

## Assoc. Prof. Murat Canayaz

### Personal Information

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### International Researcher IDs

ORCID: 0000-0001-8120-5101

ScopusID: 56565518400

Yoksis Researcher ID: 21548

### Education Information

Doctorate, Inonu University, Bilgisayar Mühendisliği, Turkey 2011 - 2015

Postgraduate, Van Yüzüncü Yil University, Elektrik-Elektronik Mühendisliği, Turkey 2007 - 2010

Undergraduate, Azerbaycan Teknik Üniversitesi, Bilgisayar Mühendisliği, Azerbaijan 2000 - 2005

### Foreign Languages

English, B2 Upper Intermediate

Russian, B1 Intermediate

### Dissertations

Doctorate, Cırcır Böceği Algoritması: Yeni Bir Meta-Sezgisel Yaklaşım Ve Uygulamaları, Inonu University, Bilgisayar Mühendisliği, Bilgisayar Bilimleri, 2015

Postgraduate, Çevrimiçi iletişimi destekleyen web tabanlı uzaktan eğitim portalı yazılımı, Van Yüzüncü Yil University, Elektrik-Elektronik Mühendisliği, Bilgisayar Bilimleri, 2007

### Research Areas

Computer Sciences, algorithms, Performance Modelling and Evaluation, Computer Vision, Computer Vision, Artificial Intelligence, Computer Learning and Pattern Recognition, Evolutionary Computing, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Van Yüzüncü Yil University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, Van Yüzüncü Yil University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2016 - 2018

Lecturer, Van Yüzüncü Yil University, Van Meslek Yüksekokulu, Bilgisayar Teknolojileri Bölümü, 2011 - 2016

Lecturer, Mus Alparslan University, Muş Meslek Yüksek Okulu, Bilgisayar Programcılığı, 2010 - 2011

## Academic and Administrative Experience

Head of Department, Van Yüzüncü Yil University, Bilgisayar Mühendisliği, 2017 - 2020

Van Yüzüncü Yil University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2017 - 2019

Van Yüzüncü Yil University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2016 - 2019

Van Yüzüncü Yil University, Uzaktan Eğitim Merkez Müdürlüğü, 2016 - 2019

Van Yüzüncü Yil University, Bilgisayar Bilimleri Araştırma Ve Uygulama Merkez Müdürlüğü, 2016 - 2019

Van Yüzüncü Yil University, Uzaktan Eğitim Merkez Müdürlüğü, 2016 - 2019

## Courses

Metasezgisel Algoritmalar, Postgraduate, 2016 - 2017

Bilgisayara Giriş, Undergraduate, 2015 - 2016

## Advising Theses

Canayaz M., Ağ cihazlarının web tabanlı yönetimi için uygulama yazılımı geliştirme, Postgraduate, O.GÜMÜŞ(Student), 2020

Canayaz M., Ağ tehdit algılamada derin öğrenme uygulamaları, Postgraduate, M.KAPAR(Student), 2019

Canayaz M., Büyük veri araçları kullanarak sosyal medyada his analizi yapma, Postgraduate, M.CAN(Student), 2019

