

## **Prof. SERHAN YARKAN**

### **Personal Information**

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### **International Researcher IDs**

ORCID: 0000-0001-6430-3009  
Publons / Web Of Science ResearcherID: ABC-4257-2020  
Yoksis Researcher ID: 101749

### **Education**

Doctorate, İstanbul University-Cerrahpaşa, Lisansüstü Eğitim Enstitüsü, Bilgisayar Mühendisliği (Dr), Turkey 2003 - 2021  
Doctorate, University of South Florida, Electrical Engineering, United States Of America 2005 - 2009  
Postgraduate, Istanbul University, Turkey 2001 - 2003  
Undergraduate, Istanbul University, Turkey 1997 - 2001

### **Dissertations**

Doctorate, Environment, channel, and interference awareness for next generation wireless networks, University of South Florida, Electrical Engineering, 2009  
Postgraduate, Quantum hesaplamasında teleportation, Istanbul University, 2003

### **Academic Positions**

Associate Professor, Istanbul Commerce University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2017 - Continues  
Assistant Professor, Istanbul Commerce University, Mühendislik Ve Tasarım Fakültesi, Elektrik Ve Elektronik Mühendisliği Bölümü, 2012 - 2017  
Texas A&M University, Dwight Look College Of Engineering, Electrical And Computer Engineering, 2010 - 2012

### **Academic and Administrative Experience**

Istanbul Commerce University, 2013 - 2013

### **Courses**

#### **Doctorate**

Spektral Yaklaşım, Doctorate, 2018 - 2019  
Radar Systems, Doctorate, 2018 - 2019  
Digital Radio Communications, Doctorate, 2017 - 2018  
Advanced Digital Signal Processing, Doctorate, 2017 - 2018

**Postgraduate**

BİLGİ KURAMI, Postgraduate, 2019 - 2020, 2018 - 2019

İSTATİSTİKSEL HABERLEŞME KURAMI, Postgraduate, 2019 - 2020, 2018 - 2019

Sistem Teorisi, Postgraduate, 2018 - 2019

Random Processes, Postgraduate, 2018 - 2019

Rastgele Süreçler ve Zaman Serileri, Postgraduate, 2018 - 2019

Artificial Neural Systems, Postgraduate, 2018 - 2019

Sayısal Haberleşme, Postgraduate, 2017 - 2018

Kablosuz Haberleşme, Postgraduate, 2017 - 2018

Enformasyon Teorisi, Postgraduate, 2017 - 2018

Olasılıksal Sistemler, Postgraduate, 2017 - 2018

Bilgisayar Bilimlerinde Olasılık, Postgraduate, 2014 - 2015

Rastgele Süreçler, Postgraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013

Kablosuz Ağlar, Postgraduate, 2013 - 2014, 2012 - 2013

**Undergraduate**

INTRODUCTION TO ELECTRICAL ENGINEERING, Undergraduate, 2019 - 2020, 2018 - 2019

PROBABİLİSTİC METHODS İN ENGINEERING, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018

DESİGN PROJECT, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018

ELECTRONİCS LABORATORY, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018

DİGİTAL COMMUNİCATİON SYSTEMS, Undergraduate, 2019 - 2020, 2018 - 2019

Electro-technic Laboratory, Undergraduate, 2018 - 2019, 2017 - 2018

Linear System Theory, Undergraduate, 2018 - 2019

Vocational Seminars, Undergraduate, 2018 - 2019

Wireless Communication, Undergraduate, 2018 - 2019, 2017 - 2018

Fundamental Engineering Tools and Applications, Undergraduate, 2018 - 2019

Digital Image Processing, Undergraduate, 2018 - 2019

Graduation Project, Undergraduate, 2018 - 2019, 2017 - 2018

Digital Signal Processing, Undergraduate, 2018 - 2019, 2017 - 2018

Communication Theory, Undergraduate, 2018 - 2019, 2017 - 2018

Signal Processing, Undergraduate, 2017 - 2018

Signals and Systems, Undergraduate, 2017 - 2018

Occupational Health and Safety, Undergraduate, 2017 - 2018

Numeric Analysis, Undergraduate, 2017 - 2018

Probability and Statistics, Undergraduate, 2017 - 2018

Digital Signal Processing, Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015

Circuit Theory, Undergraduate, 2016 - 2017

Design Project, Undergraduate, 2016 - 2017

Graduation Project, Undergraduate, 2016 - 2017, 2015 - 2016

Signals and Systems, Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Signal Processing, Undergraduate, 2016 - 2017

