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International Researcher IDs

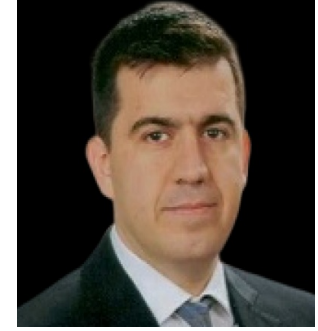
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Biography

Dr. Arif Başgumus received his B.Sc. and Ph.D. degrees in Electronics Engineering Department from Uludağ University, Bursa, Turkey. He is currently an Assistant Professor Doctor. He is married and has one son and one daughter.

His current research interests include battery management system modeling, cognitive radio networks, interference alignment, cooperative communications, relay networks, and reconfigurable intelligent surfaces. He is a member of the [Information and Communications Research Group \(ICRG\)](#) at Istanbul Technical University (ITU).

Education Information

2005 - 2016	Doctorate, Bursa Uludağ University, FEN BİLİMLERİ ENSTİTÜSÜ, Electronics Engineering, Turkey
2002 - 2005	Postgraduate, Kütahya Dumlupınar University, Graduate School of Natural and Applied Sciences, Electrical and Electronics Engineering, Turkey
1997 - 2002	Undergraduate, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, Electronics Engineering, Turkey

Dissertations

2016	Fresnel reflection based fiber optical sensor system design and transmission optimization using relay assisted free space optical communication, Bursa Uludağ University, FEN BİLİMLERİ ENSTİTÜSÜ, Electrical and Electronics Engineering, Doctorate
2005	Design of L-band erbium doped fiber amplifier (L-EDFA), Kütahya Dumlupınar University, Graduate School of Natural and Applied Sciences, Electrical and Electronics Engineering, Postgraduate

Research Areas

Academic Titles / Tasks

2022 - Continues	Assistant Professor, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, ELEKTRİK-ELEKTRONİK MÜHENDİSLİĞİ
2018 - 2022	Assistant Professor, Kütahya Dumlupınar University, Faculty of Engineering, Electrical and Electronics Engineering
2016 - 2018	Research Assistant PhD, Kütahya Dumlupınar University, Faculty of Engineering, Electrical and Electronics Engineering
2013 - 2016	Research Assistant, Kütahya Dumlupınar University, Faculty of Engineering, Electrical and Electronics Engineering
2006 - 2013	Research Assistant, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, ELEKTRİK-ELEKTRONİK MÜHENDİSLİĞİ
2002 - 2006	Research Assistant, Kütahya Dumlupınar University, Faculty of Engineering, Electrical and Electronics Engineering

Academic and Administrative Experience

2022 - 2023	Deputy Head of Department, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, ELEKTRİK-ELEKTRONİK MÜHENDİSLİĞİ
2021 - 2022	Deputy Head of Department, Kütahya Dumlupınar University, Faculty of Engineering, Electrical and Electronics Engineering

Courses

2022 - 2023	Circuit Theory I, Undergraduate
2023 - 2024, 2022 - 2023	Mühendislik Tasarımı I, Undergraduate
2023 - 2024	Integrated Communication Networks, Undergraduate
2023 - 2024, 2022 - 2023	Digital Communication, Undergraduate
2023 - 2024	Wireless Communication I, Doctorate
2022 - 2023	Mobile Communication Systems, Undergraduate
2022 - 2023	Mobile Communication Systems, Undergraduate
2023 - 2024	Digital Communication Systems, Postgraduate
2023 - 2024, 2022 - 2023	Proje Hazırlık, Undergraduate
2023 - 2024, 2022 - 2023	Mühendislik Tasarımı I, Undergraduate
2023 - 2024, 2022 - 2023	Proje Hazırlık, Undergraduate
2023 - 2024	Digital Communication, Undergraduate
2023 - 2024	Integrated Communication Networks, Undergraduate
2022 - 2023	Communication Systems, Undergraduate
2022 - 2023	Digital Modulation and Coding, Doctorate
2022 - 2023	Circuit Theory II, Undergraduate

Advising Theses

2024	Namdar M., Başgümüş A., Doctorate, İ.UMAKOĞLU(Student), Dikgen Olmayan Çoklu Erişim Tabanlı 5G ve Ötesi Haberleşme Sistemlerinin Başarım Analizi
2022	Başgümüş A., Namdar M., Postgraduate, M.ARDİÇ(Student), Performance Analysis of Spectrum Sharing Model in Cognitive Radio Networks over Fading Channels
2022	Başgümüş A., Namdar M., Postgraduate, F.KOÇAK(Student), Performance Analysis of Non-Orthogonal Multiple Access Systems in Fading Communication Channels
2022	Namdar M., Başgümüş A., Postgraduate, A.GÜNEY(Student), Ergodic Capacity Estimation with Deep Learning Methods in NOMA based Cognitive Radio Communication System
2021	Namdar M., Başgümüş A., Postgraduate, F.BARDAK(Student), Performance Analysis of NOMA Systems in Cognitive Radio Networks
2020	Namdar M., Başgümüş A., Postgraduate, M.UÇAR(Student), Performance Analysis of Two-Way Relaying Networks with the Presence of Hardware Impairments
2020	Namdar M., Başgümüş A., Postgraduate, M.TAŞER(Student), Performance Analysis of Interference Cancellation in Device-to-Device Communication

