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Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Dr), Turkey 2013 - 2019

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (YI) (Tezli), Turkey 2011 - 2013

Postgraduate, Tobb University Of Economics And Technology, Institute Of Science, Bilgisayar Mühendisliği (YI) (Tezli), Turkey 2010 - 2011

Undergraduate, Cankaya University, Faculty Of Economics And Administrative Sciences, Department Of Business, Turkey 2008 - 2010

Undergraduate, Cankaya University, Faculty Of Engineering, Department Of Computer Engineering, Turkey 2005 - 2010

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Nesnelerin İnterneti için Sis Hesaplama Tabanlı Veri Kümeleme ve Yönlendirme Modelleri, Gazi University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Dr), 2019

Postgraduate, Kablosuz algılayıcı ağlarda çok-amaçlı evrimsel algoritmalar ile etkin güvenli kapsama kontrolü, Gazi University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (YI) (Tezli), 2013

Academic Titles / Tasks

Research Assistant, Gazi University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2010 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- Road to efficiency: Mobility-driven joint task offloading and resource utilization protocol for connected vehicle networks**
Akyıldız O., Yildirim Okay F., Kök I., Özdemir S.
FUTURE GENERATION COMPUTER SYSTEMS, vol.156, pp.157-167, 2024 (SCI-Expanded)
- Unveiling anomalies: a survey on XAI-based anomaly detection for IoT**
Eren E., YILDIRIM OKAY F., ÖZDEMİR S.

- Turkish Journal of Electrical Engineering and Computer Sciences, vol.32, no.3, pp.358-381, 2024 (SCI-Expanded)
- III. **Explainable Artificial Intelligence (XAI) for Internet of Things: A Survey**
Kok I., Okay F., Muyanli O., ÖZDEMİR S.
IEEE Internet of Things Journal, vol.10, no.16, pp.14764-14779, 2023 (SCI-Expanded)
- IV. **A P4-assisted task offloading scheme for Fog networks: An intelligent transportation system scenario**
Akyıldız O., Kök I., Okay F., Özdemir S.
Internet of Things (Netherlands), vol.22, 2023 (SCI-Expanded)
- V. **FogAI: An AI-supported fog controller for Next Generation IoT**
KÖK İ., YILDIRIM OKAY F., ÖZDEMİR S.
INTERNET OF THINGS, vol.19, 2022 (SCI-Expanded)
- VI. **Priority Enabled Content Based Forwarding in Fog Computing via SDN**
İNAĞ Y., GÜZEL M., YILDIRIM OKAY F., DEMİRCİ M., ÖZDEMİR S.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, pp.1-21, 2022 (SCI-Expanded)
- VII. **Big data analytics for default prediction using graph theory**
Yildirim M., Okay F., Ozdemir S.
EXPERT SYSTEMS WITH APPLICATIONS, vol.176, 2021 (SCI-Expanded)
- VIII. **A deep learning-based CEP rule extraction framework for IoT data**
Şimşek M. U., Yıldırım Okay F., Ozdemir S.
JOURNAL OF SUPERCOMPUTING, vol.77, no.8, pp.8563-8592, 2021 (SCI-Expanded)
- IX. **Fog computing-based privacy preserving data aggregation protocols**
YILDIRIM OKAY F., Ozdemir S., Xiao Y.
TRANSACTIONS ON EMERGING TELECOMMUNICATIONS TECHNOLOGIES, vol.31, no.4, 2020 (SCI-Expanded)
- X. **Routing in Fog-Enabled IoT Platforms: A Survey and an SDN-Based Solution**
YILDIRIM OKAY F., Ozdemir S.
IEEE INTERNET OF THINGS JOURNAL, vol.5, no.6, pp.4871-4889, 2018 (SCI-Expanded)
- XI. **IMPROVING COVERAGE IN WIRELESS SENSOR NETWORKS USING MULTI-OBJECTIVE EVOLUTIONARY ALGORITHMS**
YILDIRIM OKAY F., Ozdemir S.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.30, no.2, pp.143-153, 2015 (SCI-Expanded)
- XII. **MEDIUM ACCESS CONTROL PROTOCOLS IN WIRELESS SENSOR NETWORKS**
YILDIRIM OKAY F., Ozdemir S.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.29, no.1, pp.49-59, 2014 (SCI-Expanded)

Articles Published in Other Journals

- I. **IoT-Based Energy Consumption Prediction Using Transformers**
Alioghli A. A., Yıldırım Okay F.
Gazi University Journal of Science Part A: Engineering and Innovation, vol.11, no.2, pp.304-323, 2024 (Peer-Reviewed Journal)
- II. **A comparative analysis on the reliability of interpretable machine learning**
YILDIRIM M., YILDIRIM OKAY F., ÖZDEMİR S.
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.30, no.4, pp.494-508, 2024 (ESCI)
- III. **TPS3: A privacy preserving data collection protocol for smart grids**
ŞİMŞEK M. B., YILDIRIM OKAY F., Mert D., Ozdemir S.
INFORMATION SECURITY JOURNAL, vol.27, no.2, pp.102-118, 2018 (ESCI)

Books & Book Chapters

- I. **Yorumlanabilir Makine Öğrenmesi**
YILDIRIM OKAY F., YILDIRIM M.
in: Yorumlanabilir ve Açıklanabilir Yapay Zeka ve Güncel Konular, Şeref Sağıroğlu, Mustafa Umut Demirezen, Editor, Nobel Akademik Yayıncılık, Ankara, pp.1-41, 2022
- II. **Fog Computing Based Complex Event Processing for Internet of Things**
Yildirim Okay F., Kök I., Güzel M., Özdemir S.
in: BIG DATA-ENABLED INTERNET OF THINGS, Muhammad Usman Shahid Khan, Samee U. Khan, Albert Y. Zomaya, Editor, IET - Institution of Engineering and Technology, North Dakota, pp.68-80, 2019

