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Research Areas

Computer Sciences, Electrical and Electronics Engineering, Engineering and Technology

Courses

BİLG.GÖRÜ UYG. İÇİN MAKİNE ÖĞRENMESİ, Doctorate, 2021 - 2022, 2019 - 2020, 2017 - 2018
FUZZY LOGIC, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016
ELECTRICAL ENGINEERING DESIGN, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016
ELECTRICAL ENGINEERING DESIGN (2.ÖĞRETİM), Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016
NUMERICAL METHODS (2.ÖĞRETİM), Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017
NUMERICAL METHODS, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017
ELEKTROTEKNİK, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2013 - 2014
ELEKTROTEKNİK (2.ÖĞRETİM), Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2013 - 2014
FUZZY LOGIC (2.ÖĞRETİM), Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017

Advising Theses

Yavuz H. S., Otonom dronlar için optimal görev atama ve rota planlama, Postgraduate, H.GÖKTAŞ(Student), 2020
Yavuz H. S., Çevikalp H., Fabrika içi ortamlarda görsel nesne sezimi, Postgraduate, N.GENGEÇ(Student), 2020
Yavuz H. S., Yazıcı A., Otonom taşıyıcı araçlar için yüksek çözünürlüklü harita güncelleme, Postgraduate, M.OĞUZ(Student), 2018
Yavuz H. S., Hızlı tren sinyalizasyon sisteminde bazı bileşenlerin güvenilirlik analizi, Postgraduate, İ.ALAYOĞLU(Student), 2018
Yavuz H. S., Çevikalp H., İmge kümeleri tabanlı yüz tanıma için aydınlatma iyileştirme ve poz hizalama, Postgraduate, M.SEYİRT(Student), 2017

Published journal articles indexed by SCI, SSCI, and AHCI

I. **The Scalable Fuzzy Inference-Based Ensemble Method for Sentiment Analysis**
Isikdemir Y. E., Yavuz H. S.
Computational Intelligence and Neuroscience, vol.2022, 2022 (SCI-Expanded)

II. **High-definition map update framework for intelligent autonomous transfer vehicles**
Tas M. O., YAVUZ H. S., YAZICI A.
JOURNAL OF EXPERIMENTAL & THEORETICAL ARTIFICIAL INTELLIGENCE, vol.33, no.5, pp.847-865, 2021 (SCI-Expanded)

III. **Visual object detection for autonomous transport vehicles in smart factories**
Gengeç N., Eker O., ÇEVİKALP H., YAZICI A., YAVUZ H. S.
Turkish Journal of Electrical Engineering and Computer Sciences, vol.29, no.4, pp.2101-2115, 2021 (SCI-Expanded)

IV. **Face Recognition Based on Videos by Using Convex Hulls**
ÇEVİKALP H., YAVUZ H. S., Triggs B.
IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, vol.30, no.12, pp.4481-4495, 2020 (SCI-Expanded)

V. **Comparison of various regression models for predicting compressor and turbine performance parameters**
YAZAR I., YAVUZ H. S., ALTIN YAVUZ A.
ENERGY, vol.140, pp.1398-1406, 2017 (SCI-Expanded)

VI. **A comprehensive comparison of features and embedding methods for face recognition**
YAVUZ H. S., ÇEVİKALP H., EDİZKAN R.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.24, no.1, pp.313-340, 2016 (SCI-Expanded)

VII. **Large margin classifiers based on affine hulls**
ÇEVİKALP H., Triggs B., YAVUZ H. S., KÜÇÜK Y., KÜÇÜK M., BARKANA A.
NEUROCOMPUTING, vol.73, pp.3160-3168, 2010 (SCI-Expanded)

VIII. **Evaluation of surface water quality characteristics by using multivariate statistical techniques: A case study of the Euphrates river basin, Turkey**
FİLİK İŞÇEN C., ALTIN YAVUZ A., ŞENOĞLU B., YAVUZ H. S.
ENVIRONMENTAL MONITORING AND ASSESSMENT, vol.151, pp.259-264, 2009 (SCI-Expanded)