Probabilistic Methods in Engineering, Undergraduate, 2016 - 2017

Communication Theory, Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015

Wireless Communication, Undergraduate, 2016 - 2017

Electro-technic Laboratory, Undergraduate, 2016 - 2017, 2015 - 2016

Satellite Communications, Undergraduate, 2015 - 2016

ELECTRONİCS LABORATORY, Undergraduate, 2015 - 2016, 2014 - 2015

Probability and Statistics, Undergraduate, 2015 - 2016, 2014 - 2015

Introduction to Modulation and Coding, Undergraduate, 2015 - 2016

Introduction to Electrical Engineering, Undergraduate, 2014 - 2015

Analog Electronics Laboratory, Undergraduate, 2014 - 2015

Sayısal İşaret İşleme, Undergraduate, 2013 - 2014, 2012 - 2013

Bilişim Tasarım Projesi, Undergraduate, 2013 - 2014, 2012 - 2013

Olasılık ve İstatistik, Undergraduate, 2012 - 2013

Mühendislik Matematiği, Undergraduate, 2012 - 2013

İleri Programlama Dilleri, Undergraduate, 2012 - 2013

Programming 2, Undergraduate, 2012 - 2013

Programlama Dilleri, Undergraduate, 2012 - 2013

Ayırık Matematik, Undergraduate, 2012 - 2013

Programlama Dilleri, Undergraduate, 2011 - 2012

#### Associate Degree

İLERİ PROGRAMLAMA DILLERİ, Associate Degree, 2011 - 2012

### Supervised Theses

SERHAN Y., Sıradaki hücre tahmini için döngü tabanlı markov zinciri, Postgraduate, B.YALIN(Student), 2022

SERHAN Y., Yazılım tanımlı radyo kullanarak faz uyumlu çoklu alıcı tasarımları, Postgraduate, Z.KAPLANOĞLU(Student), 2022

SERHAN Y., Kızılıtesi damar görüntüleme sistemi tasarımı ve gerçeklemesi, Postgraduate, G.ÇANKAYA(Student), 2021

SERHAN Y., Elektronik karıştırıcılar için sinyal gücüne dayalı uyarlanabilir GPS sinyali sıkışma önleme algoritması, Postgraduate, E.ELEZI(Student), 2020

SERHAN Y., Sayısal modülasyonlu işaretlerin radyometre ve derin öğrenme yöntemleri ile tespiti ve başarımı, Postgraduate, G.KIRMAN(Student), 2020

SERHAN Y., Genişletilmiş enerji dedektör tabanlı uzaktan kumandalı anahtarsız giriş sistemlerinin vericileri için istatistiksel modülasyon tipi tanımlayıcısı, Postgraduate, Ö.ALACA(Student), 2020

SERHAN Y., Sosyal medyada büyük veri analizi, Postgraduate, M.SALİH(Student), 2020

SERHAN Y., Statistical analysis of wireless spectrum occupancy, Postgraduate, U.RAMAZAN(Student), 2019

SERHAN Y., Akıllı şebeke uygulamalarında enerji hatları üzerinden haberleşme teknolojisinin kullanımı için gürültü, empedans ve zayıflamanın alan ölçümleri, Postgraduate, E.BAYCAN(Student), 2019

SERHAN Y., Görünür ışık haberleşmesi için bir uygulamalı alıcı- verici tasarımları, Postgraduate, S.WALEED(Student), 2019

### Journal articles indexed in SCI, SSCI, and AHCI

#### I. Secrecy analysis of uplink IM-OFDMA systems in the presence of IQ imbalance

Alaca O., Althunibat S., YARKAN S., Miller S. L., Qaraqe K. A.

IEEE Transactions on Vehicular Technology, vol.72, no.11, pp.14411-14425, 2023 (SCI-Expanded)

#### II. Detection of Grid-Signal Distortions Using the Spectral Correlation Function

Alaca O., Ekti A. R., Wilson A., Holliman J., Piersall E., YARKAN S., Stenvig N.

IEEE Transactions on Smart Grid, vol.14, no.6, pp.4980-4983, 2023 (SCI-Expanded)

#### III. Analysis and Compensation of Tx and Rx IQ Imbalances in Uplink IM-OFDMA Systems

Alaca O., Althunibat S., YARKAN S., Miller S. L., Qaraqe K. A.

IEEE Transactions on Vehicular Technology, vol.72, no.10, pp.12956-12969, 2023 (SCI-Expanded)

#### IV. Physical Layer Security of Dual-Hop Hybrid FSO-mmWave Systems

Althunibat S., Tokgoz S. C., YARKAN S., Miller S. L., Qaraqe K. A.

