

2023 31st Signal Processing and Communications Applications Conference (SIU 2023)

**Istanbul, Turkey
5-8 July 2023**

Pages 1-517



**IEEE Catalog Number: CFP23559-POD
ISBN: 979-8-3503-4356-4**

**Copyright © 2023 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP23559-POD
ISBN (Print-On-Demand):	979-8-3503-4356-4
ISBN (Online):	979-8-3503-4355-7
ISSN:	2165-0608

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Sensitivity Improvement in Optical Phase Diffraction Using Empirical Mode Decomposition	1
<i>Enes Ataç, Mehmet Salih Dinleyici</i>	
Deep Fake Video Detection Based on Enhanced Capsule Network with Golden Ratio.....	5
<i>Samet Dinçer, Beste Üstübioğlu, Güzin Tahaoglu, Güzin Ulutas</i>	
A U-Net Based Segmentation and Classification Approach Over Orthophoto Maps of Archaeological Sites.....	9
<i>Gökçe Gök, Selin Küçük, Murat Kurt, Ergin Tari</i>	
An Efficient Vision Transformer Model for PCB Component Classification	13
<i>Cagri Can Surmeli, Hazim Kemal Ekenel</i>	
Sensor Control Using Vehicle Dynamics	17
<i>Ahmet Günes</i>	
A Study on Implementation of the Motor Neuron in the Swimming Pattern Generator of a Lamprey	21
<i>Nimet Korkmaz</i>	
Ön-Kodlayıcı, A Quantized Precoder for MIMO	25
<i>Yusuf Karabacakoglu, Ali Bulut Üçüncü, Fırat Karatas, Gökhan M. Güvensen</i>	
An Origami-Inspired Low-Cost Waveguide Design, Fabrication and Measurements for X-band Satellite Communication Systems	29
<i>Anıl Karataş, Enes Ataç, Fatih Yaman</i>	
Physical Layer Security Under the Effect of Dimming in Visible Light Communications	33
<i>Yalın Evrim Yesilirmak, Cagri Isikver, Roja Boran Gökhan, Taner Arsan, Erdal Panayirci</i>	
Performance Comparison of GM-PHD and JPDA for an Autonomous Vehicle Using Only Radar Data	37
<i>Tolga Bodrumlu, Mehmet Murat Gözüm, Abdurrahim Semiz</i>	
Narrow Space Warning and Slope Control System Compatible with ADAS	41
<i>Ibrahim Toy, Abdullah Yusefi, Akif Durdu</i>	
Building Segmentation on Satellite Images and Performance of Post-Processing Methods	45
<i>Metehan Yalçın, Ahmet Alp Kindiroğlu, Furkan Burak Bagci, Ufuk Uyan, Mahiye Uluyagmur Öztürk</i>	
Comparison of Machine Learning Based Emotion Recognition Models Trained Using Physiological Signals.....	49
<i>Deniz Namlisesli, Büket Coskun, Duygun Erol Barkana</i>	
Context and Sentiment Aware Chatbot for Tourism Applications	53
<i>Harun Resit Ergen, Yekta Said Can, Efe Batur Giritli, Canan Demir, Fatih Alagöz</i>	
Exploration of Simplified Adaptation Functions for Adaptive Pre-Distortion Implementations.....	57
<i>Dursun Baran</i>	
A Comparative Performance Analysis of Different Modulations in IM/DD Wireless Communication Systems	61
<i>Büsra Avci, Gazihan Aykırı, Ali Özén</i>	

