

Prof. BAHADIR KARASULU

Personal Information

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International Researcher IDs

ORCID: 0000-0001-8524-874X

Publons / Web Of Science ResearcherID: AAW-9151-2020

ScopusID: 36450483000

Yoksis Researcher ID: 27587

Education Information

Doctorate, Ege University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, Turkey 2006 - 2010

Postgraduate, Maltepe University, Institute Of Science, Bilgisayar Mühendisliği, Turkey 2004 - 2006

Undergraduate, Kocaeli University, Fen-Edebiyat Fakültesi, Fizik Bölümü, Turkey 1998 - 2003

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Videolarda hareketli nesne tespiti ve takibi için benzetimli tavlama tabanlı bir başarımlı eniyileme yaklaşımı , Ege University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, 2010

Postgraduate, Paralel hesaplama tekniğinin monte carlo simülasyonunda uygulanması , Maltepe University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği/Bilgisayar Yazılımı, 2006

Research Areas

Information Systems, Communication and Control Engineering, Signal Processing, Multimedia, Computer Sciences, algorithms, Distributed Systems, Parallel Algorithms, Artificial Intelligence, Computer Learning and Pattern Recognition, Automated Problem Solving, Theorem Proving and Logical Reasoning, Pattern Recognition and Image Processing, Engineering and Technology

Academic Titles / Tasks

Professor, Çanakkale Onsekiz Mart University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2022 - Continues

Associate Professor, Çanakkale Onsekiz Mart University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2015 - 2022

Assistant Professor, Çanakkale Onsekiz Mart University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2011 - 2015

Research Assistant, Ege University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, 2006 - 2010

Academic and Administrative Experience

Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2015 - Continues

Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2013 - 2016

Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2012 - 2015

Courses

Dağıtık Sistemler, Undergraduate, 2013 - 2014

Çoklu Ortam Sistemlerinde Video ve Görüntü İşleme, Postgraduate, 2013 - 2014

Olasılık ve İstatistik, Undergraduate, 2013 - 2014

Proje II, Undergraduate, 2013 - 2014

Uzmanlık Alan Dersi, Postgraduate, 2013 - 2014, 2012 - 2013

Çoklu Ortam Sistemleri, Undergraduate, 2013 - 2014

Esnek Hesaplama Yöntemleri, Postgraduate, 2013 - 2014, 2012 - 2013

Yöneylem Araştırmalar ve Karar Analizleri, Undergraduate, 2013 - 2014, 2012 - 2013, 2011 - 2012

Proje I, Undergraduate, 2013 - 2014

Çoklu Ortam Sistemleri, Undergraduate, 2012 - 2013, 2011 - 2012

Proje II, Undergraduate, 2012 - 2013, 2011 - 2012

Proje I, Undergraduate, 2012 - 2013, 2011 - 2012

Seminer, Postgraduate, 2012 - 2013

Olasılık ve İstatistik, Undergraduate, 2011 - 2012

Dağıtık Sistemler, Undergraduate, 2011 - 2012

Jury Memberships

Post Graduate, SÜRÜ ZEKÂSİ YAKLAŞIMI İLE PANORAMİK GÖRÜNTÜ OLUŞTURMA, Ege Üniversitesi Uluslararası Bilgisayar Enstitüsü, August, 2015

Post Graduate, SEAGENT Platformunu Kullanarak FIPA İletişim Dillerinden Biri Olan FIPA İngilizce Müzayede Etkileşim Protokolünün Gerçekleştirilmesi, Çanakkale Onsekiz Mart Üniversitesi, May, 2012

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A hybrid approach based on deep learning for gender recognition using human ear images**
KARASULU B., Yuçalar F., Borandag E.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.37, no.3, pp.1579-1594, 2022 (SCI-Expanded)
- II. **A novel dataset of human daily activities: Its benchmarking results for classification performance via using deep learning techniques**
Metin I. A., Karasulu B.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.36, no.2, pp.759-777, 2021 (SCI-Expanded)
- III. **An Optimized Image Segmentation Approach Based on Boltzmann Machine**
KARASULU B.
APPLIED ARTIFICIAL INTELLIGENCE, vol.31, pp.792-807, 2017 (SCI-Expanded)
- IV. **An Automatic Optic Disk Detection and Segmentation System using Multi-level Thresholding**

