

Asst. Prof. ALİ BOYACI

Personal Information

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International Researcher IDs

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Education Information

Doctorate, Yildiz Technical University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Dr), Turkey 2012 - 2015

Postgraduate, Istanbul University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (YI) (Tezli), Turkey 2007 - 2010

Undergraduate, Istanbul University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, Turkey 2003 - 2007

Dissertations

Doctorate, A cross-layer design for next generation wireless networks: V2V perspective, Yildiz Technical University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Dr), 2015

Postgraduate, Gömülü sistemler için mikro kernel işletim sistemi tasarımı, Istanbul University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (YI) (Tezli), 2010

Research Areas

Computer Sciences, Physics, Astronomy and Astrophysics, Natural Sciences, Engineering and Technology

Academic Titles / Tasks

Istanbul Commerce University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2016 - Continues

Research Assistant, Istanbul Commerce University, Mühendislik Ve Tasarım Fakültesi, Elektrik Ve Elektronik Mühendisliği Bölümü, 2012 - 2016

Academic and Administrative Experience

Istanbul Commerce University, 2019 - 2021

Courses

Nesnelerin İnterneti, Doctorate, 2021 - 2022, 2019 - 2020

Algorithms, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017

Programming 1, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017

Veri İletişimi, Undergraduate, 2021 - 2022, 2020 - 2021
Bilgi Teorisi, Doctorate, 2020 - 2021
Bilgisayar Ağ Mimarileri, Postgraduate, 2020 - 2021, 2019 - 2020, 2017 - 2018
Derleyici Tasarımı, Undergraduate, 2020 - 2021, 2019 - 2020
Data Structures, Undergraduate, 2020 - 2021, 2019 - 2020
Programming 2, Undergraduate, 2020 - 2021, 2019 - 2020, 2016 - 2017
Bilgisayar Mühendisliğine Giriş, Undergraduate, 2019 - 2020
Web Programlama, Undergraduate, 2019 - 2020
Computer Network Architecture, Postgraduate, 2019 - 2020, 2018 - 2019
Bilgisayar Programlama, Undergraduate, 2019 - 2020
Introduction To Cryptography, Undergraduate, 2018 - 2019
Software Defined Radio And Networks, Undergraduate, 2018 - 2019
Bilişim Tasarım Projesi, Undergraduate, 2018 - 2019, 2017 - 2018
Sayısal Tasarım, Postgraduate, 2018 - 2019
Design Project, Undergraduate, 2017 - 2018, 2016 - 2017
Kablosuz Ağlarda Güvenlik, Postgraduate, 2017 - 2018
Algoritmalar, Undergraduate, 2016 - 2017
Ağ Güvenliği, Undergraduate, 2016 - 2017
Mantıksal Programlama, Undergraduate, 2016 - 2017

Advising Theses

ALİ B., DUYGU ANALİZİYLE MÜŞTERİ PROFİLİ OLUŞTURMA VE ŞİKAYET ÖNCELİKLENDİRME, Postgraduate, M.MEHMET(Student), 2023
ALİ B., ÖDÜL AVCILIĞI PROGRAMI KAPSAMINDA SEKTÖREL BAZLI GÜVENLİK AÇIKLARI ANALİZİ, Postgraduate, M.ZAHİD(Student), 2023
ALİ B., Siber tehdit istihbaratı için yeni tarama modeli geliştirilmesi, Doctorate, E.YUSUF(Student), 2023
ALİ B., Giyilebilir teknoloji ile istemsiz hareketin tespiti, Postgraduate, Y.KÖSEOĞLU(Student), 2022
ALİ B., IoT security requirement classification, Postgraduate, A.MUKALAZI(Student), 2022
ALİ B., Travel time prediction in public transportation, Postgraduate, B.BOYLU(Student), 2021
ALİ B., Location estimation on mobile networks, Postgraduate, A.HAKAN(Student), 2021
ALİ B., ISO/IEC JTC 1/SC 27 "BT güvenlik teknikleri" standardlarının siber güvenliğe katkısı, Postgraduate, İ.SİNAN(Student), 2020
BOYACI A., A lightweight cryptography algorithm for smart cities and IOT, Postgraduate, A.Mohsin(Student), 2020
ALİ B., İnsansız hava araçlarının hareket ve yönlendirme protokollerine göre performans ölçümü, Postgraduate, N.ONURHAN(Student), 2020
ALİ B., Dinamik parametrelili uzaysal arama ile uygun düğüm seçimi algoritmalarının simülasyonu ve karşılaştırılması, Postgraduate, M.CAN(Student), 2020
ALİ B., Bilimsel yayınlardan anahtar kelime çıkarımı, Postgraduate, A.SİNA(Student), 2018
ALİ B., Araçsal ağlarda haberleşme uygulamaları, Postgraduate, A.KAAN(Student), 2018