Jury Memberships

August 2023	Post Graduate, Post Graduate, Bursa Uludağ University
June 2023	Doctoral Examination, Doctoral Examination, Kütahya Dumlupınar Üniversitesi
June 2023	Doctoral Examination, Doctoral Examination, Kütahya Dumlupınar Üniversitesi
June 2023	PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Bursa Uludağ Üniversitesi
June 2023	Doctoral Examination, Doctoral Examination, Bursa Uludağ Üniversitesi
June 2023	PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Bursa Uludağ Üniversitesi
February 2023	Doctoral Examination, Doctoral Examination, Kütahya Dumlupınar Üniversitesi
January 2023	Doctorate, Doctorate, Bursa Uludağ Üniversitesi
January 2023	Post Graduate, Post Graduate, Kütahya Dumlupınar Üniversitesi
December 2022	PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Bursa Uludağ Üniversitesi
July 2022	Post Graduate, Post Graduate, Bursa Teknik Üniversitesi
June 2022	PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Bursa Uludağ Üniversitesi
February 2022	Post Graduate, Post Graduate, Bursa Uludağ Üniversitesi
January 2022	Academic Staff Examination, Academic Staff Examination, Kütahya Dumlupınar Üniversitesi
May 2019	Post Graduate, Post Graduate, Bursa Uludağ Üniversitesi

Published journal articles indexed by SCI, SSCI, and AHCI

- BER performance analysis for downlink NOMA systems over cascaded Nakagami-m fading channels**
BAŞGÜMÜŞ A., Kocak F., Namdar M.
Annales des Telecommunications/Annals of Telecommunications, vol.79, no.5-6, pp.447-453, 2024 (SCI-Expanded)
- Ergodic Capacity Estimation with Artificial Neural Networks in NOMA-Based Cognitive Radio Systems**
Namdar M., Guney A., Bardak F. K., BAŞGÜMÜŞ A.
Arabian Journal for Science and Engineering, vol.49, no.5, pp.6459-6468, 2024 (SCI-Expanded)
- Deep Learning-Assisted Signal Detection for OTFS-NOMA Systems**
Umakoglu I., Namdar M., BAŞGÜMÜŞ A.

IEEE Access, vol.12, pp.119105-119115, 2024 (SCI-Expanded)

- IV. **UAV-Assisted Cooperative NOMA System with the n th Best Relay Selection**
Umakoglu I., NAMDAR M., BAŞGÜMÜŞ A.
ADVANCES IN ELECTRICAL AND COMPUTER ENGINEERING, vol.23, no.3, pp.39-46, 2023 (SCI-Expanded)
- V. **Metasurface Manipulation Attacks: Potential Security Threats of RIS-Aided 6G Communications**
Alakoca H., Namdar M., Aldirmaz-Colak S., Basaran M., Basgumus A., Durak Ata L., Yanikomeroğlu H.
IEEE Communications Magazine, vol.61, no.1, pp.24-30, 2023 (SCI-Expanded)
- VI. **Capacity analysis of the secondary users in spectrum sharing model over Nakagami- m and log-normal fading channels**
Basgumus A., Ardic M. S., Namdar M.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.38, no.4, pp.2205-2212, 2023 (SCI-Expanded)
- VII. **Iterative interference alignment with spatial hole sensing in MIMO cognitive radio networks**
Namdar M., Basgumus A., Aldirmaz-Colak S., Erdogan E., Alakoca H., Ustunbas S., Durak Ata L.
ANNALS OF TELECOMMUNICATIONS, vol.77, no.3-4, pp.177-185, 2022 (SCI-Expanded)
- VIII. **Performance analysis of two-way AF relaying system with the presence of hardware impairments over Nakagami- m fading channels**
UÇAR GÜL M., Namdar M., Basgumus A.
IET COMMUNICATIONS, vol.14, no.15, pp.2618-2627, 2020 (SCI-Expanded)
- IX. **Broadcast Cognitive Radio with Dirty Paper Coding over Nakagami- m Fading Channel**
Basgumus A., Namdar M., Tsiftsis T.
ADVANCES IN ELECTRICAL AND COMPUTER ENGINEERING, vol.19, no.1, pp.3-8, 2019 (SCI-Expanded)
- X. **Interference Alignment in Multi-Hop Cognitive Radio Networks under Interference Leakage**
Erdogan E., Colak S. A., Alakoca H., Namdar M., Basgumus A., Durak Ata L.
APPLIED SCIENCES-BASEL, vol.8, no.12, 2018 (SCI-Expanded)
- XI. **Outage and BER performances of indoor relay-assisted hybrid RF/VLC systems**
Namdar M., Basgumus A., Tsiftsis T., Altuncu A.
IET COMMUNICATIONS, vol.12, no.17, pp.2104-2109, 2018 (SCI-Expanded)
- XII. **A Universal and Stable All-Fiber Refractive Index Sensor System**
Basgumus A., Durak F. E., Altuncu A., Yilmaz G.
IEEE PHOTONICS TECHNOLOGY LETTERS, vol.28, no.2, pp.171-174, 2016 (SCI-Expanded)
- XIII. **Optimum transmission distance for relay-assisted free-space optical communication systems**
Başgümüş A., Hiçdurmaz B., Temurtaş H., Namdar M., Altuncu A., Yılmaz G.
OPTIK, vol.127, no.16, pp.6490-6497, 2016 (SCI-Expanded)
- XIV. **Performance Comparison of the Differential Evolution and Particle Swarm Optimization Algorithms in Free-Space Optical Communications Systems**
Başgümüş A., Namdar M., Yılmaz G., Altuncu A.
ADVANCES IN ELECTRICAL AND COMPUTER ENGINEERING, vol.15, no.2, pp.17-22, 2015 (SCI-Expanded)
- XV. **Gain enhancement in L-band loop EDFA through C-band signal injection**
Altuncu A., Basgumus A.
IEEE PHOTONICS TECHNOLOGY LETTERS, vol.17, no.7, pp.1402-1404, 2005 (SCI-Expanded)

