Asst. Prof. YILMAZ ATAY

Personal Information

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International Researcher IDs
ScholarID: pr6LCp0AAAAJ
ORCID: 0000-0002-3298-3334
Publons / Web Of Science ResearcherID: A-3218-2017
ScopusID: 56417727500
Yoksis Researcher ID: 56117

Education Information

Doctorate, Selcuk University, Institute Of Science, Bilgisayar Mühendisliği (Dr), Turkey 2012 - 2018
Doctorate, University of Florida, Computer And Information Science And Engineering (Doktora Sırası Araştırma), United States Of America 2016 - 2017
Postgraduate, Selcuk University, Institute Of Science, Bilgisayar Mühendisliği (Yl) (Tezli), Turkey 2010 - 2012
Undergraduate, Selcuk University, Faculty Of Engineering, Department Of Computer Engineering, Turkey 2005 - 2010

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, Detection of Module Structures And Significant Sub-networks in Complex Networks, Selcuk University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Dr), 2018
Postgraduate, Yapay bağışıklık sistemleri ile atölye çizelgeleme problemlerinin optimizasyonu, Selcuk University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Yl) (Tezli), 2012

Research Areas

Computer Sciences, algorithms, bioinformatics, Artificial Intelligence, Computer Learning and Pattern Recognition, Evolutionary Computing, Software, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Gazi University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2020 - Continues
Assistant Professor, Osmaniye Korkut Ata University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2018 - 2020
Research Assistant, Selcuk University, Faculty Of Engineering, Department Of Computer Engineering, 2011 - 2018

Academic and Administrative Experiences

Academic and Administrative Experience

Deputy Head of Department, Gazi University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2024 - Continues
Osmaniye Korkut Ata University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2019 - 2020

Courses

Zeki Optimizasyon Teknikleri (Intelligent Optimization Techniques), Postgraduate, 2022 - 2023
Algorithms, Undergraduate, 2021 - 2022
Complex Network Analysis, Undergraduate, 2022 - 2023
Graphs for Big Data and Applications, Postgraduate, 2021 - 2022
Introduction Artificial Intelligence, Undergraduate, 2021 - 2022
Machine and Deep Learning Algorithms and Structures, Postgraduate, 2021 - 2022
Mühendislik Projesi, Undergraduate, 2020 - 2021
Web Mining, Postgraduate, 2020 - 2021
Software Engineering, Undergraduate, 2019 - 2020
Introduction to Artificial Intelligence , Undergraduate, 2020 - 2021
Data Structures, Undergraduate, 2019 - 2020

Advising Theses

Atay Y., Emotion Recognition from Facial Expressions using Deep Learning Approaches in Information Technologies, Postgraduate, A.ADNAN(Student), 2023
Atay Y., İstenmeyen elektronik posta sınıflandırma probleminde etkin özellik seçimi, Postgraduate, N.BAKTIR(Student), 2022
Atay Y., Yapay Zeka Temelli Algoritmaların Helikopter Rota Bulma Probleminde Karşılaştırmalı Analizi, Postgraduate, E.B. (Student), 2021

Advising Graduates (Non-Thesis)

Atay Y., Derin Öğrenme Algoritması - Evrişimli Sinir Ağı - Kullanılarak Görüntüden Yangın Tespiti, Masters (Non-Thesis,Evening Education), H.KAMAN(Student), 2022
Atay Y., Php ve Java ile DES ve LSB Uygulaması, Masters (Non-Thesis), M.Mustafa(Student), 2022
Atay Y., Gerçek dünya problemlerinde pekiştirmeli öğrenme uygulamaları, Masters (Non-Thesis), S.TULUN(Student), 2021

Taught Courses And Trainings

Atay Y., Bilgisayarlı Görü, 2021 - 2022

Published journal articles indexed by SCI, SSCI, and AHCI

I. **LBSA-DRIVER: A Novel Approach for Identifying Cancer Driver Genes Using List-Based Simulated Annealing**
    Atay Y., Ngobesing L. A., Cingiz M. Ö.
    CURRENT BIOINFORMATICS, vol.19, no.1, pp.1-15, 2024 (SCI-Expanded)
II. **Discrete tree seed algorithm for urban land readjustment**
    Koc I., ATAY Y., Babaoglu I.
    Engineering Applications of Artificial Intelligence, vol.112, 2022 (SCI-Expanded)

