

Assoc. Prof. MEHMET CEM ÇATALBAŞ

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: E-3629-2016

ScopusID: 55807863600

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Education Information

Doctorate, Firat University, Institute Of Science, Elektrik-Elektronik Mühendisliği (Dr), Turkey 2014 - 2018

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği (YI) (Tezli), Turkey 2011 - 2014

Undergraduate, Firat University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, Turkey 2005 - 2009

Dissertations

Doctorate, Balon balığı davranışı tabanlı yeni bir metasezgisel optimizasyon algoritması, Firat University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği (Dr), 2018

Postgraduate, Temel bileşenler analizi ve kanonik korelasyon analizi ile imge tanıma ve sınıflandırma, Hacettepe University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği (YI) (Tezli), 2014

Research Areas

Computer Sciences, Biomedical Engineering, Electrical and Electronics Engineering, Mathematics, Statistics, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Ankara University, 1. Organize Sanayi Bölgesi Meslek Yüksekokulu, Elektronik ve Otomasyon Bölümü, 2021 - Continues

Assistant Professor, Ostim Technical University, Vocational School, Department Of Electronics And Automation, 2019 - 2021

Research Assistant, Firat University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, 2014 - 2018

Research Assistant, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2011 - 2014

Academic and Administrative Experience

Director of Vocational School, Ankara University, 1. Organize Sanayi Bölgesi Meslek Yüksekokulu, 2023 - Continues

Head of Department, Ankara University, 1. Organize Sanayi Bölgesi Meslek Yüksekokulu, Elektronik ve Otomasyon Bölümü, 2021 - Continues

Assistant Director of Vocational School, Ostim Technical University, Vocational School, Department Of Electronics And Automation, 2020 - 2021

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Examining Factors Influencing Cognitive Load of Computer Programmers**
Issever D., ÇATALBAŞ M. C., DURAN F.
Brain Sciences, vol.13, no.8, 2023 (SCI-Expanded)
- II. **Dynamic speaker localization based on a novel lightweight R-CNN model**
ÇATALBAŞ M. C., Dobrisek S.
Neural Computing and Applications, vol.35, no.14, pp.10589-10603, 2023 (SCI-Expanded)
- III. **Measurement of correlated color temperature from RGB images by deep regression model**
ÇATALBAŞ M. C., Kobav M. B.
MEASUREMENT, vol.195, 2022 (SCI-Expanded)
- IV. **Modified VDSR-based single image super-resolution using naturalness image quality evaluator**
ÇATALBAŞ M. C.
SIGNAL IMAGE AND VIDEO PROCESSING, vol.16, no.3, pp.661-668, 2022 (SCI-Expanded)
- V. **The mathematical relationship between COVID-19 cases and socio-economic indicators of OECD countries**
ÇATALBAŞ M. C., Burken S.
PATHOGENS AND GLOBAL HEALTH, vol.116, no.6, pp.376-388, 2022 (SCI-Expanded)
- VI. **Analysis of photovoltaic-green roofs in OSTIM industrial zone**
ÇATALBAŞ M. C., Kocak B., Yenipinar B.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.46, no.28, pp.14844-14856, 2021 (SCI-Expanded)
- VII. **Chaotic Systems Based Real-Time Implementation of Visual Cryptography Using LabVIEW**
Bulut G. G., ÇATALBAŞ M. C., GÜLER H.
TRAITEMENT DU SIGNAL, vol.37, no.4, pp.639-645, 2020 (SCI-Expanded)
- VIII. **Unsupervised Multi-Label Image and Texture Segmentation based on Optimal Feature Representation**
ÇATALBAŞ M. C.
TEHNICKI VJESNIK-TECHNICAL GAZETTE, vol.26, no.5, pp.1275-1283, 2019 (SCI-Expanded)
- IX. **Passive thermal management of an OLED TV display**
Nil M., ÖZTÜRK Y., AKGÜL M. B., ÇATALBAŞ M. C., NİL M.
OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, vol.12, no.7-8, pp.401-406, 2018 (SCI-Expanded)
- X. **A novel super resolution approach for computed tomography images by inverse distance weighting method**
ÇATALBAŞ M. C., GÜLTEN A.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.33, no.2, pp.671-684, 2018 (SCI-Expanded)
- XI. **3D Moving Sound Source Localization via Conventional Microphones**
ÇATALBAŞ M. C., Dobrisek S.
ELEKTRONIKA IR ELEKTROTECHNIKA, vol.23, no.4, pp.63-69, 2017 (SCI-Expanded)