Solving Navier-Stokes Equations with Mixed Equation Physics Informed Neural Networks	65
<i>Sila Akpinar, Emre Vardar, Serhat Yesilyurt, Kamer Kaya</i>	
Data Valuation Methods for Federated Learning.....	69
<i>Emre Ardiç, Yakup Genç</i>	
Conformal Interpolations of Locally Defined Rotation, Scaling, and Translation Operations.....	73
<i>Ergun Akleman, Bekir Tevfik Akgün</i>	
Motor Imagery BCI Classification Using Synchrosqueezing Transform	77
<i>Mosab A. A. Yousif, Mahmut Ozturk</i>	
Sample Picking in Synthetic Irides for Wolf Attacks	81
<i>Eyüp Kaan Akdeniz, Nesli Erdogmus</i>	
Noise-Robust Diffusion Based Semantic Segmentation.....	85
<i>Ahmet Kagan Kaya</i>	
Benign and Malignant Tumor Segmentation on Thorax Computed Tomography Images	89
<i>Irem Nur Yoldas, Hakan Çevikalp, Muhammed Gündogdu, Nevin Aydin, Muzaffer Metintas</i>	
Anomaly Detection in In-Vehicle Networks with Graph Neural Networks	93
<i>Övgü Özdemir, Pinar Karagöz, Klaus Werner Schmidt</i>	
A Novel DC Biasless Optical OFDM Waveform Design	97
<i>Talat Kepezkaya, Ali Özen</i>	
Channel Estimation for RIS Aided MISO System.....	101
<i>Rifat Volkan Senyuva</i>	
Joint Visible Light Communications and Positioning with Dimming	105
<i>Irem Özgür Bayman, Murat Akin Çiçek, Mete Berk Kumas, Tan Demiryürek, Taner Arsan, Erdal Panayirci</i>	
Term Weighting in Topic Modeling.....	109
<i>Yasar Tekin</i>	
Autonomous Visual Moderation System (AutoMod).....	113
<i>Hüseyin Bahtiyar, Bahadir Irfan Katipoglu, Eda Yüksel, Ismail Hakki Toroslu, Pınar Karagöz</i>	
Heterogeneous Network Design for mmWave Channels with Blockage Model	117
<i>Burak Dagdeviren, Semihha Tedik Basaran</i>	
Classification of Red Blood Cells Randomly Selected from Dataset of National Institutes of Health.....	121
<i>Wasem Q. Bashi, Erhan A. Ince</i>	
Spoofing Detection and Anti-Spoofing Kalman Filter Design for an Accelerometer-Integrated GNSS Receiver.....	125
<i>Hande Isil Akçay, Tolga Girici, Emrah Onat</i>	
Antipodal Vivaldi Antenna Design for 6G High Altitude Platform System (HAPS)	129
<i>Ali Alperen Kılıç, Funda Akleman Yapar</i>	
Deep Learning-Based Automatic Detection of Aortic Valve on Echocardiographic Images.....	133
<i>Mervenur Çakır, Murat Ekinci, Elif Baykal Kablan, Mürsel Sahin</i>	

