

## Assoc. Prof. SERKAN KARTAL

### Personal Information

**Office Phone:** [+90 322 338 6060](tel:+903223386060) Extension: 22

**Email:** skartal@cu.edu.tr

**Web:** <https://avesis.cu.edu.tr//skartal>

**Address:** skartal@cu.edu.tr

### International Researcher IDs

ScholarID: ChVNRk0AAAAJ

ORCID: 0000-0001-9801-8986

Publons / Web Of Science ResearcherID: J-1708-2018

Yoksis Researcher ID: 104583

### Education Information

Doctorate, Cukurova University, Bilgisayar Mühendisliği, Turkey 2014 - 2017

Postgraduate, Cukurova University, Mühendislik Mimarlık Fakültesi, Bilgisayar Mühendisliği, Turkey 2011 - 2013

Undergraduate, Cukurova University, Mühendislik Mimarlık Fakültesi, Bilgisayar Mühendisliği, Turkey 2005 - 2010

### Foreign Languages

English, B2 Upper Intermediate

### Research Areas

Computer Sciences, Computer Vision, Artificial Intelligence, Computer Learning and Pattern Recognition, Evolutionary Computing, Neural Networks, Software, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Cukurova University, Mühendislik Mimarlık Fakültesi, Bilgisayar Mühendisliği, 2017 - Continues

Research Assistant, Cukurova University, Mühendislik Mimarlık Fakültesi, Bilgisayar Mühendisliği, 2011 - 2017

### Courses

Yazılım Mühendisliği (Software Engineering ), Undergraduate, 2020 - 2021

Computer Systems from The Programmer's Perspective, Undergraduate, 2020 - 2021

Uygulamalı Veri Bilimi (Applied Data Science), Postgraduate, 2020 - 2021

Veri Yapıları (Data Structures), Undergraduate, 2019 - 2020

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

- I. **Next-level vegetation health index forecasting: A ConvLSTM study using MODIS Time Series**  
KARTAL S., IBAN M. C., SEKERTEKIN A.  
Environmental Science and Pollution Research, 2024 (SCI-Expanded)
- II. **Assessment of the spatiotemporal prediction capabilities of machine learning algorithms on Sea Surface Temperature data: A comprehensive study**  
Kartal S.  
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol.118, pp.1-11, 2023 (SCI-Expanded)
- III. **Prediction of MODIS land surface temperature using new hybrid models based on spatial interpolation techniques and deep learning models**  
KARTAL S., Sekertekin A.  
ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH, vol.29, no.44, pp.67115-67134, 2022 (SCI-Expanded)
- IV. **Comparison of semantic segmentation algorithms for the estimation of botanical composition of clover-grass pastures from RGB images**  
KARTAL S.  
ECOLOGICAL INFORMATICS, vol.66, 2021 (SCI-Expanded)
- V. **Machine Learning-Based Plant Detection Algorithms to Automate Counting Tasks Using 3D Canopy Scans**  
KARTAL S., Choudhary S., Masner J., Kholova J., Stoces M., Gattu P., Schwartz S., Kissel E.  
SENSORS, vol.21, no.23, 2021 (SCI-Expanded)
- VI. **PATTERN LAYER REDUCTION FOR A GENERALIZED REGRESSION NEURAL NETWORK BY USING A SELF-ORGANIZING MAP**  
KARTAL S., ORAL M., ÖZYILDIRIM B. M.  
INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS AND COMPUTER SCIENCE, vol.28, no.2, pp.411-424, 2018 (SCI-Expanded)
- VII. **Genetik Algoritma Yaklaşımı ile Şantiye Yerleşim Planlaması**  
ORAL M., KARTAL S., ORAL E.  
Çukurova Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, vol.31, no.2, pp.93-102, 2016 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Flood Inundation Mapping with Supervised Classifiers: 2021 Gediz Plain Flood**  
Arslan E., Kartal S.  
Türk Uzaktan Algılama ve CBS Dergisi, vol.4, no.1, pp.100-113, 2023 (Peer-Reviewed Journal)
- II. **Otokodlayıcılar Kullanarak Uzaktan Algılama Görüntülerindeki Eksik Verilerin Yeniden Yapılandırılması**  
KARTAL S.  
Çukurova Üniversitesi Mühendislik Fakültesi dergisi, vol.37, no.4, pp.853-862, 2022 (Peer-Reviewed Journal)
- III. **Segmentation of Bean-Plants Using Clustering Algorithms**  
KARTAL S., Choudhary S., Stoces M., Simek P., Vokoun T., Novak V.  
AGRIS On-line Papers in Economics and Informatics, vol.12, no.3, pp.36-43, 2020 (Scopus)
- IV. **Genelleştirilmiş regresyon yapay sinir ağı örüntü katman büyüklüğünü azaltmak için kümeleme tabanlı bir yaklaşım**  
ORAL M., KARTAL S., ÖZYILDIRIM B. M.  
Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi, 2018 (Peer-Reviewed Journal)
- V. **A cluster based approach to reduce pattern layer size for generalized regression neural network**  
ORAL M., KARTAL S., ÖZYILDIRIM B. M.  
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.24, no.5, pp.857-863, 2018 (ESCI)
- VI. **New Pattern Reduction Method for Generalized Regression Neural Network**  
KARTAL S., ORAL M.