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A Novel Password Policy Focusing on Altering User Password Selection Habits: A Statistical Analysis on Breached Data**
GÜVEN E. Y., BOYACI A., AYDIN M. A.
Computers and Security, vol.113, 2022 (SCI-Expanded)
- II. **Automatic food recognition system for middle-eastern cuisines**
Qaraqe M., Usman M., Ahmad K., Sohail A., BOYACI A.

- IET Image Processing, vol.14, no.11, pp.2469-2479, 2020 (SCI-Expanded)
- III. **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)
- IV. **Experimental Evaluation of OFDM-Based Underwater Visible Light Communication System**
Hessien S., Tokgoz S. C., Anous N., BOYACI A., Abdallah M., Qaraqe K. A.
IEEE Photonics Journal, vol.10, no.5, 2018 (SCI-Expanded)
- V. **A cross-layer adaptive channel selection mechanism for IEEE 802.11P suite**
BOYACI A., Zaim H., Sönmez C.
Eurasip Journal on Wireless Communications and Networking, vol.2015, no.1, 2015 (SCI-Expanded)

Articles Published in Other Journals

- I. **A two-step customer complaint management using ensemble learning for the banking industry**
Akgumus M. M., Boyacı A.
Bilgisayar Bilimleri ve Mühendisliği Dergisi, vol.16, no.1, pp.45-52, 2023 (Peer-Reviewed Journal)
- II. **TRAVEL TIME PREDICTION IN PUBLIC TRANSPORTATION**
Boylu B., BOYACI A.
Istanbul Commerce University, Journal of Technologies and Applied Sciences, vol.4, no.1, pp.119-128, 2021 (Peer-Reviewed Journal)
- III. **Artificial intelligence-based covid-19 detection using cough records**
Gökçen A., Karadağ B., RİVA C., BOYACI A.
Electrica, vol.21, no.2, pp.203-208, 2021 (Scopus)
- IV. **KIZILÖTESİ 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)
- V. **ISO 27001 BİLGİ GÜVENLİĞİ YÖNETİM SİSTEMİ KAPSAMINDA TEK KULLANIMLIK ŞİFRE ÜRETME**
TATLIGİL İ. S., Bolat E., BOYACI A.
Istanbul Commerce University Journal of Technologies and Applied Sciences, vol.3, no.1, pp.61-68, 2020 (Peer-Reviewed Journal)
- VI. **PERFORMANCE COMPARISON OF SPATIAL SEARCH ALGORITHMS FOR SPECIFIC DATASETS IN SMART CITIES**
Girgin M., BOYACI A.
Istanbul Commerce University Journal of Technologies and Applied Sciences, vol.3, no.1, pp.41-50, 2020 (Peer-Reviewed Journal)
- VII. **A lightweight cryptography algorithm for secure smart cities and IOT**
Abed A. M., BOYACI A.
Electrica, vol.20, no.2, pp.168-176, 2020 (ESCI)
- VIII. **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)
- IX. **A Comparison of Vanet Routing Protocols Performance for Emergency Situations**
Yıldırım A. K., BOYACI A., Qaraqe M.
Journal of Technologies and Applied Sciences, 2018 (Peer-Reviewed Journal)
- X. **Brake: Better Rapid Automated Keyword Extraction**
Birdevrim A. S., BOYACI A., Al Thani D. A.
Journal of Technologies and Applied Sciences, 2018 (Peer-Reviewed Journal)
- XI. **ICON: Instagram Profile Classification Using Image and Natural Language Processing Methods**

