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Kişisel Bilgiler

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Eğitim Bilgileri

Doktora, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Elektrik Elektronik Mühendisliği, Türkiye 2004 - 2011
Yüksek Lisans, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Elektrik Elektronik Mühendisliği, Türkiye 2001 - 2004
Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik ve Elektronik Mühendisliği Bölümü, Türkiye 1997 - 2001

Yaptığı Tezler

Doktora, 3D object recognition using scale-space of curvatures, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Elektrik Elektronik Mühendisliği Bölümü, 2011
Yüksek Lisans, Simulation of Turkish lip motion and facial expressions in A 3D enviroment and synchronization with a Turkish speech engine, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Elektrik Elektronik Mühendisliği, 2004

Araştırma Alanları

Bilgi Sistemleri, Haberleşme ve Kontrol Mühendisliği, Bilgisayar Bilimleri, Elektrik-Elektronik Mühendisliği, Mühendislik ve Teknoloji

Akademik Unvanlar / Görevler

Doç.Dr., Orta Doğu Teknik Üniversitesi, Enformatik Enstitüsü, Modelleme ve Simülasyon Anabilim Dalı, 2021 - Devam Ediyor
Dr.Öğr.Üyesi, Çankaya Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2018 - 2021
Araştırma Görevlisi Dr., University of York, 2016 - 2017
Araştırma Görevlisi, University of York, 2008 - 2009
Araştırma Görevlisi, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik ve Elektronik Mühendisliği Bölümü, 2001 - 2008

Verdiği Dersler

EMBEDDED SYSTEMS, Yüksek Lisans, 2020 - 2021
SEQUENCE MODELS IN MULTIMEDIA, Doktora, 2021 - 2022
FOUNDATIONS OF DEEP LEARNING, Doktora, 2021 - 2022
Image Processing Algorithms, Yüksek Lisans, 2020 - 2021
RECURRENT NEURAL NETWORKS, Yüksek Lisans, 2020 - 2021
MOTION CAPTURE, ANALYSIS AND SYNTHESIS, Yüksek Lisans, 2020 - 2021
CONVOLUTIONAL NEURAL NETWORKS, Yüksek Lisans, 2020 - 2021
MICROPROCESSORS, Lisans, 2020 - 2021

Yönetilen Tezler

Sürer E., Akagündüz E., Deep Learning-Based Object Tracking System by Using Visual and Thermal Infrared Fusion, Yüksek Lisans, A.TÜRKOĞLU(Öğrenci), 2023
Sürer E., Akagündüz E., A Transformer-Based Approach for Fusing Infrared and Visible Band Images, Yüksek Lisans, A.ERDOĞAN(Öğrenci), 2023
Akagündüz E., Çifdalöz O., Machine learning applications in control systems, Yüksek Lisans, D.EREN(Öğrenci), 2023
Akagündüz E., Çifdalöz O., DEEP LEARNING-BASED APPLICATIONS OF CONTROL ENGINEERING, Yüksek Lisans, S.MERAL(Öğrenci), 2023
Akagündüz E., Derin öğrenme tabanlı kızıl ötesi hedef tespiti, Yüksek Lisans, K.İREM(Öğrenci), 2023
AKAGÜNDÜZ E., Machine learning of accelerogram data for analyses, modeling and prediction, Yüksek Lisans, M.ÇIKIŞ(Öğrenci), 2022
AKAGÜNDÜZ E., Detection of anomalous fund transfers between different banks, Yüksek Lisans, A.MERT(Öğrenci), 2022
AKAGÜNDÜZ E., Efficient implementation of convolutional neural networks on embedded devices, Yüksek Lisans, B.YILMAZ(Öğrenci), 2022
Akagündüz E., Uslu İ. B., A data collection system design for hand gestures, Yüksek Lisans, E.AKAN(Öğrenci), 2019