- Karasulu B.
ADVANCES IN ELECTRICAL AND COMPUTER ENGINEERING, vol.14, no.2, pp.161-172, 2014 (SCI-Expanded)
- V. **An approach based on simulated annealing to optimize the performance of extraction of the flower region using mean-shift segmentation**
Karasulu B.
APPLIED SOFT COMPUTING, vol.13, no.12, pp.4763-4785, 2013 (SCI-Expanded)
- VI. **Moving object detection and tracking by using annealed background subtraction method in videos: Performance optimization**
Karasulu B., KORUKOĞLU M. S.
EXPERT SYSTEMS WITH APPLICATIONS, vol.39, no.1, pp.33-43, 2012 (SCI-Expanded)
- VII. **A software for performance evaluation and comparison of people detection and tracking methods in video processing**
Karasulu B., KORUKOĞLU M. S.
MULTIMEDIA TOOLS AND APPLICATIONS, vol.55, no.3, pp.677-723, 2011 (SCI-Expanded)
- VIII. **A simulated annealing-based optimal threshold determining method in edge-based segmentation of grayscale images**
Karasulu B., KORUKOĞLU M. S.
APPLIED SOFT COMPUTING, vol.11, no.2, pp.2246-2259, 2011 (SCI-Expanded)
- IX. **A REVIEW ON SEMANTIC VIDEO ANALYSIS USING MULTIMEDIA ONTOLOGIES**
Yüksek Y., KARASULU B.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.25, no.4, pp.719-739, 2010 (SCI-Expanded)

Articles Published in Other Journals

- I. **Secure Message Transmission Via Object Detection Verification Using Images Encoded With Lehmer Algorithm Based Random Key**
Hoşmevve S., Bilecan A. C., Karasulu B., Ünlü İ.
Gazi Mühendislik Bilimleri Dergisi, vol.9, no.1, pp.108-127, 2023 (Peer-Reviewed Journal)
- II. **Lehmer Algoritması Tabanlı Rastgele Anahtar İle Şifrelenmiş Görüntüleri Kullanarak Nesne Tespitli Doğrulama Yoluyla Güvenli Mesaj İletimi**
Hoşmevve S., Bilecan A. C., Karasulu B., Ünlü İ.
Gazi Mühendislik Bilimleri Dergisi, vol.9, no.1, pp.1, 2023 (Peer-Reviewed Journal)
- III. **Deep Learning based Ship Variants Classification Using Different Scale Images**
Kıran E., Karasulu B., Borandağ E.
Zeki sistemler teori ve uygulamaları dergisi (Online), vol.5, no.2, pp.161-167, 2022 (Peer-Reviewed Journal)
- IV. **An Approach for Audio-Visual Content Understanding of Video using Multimodal Deep Learning Methodology**
Boztepe E. B., Karakaya B., Karasulu B., Ünlü İ.
Sakarya University Journal of Computer and Information Sciences, vol.5, no.2, pp.181-207, 2022 (Peer-Reviewed Journal)
- V. **Ses Özniteliklerini Kullanan Ses Duygu Durum Sınıflandırma İçin Derin Öğrenme Tabanlı Bir Yazılımsal Araç**
Kıvrak E. A., Karasulu B., Sözbir C., Türkay A.
Veri Bilimi, vol.4, no.3, pp.14-27, 2021 (Peer-Reviewed Journal)
- VI. **Automatic Segmentation of the Human Ear Using Active Contour and GrabCut Synergy Based on the Superpixel Cluster Regions**
Karasulu B.
Acta Infologica, vol.5, no.1, pp.117-128, 2021 (Peer-Reviewed Journal)
- VII. **İnsan Aktivitelerinin Sınıflandırılmasında Tekrarlayan Sinir Ağı Kullanan Derin Öğrenme Tabanlı**

Yaklaşım

METİN İ. A., KARASULU B.