Articles Published in Other Journals

- I. **Microstrip Patch Antenna Design for 5G and Beyond Wireless Communication Systems**
BARIŞER B., UMAKOĞLU İ., NAMDAR M., BAŞGÜMÜŞ A.
Journal of scientific reports-A (Online), no.058, pp.83-98, 2024 (Peer-Reviewed Journal)
- II. **Performance Evaluation of OTFS-NOMA Scheme for High Mobility Users**
UMAKOĞLU İ., NAMDAR M., BAŞGÜMÜŞ A.
Sakarya University Journal of Computer and Information Sciences (Online), vol.6, no.3, pp.253-260, 2023 (Peer-

Reviewed Journal)

- III. **NOMA TABANLI BİLİŞSEL RADYO SİSTEMLERİNDE SİNİR AĞI YÖNTEMLERİ İLE ERGODİK KAPASİTE TAHMİNİ VE BAŞARIM ANALİZİ**
NAMDAR M., GÜNEY A., BARDAK F. K., BAŞGÜMÜŞ A.
Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, vol.28, no.1, pp.253-271, 2023 (Peer-Reviewed Journal)
- IV. **AUTONOMOUS GUIDANCE SYSTEM for UAVs with IMAGE PROCESSING TECHNIQUES**
TEKİN S., GÖK M., NAMDAR M., BAŞGÜMÜŞ A.
Journal of scientific reports-A (Online), no.51, pp.149-159, 2022 (Peer-Reviewed Journal)
- V. **Ergodic Capacity Analysis of the Relay Assisted Downlink NOMA Systems in Cognitive Radio Networks**
Bardak F. K., Namdar M., Başgümüş A.
Mühendislik Bilimleri ve Tasarım Dergisi, vol.9, no.3, pp.992-1002, 2021 (Peer-Reviewed Journal)
- VI. **Performance Comparison of Interference Mitigation Methods in Device-to-Device Communication**
Taşer M., Namdar M., Başgümüş A.
Mühendislik Bilimleri ve Tasarım Dergisi, vol.8, no.4, pp.1019-1030, 2020 (Peer-Reviewed Journal)
- VII. **Precise Optical Fiber Length Measurement System Based on Fresnel Reflection**
DURAK F. E., BAŞGÜMÜŞ A., SADIK Ş. A., ALTUNCU A.
J. of Electrical Engineering, vol.4, no.3, pp.128-132, 2016 (Peer-Reviewed Journal)
- VIII. **Fresnel yansıma tabanlı fiberoptik refractometre**
Durak F. E., Başgümüş A., Altuncu A., Yılmaz G., Ebeoğlu M. A.
Dumlupınar Üniversitesi Fen Bilimleri Enstitüsü Dergisi, no.32, pp.13-20, 2013 (Peer-Reviewed Journal)
- IX. **L bandında çalışan erbiyum katkılı fiber optik amplifikatörlerde pompa lazeri dalgaboyunun kazanç ve gürültü spektrumlarına etkisi**
Altuncu A., Başgümüş A.
Technology, vol.7, no.2, pp.321-327, 2004 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Görünür Işık ile Kablosuz Haberleşme**
BAŞGÜMÜŞ A., BAYRAKCI B., NAMDAR M., DEMİRCİ Ö.
in: Mühendislik Alanında Gelişmeler (2. cilt), Gülden Başıyigit Kılıç, Editor, PLATANUS PUBLISHING, Ankara, pp.471-492, 2023
- II. **KAMİKAZE İHA'LARDA DERİN ÖĞRENME TABANLI HEDEF TESPİTİ VE TAKİBİ**
CAN E., KIRKLAR B. İ., NAMDAR M., BAŞGÜMÜŞ A.
in: Mühendislik Alanında Akademik Araştırma ve Derlemeler II, Birol KILIÇ, Editor, PLATANUS PUBLISHING, Ankara, pp.243-254, 2023
- III. **OTONOM ARAÇLARDA KULLANILAN SENSÖRLERİN İNCELENMESİ**
AĞAÇ F., BAŞGÜMÜŞ A., NAMDAR M., YILMAZ G.
in: Mühendislikte Araştırma ve Değerlendirmeler , Vedat ÇAVUŞ, Editor, Gece Kitaplığı, Ankara, pp.281-319, 2023
- IV. **Interference Alignment in Multi-Input Multi-Output Cognitive Radio-Based Network**
BAŞGÜMÜŞ A., NAMDAR M., ALAKOCA H., ERDOĞAN E., DURAK ATA L.
in: Cognitive Radio in 4G/5G Wireless Communication Systems, Shahriar Shirvani Moghaddam, Editor, IntechOpen, Rijeka, pp.117-139, 2018
- V. **Outage Performance Analysis of Underlay Cognitive Radio Networks with Decode-and-Forward Relaying**
NAMDAR M., BAŞGÜMÜŞ A.
in: Cognitive Radio, Tonu Trump, Editor, IntechOpen, Rijeka, pp.25-38, 2017
- VI. **Performance Analysis of the Differential Evolution and Particle Swarm Optimization Algorithms in Cooperative Wireless Communications**
Başgümüş A., Namdar M., Yılmaz G., Altuncu A.

