Assoc. Prof. HAKAN GÜNDÜZ

Personal Information

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International Researcher IDs
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Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, Turkey 2013 - 2019
Undergraduate, Yalova University, Faculty Of Engıneerıng, Department Of Computer Engıneerıng, Turkey 2014 - 2016
Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, Turkey 2011 - 2013
Undergraduate, Kocaeli University, Teknik Eğitim Fakültesi, Elektronik ve Bilgisayar Eğitimi, Turkey 2004 - 2008

Foreign Languages

English, C1 Advanced

Research Areas

Numerical Algorithms, Software Security, Data Structures, Knowledge Engineering, Computer Learning, Natural
Language Processing, Text/Document Processing, Pattern Recognition and Image Processing, Neural Networks,
Operating Systems, Software Engineering, Soft Computing

Academic Titles / Tasks

Associate Professor, Kocaeli University, Mühendislik Fakültesi, Yazılım Mühendisliği, 2021 - Contınues
Assistant Professor, Kocaeli University, Mühendislik Fakültesi, Yazılım Mühendisliği, 2021 - 2021
Assistant Professor, Bandirma Onyedi Eylul University, Faculty Of Engıneerıng And Natural Scıences, Department Of
Software Engıneerıng, 2020 - 2021
Research Assistant PhD, Duzce University, Faculty Of Technology, Department Of Computer Engıneerıng, 2018 - 2020
Research Assistant, Istanbul Technical University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, 2011 - 2018
Research Assistant, Duzce University, Faculty Of Technology, Department Of Computer Engıneerıng, 2010 - 2011

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Malware detection framework based on graph variational autoencoder extracted embeddings from
API-call graphs**
GÜNDÜZ H.

PEERJ COMPUTER SCIENCE, vol.8, 2022 (SCI-Expanded)

II. **Malware Detection Based on Graph Attention Networks for Intelligent Transportation Systems**
Catal C., GÜNDÜZ H., ÖZCAN A.
ELECTRONICS, vol.10, no.20, 2021 (SCI-Expanded)

III. **An efficient dimensionality reduction method using filter-based feature selection and variational autoencoders on Parkinson's disease classification**
GÜNDÜZ O. H.
BIOMEDICAL SIGNAL PROCESSING AND CONTROL, vol.66, 2021 (SCI-Expanded)

IV. **An efficient stock market prediction model using hybrid feature reduction method based on variational autoencoders and recursive feature elimination**
Gunduz H.
FINANCIAL INNOVATION, vol.7, no.1, 2021 (SSCI)

V. **Deep Learning-Based Parkinson's Disease Classification Using Vocal Feature Sets**
Gunduz H.
IEEE ACCESS, vol.7, pp.115540-115551, 2019 (SCI-Expanded)

VI. **Intraday prediction of Borsa Istanbul using convolutional neural networks and feature correlations**
Gunduz H., Yaslan Y., Çataltepe Z.
KNOWLEDGE-BASED SYSTEMS, vol.137, pp.138-148, 2017 (SCI-Expanded)

VII. **Stock daily return prediction using expanded features and feature selection**
Gunduz H., Çataltepe Z., Yaslan Y.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.25, no.6, pp.4829-4840, 2017 (SCI-Expanded)

VIII. **Borsa Istanbul (BIST) daily prediction using financial news and balanced feature selection**
Gunduz H., Çataltepe Z.
EXPERT SYSTEMS WITH APPLICATIONS, vol.42, no.22, pp.9001-9011, 2015 (SCI-Expanded)

Articles Published in Other Journals

I. **SENTIMENT ANALYSIS ON TURKISH MOVIE REVIEWS WITH DEEP BIDIRECTIONAL ENCODER REPRESENTATIONS FROM TRANSFORMERS (BERT) AND SUPPORT VECTOR MACHINES**
GÜNDÜZ H.
KSÜ Mühendislik Bilimleri Dergisi, vol.26, no.2, pp.542-549, 2023 (Peer-Reviewed Journal)

II. **WEKA Veri Madenciliği Yazılımının Sürümleri Arasındaki Kalite Değişimlerinin QMOOD ile İncelenmesi**
GÜNDÜZ H.
Bilecik Şeyh Edebali Üniversitesi Fen Bilimleri Dergisi, vol.7, no.2, pp.825-836, 2020 (Peer-Reviewed Journal)

III. **Filtre Tabanlı Nitelik Seçimi ve Topluluk Öğrenme Yaklaşımlarıyla Borsa İstanbul Enerji Endeksi Yön Tahmini**
GÜNDÜZ H.
European Journal of Science and Technology, pp.215-220, 2020 (Peer-Reviewed Journal)

IV. **Parkinson Hastalığı Tespitinde Farklı Boyutsallık İndirgeme Yöntemlerinin Karşılaştırılması**
GÜNDÜZ H.
European Journal of Science and Technology, pp.1164-1172, 2019 (Peer-Reviewed Journal)