IEEE Access, vol.11, pp.58209-58227, 2023 (SCI-Expanded)

#### V. Secure Uplink IM-OFDMA With Artificial IQ Imbalance

Alaca O., Althunibat S., YARKAN S., Miller S. L., Qaraqe K. A.

IEEE Access, vol.11, pp.57305-57318, 2023 (SCI-Expanded)

#### VI. A Simple and Accurate Energy-Detector-Based Transient Waveform Detection for Smart Grids: Real-World Field Data Performance †

Ekti A. R., Wilson A., Olatt J., Holliman J., YARKAN S., Fuhr P.

- Energies, vol.15, no.22, 2022 (SCI-Expanded)
- VII. **Measurement-Based Large Scale Statistical Modeling of Air-to-Air Wireless UAV Channels via Novel Time-Frequency Analysis**  
Ede B., Kaplan B., Kahraman I., Kesir S., YARKAN S., Ekti A. R., Baykas T., Gorcin A., Çırpan H. A.  
IEEE Wireless Communications Letters, vol.11, no.1, pp.136-140, 2022 (SCI-Expanded)
- VIII. **A Fractionally Asymmetric Sub-Nyquist Baseband Receiver Design and Implementation for Phase Modulated Signals**  
GÜRKAŞ AYDIN G. Z., YARKAN S.  
IEEE Access, vol.10, pp.85343-85354, 2022 (SCI-Expanded)
- IX. **Modeling and Analysis of Short Distance Sub-Terahertz Communication Channel via Mixture of Gamma Distribution**  
Tekbyk K., Ekti A. R., Kurt G. K., Gorcin A., YARKAN S.  
IEEE Transactions on Vehicular Technology, vol.70, no.4, pp.2945-2954, 2021 (SCI-Expanded)
- X. **Detection, Identification, and Direction of Arrival Estimation of Drone FHSS Signals with Uniform Linear Antenna Array**  
Kaplan B., Kahraman I., Ekti A. R., YARKAN S., Gorcin A., ÖZDEMİR M. K., Çırpan H. A.  
IEEE Access, vol.9, pp.152057-152069, 2021 (SCI-Expanded)
- XI. **The advances of fronthaul and backhaul communication for 5G and beyond**  
Serpedin E., Ekti A. R., BOYACI A., Imran M. A., AYDIN M. A., YARKAN S.  
Physical Communication, vol.36, 2019 (SCI-Expanded)
- XII. **Two-Stage Non-Orthogonal Multiple Access over Power Line Communication Channels**  
Rabie K. M., Adebisi B., Tonello A. M., YARKAN S., Ijaz M.  
IEEE Access, vol.6, pp.17368-17376, 2018 (SCI-Expanded)
- XIII. **A LOW COST, REAL TIME, AND SHORT RANGE SOFTWARE DEFINED DIGITAL WIRELESS COMMUNICATIONS TRANSCEIVER DESIGN AND IMPLEMENTATION AT BASEBAND**  
AKIN M., ÇAKIR M., YILDIZ D., ÖZGEN H., YARKAN S.  
Gazi Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi, vol.30, no.2, pp.217-224, 2015 (SCI-Expanded)
- XIV. **A generic measurement setup for implementation and performance evaluation of spectrum sensing techniques: Indoor environments**  
YARKAN S.  
IEEE Transactions on Instrumentation and Measurement, vol.64, no.3, pp.606-614, 2015 (SCI-Expanded)
- XV. **A low-cost, real-time, and short-range software-defined digital wireless communications transceiver design and implementation at baseband Gerçek-zamanlı, kısa mesafeli ve yazılım tabanlı bir sayısal kablosuz haberleşme alıcı-verici tasarımının gerçeklemesi**  
Akin M., Çakir M., Yildiz D., Özgen H., YARKAN S.  
Journal of the Faculty of Engineering and Architecture of Gazi University, vol.30, no.2, pp.217-224, 2015 (SCI-Expanded)
- XVI. **Analysis and characterization of the impact of frequency-selective interference on reporting period for next-generation wireless networks**  
YARKAN S., Qaraqe K. A.  
IEEE Transactions on Vehicular Technology, vol.61, no.8, pp.3813-3819, 2012 (SCI-Expanded)
- XVII. **An online adaptive cooperation scheme for spectrum sensing based on a second-order statistical method**  
YARKAN S., Töreyin B. U., Qaraqe K. A., Çetin A. E.  
IEEE Transactions on Vehicular Technology, vol.61, no.2, pp.675-686, 2012 (SCI-Expanded)

