

# **Prof. YAŞAR BECERİKLİ**

## **Personal Information**

**Office Phone:** [+90 262 303 3573](tel:+902623033573)

**Email:** [ybecerikli@kocaeli.edu.tr](mailto:ybecerikli@kocaeli.edu.tr)

**Web:** <https://avesis.kocaeli.edu.tr/ybecerikli>

**Address:** Kocaeli Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, Umuttepe Yerleşkesi, 41001, İzmit/Kocaeli

## **International Researcher IDs**

ScholarID: PQNVOGsAAAAJ

ORCID: 0000-0002-2951-7287

Publons / Web Of Science ResearcherID: B-6848-2009

ScopusID: 6603000731

Yoksis Researcher ID: 2229

## **Education Information**

Doctorate, Sakarya University, Institute Of Science, Elektrik,Elektronik Mühendisliği (Dr), Turkey 1994 - 1998

Postgraduate, İstanbul Technical University, Fen Bilimleri Enstitüsü, Elektronik Ve Haberleşme Müh., Turkey 1991 - 1994

Undergraduate, Yildiz Technical University, Kocaeli Müh. Fak., Elektronik Ve Haberleşme Müh., Turkey 1987 - 1991

## **Dissertations**

Doctorate, Nöro-Optimal Kontrol, Sakarya Üniversitesi, Fen Bilimleri Enstitüsü, Elektrik,Elektronik Mühendisliği (Dr), 1998

Postgraduate, Restoration of images degraded by additive gaussian noise by means of kalman filtering, İstanbul Technical University, Fen Bilimleri Enstitüsü, Electronic and Communication Eng., 1994

## **Research Areas**

Information Systems, Communication and Control Engineering, Computer Sciences, Biomedical Engineering, Electrical and Electronics Engineering, Engineering and Technology

## **Academic Titles / Tasks**

Professor, Kocaeli University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2011 - Continues

Professor, Yalova University, Faculty Of Engineering, Department Of Computer Engineering, 2013 - 2014

Associate Professor, Kocaeli University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2005 - 2011

Assistant Professor, Kocaeli University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2000 - 2006

Research Assistant, Sakarya University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, 1992 - 2000

## **Academic and Administrative Experience**

Head of Department, Kocaeli University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2019 - Continues  
Faculty Board Member, Kocaeli University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2019 - Continues  
Head of Department, Kocaeli University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2019 - Continues  
Kocaeli Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2014 - 2017  
Yalova Üniversitesi, Mühendislik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, 2014 - 2014  
Kocaeli Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2010 - 2013  
Kocaeli Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2000 - 2013  
Kocaeli Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2006 - 2006  
Kocaeli Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2003 - 2006  
Kocaeli Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2000 - 2003

## **Courses**

Introduction to Neural Networks, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021  
Fuzzy Logic, Undergraduate, 2024 - 2025, 2023 - 2024  
Optimization Theory, Postgraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021  
Research Problems, Undergraduate, 2024 - 2025  
Introduction to Neural Networks, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021  
Graduation Project, Undergraduate, 2024 - 2025  
Deep Learning and Its Applications, Doctorate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020  
İLERİ ÖRÜNTÜ TANIMA TEKNİKLERİ VE UYGULAMALARI, Doctorate, 2016 - 2017, 2015 - 2016, 2014 - 2015

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

- I. **Recurrent neural network and long short-term memory models for audio copy-move forgery detection: a comprehensive study**  
Akdeniz F., Becerikli Y.  
Journal of Supercomputing, vol.80, no.12, pp.17575-17605, 2024 (SCI-Expanded)
- II. **Detecting audio copy-move forgery with an artificial neural network**  
Akdeniz F., Becerikli Y.  
SIGNAL IMAGE AND VIDEO PROCESSING, vol.18, no.3, pp.2117-2133, 2024 (SCI-Expanded)
- III. **Simplified and Smoothed Rapidly-Exploring Random Tree Algorithm for Robot Path Planning**  
Gultekin A., Diri S., Becerikli Y.  
TEHNICKI VJESNIK-TECHNICAL GAZETTE, vol.30, no.3, pp.891-898, 2023 (SCI-Expanded)
- IV. **Behavior-based driver fatigue detection system with deep belief network**  
Kir Savaş B., Becerikli Y.  
NEURAL COMPUTING AND APPLICATIONS, vol.1, pp.14053-14065, 2022 (SCI-Expanded)
- V. **A Resource-Efficient Convolutional Neural Network Accelerator Using Fine-Grained Logarithmic Quantization**  
Madadum H., BECERİKLİ Y.  
INTELLIGENT AUTOMATION AND SOFT COMPUTING, vol.33, no.2, pp.681-695, 2022 (SCI-Expanded)
- VI. **Real Time Driver Fatigue Detection System Based on Multi-Task ConNN**  
Savas B., BECERİKLİ Y.  
IEEE ACCESS, vol.8, pp.12491-12498, 2020 (SCI-Expanded)
- VII. **Recognition of human action in motion detected images with GMACA**  
Peldek S., BECERİKLİ Y.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.34, no.2, pp.1026-1043, 2019 (SCI-Expanded)
- VIII. **Automatic Identification of Landmarks for Standard Slice Positioning in Brain MRI**