Mackey-Glass Time Series Prediction with Immune Plasma Programming	137
<i>Muhammed Furkan Güçlü, Sibel Arslan, Bilgisayar Mühendisliği, Yazılım Mühendisliği</i>	
Lane Type Classification & Distance Measurement System for Autonomous Vehicle	141
<i>Sinan Özgen, Uyar Kaya, Abdurrahim Semiz, Mustafa Fatih Yalçın, Aysun Tasyapı Çelebi</i>	
Investigation of Approaches in the Literature and Potential Problems for Audio Spoofing Detection	145
<i>Yusuf Sali, Mustafa Erden, Ali Haznedaroglu</i>	
Gaze Estimation by Attention Using a Two-Stream Regression Network.....	149
<i>Ahmet Karazor, Alperen Enes Bayar, Cihan Topal, Hakan Çevik İkalp</i>	
A Novel Occlusion Index	153
<i>Emre Girgin, Berk Gökberk, Lale Akarun</i>	
Controller Design for CACC with Time-Varying Communication Delays	157
<i>Hilal Bingöl, Gökhan Soysal, Klaus Werner Schmidt</i>	
Deep Active Learning for Address Parsing Tasks with BERT.....	161
<i>Berkay Güler, Betül Aygün, Aydin Gerek, Alaeddin Selçuk Gürel</i>	
Deep Learning Based Focus Measurement Operator for 3D Imaging in Microscopic Systems	165
<i>Hülya Dogan, Ramazan Özgür Dogan</i>	
Calibrating Neural Networks for CTR Prediction	169
<i>Ergun Biçici, Hasan Sarıbas</i>	
Third Level Identification with Hyperspectral Imaging in Fingerprints.....	173
<i>Vedat Delican, Behçet Ugur Töreyin, Ege Çetin, Aylin Yalçın Saribey</i>	
Detection of Traffic Light Violations from Fish Eye Driver Cameras of Public Transport Buses.....	177
<i>Burak Ercan, Mehmet Fatih Özdemir, Onur Eker, Mehmet Can Baytekin, Murat Bal</i>	
Target Classification with Overlapping Window Integration Using Wigner Ville Transform	181
<i>Ibrahim Gökhan Aksüren, Erhan Özer, Ali Köksal Hocaoglu</i>	
Test Automation for Symbol Recognition on the Map	185
<i>Fatmanur Turhan, Levent Çarkacioglu, Behçet Ugur Töreyin</i>	
The Effect of Elevation and Texture on Learning City in Virtual Environment.....	189
<i>Sümeyra Yanardag, Muhammed Bayram, Muhammed Berk Ünsal, Feyza Ürkut, Abdullah Bülbül</i>	
Comparative Study of Credit Risk Evaluation for Unbalanced Datasets Using Deep Learning Classifiers	193
<i>Timur Öner, Dima Alnahas, Alper Kanturvardar, Abdullah Mert Ülkögün, Cenk Demiroglu</i>	
Extending Heaps' Law for Sublinear Vocabulary Growth on a Logarithmic Scale	197
<i>Can Özbeş, Ekin Can Erkus</i>	
On the Use of Kinect V2 for the Assessment of Upper Extremity Movements.....	201
<i>Serkan Çizmeciogulları, Aydin Akan, Yaar Keskn, Berna Ürkmez, Teoman Aydin</i>	
Active Domain Adaptation with Generated Images for Thermal Imagery	205
<i>Berkcan Ustun, Ezgi Cakir Ayerden</i>	

A Reinforcement Learning Based Collection Approach.....	209
<i>Ibrahim Tozlu, Elif Vardarli, Mert Pekey, Ufuk Yavuzyilmaz, Ugur Aydin, Murat Koras, Mehmet Gönen, Baris Akgün</i>	
Implementation of Link-Local Registration Protocol for IEEE 802.1 Time-Sensitive Networking.....	213
<i>Necip Gozuacik</i>	
Denoising Diffusion Adversarial Models for Unconditional Medical Image Generation	217
<i>Onat Dalmaz, Baturay Saglam, Gökberk Elmas, Muhammad Mirza, Tolga Çukur</i>	
Breast Cancer Detection Using Transformer and BiLSTM Based Ensemble Learning	222
<i>Rabia Eda Yilmaz, Görkem Serbes</i>	
5G Small Cell Transmission Point Density Planning	226
<i>Ahmet Yazar, Nurcan Deniz, Can Kaya, Rukiye Erdogan Çamas, Rukiye Ünal, Necip Erman Atilla</i>	
Fault-Tolerant Clock Synchronization with Drift Correction for Controller Area Network.....	230
<i>Tan Çagatay Acar, Klaus Werner Schmidt</i>	
A New Array Design for Non Destructive Testing Using Acoustic Imaging.....	234
<i>Ömer Gençay, Alper Sisman</i>	
Alignment of Single-Cell Datasets with the Hierarchical Cell Matching Algorithm	238
<i>Mehmet Burak Koca, Fatih Erdogan Sevilgen</i>	
Power Efficient Wireless Body Area Networks at Millimeter Wave MIMO Frequencies.....	242
<i>Safa Awadallah, Mustafa Mulla, Hasan Amca, Ali Hakan Ulusoy</i>	
Detecting Improper Driving Via Frozen CLIP	246
<i>Hamza Etcibasi, Alper Kayabasi, Gülin Tüfekci Dogan</i>	
Performance Comparison of Vision Transformer-Based Models in Medical Image Classification	250
<i>Elif Kanca, Selen Ayas, Elif Baykal Kablan, Murat Ekinci</i>	
Size-Based Adaptive Instance Pruning for Refined Segmentation of Cell Nuclei in Histology Images	254
<i>Serdar Yıldız, Abbas Memis, Songül Varlı</i>	
Implementation of Fast Gradient Sign Adversarial Attack on Vision Transformer Model and Development of Defense Mechanism in Classification of Dermoscopy Images.....	258
<i>Elif Kanca, Selen Ayas, Elif Baykal Kablan, Murat Ekinci</i>	
Speech-Based Emotion Analysis Using Log-Mel Spectrograms and MFCC Features	262
<i>Ahmet Kemal Yetkin, Hatice Köse</i>	
Definition of a Graph Cepstrum for Homomorphic Processing of Graph Signals	266
<i>Özge Canlı Usta, Olcay Akay</i>	
Focal Modulation Based End-To-End Multi-Label Classification for Chest X-Ray Image Classification.....	270
<i>Saban Öztürk, Tolga Çukur</i>	
Analysis of Subword Tokenization Approaches for Turkish Language.....	274
<i>Erencan Erkaya, Tunga Güngör</i>	