Refereed Congress / Symposium Publications in Proceedings

- I. **Secrecy Capacity Analyses and Trajectory Optimization for IRS-UAV Networks**
Namdar M., BAŞGÜMÜŞ A., Calik N., Alakoca H., Durak Ata L.
47th International Conference on Telecommunications and Signal Processing, TSP 2024, Virtual, Online, Czech Republic, 10 - 12 July 2024, pp.173-176
- II. **PEP Analysis of Downlink NOMA Systems Over the Exponentially Distributed Channels**
BARDAK F. K., NAMDAR M., BAŞGÜMÜŞ A., MOHJAZİ L.
2023 31th Signal Processing and Communications Applications Conference (SIU), İstanbul, Turkey, 5 - 08 July 2023, pp.1-4
- III. **IRS-aided Communication Systems in the Presence of Multiple Eavesdroppers**
NAMDAR M., BAŞGÜMÜŞ A., ALAKOCA H., ATA S. Ö., DURAK ATA L.
2023 31th Signal Processing and Communications Applications Conference (SIU), İstanbul, Turkey, 5 - 08 July 2023, pp.1-4
- IV. **BER Performance Analysis for NOMA Systems with OTFS Modulation**
UMAKOĞLU İ., NAMDAR M., BAŞGÜMÜŞ A., ÖZYURT S., KULAÇ S.
2023 31th Signal Processing and Communications Applications Conference (SIU), İstanbul, Turkey, 5 - 08 July 2023, pp.1-4
- V. **EĞİTİM KURUMLARI ÇEVRESİNDEKİ ŞÜPHELİ İNSAN DAVRANIŞLARININ DERİN ÖĞRENME YARDIMI İLE ANLIK TESPİTİ**
Atila C., Başgümüş A., Namdar M.
III. INTERNATIONAL SIIRT SCIENTIFIC RESEARCH CONGRESS, Siirt, Turkey, 18 - 19 November 2022, vol.3, pp.2559-2571
- VI. **Deep Learning Based Communication and Control of Swarm Unmanned Aerial Vehicles**
Özbay E., Namdar M., Başgümüş A.
Ahi Evran 2nd International Conference on Scientific Research, Kırşehir, Turkey, 21 - 23 October 2022, vol.4, pp.53-62
- VII. **DEEP LEARNING BASED MASKED FACE DETECTION**
Şahin R. R., Namdar M., Başgümüş A.
Ahi Evran 2nd International Conference on Scientific Research, Kırşehir, Turkey, 21 - 23 October 2022, vol.4, pp.45-52
- VIII. **Raspberry Pi Platformu Üzerinden Sesli Yönlendirme ile Engelsiz Yürüme**
Deligöz C. B., Şeymen F., Bayhan E., Namdar M., Başgümüş A.
2nd International Conference on Engineering and Applied Natural Sciences, Konya, Turkey, 15 October - 18 November 2022, vol.1, pp.783-788
- IX. **Unimpeded Walking with Deep Learning**
Bayhan E., Deligöz C. B., Şeymen F., NAMDAR M., BAŞGÜMÜŞ A.
2022 30th Signal Processing and Communications Applications Conference (SIU), Safranbolu, Turkey, 15 - 18 May 2022
- X. **Machine Learning Assisted Autonomous Vehicle Design and Control**
Kar Y. E., Basgumus A., Namdar M.
5h International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2021, Ankara, Turkey, 21 October 2021
- XI. **Object Detection and Recognition of Unmanned Aerial Vehicles Using Raspberry Pi Platform**
Ozkan Z., Bayhan E., Namdar M., Basgumus A.
5h International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2021, Ankara, Turkey, 21 October 2021
- XII. **BER Performance Comparison of AF and DF Assisted Relay Selection Schemes in Cooperative NOMA**

Systems

UMAKOĞLU İ., NAMDAR M., BAŞGÜMÜŞ A., KARA F., KAYA H., YANIKÖMEROĞLU H.