Books & Book Chapters

I. **Predictive Analysis of the Cryptocurrencies' Movement Direction Using Machine Learning Methods**
TİMUÇİN T., BAYIROĞLU H., GÜNDÜZ H., KARAGÜL YILDIZ T., ATAGÜN E.
in: Trends in Data Engineering Methods for Intelligent Systems. ICAIAME 2020. Lecture Notes on Data Engineering

and Communications Technologies, Hemanth J., Yigit T., Patrut B., Angelopoulou A, Editor, Springer, pp.256-264, 2021

II. **Text Mining Based Decision Making Process in Kickstarter Platform**
KARAGÜL YILDIZ T., ATAGÜN E., BAYIROĞLU H., TİMUÇİN T., GÜNDÜZ H.
in: Trends in Data Engineering Methods for Intelligent Systems. ICAIAME 2020. Lecture Notes on Data Engineering and Communications Technologies, Hemanth J., Yigit T., Patrut B., Angelopoulou A., Editor, Springer, Cham, pp.344-349, 2021

III. **Effective Factor Detection in Crowdfunding Systems**
ATAGÜN E., KARAGÜL YILDIZ T., TİMUÇİN T., GÜNDÜZ H., BAYIROĞLU H.
in: Trends in Data Engineering Methods for Intelligent Systems. ICAIAME 2020. Lecture Notes on Data Engineering and Communications Technologies, Hemanth J., Yigit T., Patrut B., Angelopoulou A, Editor, Springer, pp.246-255, 2021

Refereed Congress / Symposium Publications in Proceedings

I. **Derin Öğrenme, Topluluk Öğrenme ve Doğrusal Regresyon Modelleri Kullanılarak Metro Yolcu Akış Tahmini**
GÜNDÜZ H.
10th International Scientific Research Congress - Science and Engineering-, Turkey, 10 - 11 April 2021

II. **Stock Market Prediction with Stacked Autoencoder Based Feature Reduction**
GÜNDÜZ H.
2020 28th Signal Processing and Communications Applications Conference (SIU), Gaziantep, Turkey, Turkey, 5 - 07 October 2020

III. **Metro Passenger Flow Estimation with Different Regression Models**
GÜNDÜZ H.
International Marmara Sciences Congress (IMASCON Autumn 2019), Kocaeli, Turkey, 1 - 03 November 2019

IV. **Detection of Parkinson's Disease with Different Voice Feature Sets**
GÜNDÜZ H.
International Marmara Sciences Congress (IMASCON Autumn 2019), Kocaeli, Turkey, 1 - 03 November 2019

V. **Stock market prediction with deep learning using financial news**
GÜNDÜZ H., YASLAN Y., ÇATALTEPE Z.
2018 26th Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018

VI. **Stock market direction prediction using deep neural networks**
GÜNDÜZ H., YASLAN Y., ÇATALTEPE Z.
25th Signal Processing and Communications Applications Conference (SIU), 15 - 18 May 2017

VII. **Image search system with feedback**
GÜNDÜZ H., KOÇAL O. H.
2016 24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, Turkey, 16 - 19 May 2016

VIII. **An Extension to Local Network Alignment using Hidden Markov Models (HMMs)**
GÜNDÜZ H., SÜZER İ.
Proceedings of the 9th International Joint Conference on Biomedical Engineering Systems and Technologies, Rome, Italy, Italy, 21 - 23 February 2016

IX. **Big data feature selection and projection for gender prediction based on user web behaviour**
Gülşen E., GÜNDÜZ H., ÇATALTEPE Z., Serinol L.
2015 23nd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, Turkey, 16 - 19 May 2015

X. **Glasses detection in face images using histogram of Oriented Gradients**
GÜNDÜZ H., HALEPMOLLASI R., SARAÇ Ö. S.
2014 22nd Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, Turkey, 23 -

25 April 2014
XI. **Prediction of Istanbul Stock Exchange ISE direction based on news articles**
GÜNDÜZ H., ÇATALTEPE Z.
The Third International Conference on Digital Information Processing and Communications (ICDIPC), Dubai, United Arab Emirates, 3 - 05 February 2013

Scientific Refereeing

TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, Kocaeli University, Turkey, December 2023
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Kocaeli University, Turkey, December 2023
Technopark, Kocaeli University, Turkey, November 2023
Technopark, Kocaeli University, Turkey, November 2023
Technopark, Kocaeli University, Turkey, November 2023
Technopark, Kocaeli University, Turkey, August 2023
TUBITAK Project, 1501 - Industry R & D Projects Support Program, Kocaeli University, Turkey, March 2023
Technopark, Kocaeli University, Turkey, January 2023

Metrics

Publication: 26
Citation (WoS): 302
Citation (Scopus): 476
H-Index (WoS): 7
H-Index (Scopus): 8