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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAQ-8217-2020

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Biography

I received both my PhD and MSc degrees from the Department of Computer Engineering at Middle East Technical University respectively in 2017 and 2011. I completed my PhD under the supervision of Assoc. Prof. Dr. Murat Manguoglu and got my master degree under the supervision of Prof. Dr. Tolga Can. I obtained my BSc degree from the Department of Computer Engineering. I worked at ROKETSAN between 2017 and 2019 years as a senior computer engineer.

I'm an Associate Professor at the Department of Software Engineering in Ankara Yildirim Beyazit University. My primary research is Graph algorithms, Parallel Computing, Bioinformatics, Machine Learning, and New Generation Algorithms.

Education Information

Doctorate, Middle East Technical University, Turkey 2011 - 2018

Postgraduate, Middle East Technical University, Turkey 2007 - 2011

Dissertations

Doctorate, Parallel bio-inspired single source shortest path algorithms, Middle East Technical University, Faculty Of Engineering, Department Of Computer Engineering, 2018

Postgraduate, Machine learning methods for promoter region prediction, Middle East Technical University, Faculty Of Engineering, Department Of Computer Engineering, 2011

Postgraduate, Laplace-Bessel diferensiyel operatörüne karşılık gelen genelleştirilmiş maksimal fonksiyon ve genelleştirilmiş Riesz potansiyeli, Ankara University, Fen Bilimleri Enstitüsü, Fen Bilimleri Enstitüsü (Döner Sermaye), 2007

Research Areas

Computer Sciences

Academic Titles / Tasks

Associate Professor, Ankara Yildirim Beyazit University, Mühendislik ve Doğa Bilimleri Fakültesi, Yazılım Mühendisliği, 2023 - Continues

Assistant Professor, Ankara Yildirim Beyazit University, Mühendislik ve Doğa Bilimleri Fakültesi, Bilgisayar Mühendisliği, 2021 - 2023

Assistant Professor, Izmir Bakircay University, Faculty Of Engineering And Architecture, Department Of Computer Engineering, 2019 - 2021

Research Assistant, Middle East Technical University, Faculty Of Engineering, Department Of Computer Engineering, 2012 - 2018

Academic and Administrative Experience

Deputy Head of Department, Ankara Yildirim Beyazit University, Mühendislik ve Doğa Bilimleri Fakültesi, Yazılım Mühendisliği, 2022 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Early prediction of gallstone disease with a machine learning-based method from bioimpedance and laboratory data**
Esen İ., ARSLAN H., Aktürk Esen S., Gülşen M., Kültekin N., Özdemir O.
Medicine, vol.103, no.8, 2024 (SCI-Expanded)
- II. **Block size optimization for PoW consensus algorithm based blockchain applications by using whale optimization algorithm**
Aygün B., Arslan H.
Turkish Journal of Electrical Engineering and Computer Sciences, vol.30, pp.406-419, 2022 (SCI-Expanded)
- III. **COVID-19 prediction based on genome similarity of human SARS-CoV-2 and bat SARS-CoV-like coronavirus**
Arslan H.
Computers and Industrial Engineering, vol.161, 2021 (SCI-Expanded)
- IV. **A new COVID-19 detection method from human genome sequences using CpG island features and KNN classifier**
Arslan H., ARSLAN H.
Engineering Science and Technology, an International Journal, vol.24, no.4, pp.839-847, 2021 (SCI-Expanded)
- V. **A Parallel Fully Dynamic Iterative Bio-Inspired Shortest Path Algorithm**
Arslan H.
Arabian Journal for Science and Engineering, vol.45, no.12, pp.10115-10130, 2020 (SCI-Expanded)
- VI. **A parallel bio-inspired shortest path algorithm**
ARSLAN H., MANGUOĞLU M.
Computing, vol.101, no.8, pp.969-988, 2019 (SCI-Expanded)
- VII. **Dynamic physarum solver: A bio-inspired shortest path method of dynamically changing graphs**
Arslan H.
Turkish Journal of Electrical Engineering and Computer Sciences, vol.27, no.2, pp.1489-1503, 2019 (SCI-Expanded)
- VIII. **A hybrid single-source shortest path algorithm**