## Articles Published in Other Journals

- I. **MASTER SLAVE PHASE SYNCHRONIZATION METHOD WITH XOR AND PHASE/FREQUENCY DETECTOR PLL**

- ÇANTI Z. K., YARKAN S.  
İstanbul Ticaret Üniversitesi Fen Bilimleri Dergisi, vol.21, no.41, pp.80-94, 2022 (Peer-Reviewed Journal)
- II. KIZİLÖTESİ DAMAR GÖRÜNTÜSÜ İŞLEME VE DAMAR TESPİTİ**  
ÇANKAYA G., BOYACI A., YARKAN S.  
Istanbul Commerce University, Journal of Technologies and Applied Sciences, vol.3, no.2, pp.183-188, 2021 (Peer-Reviewed Journal)
- III. Energy-Per-Bit Performance Analysis of Relay-Assisted Power Line Communication Systems**  
Rabie K. M., Adebisi B., Gacanin H., YARKAN S.  
IEEE Transactions on Green Communications and Networking, vol.2, no.2, pp.360-368, 2018 (Scopus)
- IV. Monitoring, surveillance, and management of the electromagnetic spectrum: Current issues in electromagnetic spectrum monitoring**  
BOYACI A., Ekti A. R., YARKAN S., AYDIN M. A.  
Istanbul University - Journal of Electrical and Electronics Engineering, vol.18, no.1, pp.100-108, 2018 (Scopus)
- V. Analysis of mobility impact on interference in cognitive radio networks**  
Ekti A. R., YARKAN S., Qaraqe K. A., Serpedin E., Dobre O. A.  
Physical Communication, vol.9, pp.212-222, 2013 (Scopus)

## Books

- I. Lecture Notes in Electrical Engineering**  
BOYACI A., EKTİ A. R., AYDIN M. A., YARKAN S.  
Springer, 2018
- II. Vehicle to Cloud: Big Data for Environmental Sustainability, Energy, and Traffic Management**  
ÖZPINAR M. A., YARKAN S.  
in: Effective Big Data Management and Opportunities for Implementation, Manoj Kumar Singh, Dileep Kumar G., Editor, IGI Global, pp.182-201, 2016

## Papers Presented at Peer-Reviewed Scientific Conferences

- I. EMTP-ATP Draw Based Model for Performance Evaluation of Onsite Partial Discharge Measurement for Underground XLPE Cables**  
ATSEVER M. B., HOCAOĞLU M. H., YARKAN S., Deveci U., Yüzungüç S., Mesci N., Yılmaz S. C.  
2024 3rd International Conference on Power Systems and Electrical Technology (PSET), Tokyo, Japan, 5 - 08 August 2024, (Full Text)
- II. Onsite Partial Discharge Detection and Location System for Underground Cables Using USRP-Based Measurement System**  
Atsever M. B., Boyaci A., Yarkan S., Hocaoğlu M. H.  
2024 6th Global Power, Energy and Communication Conference (GPECOM), Budapest, Hungary, 04 June 2024, (Full Text)
- III. EMTP-ATP Draw Modelling for Partial Discharge Detection and Location System for Underground Cables**  
ATSEVER M. B., HOCAOĞLU M. H., Yüzungüç S., Deveci U., Yılmaz S. C., YARKAN S., BOYACI A., Mesci N., Mesci N.  
2024 11TH INTERNATIONAL CONFERENCE ON ELECTRICAL AND ELECTRONICS ENGINEERING, Muğla, Turkey, 22 April 2024, (Summary Text)
- IV. Performance Analysis of Uplink IM-OFDMA Systems in the Presence of CFO and Rx-IQI**  
Alaca O., Althunibat S., YARKAN S., Miller S. L., Qaraqe K. A.  
37th International Conference on Information Networking, ICOIN 2023, Bangkok, Thailand, 11 - 14 January 2023, vol.2023-January, pp.168-173, (Full Text)
- V. Adaptive Envelope Detector-Based Phase Fault Detection Method for Power System Grid Distortions**