IX. **Two-dimensional subspace classifiers for face recognition**
ÇEVİKALP H., YAVUZ H. S., Cay M. A., BARKANA A.
NEUROCOMPUTING, vol.72, pp.1111-1120, 2009 (SCI-Expanded)

X. **Early blunted cortisol response to insulin induced hypoglycaemia in familial Mediterranian fever**
Korkmaz C., Colak O., Alatas O., Ozarslan A., Ergul B.
CLINICAL AND EXPERIMENTAL RHEUMATOLOGY, vol.20, no.4, 2002 (SCI-Expanded)

Articles Published in Other Journals

I. **A human-computer interaction system based on eye, eyebrow and head movements**
TAŞ M. O., YAVUZ H. S.
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.28, no.5, pp.632-642, 2022 (ESCI)

II. **Fuzzy inference for crash avoidance of industrial lift trucks**
GOCER G., TAŞ M. O., YAVUZ H. S.
Selcuk University Journal of Engineering Sciences, vol.21, no.1, pp.1-8, 2022 (Peer-Reviewed Journal)

III. **Denetimli Makine Öğrenme Yöntemleri ile Yüzey Su Kalitesinin Sınıflandırılması**
ALTIN YAVUZ A., YAVUZ H. S.
Research Journal of Biology Sciences (BIBAD), vol.14, no.2, pp.142-155, 2021 (Peer-Reviewed Journal)

IV. **Engelli İnsanlar İçin Akıllı Tekerlekli Sandalyenin Baş Hareketleri İle Kontrolünün Gerçekleştirilmesi**
TAŞ M. O., ÖZÜPEK TAŞ D., YAVUZ H. S.
Nicel Bilimler Dergisi, vol.2, no.1, pp.19-32, 2020 (Peer-Reviewed Journal)

V. **The Influence of Grinding Parameters of Talc on Water-Based Paint Properties: Application of Multivariate Regression Analysis**
Müdüroğlu M., CAN M. F., ERGÜL B.
Hittite Journal of Science Engineering, vol.7, no.1, pp.1-6, 2020 (Peer-Reviewed Journal)

VI. **Autonomous Preprocessing for Image Set Based Face Recognition**
YAVUZ H. S., SEYİRT M.
Uluslararası Muhendislik Arastirma ve Gelistirme Dergisi, pp.464-473, 2019 (Peer-Reviewed Journal)

VII. **Türkiye'de İllerin Rekabetçilik Düzeyine Göre Sınıflandırılması**
ERGÜL B., ALTIN YAVUZ A., YAVUZ H. S.
Uluslararası Kültürel ve Sosyal Araştırmalar Dergisi (UKSAD), 2018 (Peer-Reviewed Journal)

VIII. **Modelling and Comparison of Compressor Performance Parameters by Using ANFIS**
YAZAR I., KIYAK E., YAVUZ H. S.
Advanced Materials Research, vol.1016, pp.710-715, 2014 (Peer-Reviewed Journal)

IX. **CLASSIFICATION OF NBA LEAGUE TEAMS USING DISCRIMINANT AND LOGISTIC REGRESSION ANALYSES**
Ergül B., Altın Yavuz A., Yavuz H. S.
Pamukkale Spor Bilimleri Dergisi, vol.5, no.1, pp.48-60, 2014 (Peer-Reviewed Journal)

X. **Evalution of Turkey s Hydroelectric Potential by Using Statistical Techniques**
KASAP P., ALTIN YAVUZ A., ERGÜL B.
NWSA, vol.6, no.3, pp.1-6, 2011 (Peer-Reviewed Journal)

XI. **Temel Bileşen Analizi Yönteminin ve Bazı Klasik ve Robust Uyarlamalarının Yüz Tanıma Uygulamaları**
YAZAR I., YAVUZ H. S., ÇAY M. A.
Eskişehir Osmangazi Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi, vol.22, no.1, pp.49-63, 2009 (Peer-Reviewed Journal)