Outage Probability Analysis of Dual-Hop Multi-HAPS THz Satellite Communication Systems.....	278
<i>Evla Safahan Ahrazoglu, Mehmet Can, Eylem Erdogan, Ibrahim Altunbas</i>	
Analysis of Transparency Report Similarities of Audit Firms Through Plagiarism Detection Systems.....	282
<i>Baris Özcan, Sibel Aydemir, Yusuf Sinan Akgül</i>	
Correction of Misalignments in Molecular Index Modulated Systems	286
<i>Kutay Akin, Öykü Selin Toprak, Ali Emre Pusane</i>	
A Matching Method for Latent Images with Scale Variations.....	290
<i>Yusuf Artan</i>	
Domain Generalized Object Detection for Remote Sensing Images.....	294
<i>Efkan Durakli, Erchan Aptoula</i>	
Load Weight Estimation in Washing Machine Using Soft Sensors with Machine Learning Techniques.....	298
<i>Murat Delibalta, Ismail Bilgen, F. Canan Pembe, Erman Kiremit, Hilal Irkil, Mehmet Haklidir</i>	
Application of Kalman Filtering Approach on Signal Angle-Of-Arrival Estimates.....	302
<i>Umut Yildiz, Ahmet Faruk Coskun</i>	
Online Motion Analyzer (OMA): A Software Service for Runtime Verification of Robotic Systems' Safety.....	306
<i>Serhat Kahraman, Elif Deirmenci, Yunus Sabri Kirca, Metin Ozkan, Ahmet Yazici</i>	
Deep Learning Based Latent Palmpoint Recognition	310
<i>Berkay Selbes, Alperen Elihos</i>	
Autonomous Air Combat with Reinforcement Learning Under Different Noise Conditions.....	314
<i>Ahmet Semih Tasbas, Sanberk Serbest, Safa Onur Sahin, Nazim Kemal Üre</i>	
PLANesT-3D: A New Annotated Data Set of 3D Color Point Clouds of Plants	318
<i>Kerem Mertoglu, Yusuf Salk, Server Karahan Sarikaya, Kaya Turgut, Yasemin Evrenosoglu, Hakan Çevikalp, Ömer Nezih Gerek, Helin Dutagaci, David Rousseau</i>	
Detection of Jammers in Range-Doppler Images Generated in DTED Based Radar Simulator Using Convolutional Neural Networks.....	322
<i>Hüseyin Emre Sahinbay, Ali Alp Akyol, Özgür Özdemir</i>	
Deep Learning Based Parameter Estimation of Frequency Shift Keying LPI Radars.....	326
<i>Serkan Uçan, Mustafa Atahan Nuhoglu, Berkin Yıldırım, Hakan Ali Çirpan</i>	
Improving Experience Replay Architecture with K-Means Clustering	330
<i>Sanberk Serbest, Ahmet Semih Tasbas, Safa Onur Sahin</i>	
A 2-6 GHz High Efficiency Power Amplifier Design for Communication Systems.....	334
<i>Engin Çagdas, Oguzhan Kizilbey, Metin Yazgi</i>	
Swin Transformer Based Siamese Network for Thermal and Optical Image Registration.....	338
<i>Mohamed Elsaiedy, Ismail Can Yagmur, Hasan Fehmi Ates, Bahadir Kürsat Güntürk</i>	
The Consequences of Jamming Attacks on Wireless IoT Networks: Evaluating the Performance Metrics in Noiseless and Noisy Environments.....	342
<i>Fatima Tu Zahra, Yavuz S. Bostancı, Mujdat Soyturk</i>	