III. **An Efficient Algorithm for Identifying Mutated Subnetworks Associated with Survival in Cancer**
Sarkar A., Atay Y., Erickson A. L., Arisi I., Saltini C., Kahveci T.
IEEE-ACM TRANSACTIONS ON COMPUTATIONAL BIOLOGY AND BIOINFORMATICS, vol.17, no.5, pp.1582-1594, 2020 (SCI-Expanded)

IV. **A swarm intelligence-based hybrid approach for identifying network modules**
Atay Y., Aslan M., Kodaz H.
JOURNAL OF COMPUTATIONAL SCIENCE, vol.28, pp.265-280, 2018 (SCI-Expanded)

V. **Community detection from biological and social networks: A comparative analysis of metaheuristic algorithms**
Atay Y., Koc I., Babaoglu I., Kodaz H.
APPLIED SOFT COMPUTING, vol.50, pp.194-211, 2017 (SCI-Expanded)

VI. **Optimization of job shop scheduling problems using modified clonal selection algorithm**
Atay Y., Kodaz H.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.22, no.6, pp.1528-1539, 2014 (SCI-Expanded)

Articles Published in Other Journals

I. **Deep Learning Approaches for Classification of Emotion Recognition based on Facial Expressions**
Atay Y.
NEXO REVISTA CIENTIFICA, vol.35, no.05, pp.1-18, 2023 (ESCI)

II. **Machine and Deep Learning Studies for Cyberbullying Detection**
YAKUT M. F., Sahin C., ATAY Y.
Savunma Bilimleri Dergisi, vol.1, no.43, pp.155-177, 2023 (Peer-Reviewed Journal)

III. **Comparative Analysis of Machine Learning Approaches in the Spam-Mail Classification Problem**
Baktır N., Atay Y.
INTERNATIONAL JOURNAL OF INFORMATICS TECHNOLOGIES, vol.15, no.3, pp.349-364, 2022 (Peer-Reviewed Journal)

IV. **Kalp Hastalığı Teşhisinde Yapay Zeka Yöntemlerinin Kullanımı ve Karşılaştırılması**
Atay Y.
Konya mühendislik bilimleri dergisi (Online), vol.10, no.2, pp.396-411, 2022 (Peer-Reviewed Journal)

V. **High Performance Classification of Cancer Types with Gene Microarray Datasets: Hybrid Approach**
Atay Y., Yıldırım M. O., Doğan C. U.
Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.9, no.4, pp.811-827, 2021 (Peer-Reviewed Journal)

VI. **Network motif detection in PPI networks and effect of R parameter on system performance**
ATAY Y., KODAZ H.
International Journal ofApplied Mathematics,Electronics and Computers, vol.4, no.3, pp.78-82, 2016 (Peer-Reviewed Journal)

VII. **Implementation of CSA with Clone-Mutation Mechanism to the JSSP (from ICSCT 2013)**
ATAY Y., KODAZ H.
International Journal of Machine Learning and Computing, vol.4, no.1, pp.6-9, 2014 (Peer-Reviewed Journal)

VIII. **Application of Web Mining Using Clonal Selection Algorithm (from ICSCA 2013)**
ATAY Y., KODAZ H.
Lecture Notes on Software Engineering, pp.270-272, 2013 (Peer-Reviewed Journal)

Books & Book Chapters

I. **A New Adaptive Genetic Algorithm for Community Structure Detection**
ATAY Y., KODAZ H.
in: Intelligent and Evolutionary Systems, Kittichai Lavangnananda, Somnuk Phon-Amnuaisuk, Worrawat Engchuan, Jonathan H. Chan, Editor, Springer International Publishing, pp.43-55, 2016

Refereed Congress / Symposium Publications in Proceedings

I. **An Improved Artificial Rabbit's Optimization (ARO) Algorithm for Identifying Mutated Driver Genes in Cancer**
Atay Y.
The International Conference on Contemporary Issues in Science, Engineering and Technology(ICCISET), Ankara, Turkey, 5 - 06 July 2023, pp.1-11

II. **Tumor Classification and Segmentation with CNN based on Different Architectures**
Qutub A. A. H., ATAY Y.
11. Uluslararası İstanbul Bilimsel Araştırmalar Kongresi, İstanbul, Turkey, 15 October 2022

III. **A GA-Based CNN Model for Brain Tumor Classification**
Özdem K., Ozkaya C., Atay Y., Çeltikçi E., Börcek A. Ö., Demirezen U., Sağıroğlu Ş.
7th International Conference on Computer Science and Engineering, UBMK 2022, Diyarbakır, Turkey, 14 - 16 September 2022, pp.418-423