Books & Book Chapters

I. **Bölüm 6. Bilgisayarlı Görü Uygulamaları**
YAVUZ H. S., ÖZKAN M., ÇEVİKALP H.
in: Yapay Zekâ ve Büyük Veri Kitap Serisi 2: YAPAY ZEKA VE BÜYÜK VERİ: ENDÜSTRİ 4.0 VE YAPAY ZEKA, Sağıroğlu Şeref, Demirezen Mustafa Umut, Yazıcı Ahmet, Editor, Nobel Akademik Yayıncılık, pp.153-182, 2021

II. **Bilgisayarlı Görü Uygulamaları**
YAVUZ H. S., ÖZKAN M., ÇEVİKALP H.
in: Yapay Zekâ ve Büyük Veri Kitap Serisi 2: YAPAY ZEKÂ VE BÜYÜK VERİ: ENDÜSTRİ 4.0 VE YAPAY ZEKÂ, Sağıroğlu Şeref, Demirezen Mustafa Umut, Yazıcı Ahmet, Editor, Nobel Akademik Yayıncılık, Ankara, pp.153-178, 2021

Refereed Congress / Symposium Publications in Proceedings

I. **Deep Uniformly Distributed Centers on a Hypersphere for Open Set Recognition**
ÇEVİKALP H., YAVUZ H. S., SARİBAŞ H.
The 15th Asian Conference on Machine Learning, ACML2023, İstanbul, Turkey, 11 - 14 November 2023

II. **Electric Door Lock Access with Visual Password using Raspberry Pi**
Şenyiğit A., Seçgin M. C., Çayhan R., Yavuz H. S.
4. International Cappadocia Scientific Research Congress, Nevşehir, Turkey, 16 April 2023

III. **Detection of person with mobility disabilities with YoloV7 tiny**

YILDIRIM B., YAVUZ H. S.
3. INTERNATIONAL CAPPADOCIA SCIENTIFIC RESEARCH CONGRESS, Nevşehir, Turkey, 11 December 2022

IV. **Brain Tumor Detection With Modified Yolox**
KADADI R., YAVUZ H. S.
4. International Ankara Multidisciplinary Studies Congress, Ankara, Turkey, 29 - 31 July 2022

V. **Image stiching using SIFT, SURF, ORB and BRISK methods**
Biçer H., YAVUZ H. S.
International Antalya Scientific Research and Innovative Studies Congress, Antalya, Turkey, 18 December 2021

VI. **Development of educational robot and user interfaces for robotic applications**
Erdoğmuş A. K., Yarış B., Vatansever F., Umur Y., TAŞ M. O., YAVUZ H. S.
International Conference on Engineering Technologies, Konya, Turkey, 18 November 2021

VII. **Çoklu İHA'lar için Optimal Görev Paylaşımı**
YAVUZ H. S., GÖKTAŞ H., ÇEVİKALP H., SARİBAŞ H.
28. IEEE SİNYAL İŞLEME ve İLETİŞİM UYGULAMALARI KURULTAYI - SİU 2020, Online, Turkey, 5 - 07 October 2020

VIII. **Optimal Task Allocation for Multiple UAVs**
YAVUZ H. S., Goktas H., ÇEVİKALP H., Saribas H.
28th Signal Processing and Communications Applications Conference (SIU), ELECTR NETWORK, 5 - 07 October 2020

IX. **Fuzzy Logic Based Adaptive Cruise Control for Low-Speed Following**
Ondoğan A., YAVUZ H. S.
2019 3rd International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), Ankara, Turkey, Turkey, 11 - 13 October 2019

X. **Visual Object Detection System for Autonomous Vehicles in Smart Factories**
Gengec N., ÇEVİKALP H., YAVUZ H. S., YAZICI A.
Innovations in Intelligent Systems and Applications Conference (ASYU), İzmir, Turkey, 31 October - 02 November 2019, pp.57-61

XI. **UPDATING HD-MAPS FOR AUTONOMOUS TRANSFER VEHICLES IN SMART FACTORIES**
Tas M. O., YAVUZ H. S., YAZICI A.
6th International Conference on Control Engineering and Information Technology (CEIT), İstanbul, Turkey, 25 - 27 October 2018