Articles Published in Other Journals

- I. **A Parallel Algorithm for Designing Primer and Probe for Accurate Detection of Severe Acute Respiratory Syndrome Coronavirus**
ARSLAN H., DURMAZ R.
Black Sea Journal of Engineering and Science, vol.6, 2023 (Peer-Reviewed Journal)
- II. **Optimizing PID Gains of a Vehicle using the state-of-the-art Metaheuristic Methods**
ARSLAN H., AFŞAR M. A.
Academic Platform journal of engineering and smart systems (Online), vol.11, 2023 (Peer-Reviewed Journal)
- III. **A k-mer based metaheuristic approach for detecting COVID-19 variants**
ARSLAN H.
Dicle Üniversitesi Mühendislik Fakültesi Mühendislik Dergisi, vol.17, no.1, pp.17-26, 2023 (Peer-Reviewed Journal)
- IV. **Classification of SARS-CoV-2 Variants in Turkey**
ARSLAN H.
JOURNAL OF TURKISH OPERATIONS MANAGEMENT, vol.6, no.1, pp.1092-1101, 2022 (Peer-Reviewed Journal)
- V. **Bagging and Boosting Methods for Predicting Mortality of Patients with COVID-19**
ARSLAN H.
Dicle Üniversitesi Mühendislik Fakültesi Mühendislik Dergisi, vol.13, no.2, pp.221-226, 2022 (Peer-Reviewed Journal)
- VI. **A Comparative Study on COVID-19 Prediction Using Deep Learning and Machine Learning Algorithms: A Case Study on Performance Analysis**
ARSLAN H., ER O.
Sakarya University Journal of Computer and Information Sciences (Online), vol.5, 2022 (Peer-Reviewed Journal)
- VII. **Minimum İsbet Kümesi Problemi için Aşamalı Arama Algoritması**
ARSLAN H., UĞURLU O., AKRAM V., TÜRSEL ELİİYİ D.
Dokuz Eylül Üniversitesi Mühendislik Fakültesi Fen ve Mühendislik Dergisi, vol.23, no.69, pp.867-874, 2021 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **An Overview of New Generation Bio-Inspired Algorithms for Portfolio Optimization**
Arslan H., Uğurlu O., Türsel Eliiyi D.
in: The Impact of Artificial Intelligence on Governance, Economics and Finance, Sezer Bozkuş Kahyaoğlu, Editor, Springer, District Of Columbia, pp.1-25, 2022
- II. **Deep Learning Methods for Diagnosis of COVID-19 using Radiology Images and Genome Sequences: Challenges and Limitations**
Arslan H., Arslan H.
in: Deep Learning in Biomedical and Health Informatics, M. A. Jabbar, Ajith Abraham, Onur Dogan, Ana Maria Madureira, Sanju Tiwari, Editor, CRC, New York, New York, pp.117-135, 2022
- III. **Machine Learning Methods for Solving Linear Systems**
ARSLAN H., BOZYİĞİT F.
in: Developing Mathematical Literacy in the Context of the Fourth Industrial Revolution, Edgar Oliver Cardoso Espinosa, Editor, IGI GLOBAL, pp.155-184, 2021