Books & Book Chapters

- I. **Lecture Notes in Electrical Engineering**
BOYACI A., EKTİ A. R., AYDIN M. A., YARKAN S.
Springer, 2018

Refereed Congress / Symposium Publications in Proceedings

- I. **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), 04 June 2024
- II. **EMTP-ATP Draw Modelling for Partial Discharge Detection and Location System for Underground Cables**
ATSEVER M. B., HOCAOĞLU M. H., Yüzcüleç 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
- III. **The Internet of Things: a domain-specific security requirement classification**
Mukalazi A., BOYACI A.
4th International Congress on Human-Computer Interaction, Optimization and Robotic Applications, HORA 2022, Ankara, Turkey, 9 - 11 June 2022
- IV. **Detection of Involuntary Movement with Wearable Technology**
Koseoglu Y., BOYACI A.
4th International Congress on Human-Computer Interaction, Optimization and Robotic Applications, HORA 2022, Ankara, Turkey, 9 - 11 June 2022
- V. **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
- VI. **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)
- VII. **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
- VIII. **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
- IX. **A survey on backbone attack**
GÜVEN E. Y., YAĞCI M. Y., BOYACI A., YARKAN S., AYDIN M. A.

- X. **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
- XI. **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
- XII. **An IEEE 802.11x implementation for V2X communications towards IoT and big data**
Serin D. A., BOYACI A., Özpınar A., YARKAN S.
1st International Telecommunications Conference, ITelCon 2017, İstanbul, Turkey, 28 - 29 December 2017, vol.504, pp.177-188
- XIII. **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
- XIV. **Empirical Analysis of The Performance of Radiometer for Digitally Modulated Signals**
ALACA Ö., KİRMAN 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
- XV. **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
- XVI. **A secure communications prototype implementation for PSTNs operating on physical layer Kablolu telefon sebekeleri için fiziksel katmanda çalışan bir güvenilir haberleşme modüllü prototip gerçekleştirilmesi**
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
- XVII. **A low-cost, high-precision signal generation algorithm and prototype implementation for software-defined radios Yazılım Tanımlı Radyolar için Düşük Karmaşıklık, Yüksek Duyarlılık Bir İşaret Üretici Algoritması ve Prototip Gerçekleştirilmesi**
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
- XVIII. **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
- XIX. **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
- XX. **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

- XXI. **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
- XXII. **A symmetric U-slot microstrip patch antenna design Simetrik U-Yarikli Mikroşerit Yama Anten Tasarimi**
BOYACI A., Imeci T.
2015 23rd Signal Processing and Communications Applications Conference, SIU 2015, Malatya, Turkey, 16 - 19 May 2015, pp.2017-2020
- XXIII. **High-resolution multi-band spectrum occupancy measurements and evaluations at 900MHz downlink band for Istanbul metropolitan Istanbul 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
- XXIV. **Fractional-rate radiometer for spectrum sensing based on I/Q branch separation I/Q Kollari Ayrimina Dayali, Kesirli-oranli 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
- XXV. **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
- XXVI. **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
- XXVII. **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
- XXVIII. **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
- XXIX. **Identification of shadowed fast fading interference in celullar mobile radio systems**
BOYACI A., YARKAN S., ZAİM A. H.
2013 21st Signal Processing and Communications Applications Conference, SIU 2013, Haspolat, Turkey, 24 - 26 April 2013
- XXX. **Towards green and secure vehicle-to-vehicle communications: A protocol for establishing the network**
BOYACI A., Ozturk E., YARKAN S., ZAİM A. H.
7th International Conference on Application of Information and Communication Technologies, AICT 2013, Baku, Azerbaijan, 23 - 25 October 2013

Supported 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