- Alaca O., Ekti A. R., Wilson A., Piersall E., Snyder I., YARKAN S., Stenvig N. M.  
2023 IEEE International Black Sea Conference on Communications and Networking, BlackSeaCom 2023, İstanbul, Turkey, 4 - 07 July 2023, pp.247-252, (Full Text)
- VI. Physical Layer Authentication for Uplink IM-OFDMA System**  
Alaca O., Althunibat S., YARKAN S., Miller S. L., Qaraqe K. A.  
2023 IEEE International Black Sea Conference on Communications and Networking, BlackSeaCom 2023, İstanbul, Turkey, 4 - 07 July 2023, pp.186-190, (Full Text)
- VII. Propeller Effects on mmWave UAV Channels: A Statistical and Empirical Modeling Study**  
Cankurtaran H. S., Kachroo A., Choi W., O'Hara J., YARKAN S., Qaraqe K. A., Hasna M. O., Ekin S.  
2022 IEEE International Black Sea Conference on Communications and Networking, BlackSeaCom 2022, Sofija, Bulgaria, 6 - 09 June 2022, pp.30-35, (Full Text)
- VIII. Statistical Modeling of Sand and Dust Storm Attenuation**  
Cankurtaran H. S., YARKAN S., Hasna M. O., Qaraqe K. A.  
2022 International Balkan Conference on Communications and Networking, BalkanCom 2022, Sarajevo, Bosnia And Herzegovina, 22 - 24 August 2022, pp.95-99, (Full Text)
- IX. CNN-Based Signal Detector for IM-OFDMA**  
Alaca O., Althunibat S., YARKAN S., Miller S. L., Qaraqe K. A.  
2021 IEEE Global Communications Conference, GLOBECOM 2021, Madrid, Spain, 7 - 11 December 2021, (Full Text)
- X. A Comparison on Energy Detector and CNN-based Detector Enerji Sezici ve CNN Tabanlı Sezici Uzerine Bir Karşılaştırma**  
Tokgoz G. K., Tekbiyik K., Kurt G. K., YARKAN S.  
28th Signal Processing and Communications Applications Conference, SIU 2020, Gaziantep, Turkey, 5 - 07 October 2020, (Full Text)
- XI. An Acoustic Signal Based Language Independent Lip Synchronization Method and Its Implementation via Extended LPC Genisletilmis DTK Yardimi ile Akustik Isaret Tabanlı, Dilden Bagimsiz Bir Ses-Dudak Sekli Eslestirme Yontemi ve Gerceklemesi**  
Cankurtaran H. S., BOYACI A., YARKAN S.  
28th Signal Processing and Communications Applications Conference, SIU 2020, Gaziantep, Turkey, 5 - 07 October 2020, (Full Text)
- XII. A Comparison on Energy Detector and CNN-based Detector**  
Tokgoz G. K., Tekbiyik K., Kurt G. K., Yarkan S.  
2020 28TH SIGNAL PROCESSING AND COMMUNICATIONS APPLICATIONS CONFERENCE (SIU), (Full Text)
- XIII. An Acoustic Signal Based Language Independent Lip Synchronization Method and Its Implementation via Extended LPC**  
Cankurtaran H. S., Boyaci A., Yarkan S.  
2020 28TH SIGNAL PROCESSING AND COMMUNICATIONS APPLICATIONS CONFERENCE (SIU), (Full Text)
- XIV. Measurement Based Direction of Arrival Estimation for Frequency Hopping Signals**  
Kaplan B., Kahraman I., Ekti A. R., Yarkan S., Cirpan H. A.  
2020 28TH SIGNAL PROCESSING AND COMMUNICATIONS APPLICATIONS CONFERENCE (SIU), (Full Text)
- XV. Statistical Channel Modeling for Short Range Line-of-Sight Terahertz Communication**  
Tekbiyik K., Ulusoy E., Ekti A. R., YARKAN S., Baykas T., Gorci A., Kurt G. K.  
30th IEEE Annual International Symposium on Personal, Indoor and Mobile Radio Communications, PIMRC 2019, İstanbul, Turkey, 8 - 11 September 2019, vol.2019-September, (Full Text)
- XVI. A detection and identification method based on signal power for different types of Electronic Jamming attacks on GPS signals**  
Elezi E., Cankaya G., BOYACI A., YARKAN S.  
30th IEEE Annual International Symposium on Personal, Indoor and Mobile Radio Communications, PIMRC 2019, İstanbul, Turkey, 8 - 11 September 2019, vol.2019-September, (Full Text)
- XVII. ACO-OFDM Transmission over Underwater Pipeline for VLC-based Systems**  
Tokgoz S. C., Boluda-Ruiz R., YARKAN S., Qaraqe K. A.  
30th IEEE Annual International Symposium on Personal, Indoor and Mobile Radio Communications, PIMRC 2019,

İstanbul, Turkey, 8 - 11 September 2019, vol.2019-September, (Full Text)