## Jury Memberships

Post Graduate, Yrd.Doç.Dr. Murat CANAYAZ, Yüzüncü Yil Üniversitesi, June, 2016

Doctorate, Yrd.Doç.Dr. Murat CANAYAZ, İnönü Üniversitesi, May, 2016

Post Graduate, Yrd.Doç.Dr. Murat CANAYAZ, Yüzüncü Yil Üniversitesi, March, 2016

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A novel deep learning-based approach for prediction of neonatal respiratory disorders from chest X-ray images**  
Yıldırım A. E., Canayaz M.  
BIOCYBERNETICS AND BIOMEDICAL ENGINEERING, vol.43, no.4, pp.635-655, 2023 (SCI-Expanded)
- II. **Classification of diabetic retinopathy with feature selection over deep features using nature-inspired wrapper methods**  
Canayaz M.  
APPLIED SOFT COMPUTING, vol.128, 2022 (SCI-Expanded)
- III. **COVID-19 diagnosis on CT images with Bayes optimization-based deep neural networks and machine learning algorithms**  
Canayaz M., Şehribanoğlu S., Özdağ R., Demir M.  
NEURAL COMPUTING & APPLICATIONS, vol.34, no.7, pp.5349-5365, 2022 (SCI-Expanded)
- IV. **Application of machine learning methods to removal percentage prediction for Malachite green adsorption on kaolinite**  
Canayaz M., Aldemir A., Kul A. R.  
DESALINATION AND WATER TREATMENT, vol.247, pp.258-271, 2022 (SCI-Expanded)
- V. **C plus EfxNet: A novel hybrid approach for COVID-19 diagnosis on CT images based on CBAM and EfficientNet**  
Canayaz M.  
CHAOS SOLITONS & FRACTALS, vol.151, 2021 (SCI-Expanded)
- VI. **MH-COVIDNet: Diagnosis of COVID-19 using deep neural networks and meta-heuristic-based feature**

### **selection on X-ray images**

Canayaz M.

BIOMEDICAL SIGNAL PROCESSING AND CONTROL, vol.64, 2021 (SCI-Expanded)

### **VII. A new metaheuristic approach based on orbit in the multi-objective optimization of wireless sensor networks**

Özdağ R., Canayaz M.

WIRELESS NETWORKS, vol.27, no.1, pp.285-305, 2021 (SCI-Expanded)

### **VIII. Cricket behaviour-based evolutionary computation technique in solving engineering optimization problems**

Canayaz M., KARCI A.

APPLIED INTELLIGENCE, vol.44, no.2, pp.362-376, 2016 (SCI-Expanded)

### **IX. Investigation of cricket behaviours as evolutionary computation for system design optimization problems**

Canayaz M., KARCI A.

MEASUREMENT, vol.68, pp.225-235, 2015 (SCI-Expanded)

## **Articles Published in Other Journals**

### **I. Two-stage hybrid sem-neural network approach and Van city residents' perception of brand**

Sehribanoglu S., Canayaz M., Cihangir E.

JOURNAL OF STATISTICS & MANAGEMENT SYSTEMS, vol.25, no.3, pp.585-616, 2022 (Peer-Reviewed Journal)

### **II. Evrimsel Sinir Ağları ile Türkçe Videolarda Geçen Küfür Seslerinin Sansürlenmesi**

TAYIZ M. M., CANAYAZ M.

Muş Alparslan Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, vol.2, no.2, pp.101-110, 2021 (Peer-Reviewed Journal)

### **III. Removal of Thymol Blue from Aqueous Solution by Natural and Modified Bentonite: Comparative Analysis of ANN and ANFIS Models for the Prediction of Removal Percentage**

Koyuncu H., Aldemir A., Kul A. R., Canayaz M.

POLLUTION, vol.7, no.4, pp.959-980, 2021 (ESCI)

### **IV. MARBLE CLASSIFICATION USING DEEP NEURAL NETWORKS**

CANAYAZ M., ULUDAĞ F.

European Journal of Technique, vol.10, no.1, pp.52-63, 2020 (Peer-Reviewed Journal)

### **V. Training Anfis System with Moth-Flame Optimization Algorithm**

CANAYAZ M.

International Journal of Intelligent Systems and Applications in Engineering, vol.7, no.3, pp.133-144, 2019 (Peer-Reviewed Journal)

### **VI. Sezgisel Yöntemler ile Eğitilmiş Uyarlamalı Sinirsel Bulanık Mantık Sistemlerinin Sınıflandırma Problemlerine Etkisi**

Canayaz M., Uludağ F.

Veri Bilimi, vol.1, no.1, pp.36-44, 2018 (Peer-Reviewed Journal)

### **VII. Data Clustering Based on The Whale Optimization**

Canayaz M., Özdağ R.

Middle East Journal of Technic, vol.2, no.2, pp.178-187, 2017 (Peer-Reviewed Journal)

### **VIII. A New Dynamic Deployment Approach Based on Whale Optimization Algorithm in the Optimization of Coverage Rates of Wireless Sensor Networks**

ÖZDAĞ R., CANAYAZ M.

