

ELNAZ PASHAEI

- ◆ Istanbul Aydin university, Istanbul
- ◆ elnazpashaei@aydin.edu.tr

EDUCATION

Yildiz Technical University

PhD in Computer Science and Engineering

PhD Thesis – Meta-Analysis of MicroRNAs and Gene Selection using Machine Learning

Concentrations: Bioinformatics and Meta-analysis, Machine learning, Data Mining, Swarm Intelligence and Evolutionary Computation (Metaheuristics)

Grade Point Average: 3.5/4.0

Istanbul, Turkey

September 2012 - August 2017

Qazvin Islamic Azad University

MS in Computer Science and Software Engineering

MS Thesis – Steiner Tree Algorithms in Graphs

Concentrations: Algorithm, Graph theory

Grade Point Average: 3.3/4.0

Qazvin, Iran

September 2010 – December 2012

Khoy Islamic Azad University

BS in Computer Science and Software Engineering

Concentrations: implementation of e-commerce website

Grade Point Average: 3.3/4.0

Khoy, Iran

September 2004 - July 2009

PROFESSIONAL EXPERIENCE

Istanbul Aydin University Software Engineering Department

Assist Professor

Istanbul

April 2018 - Present

PUBLICATIONS

Journal Papers (SCI, SCI-E)

1. Elnaz Pashaei, Elham Pashaei, “Gene selection using hybrid dragonfly black hole algorithm: a case study on RNA-seq COVID-19 data”. *Analytical Biochemistry*. Vol. 627, (2021) 114242. **Impact Factor: 2.8**.
2. Elham Pashaei, Elnaz Pashaei, “Training Feedforward Neural Network Using Enhanced Black Hole Algorithm: A Case Study on COVID-19 Related ACE2 Gene Expression Classification”. *Arabian Journal for Science and Engineering*. Vol. 46, (2021) 3807–3828. <https://doi.org/10.1007/s13369-020-05217-8>. **Impact Factor: 1.7**.
3. Elnaz Pashaei, Elham Pashaei, Nizamettin Aydin, “Gene selection using hybrid binary black hole algorithm and binary particle swarm optimization”, *Genomics*. Vol.111, (2019) 669-686. **Impact Factor: 3.1**.
4. Elnaz Pashaei, Nizamettin Aydin, “Binary Black Hole Algorithm for Feature Selection and Classification on Biological Data”, *Applied Soft Computing*. Vol.56, (2017) 94-106. **Impact Factor: 4.8**.
5. Elnaz Pashaei, Esra Guzel, Mete Emir Ozgurses, Goksun Demirel, Nizamettin Aydin, Mustafa Ozen, “A Meta-Analysis: Identification of Common Mir-145 Target Genes that have Similar Behavior in Different GEO Datasets”, *PLoS ONE*. Vol. 11, Issue 9, (September 2016). doi: 10.1371/journal.pone.0161491. **Impact Factor: 2.77**.
6. Elnaz Pashaei, Elham Pashaei, Maryam Ahmady, Mustafa Ozen, Nizamettin Aydin. “Meta-analysis of miRNA Expression Profiles for Prostate Cancer Recurrence following Radical Prostatectomy”, *PLoS ONE*. Vol. 12, Issue (6), (May 2017). doi.org/10.1371/journal.pone.0179543. **Impact Factor: 2.77**.

Conference Papers

1. Elnaz Pashaei, Elham Pashaei, “Gene Selection for Cancer Classification using a New Hybrid of Binary Black Hole Algorithm”, *Proceedings of 28th IEEE Signal Processing and Communications Applications (SIU)*. Gaziantep, Turkey. 20-22 April 2020. **IEEE Press**.
2. Elnaz Pashaei, Elham Pashaei, and Nizamettin Aydin, “Image Enhancement Using Hybrid Particle Swarm Optimization and Krill Herd Algorithm”, *International Conference on Intelligent and Fuzzy Systems (INFUS)*. Izmir, Turkey. 21-23 July 2020. **Springer**.

3. Elham Pashaei, Elnaz Pashaei, “Gene Selection using Intelligent Dynamic Genetic Algorithm and Random Forest”, Proceedings of 11th International Conference on Electrical and Electronics Engineering (ELECO). Bursa, Turkey. 28-30 November 2019. *IEEE Press*. pp. 470-474.
4. Elnaz Pashaei, Mustafa Ozen, Nizamettin Aydin, “Biomarker discovery based on BHA and AdaboostM1 on microarray data for cancer classification”, Proceedings of 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC). Orlando, FL, USA. 16-20 Aug 2016. *IEEE Press*. pp. 3080-3083.
5. Elnaz Pashaei, Mustafa Ozen, Nizamettin Aydin, “Gene selection and classification approach for microarray data based on Random Forest Ranking and BBHA”, Proceedings of 2016 IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI). Las Vegas, NV, USA. 24-27 Feb 2016. *IEEE Press*. pp. 308-311.
6. Elnaz Pashaei, Mustafa Ozen, Nizamettin Aydin, “An application of black hole algorithm and decision tree for medical problem”, Proceedings of 2015 IEEE International Conference on Bioinformatics and Bioengineering (BIBE). Belgrade, Serbia. 2-4 Nov 2015. *IEEE Press*. pp. 1-6.
7. Elnaz Pashaei, Mustafa Ozen, Nizamettin Aydin, “A Novel Gene Selection Algorithm for cancer identification based on Random Forest and Particle Swarm Optimization”, Proceedings of 2015 IEEE Conference on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB). Niagara Falls, Canada. 12-15 Aug 2015. *IEEE Press*. pp. 1-6.
8. Elnaz Pashaei, Mustafa Ozen, Nizamettin Aydin, “Improving Medical Diagnosis Reliability Using Boosted C5.0 Decision Tree empowered by Particle Swarm Optimization”, Proceedings of 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC). Milano, Italy. 25-29 Aug 2015. *IEEE Press*. PP. 7230-7233.
9. Elnaz Pashaei, Ali Nourollah, Mohammad Reza Meybodi, “A New Steiner Tree Algorithm Based on Sollin’s Algorithm in Graphs”, Proceedings of 2012 IEEE International Conference on Computer Science and Automation Engineering (CSAE). Zhangjiajie, China. 25-27 May 2012. Vol. 2. *IEEE Press*. pp. 489-493.

COURSES TAUGHT

SEN 437 – Machine learning
SEN 426 - Bioinformatics Algorithms
MAT317- Probability and Statistics
EEE 244 – Computer programming I (C language)
SEN 431 – Data mining
SEN 263/ 232– Database management system (MS SQL/ PLSQL)
SEN 225 – Data Structures and Algorithms
SEN 424 - Genetic algorithm
SEN 312 - Operation Research
SEN 521- Optimization Methods

PROGRAMMING SKILLS:

R
MATLAB
C
C++
Python