- XVIII. **A survey on backbone attack**  
GÜVEN E. Y., YAĞCI M. Y., BOYACI A., YARKAN S., AYDIN M. A.  
7th International Symposium on Digital Forensics and Security, ISDFS 2019, Barcelos, Portugal, 10 - 12 June 2019,  
(Full Text)
- XIX. **A statistical modulation type identifier for remote keyless entry transmitters based on extended energy detector**  
Alaca Ö., BOYACI A., YARKAN S., AYDIN M. A.  
7th International Symposium on Digital Forensics and Security, ISDFS 2019, Barcelos, Portugal, 10 - 12 June 2019,  
(Full Text)
- XX. **Performance improvement of white led-based vlc systems using blue and flattening filters**  
Tokgoz S. C., Anous N., Yarkan S., Khalil D., Qaraqe K. A.  
2nd International Conference on Advanced Communication Technologies and Networking, CommNet 2019, Rabat,  
Morocco, 12 - 14 April 2019, (Full Text)
- XXI. **Real-Time Data Transmission over PSTNs on Physical Layer**  
Tokgoz S. C., YARKAN S., Miller S., Qaraqe K. A.  
16th International Multi-Conference on Systems, Signals and Devices, SSD 2019, İstanbul, Turkey, 21 - 24 March  
2019, pp.630-635, (Full Text)
- XXII. **On the Investigation of Bandwidth Allocation for Short-Range and Long-Range Heterogeneous Wireless Networks**  
Kazdağ C., Alaca Ö., Ekti A. R., YARKAN S.  
16th International Multi-Conference on Systems, Signals and Devices, SSD 2019, İstanbul, Turkey, 21 - 24 March  
2019, pp.524-528, (Full Text)
- XXIII. **The effect of Electronic Jammers on GPS Signals**  
Elezi E., Çankaya G., BOYACI A., YARKAN S.  
16th International Multi-Conference on Systems, Signals and Devices, SSD 2019, İstanbul, Turkey, 21 - 24 March  
2019, pp.652-656, (Full Text)
- XXIV. **Performance Evaluation of White LED-based OFDM-VLC Systems with Blue Filters: Experimental Study**  
Tokgoz S. C., Anous N., YARKAN S., BOYACI A., Qaraqe K. A.  
16th International Multi-Conference on Systems, Signals and Devices, SSD 2019, İstanbul, Turkey, 21 - 24 March  
2019, pp.686-690, (Full Text)
- XXV. **Dynamic feature selection for spam detection in twitter**  
Karakaşlı M. S., AYDIN M. A., YARKAN S., BOYACI A.  
1st International Telecommunications Conference, ITelCon 2017, İstanbul, Turkey, 28 - 29 December 2017,  
vol.504, pp.239-250, (Full Text)
- XXVI. **An IEEE 802.11x implementation for V2X communications towards IoT and big data**  
Serin D. A., BOYACI A., Özpinar A., YARKAN S.  
1st International Telecommunications Conference, ITelCon 2017, İstanbul, Turkey, 28 - 29 December 2017,  
vol.504, pp.177-188, (Full Text)
- XXVII. **Statistical Characterization of Noise for Power Line Communications Channels: Field Measurements**  
Baycan E., Erturkler I. H., Sarac M. S., Yarkan S.  
11th International Symposium on Communication Systems, Networks and Digital Signal Processing, CSNDSP 2018,  
Budapest, Hungary, 18 - 20 July 2018, (Full Text)
- XXVIII. **Empirical Analysis of The Performance of Radiometer for Digitally Modulated Signals**  
ALACA Ö., KIRMAN G., BOYACI A., YARKAN S.  
Proc. Computational Methods and Telecommunication in Electrical Engineering and Finance (CMTEEF 2018),  
Sarajevo, Bosnia And Herzegovina, 6 - 09 May 2018, pp.44-45, (Full Text)
- XXIX. **Statistical modeling of propagation channels for Terahertz band**  
Ekti A. R., BOYACI A., Alparslan A., Unal I., YARKAN S., Gorcin A., ARSLAN H., Uysal M.  
2017 IEEE Conference on Standards for Communications and Networking, CSCN 2017, Helsinki, Finland, 18 - 20