## Refereed Congress / Symposium Publications in Proceedings

- I. **SEGMENTATION OF 3D POINT CLOUDS DATA TO ANALYZE ENVIRONMENTAL ADAPTATIONS IN SORGHUM**  
KARTAL S., Masner J., Simek P., Stoces M., Novak V., Kholova J., Choudhary S.  
TRENDS AND CHALLENGES OF AGRARIAN SECTOR, Prag, Czech Republic, 16 September 2020, pp.151-158
- II. **A Deep convolutional neural network model for detecting diabetic retinopathy.**  
ÖZYILDIRIM B. M., ORAL M., KARTAL S.  
International Congress on Advance in Bioscience and Biotechnology, 25 October 2017 - 29 January 2018
- III. **XOR and Sparse String Based Image Compression Algorithm**  
ORAL M., KARTAL S., AYDIN A.  
International Advanced Researches and Engineering Congress, Osmaniye, Turkey, 14 - 16 November 2017, pp.1337-1344
- IV. **Phenotypic disassortative mating in real coded genetic algorithms**  
ORAL M., KARTAL S.  
IMSEC 2016, 26 - 28 October 2016
- V. **Comparison of Deep Convolutional Neural Network Structures The effect of layer counts and kernel sizes**  
KARTAL S., ÖZYILDIRIM B. M.  
Fourth International Conference on Advances in Information Processing and Communication Technology - IPCT 2016, Roma, Italy, 18 - 19 August 2016, pp.16-19
- VI. **Görüntü Birleştirme için Bölgesel Renk Yoğunluğuna Dayalı Yeni bir Yaklaşım**  
ORAL M., KARTAL S.  
EEB2016 Elektrik – Elektronik ve Bilgisayar Sempozyumu, Tokat, Turkey, 11 - 13 May 2016
- VII. **İki Boyutlu Veri Özellik Haritalarının Oluşturulması için Sürü Tabanlı Yeni bir Yaklaşım**  
KARTAL S., ORAL M.  
EEB2016 Elektrik – Elektronik ve Bilgisayar Sempozyumu, Tokat, Turkey, 11 - 13 May 2016
- VIII. **Genetik Algoritmalarda Injection Yaklaşımı ile Genetik Çeşitliliğin Korunması**  
ORAL M., KARTAL S.  
EEB2016 Elektrik – Elektronik ve Bilgisayar Sempozyumu, Tokat, Turkey, 11 - 13 May 2016
- IX. **A Novel Swarm Based Approach to Color Quantization**  
POORSADEG A., ORAL M., KARTAL S.  
2nd International Conference on Computation For Science and Technology, Niğde, Turkey, 01 July 2012, pp.1-12
- X. **Two Dimensional Shape Allocations with Artificial Bee Colony**  
KARTAL S., ORAL M., POORSADEG A.  
2nd International Conference on Computation For Science and Technology, Niğde, Turkey, 01 June 2012, pp.1-8

## Supported Projects

ÖZYILDIRIM B. M., ORAL M., KARTAL S., Project Supported by Higher Education Institutions, Diyabetik Retinopati Tanısı için Derin Öğrenme Yapay Sinir Ağı Modelinin Geliştirilmesi, 2017 - 2018  
ORAL M., KARTAL S., AYDIN A., Project Supported by Higher Education Institutions, Gri Seviye Görüntüler İçin Mantıksal ve Seyrek Dizge Tabanlı Yeni bir Kayıpsız Sıkıştırma Algoritması Geliştirilmesi, 2017 - 2018  
ORAL M., KARTAL S., ORAL E., Project Supported by Higher Education Institutions, GENETİK ALGORİTMA YAKLAŞIMI İLE ŞANTİYE YERLEŞİM PLANI HAZIRLANMASI, 2016 - 2016

## **Metrics**

Publication: 23

Citation (WoS): 1

Citation (Scopus): 3

H-Index (WoS): 1

H-Index (Scopus): 1

## **Non Academic Experience**

DCL Bilgi Yönetim Çözümleri