scopus)
- IV. **PERFORMANCE OF ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING WITH SIGNAL SPACE DIVERSITY VIA SUBCARRIER COORDINATE INTERLEAVING OVER NAKAGAMI-M AND Rician FADING CHANNELS**
ÖZYURT S.
Engineering Sciences, vol.13, no.4, pp.291-301, 2018 (Peer-Reviewed Journal)
- V. **Verici Anten Seçimi ve İşaret Uzayı Çeşitlemesi Kullanan En Yüksek Oran Birleşimi Tekniğinin Çift ve**

Tekdüze Anten İlişki Modelleri Altında Başarım Analizi

ÖZYURT S.

Fırat Üniversitesi Mühendislik Bilimleri Dergisi, vol.30, no.1, pp.295-302, 2018 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Error Performance of DCO-OFDM Based Visible Light Communication System with Signal Space Diversity DCO-OFDM Tabanlı Görünür Işık Haberleşme Sisteminin İşaret Uzayı Çeşitlenmesi ile Hata Başarımı**
Yakin H., Birge T., REŞAT M. A., ÖZYURT S.
31st IEEE Conference on Signal Processing and Communications Applications, SIU 2023, İstanbul, Turkey, 5 - 08 July 2023
- II. **BER Performance Analysis for NOMA Systems with OTFS Modulation OTFS Modülasyonlu NOMA Sistemleri için BER Performans Analizi**
Umakoglu I., Namdar M., BAŞGÜMÜŞ A., ÖZYURT S., Kulaç S.
31st IEEE Conference on Signal Processing and Communications Applications, SIU 2023, İstanbul, Turkey, 5 - 08 July 2023
- III. **Performance of Multiuser MIMO-SWIPT Layered Transmission Systems Çok Kullanıcılı MIMO-SWIPT Katmanlı İletim Sistemlerinin Başarımı**
ÖZYURT S., Kucur O.
31st IEEE Conference on Signal Processing and Communications Applications, SIU 2023, İstanbul, Turkey, 5 - 08 July 2023
- IV. **PERFORMANCE OF NON-ORTHOGONAL MULTIPLE ACCESS ZERO-FORCING V-BLAST OVER NAKAGAMI FADING CHANNELS**
Kardaş F., REŞAT M. A., ÖZYURT S.
2. INTERNATIONAL CAPPADOCIA SCIENTIFIC RESEARCH CONGRESS, Turkey, 19 June 2022
- V. **PERFORMANCE OF MULTIUSER ZERO-FORCING V-BLAST UNDER 1-BIT FEEDBACK FOR USER SCHEDULING**
AMELIA K., ÖZYURT S., NAMDAR M.
2. INTERNATIONAL CAPPADOCIA SCIENTIFIC RESEARCH CONGRESS, Turkey, 19 June 2022
- VI. **Enhancement of Physical Layer Security in Alamouti OFDM Systems over Nakagami-m Fading Channels**
Reşat M. A., Karakoç M. C., Özyurt S.
IEEE Signal Processing and Communications Applications (SIU), 05 October 2020, pp.1-4
- VII. **Low Complexity Constellation Rotation-based SIC Detection for IM-NOMA Schemes**
Almohamad A., Hasna M., Althunibat S., ÖZYURT S., Qaraqe K.
92nd IEEE Vehicular Technology Conference, VTC 2020-Fall, Virtual, Victoria, Canada, 18 - 16 November 2020, vol.2020-November
- VIII. **Alamouti DFBC Sistemlerinde Fiziksel Katman Güvenliğinin Nakagami-m Sönümlemeli Kanallar üzerinde İyileştirilmesi**
REŞAT M. A., KARAKOÇ M. C., ÖZYURT S.
28. IEEE SİNYAL İŞLEME ve İLETİŞİM UYGULAMALARI KURULTAYI, Turkey, 5 - 07 October 2020
- IX. **Performance of MMSE Beamforming with Time and Spatial Coordinate Interleaving**
REŞAT M. A., ÖZYURT S.
2019 11th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 28 - 30 November 2019
- X. **Performance of MIMO MMSE Receiver with Signal Space Diversity Under Channel Estimation Errors**
ÖZYURT S.
2019 27th Signal Processing and Communications Applications Conference (SIU), Sivas, Turkey, 24 - 26 April 2019
- XI. **FPGA implementation of MMSE channel estimation algorithm using system generator**

