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Biography

İbrahim Kök received a B.S. degree in Computer Engineering from Ankara University and an MSc and PhD in Computer Science from Gazi University in 2015 and 2020, respectively. His current research interests include the Internet of Things (IoT), Deep Learning, Explainable AI, AI-enabled IoT, and IoT Data Analytics

Education Information

Doctorate, Gazi University, Bilişim Enstitüsü, Bilgisayar Bilimleri, Turkey 2015 - 2020

Undergraduate, Ankara University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, Turkey 2017 - 2019

Postgraduate, Gazi University, Bilişim Enstitüsü, Bilgisayar Bilimleri, Turkey 2012 - 2015

Undergraduate, Gazi University, Teknik Eğitim Fakültesi, Elektronik Ve Bilgisayar Eğitimi, Turkey 2005 - 2010

Dissertations

Doctorate, Nesnelerin internetinde derin öğrenmeye dayalı veri analizi ve bilgi çıkarımı, Gazi University, Bilişim Enstitüsü, -, 2020

Postgraduate, Araçtan araca tasarsız ağ uygulaması, Gazi University, Bilişim Enstitüsü, -, 2015

Research Areas

Computer Sciences, Artificial Intelligence, Computer Learning and Pattern Recognition

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **MetaXAI: Metahuman-assisted audio and visual explainability framework for Internet of Medical Things**
Kök İ.
BIOMEDICAL SIGNAL PROCESSING AND CONTROL, vol.100, no.107034, pp.1-11, 2025 (SCI-Expanded)
- II. **Linguistic summarization of visual attention and developmental functioning of young children with autism spectrum disorder**
Ozturk D., AYDOĞAN S., Kok İ., Akin Bulbul I., ÖZDEMİR S., ÖZDEMİR S., AKAY D.

- HEALTH INFORMATION SCIENCE AND SYSTEMS, vol.12, no.1, 2024 (SCI-Expanded)
- III. **DeepFogAQ: A fog-assisted decentralized air quality prediction and event detection system**
Simsek M. U., Kok İ., ÖZDEMİR S.
EXPERT SYSTEMS WITH APPLICATIONS, vol.251, 2024 (SCI-Expanded)
- IV. **Road to efficiency: Mobility-driven joint task offloading and resource utilization protocol for connected vehicle networks**
Akyildiz O., YILDIRIM OKAY F., Kok İ., ÖZDEMİR S.
FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF ESCIENCE, vol.156, pp.157-167, 2024 (SCI-Expanded)
- V. **Explainable Artificial Intelligence (XAI) for Internet of Things: A Survey**
Kok İ., YILDIRIM OKAY F., Muyanli O., ÖZDEMİR S.
IEEE INTERNET OF THINGS JOURNAL, vol.10, no.16, pp.14764-14779, 2023 (SCI-Expanded)
- VI. **A P4-assisted task offloading scheme for Fog networks: An intelligent transportation system scenario**
Akyildiz O., Kok İ., YILDIRIM OKAY F., ÖZDEMİR S.
INTERNET OF THINGS, vol.22, 2023 (SCI-Expanded)
- VII. **Content-centric data and computation offloading in AI-supported fog networks for next generation IoT**
Koek İ., oezdemir S.
PERVASIVE AND MOBILE COMPUTING, vol.85, 2022 (SCI-Expanded)
- VIII. **FogAI: An AI-supported fog controller for Next Generation IoT**
Kok İ., YILDIRIM OKAY F., ÖZDEMİR S.
INTERNET OF THINGS, vol.19, 2022 (SCI-Expanded)
- IX. **Development of a visual attention based decision support system for autism spectrum disorder screening**
ÖZDEMİR S., Akin-Bulbul I., Kok İ., ÖZDEMİR S.
INTERNATIONAL JOURNAL OF PSYCHOPHYSIOLOGY, vol.173, pp.69-81, 2022 (SCI-Expanded)
- X. **DeepMDP: A Novel Deep-Learning-Based Missing Data Prediction Protocol for IoT**
Kok İ., ÖZDEMİR S.
IEEE INTERNET OF THINGS JOURNAL, vol.8, no.1, pp.232-243, 2021 (SCI-Expanded)
- XI. **ANFIS and Deep Learning based missing sensor data prediction in IoT**
Guzel M., Kok İ., AKAY D., ÖZDEMİR S.
CONCURRENCY AND COMPUTATION-PRACTICE & EXPERIENCE, vol.32, no.2, 2020 (SCI-Expanded)

Articles Published in Other Journals

- I. **Açıklanabilir Yapay Zekaya Dayalı Müşteri Kaybı Analizi ve Elde Tutma Önerisi**
Kök İ.
Mühendislik bilimleri ve araştırmaları dergisi (Online), vol.1, no.13, pp.13-23, 2024 (Peer-Reviewed Journal)
- II. **Adli Bilişim Eğitiminin Gereksinimi ve Genel Olarak Değerlendirilmesi**
Orakcı M., Kök İ., Çakır H.
INTERNATIONAL JOURNAL OF INFORMATICS TECHNOLOGIES, vol.9, no.2, pp.137-145, 2016 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Internet of Nano and Bio-Nano Things: A Review**
Şentürk Ş., KÖK İ., ŞENTÜRK F.
in: Semantic Intelligence. Lecture Notes in Electrical Engineering, Sarika Jain, Sven Groppe, Bharat K. Bhargava,

Editor, Springer, pp.265-276, 2023

II. Nesnelerin İnternetinde Yeni Gelişen Teknolojiler

KÖK İ.