Refereed Congress / Symposium Publications in Proceedings

- I. **Image Transformation for IoT-based Anomaly Detection**
Bamus I., YILDIRIM OKAY F.
32nd IEEE Conference on Signal Processing and Communications Applications, SIU 2024, Mersin, Turkey, 15 - 18 May 2024
- II. **Improved Chain-based Multi-Output Classification for Packaging Planning**
Yildiz S. N., Yildirim Okay F., Islamov A., Özdemir S.
14th International Conference on Emerging Ubiquitous Systems and Pervasive Networks / 13th International Conference on Current and Future Trends of Information and Communication Technologies in Healthcare, EUSPN/ICTH 2023, Almaty, Kazakhstan, 7 - 09 November 2023, vol.231, pp.697-702
- III. **Malicious Firmware Detection on Embedded Systems Using Deep Learning**
Yapıcıoğlu C., YILDIRIM OKAY F., DEMİRCİ M.
2023 Innovations in Intelligent Systems and Applications Conference, ASYU 2023, Sivas, Turkey, 11 - 13 October 2023
- IV. **Anomaly Detection in Financial Data using Deep Learning: A Comparative Analysis**
Yıldız K., Dedebeğ S., YILDIRIM OKAY F., Şimşek M. U.
Akıllı Sistemlerde Yenilikler ve Uygulamaları Konferansı (ASYU 2022), Antalya, Turkey, 07 September 2022
- V. **QNSGA-II: A Quantum Computing-Inspired Approach to Multi-Objective Optimization**
GÜZEL M., YILDIRIM OKAY F., KÖK İ., ÖZDEMİR S.
2022 International Symposium on Networks, Computers and Communications (ISNCC), Shenzhen, China, 19 July 2022
- VI. **Real-time Aircraft Tracking System: A Survey and A Deep Learning Based Model**
Çakıcı M. E., YILDIRIM OKAY F., ÖZDEMİR S.
2021 International Symposium on Networks, Computers and Communications (ISNCC), Dubai, United Arab Emirates, 31 October 2021
- VII. **Interpretable Machine Learning: A Case Study of Healthcare**
YILDIRIM OKAY F., YILDIRIM M., ÖZDEMİR S.
2021 International Symposium on Networks, Computers and Communications (ISNCC), Dubai, United Arab Emirates, 31 October 2021
- VIII. **Sentiment Analysis for Turkish Unstructured Data by Machine Translation**
YILDIRIM M., YILDIRIM OKAY F., ÖZDEMİR S.
2020 IEEE International Conference on Big Data (Big Data), Atlanta, GA, United States Of America, 11 December 2020
- IX. **SDN-Based Data Forwarding in Fog-Enabled Smart Grids**
YILDIRIM OKAY F., ÖZDEMİR S., DEMİRCİ M.
IEEE GPECOM 2019, 12 - 15 June 2019
- X. **Efficient and Secure Coverage Control in Internet of Things**
YILDIRIM OKAY F., Özdemir S.

3rd International Conference on Computer Science and Engineering (UBMK), Sarajevo, Bosnia And Herzegovina, 20 - 23 September 2018, pp.90-95

XI. Comparative Analysis of IoT Communication Protocols

Corak B. H., YILDIRIM OKAY F., GÜZEL M., Murt S., Ozdemir S.

International Symposium on Networks, Computers and Communications (ISNCC), Rome, Italy, 19 - 21 June 2018

XII. A Secure Data Aggregation Protocol for Fog Computing Based Smart Grids

YILDIRIM OKAY F., Ozdemir S.

12th IEEE International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG), Doha, Qatar, 10 - 12 April 2018

XIII. A Fog Computing Based Smart Grid Model

YILDIRIM OKAY F., Ozdemir S.

International Symposium on Networks, Computers and Communications (ISNCC), Hammamet, Tunisia, 11 - 13 May 2016

XIV. Dimensionality reduction with PCA in block based DCT domain

GÜZEL TURHAN C., YILDIRIM OKAY F., YILDIZ O., BİLGE H. Ş.

International Conference on Advanced Technology & Sciences (ICAT'14), Antalya, Turkey, 12 - 15 August 2014, pp.216-220

XV. Kablosuz Algılayıcı Ağlarda Güvenli Yönlendirme Protokolleri Üzerine Bir İnceleme

Yıldırım Okay F., Özdemir S., Sağıroğlu Ş.

7th International Conference on Information Security and Cryptology, İstanbul, Turkey, 14 - 16 January 2014

XVI. Multi objective evolutionary algorithm based on decomposition for efficient coverage control in mobile sensor networks

Ali Attea B., Yıldırım Okay F., Özdemir S., Akcayol M. A.

2012 6th International Conference on Application of Information and Communication Technologies (AICT), Tbilisi, Georgia, 17 - 19 October 2012

XVII. Kablosuz Algılayıcı Ağlarda Güvenli Ortam Erişim Protokolleri

Yıldırım Okay F., Özdemir S.

International Conference on Information Security & Cryptology (ISCTURKEY), Ankara, Turkey, 5 - 08 June 2012, pp.1-7

Supported Projects

Özdemir S., Demirci M., Yıldırım Okay F., TUBITAK Project, Nesnelerin interneti için sis hesaplama temelli karmaşık olay işleme ve değerli içerik çıkarımı, 2018 - 2021

Metrics

Publication: 34

Citation (WoS): 139

Citation (Scopus): 385

H-Index (WoS): 4

H-Index (Scopus): 7