

Asst. Prof. AYŞE DEMİRHAN

Personal Information

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Education Information

Post Doctorate, University of Southern California, Mark and Mary Stevens Neuroimaging and Informatics Institute, Imaging Genetics Center, United States Of America 2014 - 2015

Doctorate, Gazi University, Bilişim Enstitüsü, Elektronik Ve Bilgisayar Eğitimi Anabilim Dalı (Disiplinlerarası), Turkey 2006 - 2012

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Elektronik Bilgisayar Eğitimi (YI) (Tezli), Turkey 2002 - 2006

Undergraduate, Gazi University, Teknik Eğitim Fakültesi, Elektronik Ve Bilgisayar Eğitimi Bölümü, Turkey 1998 - 2002

Dissertations

Doctorate, Beyin MR görüntülerinin dalgacık dönüşümü ve özörgütlemeli harita ağları kullanılarak bölütlenmesi, Gazi University, Bilişim Enstitüsü, Elektronik Ve Bilgisayar Eğitimi Anabilim Dalı (Disiplinlerarası), 2012

Postgraduate, Sanal şehir parametrelerinin otomatik belirlenmesi için bir sistem geliştirilmesi, Gazi University, Fen Bilimleri Enstitüsü, Elektronik Bilgisayar Eğitimi (YI) (Tezli), 2006

Research Areas

Image and Video Processing, Artificial Intelligence, Computer Learning and Pattern Recognition, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Gazi University, Teknoloji Fakültesi, Elektrik - Elektronik Mühendisliği, 2018 - Continues

Research Assistant, Gazi University, Teknoloji Fakültesi, Elektrik - Elektronik Mühendisliği, 2017 - 2018

Research Assistant, Gazi University, Teknik Eğitim Fakültesi, Elektronik Ve Bilgisayar Eğitimi, 2002 - 2017

Courses

SAYISAL TASARIM LAB, Undergraduate, 2021 - 2022

YÜKSEK LİSANS TEZ ÇALIŞMASI, Postgraduate, 2021 - 2022

MEZUNİYET PROJESİ, Undergraduate, 2021 - 2022

SAYISAL TASARIM, Undergraduate, 2021 - 2022

GÖRÜNTÜ İŞLEME TEKNİKLERİ, Postgraduate, 2021 - 2022

YÜKSEK LİSANS TEZİNE HAZIRLIK, Postgraduate, 2021 - 2022

MİKROİŞLEMCİLER, Undergraduate, 2017 - 2018

İŞ YERİ EĞİTİMİ, Undergraduate, 2017 - 2018

SAYISAL TASARIM, Undergraduate, 2017 - 2018

MESLEKİ YAZILIM UYGULAMALARI, Undergraduate, 2017 - 2018

MİKROİŞLEMCİLER LAB., Undergraduate, 2017 - 2018

MÜHENDİSLİK TASARIMI, Undergraduate, 2017 - 2018

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Comparison of the Effectiveness of Deep Learning Methods for Face Mask Detection**
Gedik O., DEMİRHAN A.
TRAITEMENT DU SIGNAL, vol.38, no.4, pp.947-953, 2021 (Journal Indexed in SCI)
- II. **The effect of feature selection on multivariate pattern analysis of structural brain MR images**
DEMİRHAN A.
PHYSICA MEDICA-EUROPEAN JOURNAL OF MEDICAL PHYSICS, vol.47, pp.103-111, 2018 (Journal Indexed in SCI)
- III. **Neuroimage-based clinical prediction using machine learning tools**
DEMİRHAN A.
INTERNATIONAL JOURNAL OF IMAGING SYSTEMS AND TECHNOLOGY, vol.27, no.1, pp.89-97, 2017 (Journal Indexed in SCI)
- IV. **Segmentation of Tumor and Edema Along With Healthy Tissues of Brain Using Wavelets and Neural Networks**
DEMİRHAN A., Toru M., GÜLER İ.
IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS, vol.19, no.4, pp.1451-1458, 2015 (Journal Indexed in SCI)
- V. **Combining stationary wavelet transform and self-organizing maps for brain MR image segmentation**
DEMİRHAN A., Gueler İ.
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol.24, no.2, pp.358-367, 2011 (Journal Indexed in SCI)
- VI. **A survey on application of quantitative methods on analysis of brain parameters changing with temperature**
DEMİRHAN A., Kaymaz M., AHISKA R., GÜLER İ.
Journal of Medical Systems, vol.34, no.6, pp.1059-1071, 2010 (Journal Indexed in SCI Expanded)
- VII. **IMAGE SEGMENTATION USING SELF-ORGANIZING MAPS AND GRAY LEVEL CO-OCCURRENCE MATRICES**
DEMİRHAN A., GÜLER İ.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.25, no.2, pp.285-291, 2010 (Journal Indexed in SCI)
- VIII. **Interpretation of MR images using self-organizing maps and knowledge-based expert systems**
Gueler İ., DEMİRHAN A., KARAKIŞ R.
DIGITAL SIGNAL PROCESSING, vol.19, no.4, pp.668-677, 2009 (Journal Indexed in SCI)
- IX. **MR images restoration with the use of fuzzy filter having adaptive membership parameters**
Guler İ., Toprak A., Demirhan A., Karakiş R.
JOURNAL OF MEDICAL SYSTEMS, vol.32, no.3, pp.229-234, 2008 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Categorizing Objects with Image Processing Techniques and Robot Arm**
Demirhan A., Sariyıldız S. Ö.
Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, vol.26, no.2, pp.547-556, 2021 (National Refreed University Journal)
- II. **Kolektif Öğrenmeye Dayalı Çok Değişkenli Desen Analizinin Klinik Karar Destek Sistemlerinde Uygulanması**