XII. **Bulanık Mantık Kullanılarak Çoklu Robot Sistemleri İçin Güvenilirlik Tabanlı Görev Paylaşım AnaliziReliability Based Task Allocation Analysis for Multi-Robot Systems by Using Fuzzy Logic**
TAŞ M. O., Yayan U., YAVUZ H. S., YAZICI A.
Akıllı Sistemlerde Yenilikler ve Uygulamaları Konferansı, Antalya, Turkey, 5 - 07 October 2017

XIII. **Bulanık Mantık Kullanılarak Çoklu Robot Sistemleri İçin Güvenilirlik Tabanlı Görev Paylaşım Analizi**
TAŞ M. O., YAYAN U., YAVUZ H. S., YAZICI A.
Akıllı Sistemlerde Yenilikler ve Uygulamaları Konferansı, Turkey, 5 - 07 October 2017

XIV. **Türkiye'deki İllerin Rekabetçilik Sınıflandırması**
ALTIN YAVUZ A., YAVUZ H. S., ERGÜL B.
EYİ 2017, 5 - 07 October 2017

XV. **Fast and Accurate Face Recognition with Image Sets**
ÇEVİKALP H., YAVUZ H. S.
16th IEEE International Conference on Computer Vision (ICCV), Venice, Italy, 22 - 29 October 2017, pp.1564-1572

XVI. **Comparison of matrix decomposition and SIFT descriptor based methods for face alignment**
Yalcin M., YAVUZ H. S.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.1841-1844

XVII. **Facial Expression Recognition Based on Locational Features**
Cam B. C., Yalcin M., YAVUZ H. S.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.1449-1452

XVIII. **Compressor Turbine Performance Parameter Estimation by Using Ordinary Least Squares Regression**
YAZAR I., YAVUZ H. S., KIYAK E., ALTIN YAVUZ A.
International Symposium on Sustainable Aviation (ISSA 2015), İstanbul, Turkey, 31 May - 03 June 2015

XIX. **Compressor Turbine Performance Parameter Prediction by Using Ordinary Least Squares Regression**
YAZAR I., YAVUZ H. S., KIYAK E., ALTIN YAVUZ A.
International Symposium on Sustainable Aviation ISSA -2015, İstanbul, Turkey, 31 May - 03 June 2015, pp.218-221

XX. **Towards Large-Scale Face Recognition Based on Videos**
Yalcin M., ÇEVİKALP H., YAVUZ H. S.
IEEE International Conference on Computer Vision (ICCV), Santiago, Chile, 11 - 18 December 2015, pp.1078-1085

XXI. **ONE-SIDED BEST FITTING HYPERPLANE CLASSIFIER**
ÇEVİKALP H., YAVUZ H. S.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.112-115

XXII. **Fuzzy Logic Based Design of Classical Behaviors for Mobile Robots in ROS Middleware**
Bayar V., Akar B., Yayan U., YAVUZ H. S., YAZICI A.
IEEE International Symposium on Innovations in Intelligent Systems and Applications (INISTA), Alberobello, Italy, 23 - 25 June 2014, pp.162-169

XXIII. **Fuzzy Logic Based Control System Implementation in ROS Middleware**
Bayar V., Akar B., Yayan U., YAVUZ H. S., YAZICI A.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.614-617

XXIV. **Effects of different face template designs for appearance based face recognition**
YAVUZ H. S.
3rd World Conference on Innovation and Computer Science (INSODE-2013), Antalya, Turkey, 26 - 28 April 2013

XXV. **DCV based Face Recognition System and Its Application On the Embedded Development Board**
EDİZKAN R., ÇEVİKALP H., YAVUZ H. S.
3rd World Conference on Innovation and Computer Science (INSODE-2013), Antalya, Turkey, 26 - 28 April 2013

XXVI. **Automatic face recognition from frontal images**
YAVUZ H. S., ÇEVİKALP H., EDİZKAN R.
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013

