

Assoc. Prof. MUSTAFA COŞKUN

Personal Information

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International Researcher IDs

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Education Information

Post Doctorate, Qatar Computing Research Institute, Data Analytics, Qatar 2018 - 2019

Doctorate, Case Western Reserve University, Computer Science, United States Of America 2012 - 2017

Postgraduate, The University of Texas at Arlington, Computational Mathematics, United States Of America 2011 - 2012

Undergraduate, Tokat Gaziosmanpaşa University, Mathematics, Turkey 2003 - 2007

Research Areas

Biocomputing, Theoretical Computer Science, Artificial Intelligence, Computer Learning and Pattern Recognition

Academic Titles / Tasks

Associate Professor, Ankara University, Mühendislik Fakültesi, Yapay Zeka ve Veri Mühendisliği Bölümü, 2023 - Continues

Assistant Professor, Abdullah Gul University, 2019 - 2022

Courses

Machine Learning, Undergraduate, 2024 - 2025

Mathematical Modeling and Algorithmic Thinking, Undergraduate, 2021 - 2022

Fundamental of Big Data Analytics, Doctorate, 2021 - 2022

Data Structure, Undergraduate, 2021 - 2022

Artificial Intelligence, Postgraduate, 2019 - 2020

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Intelligent traffic light systems using edge flow predictions**
Thahir A. R., COŞKUN M., Kilic S. K., GÜNGÖR V. Ç.
COMPUTER STANDARDS & INTERFACES, vol.87, 2024 (SCI-Expanded)
- II. **Topological-Similarity Based Canonical Representations for Biological Link Prediction**
Li M., COŞKUN M., Koyuturk M.
IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2024 (SCI-Expanded)
- III. **Topological feature generation for link prediction in biological networks**

Temiz M., GÜNGÖR B., Sahan P. G., COŞKUN M.

PEERJ, vol.11, 2023 (SCI-Expanded)

- IV. **Intrinsic graph topological correlation for graph convolutional network propagation**
Coskun M.
COMPUTER STANDARDS & INTERFACES, vol.83, 2023 (SCI-Expanded)
- V. **Developing a label propagation approach for cancer subtype classification problem**
Guner P., Bakir-Gungor B., Coskun M.
TURKISH JOURNAL OF BIOLOGY, vol.46, no.2, pp.145-161, 2022 (SCI-Expanded)
- VI. **Node similarity-based graph convolution for link prediction in biological networks**
Coskun M., Koyuturk M.
BIOINFORMATICS, vol.37, no.23, pp.4501-4508, 2021 (SCI-Expanded)
- VII. **Fast computation of Katz index for efficient processing of link prediction queries**
Coskun M., Baggag A., Koyuturk M.
DATA MINING AND KNOWLEDGE DISCOVERY, vol.35, no.4, pp.1342-1368, 2021 (SCI-Expanded)
- VIII. **Integrated querying and version control of context-specific biological networks**
Cowman T., Coskun M., Grama A., Koyuturk M.
DATABASE-THE JOURNAL OF BIOLOGICAL DATABASES AND CURATION, 2020 (SCI-Expanded)
- IX. **Hidden Smile Correlation Discovery Across Subjects Using Random Walk with Restart**
Jian H., Cosku M., Badokho A., Liu M., Huang M.
IEEE TRANSACTIONS ON AFFECTIVE COMPUTING, vol.10, no.1, pp.76-84, 2019 (SCI-Expanded)
- X. **Indexed Fast Network Proximity Querying**
Coskun M., Grama A., Koyuturk M.
PROCEEDINGS OF THE VLDB ENDOWMENT, vol.11, no.8, pp.840-852, 2018 (SCI-Expanded)
- XI. **Drug Response Prediction as a Link Prediction Problem**
Stanfield Z., Coskun M., Koyuturk M.
SCIENTIFIC REPORTS, vol.7, 2017 (SCI-Expanded)