- Iskurt A., BECERİKLİ Y., MAHMUTYAZİCİOĞLU K.  
 JOURNAL OF MAGNETIC RESONANCE IMAGING, vol.34, no.3, pp.499-510, 2011 (SCI-Expanded)
- IX. **FAST AND AUTOMATIC BRAIN EXTRACTION BY GEODESIC PASSIVE CONTOURS (BEGPC)**  
 Iskurt A., BECERİKLİ Y.  
 INTERNATIONAL JOURNAL OF INNOVATIVE COMPUTING INFORMATION AND CONTROL, vol.6, no.12, pp.5665-5684, 2010 (SCI-Expanded)
- X. **Extraction of media and plaque boundaries in intravascular ultrasound images by level sets and min/max flow**  
 Iskurt A., BECERİKLİ Y.  
 EXPERT SYSTEMS, vol.27, no.2, pp.101-113, 2010 (SCI-Expanded)
- XI. **MULTIDIMENSIONAL STOCK CUTTING PROBLEM AND A NEW SOLUTION APPROACH**  
 Okatan A., Ozkan D. M., BECERİKLİ Y., Demiray H. E.  
 INTERNATIONAL JOURNAL OF INNOVATIVE COMPUTING INFORMATION AND CONTROL, vol.5, pp.4431-4439, 2009 (SCI-Expanded)
- XII. **A NEW FUZZY EDGE DETECTOR FOR NOISY IMAGES USING MODIFIED WFM FILTER**  
 BECERİKLİ Y., Karan T. M., Okatan A.  
 INTERNATIONAL JOURNAL OF INNOVATIVE COMPUTING INFORMATION AND CONTROL, vol.5, no.6, pp.1725-1733, 2009 (SCI-Expanded)
- XIII. **Modelling spatial distributions of moisture and quality during drying of granular baker's yeast**  
 Yuezgec U., Tuerker M., BECERİKLİ Y.  
 CANADIAN JOURNAL OF CHEMICAL ENGINEERING, vol.86, no.4, pp.725-738, 2008 (SCI-Expanded)
- XIV. **Dynamic neural-network-based model-predictive control of an industrial baker's yeast drying process**  
 YÜZGEÇ U., BECERİKLİ Y., TÜRKER M.  
 IEEE TRANSACTIONS ON NEURAL NETWORKS, vol.19, no.7, pp.1231-1242, 2008 (SCI-Expanded)
- XV. **Modeling and prediction with a class of time delay dynamic neural networks**  
 Becerikli Y., OYSAL Y.  
 APPLIED SOFT COMPUTING, vol.7, no.4, pp.1164-1169, 2007 (SCI-Expanded)
- XVI. **Fuzzy control of inverted pendulum and concept of stability using Java application**  
 Becerikli Y., Celik B. K.  
 MATHEMATICAL AND COMPUTER MODELLING, vol.46, pp.24-37, 2007 (SCI-Expanded)
- XVII. **Wavelet networks for nonlinear system modeling**  
 POSTALCIOĞLU S., Becerikli Y.  
 NEURAL COMPUTING & APPLICATIONS, vol.16, pp.433-441, 2007 (SCI-Expanded)
- XVIII. **Nonlinear predictive control of a drying process using genetic algorithms**  
 Yuzgec U., Becerikli Y., Turker M.  
 ISA TRANSACTIONS, vol.45, no.4, pp.589-602, 2006 (SCI-Expanded)
- XIX. **Modified descend curvature based fixed form fuzzy optimal control of nonlinear dynamical systems**  
 OYSAL Y., Becerikli Y., Konar A.  
 COMPUTERS & CHEMICAL ENGINEERING, vol.30, no.5, pp.878-888, 2006 (SCI-Expanded)
- XX. **Neural network implementation in hardware using FPGAs**  
 Sahin S., Becerikli Y., Yazici S.  
 NEURAL INFORMATION PROCESSING, PT 3, PROCEEDINGS, vol.4234, pp.1105-1112, 2006 (SCI-Expanded)
- XXI. **Intelligent adaptive nonlinear flight control for a high performance aircraft with neural networks**  
 SAVRAN A., TAŞALTIN R., BECERİKLİ Y.  
 ISA Transactions, vol.45, no.2, pp.225-247, 2006 (SCI-Expanded)
- XXII. **Direct descent curvature optimal control with a modification algorithm and its application to nonlinear process**  
 Becerikli Y., Konar A.  
 ISA TRANSACTIONS, vol.45, no.1, pp.45-54, 2006 (SCI-Expanded)
- XXIII. **Phase portrait modeling of a nonlinear system with a dynamic fuzzy network**