Veri Bilimi, vol.2, no.2, pp.1-10, 2019 (Peer-Reviewed Journal)

- VIII. **Çoklu Ortam Sistemleri İçin Siber Güvenlik Kapsamında Derin Öğrenme Kullanarak Ses Sahne ve Olaylarının Tespiti**
KARASULU B.
Acta INFOLOGICA, vol.3, no.2, pp.60-82, 2019 (Peer-Reviewed Journal)
- IX. **Benzetimli Tavlama Tekniğini Kullanan Eniyilenmiş Görüntü Ve Video İşleme Üzerine Kısa Bir Literatür Araştırması**
KARASULU B.
Electronic Journal of Vocational Colleges (EJOVOC), vol.8, no.2, pp.35-39, 2018 (Peer-Reviewed Journal)
- X. **Kısıtlanmış Boltzmann Makinesi Ve Farklı Sınıflandırıcılarla Oluşturulan Sınıflandırma İş Hatlarının Başarımının Değerlendirilmesi**
KARASULU B.
International Journal of Informatics and Technologies (Gazi University), vol.11, pp.223-233, 2018 (Peer-Reviewed Journal)
- XI. **Görüntülerde İnsan Kulağı Tespit Ve Bölütlemesini Temel Alan Biyometrik Yetkilendirme Üzerine Bir İnceleme**
KARASULU B.
International Journal of Informatics and Technologies (Gazi University), vol.9, pp.97-112, 2016 (Peer-Reviewed Journal)
- XII. **A Query Evaluation Approach using Opinions of Turkish Financial Market Professionals**
UĞURLU B., YENİSARI E., KARASULU B., Ayan O. Z.
TEM JOURNAL-TECHNOLOGY EDUCATION MANAGEMENT INFORMATICS, vol.4, no.3, pp.301-305, 2015 (ESCI)
- XIII. **Esnek Hesaplama Sinirsel Bulanık Sinerjiyi Temel Alan Sistemler ve Yaklaşımlar Üzerine Bir İnceleme**
KARASULU B., Aki K.
Cumhuriyet University Science Journal, vol.35, no.2, pp.54-86, 2014 (Peer-Reviewed Journal)
- XIV. **Videolardaki Hareketli Nesnelerin Tespit Ve Takibi İçin Uyarlanabilir Arkaplan Çıkarımı Yaklaşımı Tabanlı Bir Sistem**
KARASULU B.
Uludağ University Journal of The Faculty of Engineering and Architecture (JEA), vol.18, no.1, pp.93-110, 2013 (Peer-Reviewed Journal)
- XV. **Bulanık Karar Verme Sistemlerinde Paralel Hesaplama**
KARASULU B., Ballı S.
Pamukkale University Journal of Engineering Sciences (PAJES), vol.19, no.2, pp.61-67, 2013 (Peer-Reviewed Journal)
- XVI. **Automatic Extraction of Retinal Blood Vessels: A Software Implementation**
KARASULU B.
European Scientific Journal (European Scientific Institute), vol.8, no.30, pp.47-57, 2012 (Peer-Reviewed Journal)
- XVII. **Image Segmentation Using Fuzzy Logic, Neural Networks and Genetic Algorithms: Survey and Trends**
KARASULU B., Ballı S.
Machine GRAPHICS & VISION - Institute of Computer Science of the Polish Academy of Sciences, vol.19, no.4, pp.367-409, 2010 (Peer-Reviewed Journal)
- XVIII. **Review and Evaluation of Well-Known Methods for Moving Object Detection and Tracking in Videos**
KARASULU B.
Journal of Aeronautics and Space Technologies (HUTEN), vol.04, no.4, pp.11-22, 2010 (Peer-Reviewed Journal)
- XIX. **Basketbolda Oyuncu Seçimi İçin Sinirsel-Bulanık Karar Destek Sistemi**
Ballı S., KARASULU B., Uğur A., Korukoğlu S.
İstanbul Teknik Üniversitesi Dergisi Seri D: Mühendislik, vol.08, no.1, pp.15-25, 2009 (Peer-Reviewed Journal)
- XX. **A Proposal for Building up A Social-Constructivism-Based Distance Learning System for Ege**

University

KARASULU B., Önal A., Korukoğlu S.