Articles Published in Other Journals

- I. **Impacts of COVID-19 Pandemic on Electrical Energy Storage Technologies**
ÇATALBAŞ M. C.
Energy Storage, 2021 (ESCI)
- II. **Envanter Yönetimi için Düşük Maliyetli UHF RFID Sistemin Tasarımı ve Gerçekleştirilmesi**
ÇATALBAŞ M. C., SEVGİ A.
El-Cezeri Fen ve Mühendislik Dergisi, vol.8, no.3, pp.1416-1428, 2021 (Scopus)
- III. **Design and Implementation of a Three-Wheel Multi-Purpose Electric Vehicle with Finite Elements Analysis**
ALVALI G. T., BALBAY A., GÜNEŞ S., YENİPINAR B., ÇATALBAŞ M. C., ŞİŞMAN T.
International Journal of Automotive Science and Technology, vol.5, no.2, pp.116-125, 2021 (Peer-Reviewed Journal)
- IV. **An Investigation into the Relationship between Curse of Dimensionality and Dunning-Kruger Effect**
ÇATALBAŞ M. C.
Sakarya University Journal of Computer and Information Sciences, vol.3, no.2, pp.121-130, 2020 (Peer-Reviewed Journal)
- V. **Design and Implementation of a Hysteresis Band Current Controller Three-Phase AC Chopper System**
ÇATALBAŞ N., ÇATALBAŞ M. C., SÜNTER S.
INTERNATIONAL JOURNAL OF RENEWABLE ENERGY RESEARCH, vol.10, no.2, pp.625-632, 2020 (ESCI)
- VI. **A NOVEL APPROACH FOR OPTIMIZATION OF NOZZLE ANGLE AND THRUST VECTORING CONTROLLER VIA A SUB-MUTATION GENETIC ALGORITHM**
ÇATALBAŞ M. C., GÜLTEN A.
INTERNATIONAL JOURNAL OF INNOVATIVE COMPUTING INFORMATION AND CONTROL, vol.13, no.6, pp.1929-1940, 2017 (ESCI)
- VII. **ENVIRONMENT ADAPTIVE LIGHTING SYSTEMS FOR SMART HOMES**
ÇATALBAŞ M. C.
ADVANCES IN SCIENCE AND TECHNOLOGY-RESEARCH JOURNAL, vol.11, no.3, pp.172-178, 2017 (ESCI)
- VIII. **Design and Implementation of Software Based Audiometer System**
ÇATALBAŞ M. C., GÜLER H.
Journal of Image and Graphics, vol.5, no.1, pp.29-33, 2017 (Scopus)
- IX. **Computation of the Speed of Four In-Wheel Motors of an Electric Vehicle Using a Radial Basis Neural Network**
YILDIRIM M., ÇATALBAŞ M. C., GÜLTEN A., KÜRÜM H.
ENGINEERING TECHNOLOGY & APPLIED SCIENCE RESEARCH, vol.6, no.6, pp.1288-1293, 2016 (ESCI)
- X. **Estimation of Trajectory and Location for Mobile Sound Source**
ÇATALBAŞ M. C., YILDIRIM M., GÜLTEN A., KÜRÜM H., Dobrisek S.
INTERNATIONAL JOURNAL OF ADVANCED COMPUTER SCIENCE AND APPLICATIONS, vol.7, no.9, pp.237-241, 2016 (ESCI)
- XI. **Ortam Gürültü Seviyesi Uyarlamalı ve Mikro Denetleyici Destekli Saf Ton Odyometre Gerçekleştirilmesi**
ÇATALBAŞ M. C., GÜLER H., GÜLTEN A.
Fırat Üniversitesi Mühendislik Bilimleri Dergisi, vol.28, no.2, pp.43-49, 2016 (Peer-Reviewed Journal)
- XII. **Hava Taşıllarının Uçuş Kontrolü için Doğrusal Kuadratik Regülatör Yöntemi ile Optimal Kontrolör Tasarımı**
ÇATALBAŞ M. C., URAL BAYRAK Z., GÜLTEN A.
FIRAT ÜNİVERSİTESİ MÜHENDİSLİK BİLİMLERİ DERGİSİ, vol.27, no.2, 2015 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Pufferfish Optimization Algorithm: A Bio-Inspired Optimizer**
ÇATALBAŞ M. C., GÜLTEN A.
in: Handbook of Intelligent Computing and Optimization for Sustainable Development, , Editor, John Wiley & Sons Incorporated, New Jersey, pp.463-485, 2021