XXVII. **Comparisons of features for automatic eye and mouth localization**
ÇEVİKALP H., YAVUZ H. S., EDİZKAN R., GÜNDÜZ H., KANDEMİR C. M.
2011 International Symposium on Innovations in Intelligent Systems and Applications, Istanbul, Turkey, 15 - 18 June 2011

XXVIII. **Comparisons of Features for Automatic Eye and Mouth Localizations**
ÇEVİKALP H., YAVUZ H. S., GÜNDÜZ H., EDİZKAN R.
International Symposium on INnovations in Intelligent SysTems and Applications (INISTA 2011), 15 - 18 June 2011

XXIX. **Large Margin Classifier Based on Affine Hulls**
ÇEVİKALP H., YAVUZ H. S.
2010 20th International Conference on Pattern Recognition, Istanbul, Turkey, 23 - 26 August 2010

XXX. **Face Recognition Performance Comparisons by Using Tanh and Gauss Functions in the Ica Method**
YAZAR I., YAVUZ H. S., ÇAY M. A.
5th International Advanced Technologies Symposium (IATS 2009), Karabük, Turkey, 13 - 15 May 2009

XXXI. **BBA Yönteminde Tanh ve Gauss Fonksiyonları Kullanılarak Yüz Tanıma Verimliliklerinin Karşılaştırılması**
YAZAR I., YAVUZ H. S., çay m. a.
5. Uluslararası İleri Teknolojiler Sempozyumu IATS 2009, Karabük, Turkey, 13 - 15 May 2009

XXXII. **Multilinear-CLAFIC Methods for Tensor Data in Image Recognition**
YAVUZ H. S., ÇEVİKALP H.

IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Turkey, 9 - 11 April 2009, pp.515-518

XXXIII. **Comparison of Principal Component Analysis PCA and Multilinear Principal Component Analysis MPCA Methods for Face Recognition**
YAVUZ H. S., ÇAY M. A.
Int. Conference on Multivariate Statistical Modelling & High Dimensional Data Mining (HDM 2008), Kayseri, Turkey, 19 - 23 June 2008

XXXIV. **A New Distance Measure for Hierarchical Clustering**
YAVUZ H. S., ÇEVİKALP H.
IEEE 16th Signal Processing and Communications Applications Conference, Aydın, Turkey, 20 - 22 April 2008, pp.84-87

XXXV. **Two Dimensional 2D Subspace Classifiers for Image Recognition**
ÇEVİKALP H., YAVUZ H. S., BARKANA A.
14th European Signal Processing Conference (EUSIPCO2006), Florence, Italy, 4 - 08 September 2006

XXXVI. **Two-dimensional CLAFIC methods for image recognition**
YAVUZ H. S., ÇEVİKALP H., Barkana A.
IEEE 14th Signal Processing and Communications Applications, Antalya, Turkey, 16 - 19 April 2006, pp.160-161

XXXVII. **The Comparison of Fuzzy Inference Systems and Neural Network Approaches with ANFIS Method for Fuel Consumption Data**
ATMACA H., CETİŞLİ B., YAVUZ H. S.
Second International Conference on Electrical and Electronics Engineering (ELECO 2001), Bursa, Turkey, 7 - 11 November 2001

XXXVIII. **LPG Isıtıcıların Bulanık Mantık ile Kontrolü**
ATMACA H., CETİŞLİ B., YAVUZ H. S.
Elektrik-Elektronik ve Bilgisayar Mühendisliği Sempozyumu (ELECO'2000), Bursa, Turkey, 8 - 12 November 2000

XXXIX. **The Implementation of Fuzzy Flip Flops as Memory Modules**
ATMACA H., YAVUZ H. S.
International Conference on Electrical and Electronics Engineering (ELECO'99), Bursa, Turkey, 1 - 05 December 1999

Metrics

Publication: 64
Citation (WoS): 121
Citation (Scopus): 158
H-Index (WoS): 7
H-Index (Scopus): 8