BALIKESİR ÜNİVERSİTESİ FEN BİLİMLERİ ENSTİTÜSÜ DERGİSİ, vol.10, no.2, pp.33-52, 2008 (Peer-Reviewed Journal)

XXI. **Kutup Dengeleme Problemi İçin Yüksek Başarılı Bir Optimizasyon Tekniği**

KARASULU B., Ballı S., Korukoğlu S., Uğur A.

PAMUKKALE ÜNİVERSİTESİ MÜHENDİSLİK BİLİMLERİ DERGİSİ, vol.14, no.2, pp.175-183, 2008 (Peer-Reviewed Journal)

XXII. **En Uygun Otomobil Seçimi Problemi İçin Bir Bulanık Promethee Yöntemi Uygulaması**

Ballı S., KARASULU B., Korukoğlu S.

Dokuz Eylül Üniversitesi İİBF Dergisi, vol.22, no.1, pp.139-147, 2007 (Peer-Reviewed Journal)

XXIII. **Monte Carlo simulation of ideal polymer chain using parallel computing technique**

KARASULU B., Uyaver Ş.

Moldavian Journal of the Physical Sciences, vol.06, pp.311-319, 2007 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. **Anlamsal Boşluğun Derin Öğrenme Yoluyla Doldurulması Üzerine Bir İnceleme**

METİN İ. A., KARASULU B.

The 10th International Management Information Systems Conference (IMISC2023), İstanbul, Turkey, 18 - 20 October 2023, vol.1, pp.89

II. **A Deep Learning-based Approach to Detect Diseases from Human Retina's Optical Coherence Tomography Images**

METİN B., KARASULU B.

5th International Conference on Data Science and Applications (ICONDATA2022), Muğla-Fethiye, Turkey, 07 September 2022, vol.1, pp.1-10

III. **Colorization and Enhancement of Old Images Using Generative Adversarial Networks**

Bilecan A. C., Hoşmevye S., Karasulu B.

5th International Symposium on Innovative Approaches in Smart Technologies 2022, Tokat, Turkey, 28 - 29 May 2022, vol.5, pp.38-43

IV. **Development of a Deep Learning Based Model for Recognizing the Environmental Sounds in Videos**

KARAKAYA B., BOZTEPE E. B., KARASULU B.

5th International Symposium on Innovative Approaches in Smart Technologies 2022, Tokat, Turkey, 28 - 29 May 2022, vol.5, pp.53-58

V. **Clustering Methods Comparison for Optimization of Adaptive Neural Fuzzy Inference System**

Fidan S., Karasulu B.

30th IEEE International Conference on Signal Processing and Communications Applications (Sinyal İşleme ve İletişim Uygulamaları Kurultayı) 2022, Karabük, Turkey, 15 May - 18 June 2022, vol.1, pp.1-4

VI. **A Software Tool to Build The Audio Emotional State Classifier based on Deep Learning Architectural Models**

Kıvrak E. A., Karasulu B., Sözbir C., Türkay A.

4th International Conference on Data Science and Applications (ICONDATA'21), Yalova, Turkey, 4 - 06 June 2021, vol.2, pp.80

VII. **The Moving Object Detection and Tracking in Panoramic Videos**

Karasulu B.

The International Symposium of Scientific Research and Innovative Studies-Uluslararası Bilimsel Araştırmalar ve Yenilikçi Çalışmalar Sempozyumu (ISSRIS'21), Balıkesir, Turkey, 22 - 25 February 2021

VIII. **An Approach based on the Active Contour and GrabCut Synergy Using Super Pixel Cluster Regions in Automatic Segmentation of the Human Ear**

KARASULU B.