- September 2017, pp.275-280, (Full Text)
- XXX. **A low-cost, high-precision signal generation algorithm and prototype implementation for software-defined radios Yazılım Tanımlı Radyolar için Düşük Karmasılık, Yüksek Duyarlılık Bir işaret Ureticisi Algoritması ve Prototip Gerçekleme**  
Alaca O., BOYACI A., YARKAN S.  
2016 National Conference on Electrical, Electronics and Biomedical Engineering, ELECO 2016, Bursa, Turkey, 1 - 03 December 2016, pp.641-645, (Full Text)
- XXXI. **A secure communications prototype implementation for PSTNs operating on physical layer Kablolu telefon sebekeleri için fiziksel katmanda calan bir güvenli haberleşme modüllü prototip gerçekleme**  
Tokgoz S. C., BOYACI A., YARKAN S.  
2016 National Conference on Electrical, Electronics and Biomedical Engineering, ELECO 2016, Bursa, Turkey, 1 - 03 December 2016, pp.599-603, (Full Text)
- XXXII. **A Low-cost, High-precision Signal Generation Algorithm and Prototype Implementation for Software-Defined Radios**  
Alaca O., Boyaci A., Yarkan S.  
2016 NATIONAL CONFERENCE ON ELECTRICAL, ELECTRONICS AND BIOMEDICAL ENGINEERING (ELECO), pp.641-645, (Full Text)
- XXXIII. **A Secure Communications Prototype Implementation for PSTNs operating on Physical Layer**  
Tokgoz S. C., Boyaci A., Yarkan S.  
2016 NATIONAL CONFERENCE ON ELECTRICAL, ELECTRONICS AND BIOMEDICAL ENGINEERING (ELECO), pp.599-603, (Full Text)
- XXXIV. **On error variance for autoregressive process-based spectrum occupancy prediction with energy detector for cognitive networks**  
BOYACI A., AKI F. N., YARKAN S.  
11th International Wireless Communications and Mobile Computing Conference, IWCMC 2015, Dubrovnik, Croatia, 24 - 28 August 2015, pp.868-873, (Full Text)
- XXXV. **On Error Variance for Autoregressive Process Based Spectrum Occupancy Prediction with Energy Detector for Cognitive Networks IWCMC 2015 Coop Cognitive Workshop**  
BOYACI A., AKI F. N., YARKAN S.  
IWCMC 2015 Coop-Cognitive Workshop, 24 - 27 August 2015, (Full Text)
- XXXVI. **Fractional-rate radiometer for spectrum sensing based on I/Q branch separation I/Q Kolları Ayrimına Dayalı, Kesirli-oranlı Radyometrik Spektrum Sezme**  
BOYACI A., YARKAN S., Sönmez A.  
2015 23rd Signal Processing and Communications Applications Conference, SIU 2015, Malatya, Turkey, 16 - 19 May 2015, pp.1350-1353, (Full Text)
- XXXVII. **High-resolution multi-band spectrum occupancy measurements and evaluations at 900MHz downlink band for Istanbul metropolitan İstanbul Metropolü İçin GSM 900MHz Downlink Bandındaki Yüksek Çözünürlüklü Çoklu-Bantlı Spektrum Kullanımı Ölçümleri ve Değerlendirmesi**  
AKI F. N., BOYACI A., YARKAN S.  
2015 23rd Signal Processing and Communications Applications Conference, SIU 2015, Malatya, Turkey, 16 - 19 May 2015, pp.1639-1642, (Full Text)
- XXXVIII. **EV2C Extended Vehicle to Cloud Model and Conceptual Implementation for Big Data**  
BOYACI A., ÖZPINAR M. A., ÖZTÜRK E., YARKAN S.  
IEEE Sixth International Conference on Modeling, Simulation and Applied Optimization (ICMSAO'15), İstanbul, Turkey, 27 May - 29 August 2015, (Full Text)
- XXXIX. **Fractional Rate Radiometer for Spectrum Sensing Based on I Q Branch Separation**  
BOYACI A., YARKAN S., SÖNMEZ A. C.  
IEEE 23rd. Signal Processing and Communications Applications Conference (SIU '15), 16 - 19 May 2015, (Full Text)
- XL. **High Resolution Multi band Spectrum Occupancy Measurements and Evaluations at 900MHz Downlink Band for Istanbul Metropolitan**