- Oysal Y., Becerikli Y., Konar A.  
JOURNAL OF INTELLIGENT MANUFACTURING, vol.16, no.6, pp.703-714, 2005 (SCI-Expanded)
- XXIV. Fuzzy lowpass filtering**  
Becerikli Y., Tutuncu M., Demiray H.  
KNOWLEDGE-BASED INTELLIGENT INFORMATION AND ENGINEERING SYSTEMS, PT 2, PROCEEDINGS, vol.3682, pp.378-385, 2005 (SCI-Expanded)
- XXV. A new fuzzy approach for edge detection**  
BECERİKLİ Y., KARAN T. M.  
COMPUTATIONAL INTELLIGENCE AND BIOINSPIRED SYSTEMS, PROCEEDINGS, vol.3512, pp.943-951, 2005 (SCI-Expanded)
- XXVI. On three intelligent systems: dynamic neural, fuzzy, and wavelet networks for training trajectory**  
Becerikli Y.  
NEURAL COMPUTING & APPLICATIONS, vol.13, no.4, pp.339-351, 2004 (SCI-Expanded)
- XXVII. Trajectory priming with dynamic fuzzy networks in nonlinear optimal control**  
Becerikli Y., Oysal Y., Konar A.  
IEEE TRANSACTIONS ON NEURAL NETWORKS, vol.15, no.2, pp.383-394, 2004 (SCI-Expanded)
- XXVIII. Generalized modeling principles of a nonlinear system with a dynamic fuzzy network**  
Oysal Y., Becerikli Y., Konar A.  
COMPUTERS & CHEMICAL ENGINEERING, vol.27, no.11, pp.1657-1664, 2003 (SCI-Expanded)
- XXIX. Intelligent optimal control with dynamic neural networks**  
BECERİKLİ Y., Konar A. F., Samad T.  
Neural Networks, vol.16, no.2, pp.251-259, 2003 (SCI-Expanded)
- XXX. On a dynamic wavelet network and its modeling application**  
Becerikli Y., Oysal Y., Konar A.  
ARTIFICIAL NEURAL NETWORKS AND NEURAL INFORMATION PROCESSING - ICAN/ICONIP 2003, vol.2714, pp.710-718, 2003 (SCI-Expanded)
- XXXI. Nonlinear filtering design using dynamic neural networks with fast training**  
Becerikli Y.  
COMPUTER AND INFORMATION SCIENCES - ISCIS 2003, vol.2869, pp.601-610, 2003 (SCI-Expanded)

### Articles Published in Other Journals

- I. Dijital multimedya verilerinin güvenliği ve sahtecilik tespiti  
Akdeniz F., Becerikli Y.  
Adli Tıp Dergisi, vol.37, no.3, pp.87-93, 2023 (Peer-Reviewed Journal)
- II. GPS Verisinin Alınamadığı Ortamlarda Otonom Görev Yapabilen Gemi İçin Sensör Kaynaştırma Algoritmaları Tasarımı, Gerçeklenmesi ve Testi  
ÇELİK C., BECERİKLİ Y.  
International Journal of Advanced Natural Sciences and Engineering Researches (IJANSER): All Sciences Proceedings, vol.7, no.6, pp.156-162, 2023 (Peer-Reviewed Journal)
- III. Symbol Detection with Deep Learning  
ASLAN F., BECERİKLİ Y.  
International Journal of Advanced Natural Sciences and Engineering Researches (IJANSER): All Sciences Proceedings, vol.7, no.6, pp.239-243, 2023 (Peer-Reviewed Journal)
- IV. Türkçe Twitter Verileri Üzerinde Duygu Analizi: LSTM, CNN-LSTM, BERT Algoritmalarının Karşılaştırılması  
DÖNMEZ H. G., BECERİKLİ Y.  
International Journal of Advanced Natural Sciences and Engineering Researches (IJANSER) :All Sciences Proceedings, vol.7, no.6, pp.132-138, 2023 (Peer-Reviewed Journal)
- V. Optik Görüntülerdeki Deniz Vasıtalarının Derin Öğrenme Yöntemleriyle Tespiti ve Sınıflandırılması