- Demirhan A.
Düzce Üniversitesi Bilim ve Teknoloji Dergisi, vol.6, no.4, pp.953-961, 2018 (National Refreed University Journal)
- III. **Performance of Machine Learning Methods In Determining The Autism Spectrum Disorder Cases**
Demirhan A.
Mugla Journal of Science and Technology, vol.4, no.1, pp.79-84, 2018 (National Refreed University Journal)
- IV. **Classification of Structural MRI for Detecting Alzheimer's Disease**
DEMİRHAN A.
International Journal of Intelligent Systems and Applications in Engineering, vol.4, no.1, pp.195-198, 2016 (Other Refereed National Journals)
- V. **Bilişim ve Sağlık**
DEMİRHAN A., GÜLER İ.
Bilişim Teknolojileri Dergisi, vol.4, no.3, pp.13-20, 2011 (Refereed Journals of Other Institutions)
- VI. **Tıpta Yapay Zeka Uygulamaları**
DEMİRHAN A., KILIÇ Y. A. , GÜLER İ.
Yoğun Bakım Dergisi, vol.9, no.1, pp.31-41, 2010 (Other Refereed National Journals)

Refereed Congress / Symposium Publications in Proceedings

- I. **Random Forests Based Recognition of the Clinical Labels Using Brain MRI Scans**
DEMİRHAN A.
3rd International Conference on Frontiers of Signal Processing (ICFSP), Paris, France, 6 - 08 September 2017, pp.156-159
- II. **Pattern Analysis for the Neuroimaging Based Diagnosis of Schizophrenia**
DEMİRHAN A.
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- III. **Classification of Structural MRI for Detecting Alzheimer s Disease**
DEMİRHAN A.
3rd International Conference on Advanced Technology Sciences (ICAT 16), Konya, Turkey, 1 - 03 September 2016, pp.1376-1379
- IV. **FEATURE SELECTION IMPROVES THE ACCURACY OF CLASSIFYING ALZHEIMER DISEASE USING DIFFUSION TENSOR IMAGES**
DEMİRHAN A., Nir T. M. , Zavalianos-Petropulu A., Jack C. R. , Weiner M. W. , Bernstein M. A. , Thompson P. M. , Jahanshad N.
IEEE 12th International Symposium on Biomedical Imaging, New York, United States Of America, 16 - 19 April 2015, pp.126-130
- V. **AUTOMATIC SEGMENTATION OF TUMOR, EDEMA AND HEALTHY TISSUES OF BRAIN USING NEURO FUZZY INFERENCE SYSTEM**
DEMİRHAN A., GÜLER İ.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.120-123
- VI. **Beyin MR Görüntülerinin Analizi için Dalgacık Dönüşümü ve Sinir Ağlarının Kullanılması**
DEMİRHAN A., GÜLER İ.
18. Sinyal İşleme ve İletişim Uygulamaları Kurultayı (SIU 10), Diyarbakir, Turkey, Turkey, 22 - 24 April 2010, pp.933-936

Supported Projects

Güler İ., Demirhan A., Project Supported by Higher Education Institutions, MR Görüntülerinin Bilgi Tabanlı Yapay Zekâ Teknikleri Kullanılarak Yorumlanması, 2007 - 2008

Güler İ., EU Supported Other Project, Yazılım Geliřtirmede Endüstriyel Uygulamalar, 2005 - 2005

Citations

Total Citations (WOS):198

h-index (WOS):6

Scholarships

2219 - Yurt Dışı Doktora Sonrası Arařtırma Bursu, TUBITAK, 2014 - 2015