in: Bilgisayar Bilimlerinde Güncel Konular ve Yeni Nesil Teknolojiler, Mahmut KAYA, Editor, Akademisyen Yayınevi, Ankara, pp.65-78, 2022

III. Recent trends in air quality prediction: An artificial intelligence perspective

KÖK İ., GÜZEL M., ÖZDEMİR S.

in: Intelligent Environmental Data Monitoring for Pollution Management, Siddhartha Bhattacharyya, Naba Kumar Mondal, Jan Platos, Václav Snášel, Pavel Krömer, Editor, Elsevier-Academic Press, Londrina, pp.195-221, 2021

Refereed Congress / Symposium Publications in Proceedings

I. Autonomous Micro-Grids: A Reinforcement Learning-Based Energy Management Model in Smart Cities

Özkan E., KÖK İ., ÖZDEMİR S.

2023 International Symposium on Networks, Computers and Communications (ISNCC), Doha, Qatar, 23 October 2023, pp.1-6

II. Explainable AI-powered edge computing solution for smart building energy management in green IoT

KÖK İ., Ergun Y., Uğur N.

Low-Cost Digital Solutions for Industrial Automation (LoDiSA 2023), Londrina, Brazil, 25 - 26 September 2023, pp.150-157

III. Explainable AI-Based Malicious Traffic Detection and Monitoring System in Next-Gen IoT Healthcare

Gürbüz E., Turgut Ö., KÖK İ.

International Conference on Smart Applications, Communications and Networking (SmartNets 2023), İstanbul, Turkey, 25 - 27 July 2023

IV. Linguistic Comparison of Children with and without ASD through Eye-Tracking Data

Ozturk D., AYDOĞAN S., Kok İ., Akin-Bulbul I., ÖZDEMİR S., ÖZDEMİR S., AKAY D.

9th International Conference on Computer Technology Applications, ICCTA 2023, Vienna, Austria, 10 - 12 May 2023, pp.241-246

V. Internet of Nano and Bio-Nano Things: A Review

Şentürk Ş., KÖK İ., ŞENTÜRK F.

International Semantic Intelligence Conference (ISIC) 2022, Savannakhét, Laos, 17 - 19 May 2022

VI. Impact of Missing Data on Classification Success in Health and Comparative Analysis of Imputation Methods

Ergün E. U., KÖK İ., ÖZDEMİR S.

2022 International Symposium on Networks, Computers and Communications (ISNCC), Shenzhen, China, 19 July 2022

VII. 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 - 22 July 2022

VIII. A Novel Low-Latency and Cost-Effective Communication Protocol Design for Internet of Flying Things

ÇORAK B. H., KÖK İ., ÖZDEMİR S.

2021 International Symposium on Networks, Computers and Communications (ISNCC), Dubai, United Arab Emirates, 31 October - 02 November 2021

IX. Deep Learning based Delay and Bandwidth Efficient Data Transmission in IoT

Kok İ., Corak B. H., YAVANOĞLU U., ÖZDEMİR S.

IEEE International Conference on Big Data (Big Data), Los-Angeles, Chile, 9 - 12 December 2019, pp.2327-2333

- X. **An Eye-tracking Data Based Decision Support System For Autism Risk Assessment**
ÖZDEMİR S., KÖK İ., AKIN BÜLBÜL İ., ÖZDEMİR S., TÖRET Z.
American Educational Research Association Conference, 13 - 17 April 2018
- XI. **Otizimli ve Normal gelişim Gösteren Çocukların insan nesne Videolarında Göz İzleme Becerilerinin Karşılaştırılması**
ÖZDEMİR S., AKIN BÜLBÜL İ., TÖRET Z., TİRYAKİ D., KÖK İ., CEYHAN G., ÇOTUK H., BABACAN A., GÜNLÜ Y.
1.Uluslararası Sosyal Bilimler ve Eğitim Araştırmaları Sempozyumu, 3 - 05 November 2017
- XII. **Otizm Spektrum Bozukluğu Risklerinin Belirlenmesinde Göz İzleme Teknolojileri**
ÖZDEMİR S., AKIN BÜLBÜL İ., ÇOTUK H., TÖRET Z., TİRYAKİ D., KÖK İ., BABACAN A., GÜNLÜ Y., CEYHAN G.
1.Uluslararası Sosyal Bilimler ve Eğitim Araştırmaları Sempozyumu, 3 - 05 November 2017
- XIII. **A Hybrid Approach for Improving the Classification Performance**
Kök İ., Davarci M. E., ÖZDEMİR S.
2017 International Conference on Computer Science and Engineering (UBMK), Antalya, Turkey, 5 - 08 October 2017, pp.682-687
- XIV. **A deep learning model for air quality prediction in smart cities**
Kök İ., Simsek M. U., ÖZDEMİR S.
IEEE International Conference on Big Data (IEEE Big Data), Massachusetts, United States Of America, 11 - 14 December 2017, pp.1983-1990
- XV. **Suç Analizinde Veri Madenciliği Teknikleri ve Makine Öğrenmesi Algoritmalarının Kullanılması**
ORAKÇI M., CİYLAN B., KÖK İ., SEVRİ M.
Akademik Bilişim Konferansı, Aydın, Turkey, 15 - 17 February 2016

Metrics

Publication: 31

Citation (WoS): 177

Citation (Scopus): 290

H-Index (WoS): 6

H-Index (Scopus): 7

Awards

Kök İ., En İyi Doktora Tezi Ödülü, Gazi Üniversitesi, December 2021