- İZALA Y., BECERİKLİ Y.  
International Journal of Advanced Natural Sciences and Engineering Researches (IJANSER): All Sciences Proceedings, vol.7, no.6, pp.139-144, 2023 (Peer-Reviewed Journal)
- VI. **Scrum Yöntemi ile Oyun Programlama Ve Süre Tahmini**  
Mercan Ş., BECERİKLİ Y.  
Bilgisayar Bilimleri ve Mühendisliği Dergisi, vol.14, no.1, pp.57-67, 2021 (Peer-Reviewed Journal)
- VII. **A Deep Learning Approach to Driver Fatigue Detection via Mouth State Analyses and Yawning Detection**  
KIR SAVAŞ B., BECERİKLİ Y.  
IOSR Journal of Computer Engineering (IOSR-JCE), vol.23, no.3, pp.24-30, 2021 (Peer-Reviewed Journal)
- VIII. **AGILE METHODS IN GAME PROGRAMMING BASED ON SCRUM**  
Mercan Ş., BECERİKLİ Y.  
SAKARYA UNIVERSITY JOURNAL OF SCIENCE, vol.24, no.5, pp.882-891, 2020 (Peer-Reviewed Journal)
- IX. **Performance Evaluation of Support Vector Machine and Convolutional Neural Network Algorithms in Real-time Vehicle Type Classification**  
ŞentAŞ A., Tashiev I., Küçükayvaz F., Kul S., Eken S., Sayar A., Becerikli Y.  
Evolutionary Intelligence Journal, vol.13, pp.83-91, 2020 (Peer-Reviewed Journal)
- X. **Development of Electronic Water Meter Based on Wireless Network and RF**  
Gorenekli K., BECERİKLİ Y.  
ENGINEERING TECHNOLOGY & APPLIED SCIENCE RESEARCH, vol.9, no.2, pp.3905-3908, 2019 (ESCI)
- XI. **Video Görüntüleri Kullanılarak Sürücü Yorgunluğu Sezme Sistemi Geliştirilmesi (Development of Driver Fatigue Detection System By Using Video Images)**  
KIR SAVAŞ B., BECERİKLİ Y.  
Journal of Intelligent Systems with Applications, vol.2, no.1, pp.26-29, 2019 (Peer-Reviewed Journal)
- XII. **Hücresel Otomata Tabanlı İkili Sınıflandırma**  
PELDEK S., BECERİKLİ Y.  
Bilişim Teknolojileri Dergisi, vol.12, no.1, pp.43-58, 2019 (Peer-Reviewed Journal)
- XIII. **Video Görüntüleri Kullanılarak Sürücü Yorgunluğu Sezme Sistemi Geliştirilmesi(Development of Driver Fatigue Detection System By Using Video Images)(Bu çalışma ASYU-2017 Konferansında sunulmuş ve sadece özet olarak Bildiri Özetleri Kitabı (ISBN: 978-605-84722-8-0)'nda yayımlanmıştır)**  
KIR SAVAŞ B., BECERİKLİ Y.  
Akıllı Sistemler ve Uygulamaları Dergisi (Journal of Intelligent Systems with Applications, vol.1, no.2, pp.193-196, 2018 (Non Peer-Reviewed Journal)
- XIV. **Sensor Positioning on Digital Maps for Coverage Maximization by Using Genetic Algorithm**  
TENĞERLİ N. C., BECERİKLİ Y.  
Applied Mechanics and Materials, vol.850, pp.38-42, 2016 (Peer-Reviewed Journal)
- XV. **Real Time System Implementation for Image Processing with Hardware Software Co design on the Xilinx Zynq Platform**  
ALTUNCU M. A., GÜVEN T., BECERİKLİ Y., ŞAHİN S.  
International Journal of Information and Electronics Engineering, vol.5, pp.473-477, 2015 (Peer-Reviewed Journal)
- XVI. **Simulation and Comparison of Shortest Path First Routing Algorithms**  
GÖK O., BECERİKLİ Y.  
Journal of Naval Sciences and Engineering, vol.3, no.1, pp.11-22, 2005 (Peer-Reviewed Journal)
- XVII. **The Implementation of a Fuzzy Logic Using FPGA**  
YAZICI S., BECERİKLİ Y., ŞAHİN S.  
Journal of Naval Sciences and Engineering, vol.2, pp.13-19, 2004 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Performance Evaluation of Support Vector Machine and Convolutional Neural Network Algorithms in Real-time Vehicle Type Classification**  
 ŞENTAŞ A., TASHİEV I., KÜÇÜKAYVAZ F., SAYAR A., KUL S., EKEN S., BECERİKLİ Y.  
 in: Advances in Internet, Data Web Technologies, Leonard Barolli, Fatos Xhafa, Nadeem Javaid, Ejvola Spaho, Vladi Kolici, Editor, Springer, 2018
- II. **Performance Evaluation of Support Vector Machineand Convolutional Neural Network Algorithmsin Real-Time Vehicle Type Classification**  
 ŞentAŞ A., Tashiev I., Küçükayvaz F., KUL S., EKEN S., SAYAR A., BECERİKLİ Y.  
 in: Advances in Internet, Data Web Technologies, Barolli Leonard, Xhafa Fatos, Javaid Nadeem, Spaho Ejvola, Kolici Vladi, Editor, Springer, pp.934-943, 2018
- III. **Implementation of floating point arithmetics using an FPGA**  
 ŞAHİN S., KAVAK A., BECERİKLİ Y., demiray h. e.  
 in: Mathematical Methods in Engineering Edits, K. Taş, J. A. Tenreiro Machado, D. Baleanu, Editor, Springer, pp.445-453, 2007