Refereed Congress / Symposium Publications in Proceedings

- I. **Advancing Anemia Diagnosis: Harnessing Machine Learning Methods for Accurate Detection**
SÖYLEMEZ P. S., ARSLAN H.
International Conference on Science, Engineering Management & Information Technology, 14 - 15 September 2023
- II. **Classification of Monkeypox and HPV with Supervised Machine Learning Algorithms using k-mer**
Tipioğlu H. P., ARSLAN H.
International Conference on Science, Engineering Management & Information Technology, 14 September 2023
- III. **Energy Consumption Forecasting using Time Series Analysis Methods**
Üzel F., ARSLAN H.
International conference on Science, Engineering Management and Information Technology (SEMIT 2023), Turkey, 14 September 2023
- IV. **PV Output Power Prediction Using Regression Methods**
Aboumadi A., ARSLAN H.
International Conference On Advanced Engineering, Technology And Applications (ICAETA), Turkey, 10 March 2023
- V. **Overall Survival Prediction of NSCLC using Radiomics and Machine Learning Methods**
EREL M. S., ARSLAN H.
6th International Conference on Engineering Sciences (ICES 2023), Turkey, 03 February 2023
- VI. **Crime analysis and forecasting using machine learning**
Doluca Horoz A., ARSLAN H.
6th International Conference on Engineering Sciences (ICES 2023), 03 February 2023
- VII. **Classification of SARS-CoV-2 Variants in Turkey**
ARSLAN H.
International Conference on Science, Engineering Management & Information Technology, 02 February 2022
- VIII. **Detection of SARS-CoV-2 Main Variants of Concerns using Deep Learning**
Togrul M., Arslan H.
2022 Innovations in Intelligent Systems and Applications Conference, ASYU 2022, Antalya, Turkey, 7 - 09 September 2022
- IX. **Betweenness Centrality in Sparse Real and Wireless Multi-Hop Networks**
Tuzcu A., ARSLAN H.
Intelligent and Fuzzy Techniques for Emerging Conditions and Digital Transformation. INFUS 2021., İstanbul, Turkey, 24 - 26 August 2021, vol.307, pp.217-224
- X. **Performance analysis of machine learning algorithms in detection of COVID-19 from common symptoms Yaygın semptomlardan COVID-19 tespitinde makine öğrenmesi algoritmalarının karşılaştırmalı performans analizi**
Arslan H., Aygun B.
29th IEEE Conference on Signal Processing and Communications Applications, SIU 2021, Virtual, İstanbul, Turkey, 9 - 11 June 2021
- XI. **Binary Whale Optimization Algorithm for Resource Allocation in Cloud Computing**
ARSLAN H., AYGÜN B.
International Conference on Interdisciplinary Applications of Artificial Intelligence (ICIAAI 2021), 21 May 2021
- XII. **Machine learning methods for COVID-19 prediction using human genomic data**
ARSLAN H.
The 7th International Management Information Systems Conference, İzmir, Turkey, 9 - 11 December 2020, vol.74
- XIII. **Parallel Identification of Central Nodes in Wireless Multi-hop Networks**
TÜRSEL ELİYYİ D., ARSLAN H., AKRAM V., UĞURLU O.
8th Signal Processing and Communications Applications Conference (SIU), 2020, 5 - 07 October 2020
- XIV. **Genetik, Parçacık Sürü ve Nelder-Mead Simpleks Algoritmalarının Fırlatma Yörüngesi Optimizasyonu Üzerinden Karşılaştırılması**
ARSLAN H., SOFYALI A., UNAL E.

8. Ulusal Havacılık ve Uzay Konferansı,UHUK2020, Ankara, Turkey, Turkey, 9 - 11 September 2020
- XV. **A New Promoter Prediction Method using Support Vector Machines**
ARSLAN H.
27. IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı, 24 - 26 April 2019
- XVI. **Havacılık ve Uzay Benzetimlerinin Etmen Tabanlı Yaklaşım Kullanılarak Tasarlanması ve Geliştirilmesine Yönelik Bir Süreç Önerisi**
ARSLAN H.
8. Ulusal Savunma Uygulamaları Modelleme ve Simulasyon Konferansı, Turkey, 19 - 20 November 2019
- XVII. **Parallel solution of sparse linear systems to find the shortest path in large scale graphs**
ARSLAN H.
10th International Workshop on Parallel Matrix Algorithms and Applications, 27 - 29 June 2018
- XVIII. **ProSVM and ProK-means: Novel methods for promoter prediction**
ARSLAN H., CAN T.
10th International Symposium on Health Informatics and Bioinformatics (HIBIT 2011), 2 - 05 May 2011

Metrics

Publication: 36

Citation (WoS): 64

Citation (Scopus): 122

H-Index (WoS): 5

H-Index (Scopus): 5