Effect of Pulse Shaping on the Performance of Spatial Modulation	346
<i>Sumeyra Gundem, Sultan Aldirmaz-Colak, Yasin Celik</i>	
Glare Effect Analysis on Solar Panels	350
<i>Mehmet Zahid Kartal, Ergin Gökkaya, Sumeyye Taskan, Ugur Saynak, Osman Karabayir, Sultan Aldirmaz-Colak</i>	
Predicting the Fluid Flow Around an Airfoil Using Machine Learning Methods	354
<i>Damla Akcaoglu, Kutay Kisadere, Furkan Göçer, Emrah Oduncu, Mustafa Sivasligil</i>	
Who Follows Turkish Presidential Candidates in 2023 Elections?	358
<i>Onur Varol</i>	
NLoS Measurement Elimination in UWB Signals Using Anomaly Detection.....	362
<i>Ahmet Gunes, Ali Ihsan Gullu, Muhammad Shahab Alam, Esat Serhat Suci, Serdar Köse, Ahmet Gökhan Göze, Hilal Esra Yaldiz, Ahmet Adil Cihangeri, Çağlar Akman</i>	
Improving Direction Finding Performance with SBI Algorithm in Interferometry Method	366
<i>Batuhan Güney, Ömer Serdar Coskun, Abdullah Emin Gürel, Adnan Orduyilmaz</i>	
CheckMate: English Grammatical Error Correction for Native Turkish Speakers.....	370
<i>Asim Ersoy, Oylum Savlak, Cemile Kart, Olcay Taner Yildiz</i>	
FSO-Based Backhauling for Airborne THz Base Stations	374
<i>Mohammed Elamassie, Cagatay Edemen, Murat Uysal</i>	
Reinforcement Learning for Orientation on the Lie Algebra.....	378
<i>Naseem Alhousani, Hatice Kose, Fares J. Abu-Dakka</i>	
Social and Categorical Signals in Contrastive Learning for Recommendation Systems.....	382
<i>Halil Berk Dergi, Mehmet Burak Akgün</i>	
Muğla Wildfires Burn Severity and Vegetation Difference Analysis with Remote Sensing Techniques.....	386
<i>Belinay Aksoy, Burak Çakmak, Nida Kumbasar</i>	
Performance Analysis Under Signal Jammer in Relay Aided Ambient Backscatter Cognitive Radio Networks	390
<i>Muhammed Yusuf Onay, Özgür Ertug</i>	
Performance Analysis of Joint Backscattering and Energy Harvesting Full-Duplex Access Points in Wireless Cellular Area Networks	394
<i>Muhammed Yusuf Onay, Özgür Ertug</i>	
Performance Analysis of Meta-Learning Based Bayesian Deep Kernel Transfer Methods for Regression Tasks	398
<i>Çagatay Savasli, Damla Tütüncü, Alain Patrick Ndigande, Sedat Özer</i>	
Performance Evaluation of YOLOv5 in Adverse Weather Conditions.....	402
<i>Fatmanur Ozdemir, Yavuz S. Bostanci, Mujdat Soyturk</i>	
A Survey of Deepfake Detection Methods	406
<i>Burak Ikan Yildiz, Berk Gökberk</i>	
Transaction Volume Estimation in Financial Markets with LSTM	410
<i>Tunahan Bozkan, Alperen Sayar, Seyit Ertugrul, Tuna Çakar, Ahmet Akçay</i>	