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **A survey on infrared image & video sets**
Danaci K. I., AKAGÜNDÜZ E.
Multimedia Tools and Applications, cilt.83, sa.6, ss.16485-16523, 2024 (SCI-Expanded)
- II. **A Survey on Deep Learning-based Architectures for Semantic Segmentation on 2D Images**
ÜLKÜ İ., AKAGÜNDÜZ E.
APPLIED ARTIFICIAL INTELLIGENCE, cilt.36, sa.1, 2022 (SCI-Expanded)
- III. **Deep Semantic Segmentation of Trees Using Multispectral Images**
ÜLKÜ İ., AKAGÜNDÜZ E., Ghamisi P.
IEEE JOURNAL OF SELECTED TOPICS IN APPLIED EARTH OBSERVATIONS AND REMOTE SENSING, cilt.15, ss.7589-7604, 2022 (SCI-Expanded)
- IV. **Dynamical system parameter identification using deep recurrent cell networks Which gated recurrent unit and when?**
AKAGÜNDÜZ E., Cifdaloz O.
NEURAL COMPUTING & APPLICATIONS, cilt.33, sa.23, ss.16745-16757, 2021 (SCI-Expanded)
- V. **Defining Image Memorability Using the Visual Memory Schema**
Akagunduz E., Bors A. G., Evans K. K.
IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, cilt.42, sa.9, ss.2165-2178, 2020 (SCI-Expanded)
- VI. **Filter design for small target detection on infrared imagery using normalized-cross-correlation layer**
Demir H. S., Akagunduz E.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.28, sa.1, ss.302-317, 2020 (SCI-

- Expanded)
- VII. **Silhouette Orientation Volumes for Efficient Fall Detection in Depth Videos**
 Akagunduz E., Aslan M., Sengur A., Wang H., Ince M. C.
 IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS, cilt.21, sa.3, ss.756-763, 2017 (SCI-Expanded)
- VIII. **Shape recognition using orientational and morphological scale-spaces of curvatures**
 Akagunduz E.
 IET COMPUTER VISION, cilt.9, sa.5, ss.750-757, 2015 (SCI-Expanded)
- IX. **Anatomical and dynamic volume spline model applied to facial soft tissue**
 ULUSOY İ., Akagunduz E., Yirci M.
 COMPUTER ANIMATION AND VIRTUAL WORLDS, cilt.22, sa.6, ss.543-554, 2011 (SCI-Expanded)
- X. **Use of the dynamic volume spline method to predict facial soft tissue changes associated with orthognathic surgery**
 ULUSOY PARNAS İ., AKAGÜNDÜZ E., Sabuncuoglu F., GÖRGÜLÜ S., ÜÇOK C. Ö.
 ORAL SURGERY ORAL MEDICINE ORAL PATHOLOGY ORAL RADIOLOGY AND ENDODONTOLOGY, cilt.110, sa.5, 2010 (SCI-Expanded)
- XI. **3D object recognition from range images using transform invariant object representation**
 AKAGÜNDÜZ E., ULUSOY PARNAS İ.
 ELECTRONICS LETTERS, cilt.46, sa.22, ss.1499-1500, 2010 (SCI-Expanded)
- XII. **3D face detection using transform invariant features**
 AKAGÜNDÜZ E., ULUSOY PARNAS İ.
 ELECTRONICS LETTERS, cilt.46, sa.13, ss.905-906, 2010 (SCI-Expanded)
- XIII. **Estimation of parameters for dynamic volume spline models**
 ULUSOY PARNAS İ., AKAGÜNDÜZ E., WEBER G. W.
 INVERSE PROBLEMS IN SCIENCE AND ENGINEERING, cilt.18, sa.4, ss.499-519, 2010 (SCI-Expanded)