### **Refereed Congress / Symposium Publications in Proceedings**

- I. **Ship Detection and Classification in Adverse Weather Conditions**  
 İzala Y., Becerikli Y.  
 2024 9th International Conference on Computer Science and Engineering (UBMK), 2024 26-28 Oct. 2024, Antalya, Türkiye, Antalya, Turkey, 26 - 28 October 2024, pp.840-845
- II. **Multi-Speaker Recognition Using Convolutional Neural Networks (ConNNs)**  
 Abuzarlı E., BECERİKLİ Y., AKDENİZ F., KIR SAVAŞ B.  
 6TH INTERNATIONAL BLACK SEA MODERN SCIENTIFIC RESEARCH CONGRESS (6. Uluslararası Karadeniz Modern Bilimsel Araştırmalar Kongresi), 23-25 August 2024, Trabzon Türkiye, Trabzon, Turkey, 23 - 25 August 2024, pp.518-530
- III. **Detection Of Audio Deletion Forgery Using Convolutional Neural Networks (ConNNs)**  
 Abuzarlı E., BECERİKLİ Y.  
 6TH INTERNATIONAL BLACK SEA MODERN SCIENTIFIC RESEARCH CONGRESS (6. Uluslararası Karadeniz Modern Bilimsel Araştırmalar Kongresi), 23-25 August 2024, Trabzon Türkiye, Trabzon, Turkey, 23 - 25 August 2024, pp.506-517
- IV. **A Comparative Study Based on Deep Learning and Machine Learning Methods for COVID-19 Detection Using Audio Signal**  
 Akdeniz F., Damar M. N., Danacı B. İ., Savaş B. K., Becerikli Y.  
 8th International Conference on Smart City Applications, SCA 2023, Paris, France, 4 - 06 October 2023, vol.906 LNNS, pp.457-466
- V. **A Review of a Research in Autonomous Vehicles with Embedded Systems**  
 Akdeniz F., Atay M., Vural Ş., Savaş B. K., Becerikli Y.  
 8th International Conference on Smart City Applications, SCA 2023, Paris, France, 4 - 06 October 2023, vol.906 LNNS, pp.229-239
- VI. **LOG ANALİZİ İLE ANORMALİ TESPİTİ ANORMAL DETECTION WITH LOG ANALYSIS**  
 AKAY N., BECERİKLİ Y.  
 MAS 18th INTERNATIONAL EUROPEAN CONFERENCE ON MATHEMATICS, ENGINEERING, NATURAL & MEDICAL SCIENCES August 14-15, 2023 Ankara, Türkiye, Ankara, Turkey, 14 August 2023, pp.163-167
- VII. **AN IMPROVED HYBRID ROBOT PATH PLANNING ALGORITHM BASED ON ARTIFICIAL POTENTIAL FIELD AND RRT**  
 Gültekin A., BECERİKLİ Y.  
 MAS 18th INTERNATIONAL EUROPEAN CONFERENCE ON MATHEMATICS, ENGINEERING, NATURAL & MEDICAL SCIENCES August 14-15, 2023 Ankara, Türkiye, Ankara, Turkey, 14 - 15 August 2023, pp.75-84
- VIII. **ALEXNET TABANLI TRAFİK İŞARETİ TANIMA UYGULAMASININ PERFORMANS ANALİZİ: ADAM VE**

**GRADYAN İNİŞ ALGORİTMALARININ KARŞILAŞTIRILMASI PERFORMANCE ANALYSIS OF ALEXNET BASED TRAFFIC SIGN RECOGNITION APPLICATION: COMPARISON OF ADAM AND GRADIENT DESCENT ALGORITHMS**

ÖVÜN B., BECERİKLİ Y.