- AKI F. N., BOYACI A., YARKAN S.  
 IEEE 23rd. Signal Processing and Communications Applications Conference (SIU '15), 16 - 19 May 2015, (Full Text)
- XLI. **İstanbul Metropolü İçin GSM 900MHz Downlink Bandındaki Yüksek Çözünürlüklü Çoklu Bantlı Spektrum Kullanımı Ölçümleri ve Değerlendirmesi**  
 AKI F. N., BOYACI A., YARKAN S.  
 SIU 2015, Turkey, 16 - 18 May 2015, (Full Text)
- XLII. **Modeling Observed Wireless 802 11x Signal Power at 2 4 GHz ISM Band University Building Measurements**  
 AKI F. N., YARKAN S., ZAIM A. H.  
 International Conference on Advanced Technology Sciences 2014 (ICAT'xx14), 12 - 15 August 2014, pp.390-394, (Full Text)
- XLIII. **Identification of shadowed fast fading interference in cellular mobile radio systems**  
 BOYACI A., YARKAN S., ZAIM A. H.  
 2013 21st Signal Processing and Communications Applications Conference, SIU 2013, Haspolat, Turkey, 24 - 26 April 2013, (Full Text)
- XLIV. **Towards green and secure vehicle-to-vehicle communications: A protocol for establishing the network**  
 BOYACI A., Ozturk E., YARKAN S., ZAIM A. H.  
 7th International Conference on Application of Information and Communication Technologies, AICT 2013, Baku, Azerbaijan, 23 - 25 October 2013, (Full Text)
- XLV. **Effects of mobility on uplink interference for short-range cognitive radio networks**  
 Ekti A. R., YARKAN S., Qaraqe K. A., Serpedin E.  
 2012 IEEE 13th International Workshop on Signal Processing Advances in Wireless Communications, SPAWC 2012, Cesme, Turkey, 17 - 20 June 2012, pp.129-133, (Full Text)
- XLVI. **An Experimental Setup for Performance Analysis of an Online Adaptive Cooperative Spectrum Sensing Scheme for Both In Phase and Quadrature Branches**  
 YARKAN S., QARAQE K., TÖREYİN B. U., ÇETİN A. E.  
 2011 IEEE Vehicular Technology Conference (VTC Fall), San-Francisco, Costa Rica, 5 - 08 September 2011, (Full Text)
- XLVII. **An experimental setup for performance evaluation of spectrum sensing via energy detector: indoor environment**  
 YARKAN S., Halbawi W., QARAQE K.  
 Proceedings of the 4th International Conference on Cognitive Radio and Advanced Spectrum Management - CogART 'xx11, Barcelona, Spain, 26 - 29 October 2011, (Full Text)
- XLVIII. **On the Evolution of Interference in Time for Cellular Mobile Radio Networks**  
 EKTİ A. R., YARKAN S., QARAQE K., SERPEDİN E.  
 2011 Proceedings of 20th International Conference on Computer Communications and Networks (ICCCN), Lahaina, HI, USA, 31 July - 04 August 2011, (Full Text)
- XLIX. **On the statistics of sub carrier collisions for cell edge users and air interface capacity in OFDMA systems**  
 EKİN S., YARKAN S., QARAQE K., SERPEDİN E.  
 ISSCS 2011 - International Symposium on Signals, Circuits and Systems, Iasi, Romania, 30 June - 01 July 2011, (Full Text)
- L. **Adaptive Decision Fusion based cooperative spectrum sensing for Cognitive Radio systems**  
 TÖREYİN B. U., YARKAN S., QARAQE K., ENİS ÇETİN A.  
 2011 IEEE 19th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 20 - 22 April 2011, (Full Text)
- LI. **An experimental validation of an online adaptive cooperation scheme for spectrum sensing**  
 YARKAN S., TÖREYİN B. U., QARAQE K., AHMET ENİS Ç.  
 2011 18th International Conference on Telecommunications, Ayia Napa, Cyprus, 8 - 11 May 2011, (Full Text)

- LII. **A second order statistical method for spectrum sensing in correlated shadowing and fading environments**  
QARAQE K., YARKAN S.  
21st Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, Istanbul, Turkey, 26 - 30 September 2010, (Full Text)
- LIII. **Impact of Mobility on the Behavior of Interference in Cellular Wireless Networks**  
YARKAN S., Maaref A., Teo K. H., ARSLAN H.  
IEEE GLOBECOM 2008 - 2008 IEEE Global Telecommunications Conference, New Orleans, LA, USA, 30 November - 04 December 2008, (Full Text)
- LIV. **Statistical Wireless Channel Propagation Characteristics in Underground Mines at 900MHz**  
YARKAN S., ARSLAN H.  
MILCOM 2007 - IEEE Military Communications Conference, Orlando, FL, USA, 29 - 31 October 2007, (Full Text)
- LV. **Binary Time Series Approach to Spectrum Prediction for Cognitive Radio**  
YARKAN S., ARSLAN H.  
2007 IEEE 66th Vehicular Technology Conference, Baltimore, MD, USA, 30 September - 03 October 2007, (Full Text)
- LVI. **Identification of LOS and NLOS for wireless Transmission**  
YARKAN S., ARSLAN H.  
2006 1st International Conference on Cognitive Radio Oriented Wireless Networks and Communications, Mykonos Island, Greece, 8 - 10 June 2006, (Full Text)

## Funded Projects

Hocaoğlu M. H., Yarkan S., Boyacı A., Atsever M. B., Energy and Natural Resources Ministry, Yüksek Gerilim Kablo Şebekesini İleri Teknoloji Sinyal İşleme Teknikleriyle Canlı Ölçümleyen Kısmı Deşarj Tespit Cihazı Geliştirilmesi (Online PD Cihazı) Projesi, 2023 - 2024