Diger Dergilerde Yayınlanan Makaleler

- I. **A Hybrid Framework for Matching Printing Design Files to Product Photos**
 Kaplan A., Akagündüz E.
 Balkan Journal of Electrical and Computer Engineering, cilt.8, sa.2, ss.170-180, 2020 (Hakemli Dergi)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **EANet: Enhanced Attribute-Based RGBT Tracker Network**
 Türkoğlu A., AKAGÜNDÜZ E.
 The 16th International Conference on Machine Vision ICMV2023, ERİVAN, Ermenistan, 15 Kasım 2023
- II. **Sequence Models for Drone vs Bird Classification**
 Akyön F. Ç., Akagündüz E., Altınuç S. O., Temizel A.
 16th International Conference on Machine Vision (ICMV 2023), Yerevan, Ermenistan, 15 - 18 Kasım 2023
- III. **Detecting Driver Drowsiness as an Anomaly Using LSTM Autoencoders**
 Tüfekci G., Kayabaşı A., AKAGÜNDÜZ E., ULUSOY İ.
 17th European Conference on Computer Vision, ECCV 2022, Tel-Aviv-Yafo, İsrail, 23 - 27 Ekim 2022, cilt.13806 LNCS, ss.549-559
- IV. **Semantic Segmentation of Crop Areas in Remote Sensing Imagery using Spectral Indices and Multiple Channels**
 ÜLKÜ İ., AKAGÜNDÜZ E.
 15th International Conference on Machine Vision, ICMV 2022, Rome, İtalya, 18 - 20 Kasım 2022, cilt.12701
- V. **Augmentation of Atmospheric Turbulence Effects on Thermal Adapted Object Detection Models**
 Uzun E., Dursun A. A., Akagündüz E.

- 2022 IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), Louisiana, Amerika Birleşik Devletleri, 19 - 20 Haziran 2022, ss.240-247
- VI. A data collection system design for hand gestures**
Akan E., AKAGÜNDÜZ E., Uslu I. B.
2021 International Conference on INnovations in Intelligent SysTems and Applications, INISTA 2021, Kocaeli, Türkiye, 25 - 27 Ağustos 2021
- VII. Representing Earthquake Accelerogram Records for CNN Utilization**
Cikis M., Tileyoglu S., Akagunduz E.
28th Signal Processing and Communications Applications Conference (SIU), ELECTR NETWORK, 5 - 07 Ekim 2020
- VIII. Comparison of Single Channel Indices for U-Net Based Segmentation of Vegetation in Satellite Images**
Ulku I., Barmpoutis P., Stathaki T., Akagunduz E.
12th International Conference on Machine Vision (ICMV), Amsterdam, Hollanda, 16 - 18 Kasım 2019, cilt.11433
- IX. Infrared Target Detection using Shallow CNNs**
Uzun E., Aksøy T., Akagunduz E.
28th Signal Processing and Communications Applications Conference (SIU), ELECTR NETWORK, 5 - 07 Ekim 2020
- X. An Analysis on the Effect of Skip Connections in Fully Convolutional Networks for License Plate Localization**
Uzun E., Akagunduz E.
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Türkiye, 24 - 26 Nisan 2019
- XI. Machine Learning-based Silence Detection in Call Center Telephone Conversations**
İheme L. O., Ozan S., Akagunduz E.
International Conference on Artificial Intelligence and Data Processing (IDAP), Malatya, Türkiye, 21 - 22 Eylül 2019
- XII. Comparison of Infrared and Visible Imagery for Object Tracking: Toward Trackers with Superior IR Performance**
Gundogdu E., Ozkan H., Demir H. S., Ergezer H., Akagunduz E., Pakin S. K.
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Massachusetts, Amerika Birleşik Devletleri, 7 - 12 Haziran 2015
- XIII. Vessel Classification on UAVs using Inertial Data and IR Imagery**
Demir H. S., Akagunduz E., Pakin S. K.
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Türkiye, 16 - 19 Mayıs 2015, ss.499-502
- XIV. Scale Invariant Silhouette Features**
AKAGÜNDÜZ E.
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 Nisan 2013
- XV. Open and Interoperable Maritime Surveillance Framework Set to Improve Sea-Borders Control**
Erbas C., Cetin F. T., Yilmaz B., Akagunduz E., Kabak Y., Bulca A.
7th Security Research Conference Future Security, Bonn, Almanya, 4 - 06 Eylül 2012, cilt.318, ss.359-360
- XVI. 3D Object Recognition by Geometric Hashing**
Eskizara O., AKAGÜNDÜZ E., ULUSOY İ.
IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Türkiye, 9 - 11 Nisan 2009, ss.214-217
- XVII. SCALE-SPACE APPROACH FOR THE COMPARISON OF HK AND SC CURVATURE DESCRIPTIONS AS APPLIED TO OBJECT RECOGNITION**
Akagunduz E., Eskizara O., ULUSOY İ.
16th IEEE International Conference on Image Processing, Cairo, Mısır, 7 - 10 Kasım 2009, ss.413-416
- XVIII. Comparison of HK and SC Curvature Descriptions in a Scale-Space for the Purpose of 3D Object Recognition**
AKAGÜNDÜZ E., ULUSOY İ.
IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Türkiye, 9 - 11 Nisan 2009, ss.218-221