Refereed Congress / Symposium Publications in Proceedings

- I. **A framework of Multi-Point Infrared Temperature Screening System for COVID-19 Pandemic**
ÇATALBAŞ M. C.
4.International Symposium on Advanced Electrical and Communication Technologies (ISAECT), 06 December 2021
- II. **Prototype of low-cost portable ventilator system for COVID-19**
ÇATALBAŞ M. C.
XIIIth National Medical Physics and Biomedical Engineering Conference 2020, Plovdiv, Bulgaria, 1 - 04 November 2020
- III. **Wave Energy Converter Technology and an Analysis of its Potential in Turkey**
ÇATALBAŞ N., ÇATALBAŞ M. C.
6th International Conference on Electrical Engineering, ICEE 2020, Virtual, Istanbul, Turkey, 25 - 27 September 2020
- IV. **Is there a relationship between self-confidence and time to reach data on brain?**
ÇATALBAŞ M. C.
7th International Symposium on Brain and Cognitive Science, 31 May 2020
- V. **The impressive circular structures on the seabed as nature-inspired optimization**
ÇATALBAŞ M. C., GÜLTEN A.
XIII Balkan Conference on Operational Research, Belgrade, Serbia, 25 - 28 May 2018, pp.22
- VI. **Circular Structures of Puffer Fish: A New Metaheuristic Optimization Algorithm**
ÇATALBAŞ M. C., GÜLTEN A.
3rd International Conference on Electrical and Biomedical Engineering, Clean Energy and Green Computing (EBECEGC), Beirut, Lebanon, 25 - 27 April 2018, pp.1-5
- VII. **An Audio Dataset for the Development of Automatic Spatial Localisation, Separation and Recognition of Speakers**
Dobrisek S., ÇATALBAŞ M. C., David C.
26th International Electrotechnical and Computer Science Conference IEEE ERK 2017, At Portorož, Slovenia, Portoroz, Slovenia, 25 - 27 September 2017
- VIII. **Estimation of Optimal Locations for Electric Vehicle Charging Stations**
ÇATALBAŞ M. C., YILDIRIM M., GÜLTEN A., KÜRÜM H.
17th IEEE International Conference on Environment and Electrical Engineering (IEEE EEEIC) / 1st IEEE Industrial and Commercial Power Systems Europe Conference (IEEE I and CPS Europe), Milan, Italy, 6 - 09 June 2017
- IX. **Driver Fatigue Detection Based on Saccadic Eye Movements**
ÇATALBAŞ M. C., Cegovnik T., Sodnik J., GÜLTEN A.
10th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 30 November - 02 December 2017, pp.913-917
- X. **Optimal Component Selection for Image Segmentation via Parallel Analysis**
Catalbas M. C., YILDIRIM M., GÜLTEN A., KÜRÜM H.
8th IEEE International Conference on Intelligent Systems (IS), Sofija, Bulgaria, 4 - 06 September 2016, pp.499-502
- XI. **Modelling and Estimation Parameters of Electronic Differential System for an Electric Vehicle using Radial Basis Neural Network**
YILDIRIM M., ÇATALBAŞ M. C., GÜLTEN A., KÜRÜM H.
IEEE 16th International Conference on Environment and Electrical Engineering (EEEIC), Florence, Italy, 6 - 10 June 2016
- XII. **Computer Based Audiometer Design In LabVIEW**