Future Learning 2020: 8th International Conference on Future Learning and Informatics: Data Revolution (FL 2020), Muğla, Turkey, 20 October 2020

- IX. **İnsan Aktivitelerinin Derin Öğrenme Kullanılarak Sınıflandırılması**
METİN İ. A., KARASULU B.
2nd International Conference on Data Science and Applications (ICONDATA 2019), Balıkesir, Turkey, 3 - 06 October 2019, vol.0
- X. **Tekrarlayan Sinir Ağı Modelleri Kullanılarak Yapılan Ses Sınıflandırma İçin Bir Başarım Kıyaslama Çalışması**
DELİBAŞ T., KARASULU B.
2nd International Conference on Data Science and Applications (ICONDATA 2019), Balıkesir, Turkey, 3 - 06 October 2019, vol.1, pp.33-40
- XI. **The Semi-Automatic Approach to Extract the Features of Human Facial Region İnsan Yüz Bölgesi Özneliklerinin Elde Edilmesi İçin Yarı Otomatik Yaklaşım**
ÖZTOPUZ A., KARASULU B.
3rd International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2019, Ankara, Turkey, 11 - 13 October 2019
- XII. **Grafik İşlem Biriminde Büyük Veri İşlenmesi**
ÖZTOPUZ A., KARASULU B.
19. Akademik Bilişim Konferansı (AB 2017), Aksaray, Turkey, 8 - 10 February 2017, vol.0, pp.159-165
- XIII. **Ultrasonik Siber Saldırıların Derin Öğrenme Teknikleri Kullanılarak Önlenmesi Üzerine Bir İnceleme**
DELİBAŞ T., KARASULU B.
International Eurasian Conference on Science Engineering and Technology (EurasianSciEnTech2018), Ankara, Turkey, 22 - 23 November 2018, vol.1, pp.2192-2200
- XIV. **Benzetimli Tavlama Tekniğini Kullanan Eniyilenmiş Görüntü Ve Video İşleme Üzerine Kısa Bir Literatür Araştırması**
KARASULU B.
International Congress on Entrepreneurship, Technology, Innovation and Design 2018, Kırklareli, Turkey, 26 - 28 September 2018, vol.0, pp.11

Activities in Scientific Journals

The Turkish Journal of Electrical Engineering & Computer Sciences, Editor, 2015 - Continues

Memberships / Tasks in Scientific Organizations

IEEE Member, Member, 2008 - Continues

Scientific Refereeing

IEEE Transactions on Systems, Man, and Cybernetics: Systems, SCI Journal, June 2015
International Journal of Pattern Recognition and Artificial Intelligence (World Scientific), SCI Journal, May 2015
The Institution of Engineering and Technology (IET) Image Processing Journal (IEEE), SCI Journal, May 2015
EURASIP Journal on Image and Video Processing (Springer), SCI Journal, April 2015
Signal, Image and Video Processing (Springer), SCI Journal, December 2014
Computer Methods and Programs in Biomedicine (Elsevier), SCI Journal, December 2014
Int. J. of Computer Applications in Technology, Other Indexed Journal, August 2014
Engineering Applications of Artificial Intelligence (Elsevier), SCI Journal, June 2014
Medical & Biological Engineering & Computing (Springer), SCI Journal, February 2014

Applied Soft Computing (Elsevier), SCI Journal, February 2014
Engineering Applications of Artificial Intelligence (Elsevier), SCI Journal, September 2013
Applied Soft Computing (Elsevier), SCI Journal, June 2013
Project Supported by Higher Education Institutions, April 2012
Multimedia Tools and Applications (Springer), SCI Journal, January 2012
Applied Soft Computing (Elsevier), SCI Journal, January 2012
The Turkish Journal of Electrical Engineering & Computer Sciences (TUBITAK), SCI Journal, January 2012
Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi (PAJES), National Scientific Refreed Journal, January 2011
Multimedia Tools and Applications (Springer), SCI Journal, January 2011
Applied Soft Computing (Elsevier), SCI Journal, January 2011

Metrics

Publication: 66
Citation (WoS): 101
Citation (Scopus): 135
H-Index (WoS): 5
H-Index (Scopus): 5

Congress and Symposium Activities

8th International Conference on Future Learning and Informatics: Data Revolution (FL 2020), Session Moderator,
Muğla, Turkey, 2020

Non Academic Experience

Ege Üniversitesi