MAS 18th INTERNATIONAL EUROPEAN CONFERENCE ON MATHEMATICS, ENGINEERING, NATURAL & MEDICAL SCIENCES August 14-15, 2023 Ankara, Türkiye, Ankara, Turkey, 14 - 15 August 2023, pp.182-195

- IX. **OPTİK GÖRÜNTÜLERDEKİ DENİZ VASITALARININ MAKİNE ÖĞRENMESİ YÖNTEMLERİYLE TESPİTİ VE SINIFLANDIRILMASI** DETECTION AND CLASSIFICATION OF SEA VEHICLES IN OPTICAL IMAGES WITH MACHINE LEARNING METHODS

İZALA Y., BECERİKLİ Y.

MAS 18th INTERNATIONAL EUROPEAN CONFERENCE ON MATHEMATICS, ENGINEERING, NATURAL & MEDICAL SCIENCES August 14-15, 2023 Ankara, Türkiye, Ankara, Turkey, 14 - 15 August 2023, pp.91-98

- X. **Driver Fatigue Detection via Eye State Analyses Based on Deep Learning Approach**

Kır Savaş B., Becerikli Y.

7th International Conference on Smart City Applications, SCA 2022, Castelo Branco, Portugal, 19 - 21 October 2022, vol.629 LNNS, pp.452-462

- XI. **A Comparative Analysis of SVM, LSTM and CNN-RNN Models for the BBC News Classification**

Karaman Y., AKDENİZ F., Savaş B. K., BECERİKLİ Y.

7th International Conference on Smart City Applications, SCA 2022, Castelo Branco, Portugal, 19 - 21 October 2022, vol.629 LNNS, pp.473-483

- XII. **Real Time Multi-digit Number Recognition System Using YOLOv3 and YOLOv5**

Irmak M. A., Akgün H., Ekşi E., Özтурk S., Akdeniz F., Savaş B. K., Becerikli Y.

7th International Conference on Smart City Applications, SCA 2022, Castelo Branco, Portugal, 19 - 21 October 2022, vol.629 LNNS, pp.463-472

- XIII. **Çoklu İHA'nın Haberleşmesi ile Düşman Ortamının Matematiksel Modellemesi**

GÜLTEKİN A., DİRİ S., BECERİKLİ Y.

3rd International Conference on Applied Engineering and Natural Sciences ICAENS 2022, Konya, Turkey, 20 July 2022, pp.877-882

- XIV. **DynaG: An Environment for Dynamic Simulation**

KABATAŞ M. G., Özalp U., BECERİKLİ Y.

1st International Conference on Engineering and Applied Natural Sciences (ICEANS 2022), Konya, Turkey, 10 May 2022, pp.962-967

- XV. **An Adaptive Accelerator for Convolutional Neural Networks Using Partial Reconfiguration on FPGA**

Madadum H., BECERİKLİ Y.

7th International Conference on Computer Science and Engineering, UBMK 2022, Diyarbakır, Turkey, 14 - 16 September 2022, pp.350-354

- XVI. **Linear Prediction Coefficients based Copy-Move Forgery Detection in Audio Signal**

AKDENİZ F., BECERİKLİ Y.

6th International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2022, Ankara, Turkey, 20 - 22 October 2022, pp.770-773

- XVII. **Mixed-Method Quantization of Convolutional Neural Networks on an Adaptive FPGA Accelerator**

Madadum H., BECERİKLİ Y.

7th International Conference on Computer Science and Engineering, UBMK 2022, Diyarbakır, Turkey, 14 - 16 September 2022, pp.355-359

- XVIII. **AKEL: Smart Glove Design that Recognizes Turkish Sign Language and An Android Operating System Based Mobile Application**

YAVUZ E., OZER A., AKDENİZ F., BECERİKLİ Y.

2020 Innovations in Intelligent Systems and Applications Conference (ASYU), 15 - 17 October 2020

- XIX. **Fruit Recognition and Classification with Deep Learning Support on Embedded System (fruitnet)**

Unal H. B., Vural E., Savas B., BECERİKLİ Y.