Image Rescaling with the Ruler on Latent Fingerprint Images	414
<i>Emre Aktas, Alperen Elihos</i>	
Music Note Detection Using Matrix Pencil Method	418
<i>Mert Can Türkmen, Ahmet Arif Ergin</i>	
Content Based Image Retrieval on Satellite Imagery	422
<i>Zeynep Gökce</i>	
Zero and Few-Shot Hate Speech Detection in Social Media Messages Related to Earthquake Disaster.....	426
<i>Umitcan Sahin, Izzet Emre Kucukkaya, Oguzhan Ozcelik, Cagri Toraman</i>	
ORTPiece: An ORT-Based Turkish Image Captioning Network Based on Transformers and WordPiece	430
<i>Asim Ersoy, Olcay Taner Yildiz, Sedat Özer</i>	
Joint Detection and Tracking of Occluded Target Using Lidar	434
<i>Musa Gökhan Korkut, Muhammet Altun, Ali Ihsan Gullu, Ahmet Gunes</i>	
A Three-User 2x2 MIMO Alamouti/MRC NOMA System Implementation.....	438
<i>Lütfullah Özkan, Saliha Büyükkorak, Eray Güven, Gunes Karabulut Kurt</i>	
NER2Map: Positive Transfer from Named Entity Recognition to Address Parsing in Low Data Regimes.....	442
<i>Mikail Okyay, Aydin Gerek</i>	
Cell Coverage Analysis of UAV Networks.....	446
<i>Nurullah Aksu, Bilal Çiçek, Semiha Tedik Basaran</i>	
Detection of Hate Speech in Turkish Social Media Posts with BERT-Base Model.....	450
<i>Sengül Bayrak, Alper Karaca, Ferhat Toson, Aleyna Kocabey, Fatma Begüm Arslanoglu</i>	
Single Or Double: on Number of Classifier Layers for Small Language Models	454
<i>Muhammed Cihat Ünal, Mounees Zaval, Aydin Gerek</i>	
Alzheimer's Disease Diagnosis Using Olfactory Stimulus Evoked Electroencephalography Signals	458
<i>B. Orkan Olcay, Murat Pehlivan</i>	
Tracking the Nodal Point of Weakly Electric Fish Using Artificial Neural Networks	462
<i>Bahadir Çatalbas, Dogukan Elikuru, Emin Yusuf Aydin, Ismail Uyanik</i>	
Modeling Camera ISP Pipeline with Deep Learning.....	466
<i>Koray Ugur Erbas, Aysun Tasyapi Çelebi</i>	
Outage Probability Analysis of RIS-Aided FSO Under Exponentiated Weibull Distributed Turbulence.....	470
<i>Yonca Yüksekdağ, Ibrahim Altunbas, Ibrahim Hökelek, Ahmet Faruk Coskun</i>	
A Metric Learning Based System for Retail Product Recognition and Novel Class Discovery.....	474
<i>Ibrahim Samil Yalçiner, Zübeyir Genç, Lütfü Çakıl, Hazim Kemal Ekenel</i>	
Kontrastlı Mamografi Görüntülerinde Kitlelerin Şekil Ve Birinci Dereceden İstatistiksel Özniteliklere Dayalı Sınıflandırması	478
<i>Mehmet Emin Kobya, Hayati Türe, Ramazan Özgür Dogan, Temel Kayıkçıoğlu, Aykut Teymur, Sibel Kul</i>	