2021 IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom), Bucharest, Romania, 24 - 28 May 2021

- XIII. **Machine Learning and Image Processing Based Autonomous Vehicle Design**
KAR Y. E., BAŞGÜMÜŞ A., NAMDAR M.
2021 29th Signal Processing and Communications Applications Conference (SIU), İstanbul, Turkey, 9 - 11 June 2021
- XIV. **BER Performances of DF Assisted Relay Selection Algorithms in NOMA Systems**
UMAKOĞLU İ., NAMDAR M., BAŞGÜMÜŞ A., KARA F., KAYA H.
2021 29th Signal Processing and Communications Applications Conference (SIU), İstanbul, Turkey, 9 - 11 June 2021
- XV. **Deep Learning Based Object Detection and Recognition of Unmanned Aerial Vehicles**
BAYHAN E., ÖZKAN Z., NAMDAR M., BAŞGÜMÜŞ A.
2021 3rd International Congress on Human-Computer Interaction, Optimization and Robotic Applications (HORA), Ankara, Turkey, 11 - 13 June 2021
- XVI. **Feedback Channel Effect on the Performance of Interference Alignment**
ALDIRMAZ ÇOLAK S., NAMDAR M., BAŞGÜMÜŞ A., ERDOĞAN E., ALAKOCA H., ÜSTÜNBAŞ S., DURAK ATA L.
2020 28th Signal Processing and Communications Applications Conference (SIU), Gaziantep, Turkey, 5 - 07 October 2020
- XVII. **Performance Analysis of NOMA Systems in Relay-Assisted Cognitive Radio Networks**
BARDAK F. K., NAMDAR M., BAŞGÜMÜŞ A.
2020 28th Signal Processing and Communications Applications Conference (SIU), Gaziantep, Turkey, 5 - 07 October 2020
- XVIII. **Internet of Things based Predictive Mechanical Fault Detection System**
KURTULUŞ M., İRGİ F., NAMDAR M., BAŞGÜMÜŞ A., TEMİRTAŞ R.
2020 4th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), İstanbul, Turkey, 22 - 24 October 2020
- XIX. **The Effect of Interference Limited Area Method on the Total Data Rate in Device-to-Device Communication**
TAŞER M., NAMDAR M., BAŞGÜMÜŞ A.
2020 4th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), İstanbul, Turkey, 22 - 24 October 2020
- XX. **On the Secrecy Performance of the K-User Cognitive Radio Network with Iterative Interference Alignment**
ERDOĞAN E., NAMDAR M., BAŞGÜMÜŞ A., ALDIRMAZ ÇOLAK S., ÜSTÜNBAŞ S., ALAKOCA H., DURAK ATA L.
2019 IEEE 30th Annual International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), İstanbul, Turkey, 8 - 11 September 2019
- XXI. **Performance Comparison of LS and ML Methods for AoA Algorithm in 5G Cellular Networks**
GÜNEY A., NAMDAR M., BAŞGÜMÜŞ A.
2019 27th Signal Processing and Communications Applications Conference (SIU), Sivas, Turkey, 24 - 26 April 2019
- XXII. **Impact of Partial Band Jammer in Cognitive Radio Networks with Interference Alignment**
ERDOĞAN E., ALDIRMAZ ÇOLAK S., NAMDAR M., BAŞGÜMÜŞ A., ALAKOCA H., DURAK ATA L.
2019 27th Signal Processing and Communications Applications Conference (SIU), Sivas, Turkey, 24 - 26 April 2019
- XXIII. **System Performance of Interference Alignment in MIMO Cognitive Radio Networks Under Interference Leakage**
ALAKOCA H., ÜSTÜNBAŞ S., NAMDAR M., BAŞGÜMÜŞ A., ERDOĞAN E., DURAK ATA L.
2018 41st International Conference on Telecommunications and Signal Processing (TSP), Athens, Greece, 4 - 06 July 2018
- XXIV. **Performance analysis of the TOA cooperative localization estimation algorithm for 5G cellular networks**