- ŞANLI M., öztürk m., balcisoy e., KARAKOÇ M. C., kırkaya e., ÇİÇEK A., ÖZYURT S., ÇAVUŞ E.
2018 26th Signal Processing and Communications Applications Conference (SIU), Izmir, Turkey, 2 - 05 May 2018
- XII. **FPGA implementation of symbol timing synchronization for OFDM systems OFDM sistemlerinde kullanılan sembol zamanlama senkronizasyonunun FPGA üzerinde gerçekleştirilmesi**
KARAKOÇ M. C., kırkaya e., ERSOY Ö., ŞANLI M., ÇİÇEK A., ÇAVUŞ E., ÖZYURT S.
26th IEEE Signal Processing and Communications Applications Conference, SIU 2018, İzmir, Turkey, 2 - 05 May 2018, pp.1-4
- XIII. **Performance of Zero-Forcing Receive Beamforming with Signal Space Diversity in the Presence of Channel Estimation Errors**
ÖZYURT S.
II INTERNATIONAL CONFERENCE ON ENGINEERING TECHNOLOGY AND INNOVATION, Budapest, Hungary, 7 - 11 March 2018, pp.72-77
- XIV. **Performance of Zero-Forcing MIMO Systems with Signal Space Diversity under Transmit Antenna Correlation**
REŞAT M. A., ÖZYURT S.
ELECO 2017 10th International Conference on Electrical and Electronics Engineering, Bursa, Turkey, 30 November - 02 December 2017, pp.700-704
- XV. **Design of Frequency Upconversion and Downconversion Blocks for 240 GHz Communication Systems**
Ersoy Ö., Sahin A. B., Cicek A., Karakoc M. C., Cavus E., Ozyurt S.
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- XVI. **Performance Analysis of Orthogonal Beamforming with User Selection in MIMO Broadcast Channels**
ÖZYURT S., TORLAK M.
Global Telecommunications Conference (GLOBECOM 2011), 2011 IEEE, Houston, United States Of America, 5 - 09 December 2011, vol.1, pp.1-5
- XVII. **An exact outage analysis of zero forcing V BLAST with greedy ordering**
ÖZYURT S., TORLAK M.
GLOBECOM Workshops (GC Wkshps), 2011 IEEE, Houston, United States Of America, 5 - 09 December 2011, vol.1, pp.1399-1403
- XVIII. **Outage and Diversity Analysis of Opportunistic Beamforming over Rayleigh Channels**
ÖZYURT S., TORLAK M.
Global Telecommunications Conference, 2009. GLOBECOM 2009. IEEE, Honolulu, United States Of America, 30 November - 04 December 2009, vol.1, pp.1-6
- XIX. **Performance of Rotated Phase Shift Keying Modulation over Ricean Fading Channels**
ÖZYURT S., KUCUR O., ALTUNBAŞ İ.
2005 2nd International Symposium on Wireless Communication Systems, Siena, Italy, Italy, 5 - 07 September 2005, vol.1, pp.195-199
- XX. **İşaret Diyagramı Döndürülmüş Faz Kaydırmalı Anahtarlama Modülasyonunun Ricean Sönümlmeli Kanallardaki Başarımı**
ÖZYURT S., KUCUR O., ALTUNBAŞ İ.
IEEE Sinyal İşleme ve Uygulamaları Konferansı 2005, Kayseri, Turkey, 16 - 18 May 2005, vol.1, pp.660-663

Supported Projects

ÖZYURT S., Project Supported by Higher Education Institutions, 25. SİNYAL İŞLEME ve İLETİŞİM UYGULAMALARI KURULTAYI 15-18 MAYIS 2017 ANTALYA / TÜRKİYE, 2017 - 2017

ÖZYURT S., Project Supported by Higher Education Institutions, Exact Joint Distribution Analysis of Zero-Forcing V-BLAST Gains with Greedy Ordering, 2015 - 2016

ÖZYURT S., Project Supported by Higher Education Institutions, İş istasyonu ihtiyacı, 2013 - 2016

ÖZYURT S., Project Supported by Higher Education Institutions, Unified performance analysis of orthogonal transmit

beamforming methods with user selection, 2013 - 2014

Metrics

Publication: 41

Citation (WoS): 16

Citation (Scopus): 80

H-Index (WoS): 2

H-Index (Scopus): 5

Non Academic Experience

University of Texas at Dallas