European Journal of Technic, vol.7, no.2, pp.119-130, 2017 (Peer-Reviewed Journal)

### **IX. Skip Graph Based Image Segmentation**

AKSU M., CANAYAZ M., KARCI A.

International Journal of Scientific and Technological Research, vol.1, no.1, pp.279-287, 2015 (Peer-Reviewed)

## Refereed Congress / Symposium Publications in Proceedings

- I. **ANALYSIS OF MODIC DEGENERATIONS DETECTED IN MAGNETIC RESONANCE IMAGING WITH DEEP LEARNING TECHNIQUES**  
Yüksek M., Yokuş A., Arslan H., Canayaz M., Akdemir Z.  
EUROPEAN SOCIETY OF NEURORADIOLOGY Diagnostic and Interventional 45th ANNUAL MEETING, Lisbon, Portugal, 14 - 18 September 2022, vol.64, pp.563-564
- II. **Medikal İmge Sınıflandırması İçin Yeni Hibrid Bir Derin Öğrenme Yaklaşımı**  
Canayaz M.  
ULUSLARARASI MÜHENDİSLİK, DOĞA VE SOSYAL BİLİMLER SEMPOZYUMU ISENS-21, Batman, Turkey, 25 - 28 November 2021, pp.1-2
- III. **Censoring Turkish Profanity Voices with Recursive Neural Networks**  
Tayiz M. M., Canayaz M.  
TOK 2021 Otomatik Kontrol Türk Milli Komitesi Ulusal Kongresi, Van, Turkey, 2 - 04 September 2021, pp.257-260
- IV. **Comparative Analysis of LSTM and Kalman Filter in Time Series Estimation**  
Canayaz M., Şehribanoğlu S.  
International Conference on Data Science, Machine Learning and Statistics 2019 (DMS-2019), Van, Turkey, 26 - 29 June 2019, pp.61-63
- V. **Optimization of Sensor Deployment for k-coverage in Wireless Sensor Networks**  
Özdağ R., Canayaz M.  
International Conference on Advanced Technologies, Computer Engineering and Science (ICATCES'18), Karabük, Turkey, 11 - 13 May 2018, pp.755-760
- VI. **Training ANFIS using The Whale Optimization Algorithm**  
Canayaz M., Özdağ R.  
International Conference on Advanced Technologies, Computer Engineering and Science (ICATCES 2018), Karabük, Turkey, 11 - 13 May 2018, pp.409-414
- VII. **Crypto-Currency Sentiment Analyse on Social Media**  
Erdoğan M. C., Canayaz M.  
International Conference on Artificial Intelligence and Data Processing (IDAP), Malatya, Turkey, 28 - 30 September 2018
- VIII. **Training Artificial Neural Network with Chaotic Cricket Algorithm**  
Canayaz M., Özdağ R.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- IX. **Feature Selection with The Whale Optimization Algorithm and Artificial Neural Network**  
Canayaz M., DEMİR M.  
2017 International Artificial Intelligence and Data Processing Symposium (IDAP), Malatya, Turkey, 16 - 17 September 2017
- X. **Veri Kümelemede Yapay Atom Algoritması ve Cırcır Böceği Algoritmasının Karşılaştırılmalı Analizi**  
Canayaz M., DEMİR M.  
4TH INTERNATIONAL SYMPOSIUM ON INNOVATIVE TECHNOLOGIES IN ENGINEERING AND SCIENCE, Antalya, Turkey, 3 - 05 November 2016, pp.1230-1239
- XI. **Neutrosophic Set Based Image Segmentation Approach Using Cricket Algorithm**  
Canayaz M., HANBAY K.  
International Symposium on Innovations in Intelligent Systems and Applications (INISTA), Sinaia, Romania, 2 - 05 August 2016
- XII. **İmge İşleme Uygulamalarında Cırcır Böceği Algoritması**  
Canayaz M., KARCI A.  
Akademik Bilişim Konferansı, Eskişehir, Turkey, 4 - 06 February 2015