- NAMDAR M., BAŞGÜMÜŞ A., GÜNEY A.
2018 26th Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- XXV. **Performance of interference alignment in cognitive radio networks under interference leakage**
ERDOĞAN E., NAMDAR M., BAŞGÜMÜŞ A., ALAKOCA H., DURAK ATA L.
2018 26th Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- XXVI. **Broadcast underlay cognitive radio with dirty paper coding over fading channels**
BAŞGÜMÜŞ A., NAMDAR M., TSIFTSIS T. A.
2017 10th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 30 November - 02 December 2017
- XXVII. **Outage Performance Analysis of Two-Way AF Relaying over Alpha-Mu Fading Distribution**
NAMDAR M., BAŞGÜMÜŞ A.
10th International Conference on Electrical and Electronics Engineering ELECO 2017, Bursa, Turkey, 30 November - 02 December 2017
- XXVIII. **Selective sampling and otsu algorithm based spectrum sensing in cognitive radio networks**
NAMDAR M., KOÇAK F., BAŞGÜMÜŞ A.
2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- XXIX. **Bilişsel Radyo Ağlarında Dalgacık Dönüşümü Temelli Gürültüden Arındırma Kullanarak Otsu Eşikleme Algoritması ile Spektrum Algılama**
NAMDAR M., BAŞGÜMÜŞ A., KOÇAK F.
ASELSAN 3. Haberleşme Teknolojileri Çalıştayı, Ankara, Turkey, 14 November 2016
- XXX. **A universal and stable all fiber refractive index sensor system**
BAŞGÜMÜŞ A., DURAK F. E., ALTUNCU A.
18. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Ankara, Turkey, 23 September 2016
- XXXI. **Comparative analysis of the effect of optical fiber spin profiles on polarization mode dispersion**
SADIK Ş. A., BAŞGÜMÜŞ A., DURAK F. E., KARLIK S. E., ALTUNCU A.
2015 9th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 26 - 28 November 2015, pp.1-5
- XXXII. **Spin profillerinin polarizasyon mod dispersiyonu azaltma performanslarının karşılaştırmalı analizi**
SADIK Ş. A., BAŞGÜMÜŞ A., DURAK F. E., KARLIK S. E., ALTUNCU A., ERBİL H. Y.
17. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Ankara, Turkey, 18 September 2015, pp.30
- XXXIII. **Optical fiber length measurement system based on Fresnel reflection**
BAŞGÜMÜŞ A., DURAK F. E., SADIK Ş. A., ALTUNCU A.
17. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Ankara, Turkey, 18 September 2015, pp.21
- XXXIV. **FRESNEL REFLECTION BASED FIBER OPTIC REFRACTIVE INDEX SENSOR FOR LIQUID CONCENTRATION DEDECTION**
Başgümüş A., Durak F. E., Sadik S. A., Altuncu A., Yılmaz G., Ebeoğlu M. A.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.594-597
- XXXV. **L bandı döngü tipi Erbiyum Katkılı Fiber Amplifikatör ve ASE Kaynağı**
ALTUNCU A., BAŞGÜMÜŞ A.
7. Ulusal Optik, Elektro-Optik ve Fotonik Çalışma Toplantısı, Ankara, Turkey, 12 December 2005
- XXXVI. **Design and characterization of high performance C and L band Erbium Doped Fiber Amplifiers C L EDFAs**
ALTUNCU A., BAŞGÜMÜŞ A., UZUNCA B., HAZNEDAROĞLU E., AKSU S.
ELECO 2005, Bursa, Turkey, 7 - 11 December 2005, pp.279-283
- XXXVII. **The effect of pump wavelength and fiber length to bandwidth in L band erbium doped fiber amplifier L bandında çalışan erbiyum katkıli fiber amplifikatörde pompa dalga boyunun ve fiber uzunluğunun bandgenişliğine etkisi**
BAŞGÜMÜŞ A., ALTUNCU A., HASANOV E.
IEEE 13th Signal Processing and Communications Applications Conference, SIU 2005, Kayseri, Turkey, 16 - 18 May

2005, vol.2005, pp.218-221

XXXVIII. **Design of L band erbium doped fiber amplifier L EDFA**

BAŞGÜMÜŞ A., ALTUNCU A.

Proceedings of the IEEE 13th Signal Processing and Communications Applications Conference, 2005., Kayseri, Turkey, Turkey, 16 - 18 May 2005, pp.222-224

XXXIX. **L bandında çalışan yüksek performanslı Erbiyum Katkılı Fiber Optik Amplifikatör L EDFA tasarımı**

ALTUNCU A., BAŞGÜMÜŞ A.

6. Ulusal Optik, Elektro-Optik ve Fotonik Çalışma Toplantısı, İstanbul, Turkey, 10 December 2004

XL. **L bandı Erbiyum Katkılı Fiber Amplifikatörde pompa dalgaboyu ve fiber uzunluğunun optimizasyonu**

ALTUNCU A., BAŞGÜMÜŞ A.