2020 Innovations in Intelligent Systems and Applications Conference, ASYU 2020, İstanbul, Turkey, 15 - 17 October

2020

- XX. **FPGA-Based Optimized Convolutional Neural Network Framework for Handwritten Digit Recognition**  
Madadum H., BECERİKLİ Y.  
36. National Informatics Congress and 1st International Informatics and Software Engineering Conference”, Ankara, Turkey, 6 - 07 November 2019, pp.336-341
- XXI. **Android İşletim Sistemine Dayalı Yaprak Tanıma Sisteminde Destek Vektör Makineleri ve K-En Yakın Komşuluk Algoritmalarının Performans Karşılaştırması**  
ÇELEBİ O., ERGİN C., BADEM A., AKDENİZ F., BECERİKLİ Y.  
3rd International Symposium on Multidisciplinary Studies and Innovative Technologies, 11 - 13 October 2019
- XXII. **Ses Sinyalleri ile Cinsiyet Tespitinde Destek Vektör Makineleri, K- En Yakın Komşuluk, Yapay Sinir Ağları ve Tekrarlayan Sinir Ağları Algoritmalarının Performans Değerlendirmesi**  
AKDENİZ F., BECERİKLİ Y.  
3rd International Symposium on Multidisciplinary Studies and Innovative Technologies, 11 - 13 October 2019
- XXIII. **Performance Comparison of Support Vector Machine, K-Nearest-Neighbor, Artificial Neural Networks, and Recurrent Neural networks in Gender Recognition from Voice Signals**  
Akdeniz F., Becerikli Y.  
2019 3rd International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), Ankara, Turkey, 11 - 13 October 2019
- XXIV. **Performance Comparison of Support Vector Machine and K-Nearest Neighbor Algorithms in Leaf Recognition System Based on Android Operating System Android Isletim Sistemine Dayali Yaprak Tanima Sisteminde Destek Vektör Makineleri ve K-En Yakın Komsuluk Algoritmalarinin Performans Karsilastirmasi**  
Çelebi O., Cem E., Badem A., Akdeniz F., Becerikli Y.  
3rd International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2019, Ankara, Turkey, 11 - 13 October 2019
- XXV. **Real Time Driver Fatigue Detection Based on SVM Algorithm**  
KIR SAVAŞ B., BECERİKLİ Y.  
6th International Conference on Control Engineering Information Technology, İstanbul, Turkey, 25 - 27 October 2018, pp.851-854
- XXVI. **Network Intrusion Detection on Apache Spark with Machine Learning Algorithms**  
Kurt E. M., BECERİKLİ Y.  
19th International Conference on Engineering Applications of Neural Networks (EANN 2018), Bristol, United Kingdom, 3 - 05 September 2018, vol.893, pp.130-141
- XXVII. **Performance Evaluation of Support Vector Machine and Convolutional Neural Network Algorithms in Real-Time Vehicle Type Classification**  
Sentas A., Tashiev I., Kucukayvaz F., KUL S., EKEN S., SAYAR A., BECERİKLİ Y.  
6th International Conference on Emerging Internet, Data and Web Technologies (EIDWT), Tirana, Albania, 15 - 17 March 2018, vol.17, pp.934-943
- XXVIII. **Video Görüntüleri Kullanılarak Sürücü Yorgunluğu Sezme Sistemi Geliştirilmesi**  
KIR SAVAŞ B., BECERİKLİ Y.  
Akıllı Sistemlerde Yenilikler ve Uygulamalar (ASYU) Konferansı, Antalya, Turkey, 5 - 07 October 2017
- XXIX. **Konvolüsyonel Sinir Ağı Kullanarak Gerçek Zamanlı Araç Tipi Sınıflandırması**  
ISABEK T., KUL S., ALİ Ş., KÜÇÜKAYVAZ F., EKEN S., SAYAR A., BECERİKLİ Y.  
1.Uluslararası Bulut Bilişim ve Büyük Veri Sempozyumu (b3s2017), Antalya, Turkey, 19 - 21 October 2017, pp.60-64
- XXX. **Use of Multiple Attractor Cellular Automata for Dimension Reduction**  
Peldek S., Becerikli Y.  
2017 International Conference on Computer Science and Engineering (UBMK), Antalya, Turkey, 5 - 08 October 2017, pp.775-780
- XXXI. **The Implementation of Support Vector Machine (SVM) using FPGA for Human Detection**  
Madadum H., BECERİKLİ Y.  
10th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 30 November -