- XIII. **A Novel Approach for Image Compression Based on Multi-level Image Thresholding using Discrete Wavelet Transform and Cricket Algorithm**  
Canayaz M., KARCI A.  
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.224-227
- XIV. **A New Metaheuristic Cricket-Inspired Algorithm**  
Canayaz M., KARCI A.  
2nd International Eurasian Conference on Mathematical Sciences and Applications (IECMSA), Saraybosna, Bosnia And Herzegovina, 26 - 29 August 2013, pp.176
- XV. **Image Representation as Skip Graph**  
Canayaz M., AKSU M., KARCI A.  
1st International Eurasian Conference on Mathematical Sciences and Applications (IECMSA), Priştina, Kosova, 3 - 07 September 2012, pp.152
- XVI. **Content Based Image Retrieval via Graph Similarity**  
Canayaz M., BAYKARA M., AKSU M., ÖZSEVEN T., KARCI A.  
1st International Eurasian Conference on Mathematical Sciences and Applications (IECMSA), Priştina, Kosova, 3 - 07 September 2012, pp.155

## Supported Projects

Canayaz M., Özdağ R., Uludağ F., Project Supported by Higher Education Institutions, Yapay Zeka ve Derin Öğrenme Uygulamaları Geliştirme, 2018 - 2021

Özdağ R., Canayaz M., Project Supported by Higher Education Institutions, Kablosuz Algılayıcı Ağların Kapsanma ve Yaşam Sürelerinin Optimizasyonu için Meta-sezgisel algoritmalar esas alınarak Yeni Protokol ve Yaklaşımların Geliştirilmesi, 2017 - 2021

Çelik H. E., Uludağ F., Çavuş H., Şensoy S., Tanhan F., Hamzadayı A., Van M. H., Canayaz M., Özdağ R., ÇELİK İ., et al., Project Supported by Higher Education Institutions, Uluslararası Veri Bilimi Makine Öğrenme ve İstatistik Konferansı DMS2019, 2019 - 2019

Canayaz M., Project Supported by Higher Education Institutions, Sezgisel Yöntemler ile Eğitilmiş Uyarlamalı Sinirsel Bulanık Mantık Sistemlerinin Sınıflandırma Problemlerine Etkisi, 2018 - 2019

Ekin İ. H., Battal P., Demirel M., Çelik H. E., Özdağ R., Canayaz M., Project Supported by Higher Education Institutions, Üniversitelerin Üniversite-İşbirliğinden Beklentileri Sempozyumu, 2017 - 2017

Çelik H. E., Ekin İ. H., Özdağ R., Canayaz M., Çavuş H., Özdemir S., Genç N., Project Supported by Higher Education Institutions, Yüzüncü Yıl Üniversitesi Akademik Varlıklarının E-Ortamda Korunması, 2017 - 2017

## Scientific Refereeing

Phsica A, SCI Journal, January 2019

Applied Soft Computing, SCI Journal, December 2017

Applied Soft Computing, SCI Journal, November 2017

Applied Soft Computing, SCI Journal, October 2017

Muş Alparslan Üniversitesi Fen Bilimleri Dergisi, National Scientific Refreed Journal, October 2017

Türk Doğa ve Fen Dergisi, National Scientific Refreed Journal, August 2017

Gaziosmanpaşa Bilimsel Araştırma Dergisi, National Scientific Refreed Journal, July 2017

Journal of Experimental & Theoretical Artificial Intelligence, SCI Journal, March 2017

Applied Soft Computing, SCI Journal, February 2017

Yüzüncü Yıl Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, February 2017

International Journal for Light and Electron Optics, SCI Journal, August 2016

Journal of Electrical and Electronics Engineering Research, Other Indexed Journal, June 2016

## **Metrics**

Publication: 35

Citation (WoS): 109

Citation (Scopus): 141

H-Index (WoS): 4

H-Index (Scopus): 6

## **Congress and Symposium Activities**

Bozkırda Yapay Öğrenme, Attendee, Ankara, Turkey, 2017