6. Ulusal Optik, Elektro-Optik ve Fotonik Çalışma Toplantısı, İstanbul, Turkey, 10 December 2004

Supported Projects

2024 - 2025	Havacılık Alanında Doğrulanmış Veri Setinden İndirgenmiş Model ve Simülasyon Tabanlı Hibrit Model Tasarımı, TUBITAK Project
2024 - 2025	Elektrikli Araçlarda RGB Fotoelektrik Sensör Tabanlı Doğruluk Kontrolü, TUBITAK Project
2024 - 2025	Görüntü İşleme ve Derin Öğrenme Tabanlı Barkodsuz Ürün Tanıma, TUBITAK Project
2024 - 2025	DC Aşırı Akım Koruma ve DC Aşırı Akım Limitleme Devresi Tasarımı, TUBITAK Project
2024 - 2025	6G Haberleşme ile Kapalı Ortamda Konum Tespiti, TUBITAK Project
2023 - 2024	Veri Tabanı ve/veya Test Verilerinden Yapay Öğrenme Tekniklerinin Tasarlanması ve İndirgenmiş Modelin Oluşturulması, Project Supported by Other Official Institutions
2023 - 2024	Vehicle-to-Vehicle Wireless Communication with Visible Light Spectrum, TUBITAK Project
2023 - 2024	Application of Current Attack Models to Unmanned Aerial Vehicles, TUBITAK Project
2023 - 2024	Metaheuristic Algorithm Assisted Route Determination with Kamikaze UAV, TUBITAK Project
2022 - 2023	Effect of Noise on Data Communication in Aircraft (LIFT UP-TUSAS), Project Supported by Other Official Institutions
2022 - 2023	Middle Altitude Rocket Design, Project Supported by Higher Education Institutions
2021 - 2023	Ultra-Connectivity for 6G Wireless Communications: UAV and Intelligent Reflective Surface Enabled Heterogeneous Network Design, TUBITAK Project
2021 - 2022	Predicting the Consumption Amount of the Charging Process on the Network with Artificial Intelligence in Electric Vehicles, TUBITAK Project
2021 - 2022	Machine Learning and Image Processing Based Autonomous Vegetable Harvesting Vehicle Design, TUBITAK Project
2018 - 2020	Interference Management in Cognitive Radio Networks (Hiza), Project Supported by Defense Industry
2018 - 2019	Outage and BER Performance Analysis for the Relay-Assisted Hybrid RF/VLC Systems , Project Supported by Higher Education Institutions
2016 - 2018	Performance Analysis of Two-Way Amplify-and-Forward Relaying Systems over Fading Channels, Project Supported by Higher Education Institutions
2014 - 2016	Reflection Type Fiber Optic Volatile Organic Compound Sensor Array and System Design, Project Supported by Higher Education Institutions

Memberships / Tasks in Scientific Organizations

2022 - Continues	TEKNOFEST 2023, Member of Advisory Board
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Scientific Refereeing

May 2024	Results in Engineering, Journal Indexed in ESCI
April 2024	IEEE ACCESS, Journal Indexed in SCIE
April 2024	IEEE ACCESS, Journal Indexed in SCIE
April 2024	TELECOMMUNICATION SYSTEMS, Journal Indexed in SCIE
April 2024	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
April 2024	IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, Journal Indexed in SCIE
April 2024	TELECOMMUNICATION SYSTEMS, Journal Indexed in SCIE
April 2024	IEEE SIU-2024 (5 adet bildiri Hakemliđi), Conference Paper (Full Text)
April 2024	IEEE ACCESS, Journal Indexed in SCIE
April 2024	IEEE WIRELESS COMMUNICATIONS LETTERS, Journal Indexed in SCIE
April 2024	TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Bursa Uludağ University, Turkey
March 2024	IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I: REGULAR PAPERS, Journal Indexed in SCIE
March 2024	TELECOMMUNICATION SYSTEMS, Journal Indexed in SCIE
March 2024	IEEE OPEN JOURNAL OF VEHICULAR TECHNOLOGY, Journal Indexed in SCIE
March 2024	TELECOMMUNICATION SYSTEMS, Journal Indexed in SCIE
December 2023	Journal of scientific reports-A (Online), National Scientific Refreed Journal
December 2023	TELECOMMUNICATION SYSTEMS, Journal Indexed in SCIE
November 2023	EI-Cezeri Journal of Science and Engineering, National Scientific Refreed Journal
November 2023	Technopark, Bursa Uludağ University, Turkey
October 2023	Results in Engineering, Journal Indexed in ESCI
October 2023	Technopark, Bursa Uludağ University, Turkey
September 2023	EI-Cezeri Journal of Science and Engineering, National Scientific Refreed Journal
September 2023	JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, Journal Indexed in SCIE
August 2023	IET COMMUNICATIONS, Journal Indexed in SCIE
July 2023	Journal of scientific reports-A (Online), National Scientific Refreed Journal
June 2023	IEEE SIU-2023 (5 Adet Bildiri Hakemliđi), Conference Paper (Full Text)
May 2023	Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, National Scientific Refreed Journal
May 2023	Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, National Scientific Refreed Journal
May 2023	JOURNAL OF KING SAUD UNIVERSITY, ENGINEERING SCIENCES, SCI Journal
May 2023	Technopark, Bursa Uludağ University, Turkey
April 2023	PHYSICAL COMMUNICATION, SCI Journal
April 2023	TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, Bursa Uludağ University, Turkey
February 2023	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
December 2022	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
December 2022	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
December 2022	Technopark, Bursa Uludağ University, Turkey
December 2022	Project Supported by Other Official Institutions, Republic Of Turkiye Ministry of Industry and Technology, Turkey
December 2022	Technopark, Bursa Uludağ University, Turkey
December 2022	Technopark, Bursa Uludağ University, Turkey
December 2022	Technopark, Bursa Uludağ University, Turkey
November 2022	Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, National Scientific Refreed Journal
November 2022	TELECOMMUNICATION SYSTEMS, Journal Indexed in SCIE