- XIX. **3D Data Processing for Enhancement of Face Scanner Data**
BOZKURT N., HALICI U., ULUSOY PARNAS İ., AKAGUNDUZ E.
IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Türkiye, 9 - 11 Nisan 2009,
ss.690-693
- XX. **3D Face Reconstruction Using Stereo Images and Structured Light**
OZTURK A. O., HALICI U., ULUSOY PARNAS İ., AKAGUNDUZ E.
IEEE 16th Signal Processing and Communications Applications Conference, Aydin, Türkiye, 20 - 22 Nisan 2008,
ss.878-881
- XXI. **3D Face Representation Using Scale and Transform Invariant Features**
Akaguenduez E., ULUSOY İ.
IEEE 16th Signal Processing and Communications Applications Conference, Aydin, Türkiye, 20 - 22 Nisan 2008,
ss.14-17
- XXII. **3D object representation using transform and scale invariant 3D features**
AKAGÜNDÜZ E., ULUSOY İ.
11th IEEE International Conference on Computer Vision, Rio de Janeiro, Brezilya, 14 - 21 Ekim 2007, ss.55-62
- XXIII. **Scale invariant representation of 2.5D data**
AKAGUNDUZ E., ULUSOY PARNAS İ., BOZKURT N., HALICI U.
IEEE 15th Signal Processing and Communications Applications Conference, Eskişehir, Türkiye, 11 - 13 Haziran
2007, ss.438-441
- XXIV. **A physically-based facial skin model to simulate facial expressions on digitally scanned 3D models**
AKAGUNDUZ E., ULUSOY PARNAS İ., BOZKURT N., HALICI U.
22nd International Symposium on Computer and Information Sciences, Ankara, Türkiye, 7 - 09 Kasım 2007, ss.152-
156

Desteklenen Projeler

AKAGÜNDÜZ E., TÜRKOĞLU A., Yükseköğretim Kurumları Destekli Proje, Kızılıtesi ve Görünür Bant Kaynaştırma
Kullanarak Derin Öğrenme Tabanlı ve Gerçek Zamanlı Görsel Takip Sistemi, 2022 - 2024

Tileylioğlu S., Akagündüz E., TÜBİTAK Projesi, Kuvvetli Yer Hareketi İstasyonu Kayıtları Kullanarak Derin Öğrenme ve
Makine Öğrenme Tabanlı Dinamik Zemin ve Deprem Parametresi Kestirimi (TÜBİTAK 1001 - Araştırmacı), 2021 - 2024

Erbaş C., Akagündüz E., TÜBİTAK Projesi, Developing a Machine Reasoning Engine for Artificial General Intelligence
(TUBITAK 2232 - Araştırmacı), 2020 - 2022

Aselsan A.Ş., Akagündüz E., AB Destekli Diğer Projeler, A Reconfigurable Surveillance System with Communicating Smart
Sensors "RECONSURVE" (EUREKA ITEA2 - Araştırmacı) , 2010 - 2013

Ulusoy İ., TÜBİTAK Projesi, Fusion of different imaging modalities for 3D human head modeling which includes
characteristic hard and soft tissue information as well as realistic photographic view (TÜBİTAK 1001 - Doktora Öğrencisi
Bursiyer), 2006 - 2008

Halıcı U., Akagündüz E., Yükseköğretim Kurumları Destekli Proje, Face Recognition and Modelling (Y. Lisans Öğrencisi
Bursiyer), 2002 - 2003

Metrikler

Yayın: 39
Atıf (WoS): 96
Atıf (Scopus): 174
H-İndeks (WoS): 5
H-İndeks (Scopus): 7

Akademi Dışı Deneyim

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