- ÇATALBAŞ M. C., GÜLER H.
INTERNATIONAL CONGRESS ON NATURAL AND ENGINEERING SCIENCES, 9 - 13 September 2015
- XIII. **Graphical User Interface GUI for Automatic Image Alignment and Corner Detection on the Prokudin Gorskii photo collection**
ÇATALBAŞ M. C., DİDEM İ., GÜLTEN A.
ISTEC 2015 International Science and Technology Conference, 2 - 04 September 2015
- XIV. **Gender Based Image Classification via Canonical Correlation Analysis**
ÇATALBAŞ M. C., ÖZKAZANÇ Y. S., GÜLTEN A.
3RD INTERNATIONAL SYMPOSIUM ON INNOVATIVE TECHNOLOGIES IN ENGINEERING AND SCIENCE, Valensiya, 3 - 05 June 2015
- XV. **Automatic Determination of Neovascularization Area with Adaptive Histogram Equalization**
ÇATALBAŞ M. C., Issever D., GÜLTEN A.
Medical Technologies National Conference (TIPTEKNO), Bodrum, Turkey, 15 - 18 October 2015
- XVI. **Morphological Feature Extraction with Local Histogram Equalization**
Catalbas M. C., Issever D., GÜLTEN A.
23nd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.435-438
- XVII. **Çevrimiçi İmza Tanıma Online Signature Recognition**
TOKER K. G., KÜÇÜK S., ÇATALBAŞ M. C.
2014 IEEE 22nd Signal Processing and Communications Applications Conference (SIU 2014), Turkey, 23 - 25 April 2014
- XVIII. **Çoklu Kanonik Korelasyon Analizi ile İmge Sınıflandırma Image Classification via Multi Canonical Correlation Analysi**
ÇATALBAŞ M. C., ÖZKAZANÇ Y. S.
2014 IEEE 22nd Signal Processing and Communications Applications Conference (SIU 2014), Turkey, 23 - 25 April 2014
- XIX. **Temel Bileşenler Analizi ile Radyo Astronomi İmgelerinden Gürültünün Ayırılması**
ÇATALBAŞ M. C., DİDEM İ., GÜLTEN A.
URSI-TÜRKİYE'2014VII. Bilimsel Kongresi, 28-30 Ağustos 2014, ELAZIĞ, Turkey, 28 - 30 August 2014
- XX. **Online Signature Recognition**
Toker K. G., KÜÇÜK S., Catalbas M. C.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.1754-1757
- XXI. **IMAGE CLASSIFICATION VIA MULTI CANONICAL CORRELATION ANALYSIS**
Catalbas M. C., Ozkazanc Y.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.1011-1014
- XXII. **COUNTRY OF ORIGIN ESTIMATION FROM COMPOSITE FACES USING KERNEL PRINCIPAL COMPENENT ANALYSIS**
Catalbas M. C., YÜKSEKKAYA B.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.1207-1210
- XXIII. **Borsa Endeksleri Arasındaki İlişkinin Kanonik Korelasyon Analizi ile İncelenmesi**
ÇATALBAŞ M. C.
8. Uluslararası İstatistik Kongresi, 27 - 30 October 2013
- XXIV. **Radyal Tabanlı Sinir Ağları ile Süper Çözünürlük Super Resolution using Radial Basis Neural Networks**
ÇATALBAŞ M. C., ÖZTÜRK S.
21. Sinyal İşleme ve İletişim Uygulamaları Kurultayı IEEE SIU, Turkey, 24 - 26 April 2013
- XXV. **SUPER RESOLUTION USING RADIAL BASIS NEURAL NETWORKS**
ÇATALBAŞ M. C., Ozturk S.

Supported Projects

ÇATALBAŞ M. C., Project Supported by Higher Education Institutions, COVID-19 İçin Düşük Maliyetli İnvaziv Olmayan Ventilatör Tasarımı ve Uygulaması, 2020 - Continues

ÇATALBAŞ M. C., Project Supported by Higher Education Institutions, Envanter Yönetimi için Düşük Maliyetli ve Esnek UHF RFID Sistem, 2020 - Continues

ÇATALBAŞ M. C., Project Supported by Other Official Institutions, Pil Tabanlı Fotovoltaik Sistemler Eğitim Tasarım ve Uygulaması Projesi, 2020 - Continues

Çatalbaş M. C., Other International Funding Programs, Enhanced Modular UGV for Post-Disaster Research, 2023 - 2025

ÇATALBAŞ M. C., Project Supported by Higher Education Institutions, Yeni Nesil Bir Elektrikli Arabanın Şasi Tasarımı ve İmalatı, 2020 - 2020

Metrics

Publication: 49

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