November 2022	TELECOMMUNICATION SYSTEMS, Journal Indexed in SCIE
November 2022	TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, -, Turkey
October 2022	IEEE ELECO 2022, Conference Paper (Full Text)
September 2022	TELECOMMUNICATION SYSTEMS, Journal Indexed in SCIE
August 2022	Project Supported by Other Official Institutions, AGTM - Bilim, Sanayi ve Teknoloji Bakanlığı, Turkey
April 2022	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
March 2022	IEEE SIU 2022 (5 Adet Bildiri Hakemliği), Conference Paper (Full Text)
March 2022	Avrupa Bilim ve Teknoloji Dergisi, Other Indexed Journal
January 2022	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
January 2022	El-Cezeri Journal of Science and Engineering, Other Indexed Journal
January 2022	IEEE PHOTONICS JOURNAL, Journal Indexed in SCIE
January 2022	TÜBİTAK International Bilateral Joint Cooperation Program Project, Japan Society for the Promotion of Science, JSPS Bilateral Cooperation Program, Uluslararası İşbirliği Projeleri Araştırma Destek Grubu (UPAG), Turkey
December 2021	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
December 2021	IEEE PHOTONICS JOURNAL, Journal Indexed in SCIE
December 2021	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
December 2021	IEEE PHOTONICS JOURNAL, Journal Indexed in SCIE
November 2021	IEEE PHOTONICS JOURNAL, Journal Indexed in SCIE
November 2021	TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, -, Turkey
October 2021	TUBITAK Project, 1501 - Industry R & D Projects Support Program, -, Turkey
September 2021	TELECOMMUNICATION SYSTEMS, Journal Indexed in SCIE
July 2021	International Journal of Electrical and Computer Engineering, Other Indexed Journal
June 2021	HELYON, Journal Indexed in ESCI
April 2021	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
April 2021	TUBITAK Project, 1501 - Industry R & D Projects Support Program, -, Turkey
March 2021	TELECOMMUNICATION SYSTEMS, Journal Indexed in SCIE
March 2021	IEEE SIU 2021 (4 Adet Bildiri Hakemliği), Conference Paper (Full Text)
February 2021	IEEE PHOTONICS JOURNAL, Journal Indexed in SCIE
January 2021	TELECOMMUNICATION SYSTEMS, Journal Indexed in SCIE
January 2021	Bulletin of Electrical Engineering and Informatics, Other Indexed Journal
November 2020	Project Supported by Other Official Institutions, AGTM - Bilim, Sanayi ve Teknoloji Bakanlığı, Turkey
November 2020	Technopark, Kütahya Dumlupınar University, Turkey
September 2020	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
July 2020	IET COMMUNICATIONS, Journal Indexed in SCIE
May 2020	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
May 2020	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
May 2020	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
April 2020	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
March 2020	TUBITAK Project, 2244 - Industrial Phd. Program Project, TÜBİTAK BİLİM İNSANI DESTEK PROGRAMLARI BAŞKANLIĞI , Turkey
February 2020	TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, -, Turkey
January 2020	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
January 2020	TUBITAK Project, 1002 - Quick Support Program, -, Turkey

November 2019	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
November 2019	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
October 2019	HELIYON, Journal Indexed in ESCI
September 2019	IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, Journal Indexed in SCIE
September 2019	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
September 2019	Balkan Journal of Electrical and Computer Engineering, Other Indexed Journal
July 2019	IEEE PHOTONICS JOURNAL, Journal Indexed in SCIE
June 2019	Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, Other Indexed Journal
May 2019	IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, Journal Indexed in SCIE
April 2019	Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, Other Indexed Journal
April 2019	TELKOMNIKA, Other Indexed Journal
April 2019	AEU - INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, National Scientific Refreed Journal
March 2019	IET COMMUNICATIONS, Journal Indexed in SCIE
March 2019	IEEE SIU 2019 (3 adet Bildiri Hakemliği), Conference Paper (Full Text)
December 2018	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
August 2018	Bulletin of Electrical Engineering and Informatics, Other Indexed Journal
July 2018	TELKOMNIKA, Other Indexed Journal
June 2018	TELKOMNIKA, Other Indexed Journal
June 2018	TELKOMNIKA, Other Indexed Journal
May 2018	IEEE PHOTONICS JOURNAL, Journal Indexed in SCIE
April 2018	TELKOMNIKA, Other Indexed Journal
July 2017	Basrah Journal for Engineering Sciences, Other Indexed Journal
June 2017	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, National Scientific Refreed Journal
June 2017	TELKOMNIKA, National Scientific Refreed Journal
May 2017	TELKOMNIKA, Other Indexed Journal
March 2017	TELKOMNIKA, Other Indexed Journal
February 2017	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
February 2017	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
January 2017	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
January 2017	TELKOMNIKA, Other Indexed Journal
January 2017	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
December 2016	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
December 2016	TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCIE
September 2016	TELKOMNIKA, Other Indexed Journal
July 2016	TELKOMNIKA, Other Indexed Journal
July 2016	TELKOMNIKA, National Scientific Refreed Journal
June 2016	TELKOMNIKA, Other Indexed Journal

2021 - Continues

Project Consultancy, TÜBİTAK

2021 - Continues

Project Consultancy, TÜBİTAK

Metrics

Publication: 70

Citation (WoS): 109

Citation (Scopus): 182

H-Index (WoS): 7

H-Index (Scopus): 9