Articles Published in Other Journals

- I. **Consensus embedding for multiple networks: Computation and applications**
Li M., COŞKUN M., Koyutürk M.
Network Science, vol.10, pp.190-206, 2022 (ESCI)
- II. **Ağ gömülümü için yüksek boyutlu yakınsaklık ölçüsü**
COŞKUN M.
ENGINEERING SCIENCES, vol.11, 2022 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Canonical Representation of Biological Networks Using Graph Convolution**
Li M., COŞKUN M., Koyuturk M.
BCB '23: Proceedings of the 14th ACM International Conference on Bioinformatics, Computational Biology, and Health Informatics, 08 September 2023
- II. **Traffic Light Management Systems Using Reinforcement Learning**
Can S. K., Thahir A., COŞKUN M., GÜNGÖR V. Ç.
the Innovations in Intelligent Systems and Applications Conference (ASYU 2022), Antalya, Turkey, 07 September 2022
- III. **Eigen gaps to decide on graph convolutional network architecture**
COŞKUN M.
4th International Conference on Pure and Applied Mathematics, 08 June 2022

- IV. **Linear vs. Non-Linear Embedding Methods in Recommendation Systems**
Gurler K., Coskun M., Karagenc S., Orun G., Pak B. K., GÜNGÖR V. Ç.
2022 Innovations in Intelligent Systems and Applications Conference, ASYU 2022, Antalya, Turkey, 7 - 09 September 2022
- V. **Assessing Employee Attrition Using Classifications Algorithms**
ÖZDEMİR F., COŞKUN M., GEZER C., GÜNGÖR V. Ç.
ICISDM 2020: Proceedings of the 2020 the 4th International Conference on Information System and Data Mining, Hawaii, United States Of America, 01 May 2020
- VI. **OFFER Referees Suggester for the Journal Editors**
COŞKUN M., Hilal H., Cengiz G., GÜNGÖR V. Ç.
IEEE Symposium on Computers and Communications, Spain, 30 June - 03 July 2019
- VII. **Deep Reinforcement Learning for Traffic Light Optimization**
COŞKUN M., Baggag A., Chawla S.
2018 IEEE International Conference on Data Mining Workshops (ICDMW), Singapore, Singapore, Singapore, 17 - 20 November 2018
- VIII. **Drug Response Prediction as a Link Prediction Problem**
Stanfield Z., Coskun M., Koyuturk M.
8th ACM International Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB), Massachusetts, United States Of America, 20 - 23 August 2017, pp.638
- IX. **Efficient Processing of Network Proximity Queries via Chebyshev Acceleration**
COŞKUN M., Koyuturk M., Grama A.
Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining - KDD 'xx16, San Francisco, California, USA, 13 - 17 August 2016
- X. **Link Prediction in Large Networks by Comparing the Global View of Nodes in the Network**
COŞKUN M., Koyuturk M.
2015 IEEE International Conference on Data Mining Workshop (ICDMW), Atlantic City, NJ, USA, United States Of America, 14 - 17 November 2015

Supported Projects

Coşkun M., TUBITAK Project, ÇOKLU KAVŞAKLARDA AKILLI TRAFİK YÖNETİMİ İÇİN YAPAY ZEKA SİSTEMİ, 2023 - 2025

Scientific Refereeing

ACM-BCB, Conference Paper (Full Text), July 2023

INTERNATIONAL JOURNAL OF HIGH PERFORMANCE COMPUTING AND NETWORKING, SCI Journal, March 2022

BRIEFINGS IN BIOINFORMATICS, Journal Indexed in SSCI, December 2021

Recomb, Conference Paper (Full Text), January 2021

European International Conference of Machine Learning , Conference Paper (Full Text), May 2020

Bioinformatics, Journal Indexed in SSCI, March 2020

IEEE TRANSACTIONS ON KNOWLEDGE AND DATA ENGINEERING, Journal Indexed in SSCI, January 2020

IEEE ACCESS, Journal Indexed in SSCI, October 2019

Scholarships

YLSY, Ministry of Education, 2009 - 2017