02 December 2017, pp.1286-1290

- XXXII. **Eş zamanlı konumlandırma ve haritalama problemleri üzerine birderleme**  
ASLAN F., BECERİKLİ Y.  
1st International Mediterranean Science and Engineering Congress (IMSEC 2016), Adana, Turkey, 26 - 28 October 2016, pp.1517
- XXXIII. **ÇOKLU CEZBEDİCİ HÜCRESEL OTOMATLARIN GÖRÜNTÜLERDE ÖRÜNTÜ ÜRETİCİ OLARAK KULLANIMI**  
PELDEK S., BECERİKLİ Y.  
8.Savunma Teknolojileri Kongresi (SAVTEK2016), Ankara, Ankara, Turkey, 12 - 14 October 2016, pp.24
- XXXIV. **The Realization of Face Detection and Fullness Detection in Medium by Using Haar Cascade Classifiers**  
Savas B., İlkin S., Becerikli Y.  
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.2217-2220
- XXXV. **A FAST AND AUTOMATIC CALIBRATION OF THE PROJECTORY IMAGES FOR 3D RECONSTRUCTION OF THE BRANCHY STRUCTURES**  
Iskurt A., BECERİKLİ Y., Mahmutyazicioglu K.  
47th Annual Conference on Information Sciences and Systems (CISS), Maryland, United States Of America, 20 - 22 March 2013
- XXXVI. **Foundations and Educational Application of Real Time Operating System**  
Kiyar M., Becerikli Y.  
7th International Conference on Application of Information and Communication Technologies (AICT), Baku, Azerbaijan, 23 - 25 October 2013, pp.389-393
- XXXVII. **Neural network based license plate recognition system**  
BECERİKLİ Y., Olgac A. V., Sen E., Coskun F.  
International Joint Conference on Neural Networks, Florida, United States Of America, 12 - 17 August 2007, pp.3062-3063
- XXXVIII. **Neural Network Implementation in Hardware Using FPGAs**  
ŞAHİN S., BECERİKLİ Y., YAZICI S.  
13th International Conference, ICONIP 2006, 3 - 06 October 2006, vol.42, pp.1105-1112
- XXXIX. **Modelling of batch fluidized bed drying of baker yeast for cylindrical pellets**  
Yuzgec U., Turker M., Becerikli Y.  
IEEE International Conference on Mechatronics (ICM 2004), İstanbul, Turkey, 3 - 05 June 2004, pp.7-12
- XL. **Optimal control of nonlinear exothermic reactor**  
Oysal Y., Becerikli Y.  
9th Mediterranean Electrotechnical Conference (Melecon 98), Tel-Aviv-Yafo, Israel, 18 - 20 May 1998, pp.580-584
- XLI. **Trajectory tracking with dynamic neural networks**  
Konar A., Becerikli Y., Samad T.  
1997 IEEE International Symposium on Intelligent Control, İstanbul, Turkey, 16 - 18 July 1997, pp.173-180

## Supported Projects

BECERİKLİ Y., KIR SAVAŞ B., AKDENİZ F., Project Supported by Higher Education Institutions, Engelsiz Dijital Yaşamda Otonom Araçların Kullanımı, 2022 - 2023

BECERİKLİ Y., KUL S., SAYAR A., KIR SAVAŞ B., MADADUM H., AKDENİZ F., Project Supported by Higher Education Institutions, Otonom Araçlarda Nesne ve Ses Tanıma/Takip etme, 2021 - 2022

İLHAN OMURCA S., BECERİKLİ Y., DURU N., GÜN A., ŞAHİN S., Project Supported by Higher Education Institutions, 2019-Akıllı Sistemler Laboratuvarı, 2019 - 2020

BECERİKLİ Y., AKDENİZ F., SAYAR A., KIR SAVAŞ B., KUL S., MADADUM H., Project Supported by Higher Education Institutions, 2019-GÖRÜNTÜ İŞLEME VE BİLGİSAYAR GÖRMESİ ARGE LABORATUVARI, 2019 - 2020

Becerikli Y., Kir Savaş B., Project Supported by Higher Education Institutions, Sürücü Yorgunluğu Sezme Sistemi, 2017 -

2018

BECERİKLİ Y., KIR SAVAŞ B., Project Supported by Higher Education Institutions, SÜRÜCÜ YORGUNLUĞU SEZME SİSTEMİ GELİŞTİRİLMESİ, 2017 - 2018

Sayar A., Becerikli Y., TUBITAK Project, Gerçek Zamanlı Dağıtık ve Ölçeklenebilir Araç Arama-Tanıma Sistemi (TÜBİTAK 1005), 2017 - 2018

BECERİKLİ Y., UÇAR A., Project Supported by Higher Education Institutions, Mobil Tabanlı Bulut Bilişim Destekli Akıllı Ev Otomasyonu Geliştirilmesi ve Uygulanması, 2015 - 2016

BECERİKLİ Y., TUBITAK Project, Sınır Gözetleme ve Kontrol C4ISR MOS, 2003 - 2004

## Metrics

Publication: 92

Citation (WoS): 559

Citation (Scopus): 866

H-Index (WoS): 14

H-Index (Scopus): 15

## Non Academic Experience

Ministry, Minister of Justice/Forensic Medicine Institute, Forensic Medicine Institute/Digital Forensic Department (İstanbul)

Ministry, Minister of Justice/Forensic Medicine Institute, Forensic Medicine Institute/Ankara Group presidency/Digital Forensic Department

University, University of Bedfordshire, Department of Computer Science and Technology

TUBITAK, TÜBİTAK, Bilişim Teknolojisi Araştırma ENstitüsü (BTAE)

Sakarya Üniversitesi

Sakarya Üniversitesi