IV. **Unity Based A∗ Algorithm Used in Shortest Path Finding Problem for Helicopters**
Aydogan E. B., ATAY Y.
2021 International Conference on Control, Automation and Diagnosis, ICCAD 2021, Grenoble, France, 3 - 05 November 2021

V. **Detection Of Cohesive Subgroups In Social Networks Using Invasive Weed Optimization Algorithm**
ATAY Y., KOÇ İ., BEŞKİRLİ M.
ICRES 2017: International Conference on Research in Education and Science, 18 - 21 May 2017

VI. **Identification of Meaningful Subnets from Clinical Cancer Datasets by the Proposed Dynamic Programming Method**
ATAY Y., KODAZ H.
International Advanced Researches Engineering Congress-2017, Osmaniye, Turkey, 16 - 18 November 2017

VII. **Tree-Seed Algorithm for Identifying Communities in Various Real-World Networks**
KIRAN M. S., ATAY Y., KODAZ H.
International Advanced Researches Engineering Congress-2017, Osmaniye, Turkey, 16 - 18 November 2017

VIII. **An Approach Based On Recursive Largest First (RLF) Algorithm to Solving The Graph Coloring Problem Using a Hybrid Selection Strategy**
ASLAN M., ATAY Y.
3rd International Conference on Science, Ecology and Technology, ROMA, Italy, 14 - 16 August 2017, pp.201-216

IX. **Finding the Overlapping Modules in Weighted Complex Networks**
ATAY Y., ASLAN M., KODAZ H.
3rd International Conference on Science, Ecology and Technology, ROMA, Italy, 14 - 16 August 2017, pp.1-8

X. **Modularity Based Graph Clustering using Harmony Search Algorithm**
ATAY Y., KODAZ H.
4th International Conference on Advanced Computer Science Applications and Technologies, 8 - 10 December 2015

XI. **A New Adaptive Genetic Algorithm for Community Structure Detection**
ATAY Y., KODAZ H.
19th Asia Pacific Symposium on Intelligent and Evolutionary Systems, 22 - 25 November 2015

XII. **Network motif detection in PPI networks and effect of R parameter on system performance**
ATAY Y., KODAZ H.
INTERNATIONAL CONFERENCE ON ADVANCED TECHNOLOGY AND SCIENCES (ICAT'xx15), 4 - 06 August 2015

XIII. **Implementation of CSA with Clone Mutation Mechanism to the JSSP**
ATAY Y., KODAZ H.
2013 4th International Conference on Software and Computing Technology - ICSCT 2013, 24 - 25 October 2013
XIV. **Application of Web Mining using Clonal Selection Algorithm**
ATAY Y., KODAZ H.
2013 2nd International Conference on Software and Computer Applications - ICSCA 2013, Paris, France, 1 - 02 June 2013

Supported Projects

SAĞIROĞLU Ş., KARA A., DEMİRCİ M. S., DENER M., DEMİRCİ M., ATAY Y., Project Supported by Higher Education Institutions, Akıllı Şebekeler için Zeki Siber Güvenlik Çözümleri Geliştirme, 2022 - Continues
Atay Y., Sağıroğlu Ş., Project Supported by Other Official Institutions, Türk Beyin Projesi, 2021 - 2023
ATAY Y., CORA L. N., YILMAZ B., ERGÜN B., AYNA H., GÜRÜS F. N., YAĞCI F., Project Supported by Higher Education Institutions, Otonom Hareket Eden Tarımsal İnsansız Kara Aracı: Dehakin, 2021 - 2022
ATAY Y., Project Supported by Higher Education Institutions, Kanserli hastaların gen/protein etkileşim ağlarından anlamlı alt kümelerin tespit edilmesi, 2017 - 2019
Atay Y., Kodaz H., TUBITAK Project, Analysis of Biological Networks Using Artificial Intelligence Techniques, 2015 - 2018
ATAY Y., Project Supported by Higher Education Institutions, Yapay Bağışıklık Sistemleri ile Atölye Tipi Çizelgeleme Problemlerinin Optimizasyonu (Job Shop Scheduling Problems optimization with Artificial Immune Systems), 2011 - 2012

Metrics

Publication: 29
Citation (WoS): 77
Citation (Scopus): 102
H-Index (WoS): 3
H-Index (Scopus): 3

Scholarships

2211-C Yurt İçi Öncelikli Alanlar Doktora Burs Programı, TUBITAK, 2015 - 2018
2214-A Yurt Dışı Doktora Sırası Araştırma Burs Programı, TUBITAK, 2016 - 2017