Design of Three-Stage Two-Way and Four-Way 2-6 GHz Power Combiner	482
<i>Rabia Hatipzade, Oguzhan Kizilbey, Hayriye Korkmaz</i>	
Crowd Counting Via Joint SASNet and a Guided Batch Normalization Network	486
<i>Cengizhan Haldiz, Sarmad F. Ismael, Hasari Çelebi, Erchan Aptoula</i>	
A Reduced Mass Model for Modeling Cognitive Processes	490
<i>Sevgi Silkin, Sila Köksal, Basak Zeynep Ergüven, Neslihan Serap Sengör</i>	
FPGA-Based Implementation of a Matched Filter for Acoustic Shooter Localization System.....	494
<i>Bilgehan Miraç Baki, Mustak E. Yalcin</i>	
Deepfake Detection Via Combining Channel and Spatial Attention	498
<i>Alperen Enes Bayar, Cihan Topal</i>	
Early Diagnosis of Alzheimer Disease with Shannon Information Source Model of the Brain	502
<i>Ulas Sedat Aydin, Abdulla Ahmadkhan, Gonul Gunal Degirmendereli, Fatos T. Yarman Vural</i>	
Machine Learning Approaches for Cell Viability.....	506
<i>Zeliha Kaya, Zeki Kus, Berna Kiraz, Gönül Uludag</i>	
Comparative Analysis of Resampling and Feature Selection Methods for Employee Turnover Prediction	510
<i>Giray Yagmur, Büsra Sarikaya, Ve Nima Najaflou</i>	
Measuring Electromagnetic Field Strength in Base Stations Using Unmanned Aerial Vehicles.....	514
<i>Cemal Isilak, Ozan Durmaz, Yusuf Salk, Hakan Çevikalp, Helin Dutagaci, Tufan Girgin</i>	
Finding Islands on Encrypted Graphs	518
<i>Berker Acir, Ertan Onur, Cansu Betin Onur</i>	
Cyclic Spectral Analysis Via Negative Entropy for Maritime Vehicles.....	522
<i>Kamil Ugur Tunce, Tayfun Akgül</i>	
Modified QPSK Modulation for Frequency Multiplied Transmission	526
<i>Özgün Ersoy, Murat Can Karakoç, Asaf Behzat Sahin</i>	
DoG-Loss for Semantic Segmentation	530
<i>Ali Solak, Cihan Topal</i>	
A Transformer-Based Real-Time Focus Detection Technique for Wide-Field Interferometric Microscopy.....	534
<i>Can Polat, Alper Güngör, Mustafa Yorulmaz, Bilal Kizilelma, Tolga Çukur</i>	
DidEye: An Attempt for Defining and Incorporating Visual Intuition for Convolutional Neural Networks	538
<i>Robin Koç, Fatos T. Yarman Vural</i>	
Super-Resolution Diffusion Model for Accelerated MRI Reconstruction.....	542
<i>Muhammad Usama Mirza, Tolga Çukur</i>	
Graphical User Interface for the Computation and Visualization of the Cardiac Activation Times	546
<i>Kutay Ugurlu, Eda Özkarayn, Yesim Serinagaoglu Dogrusöz</i>	
Error Performance of DCO-OFDM Based Visible Light Communication System with Signal Space Diversity	550
<i>Handan Yakin, Tugba Birge, Mustafa Anil Resat, Serdar Özyurt</i>	

Graph Neural Networks Based Approach for Interpersonal Relationship Classification in Images.....	554
<i>Simge Akay, Nafiz Arica</i>	
Pilot-Aided Channel Estimation for RIS-Assisted Wireless Systems Over Time-Varying Fading Channels	558
<i>Maryam Azizzadeh, Mohammed Elamassie, Murat Uysal</i>	
Optimization of False Target Type Jamming Against CA-CFAR Utilizing Radars.....	562
<i>Ahmet Uslu, Süleyman Ayazgök</i>	
Handover Method Based on Time Series Analysis.....	566
<i>Adnan Can Büyüksirin, Efe Mert Çirpar, Murat Basar Kömürcü, Semih Tedik Basaran</i>	
Acoustic Direction Estimation with MEMS Microphone Array	570
<i>Nuri Basar, Tayfun Akgil</i>	
Employing Transformer Encoders for Enhanced Functional Connectivity Mapping.....	574
<i>Hasan Atakan Bedel, Tolga Çukur</i>	
Autoencoder and Extreme Value Theory Based Unknown Intrusion Detection System	578
<i>Pelin Damla Ates, Çağatay Ates, Mutlu Koca, Emin Anarim</i>	
OAI-Based Software Defined Radio Implementation	582
<i>Ali Fuat Sahin, Nurullah Aksu, Ömer Öztürk, Hakan Alakoca, Leyli Karaçay, Utku Gülen, Semih Tedik Basaran, Emrah Tomur</i>	
A Diffusion-Based Reconstruction Technique for Single Pixel Camera	586
<i>Baturalp Güven, Alper Güngör, M. Umut Bahçeci, Tolga Çukur</i>	
Geographic Information Systems (GIS) and Random Forests Regression-Based Approach for Path Loss Prediction in the Campus Environment	590
<i>Güzide Miray Perihanoglu, Himmet Karaman</i>	
A Hybrid Text Classification Approach for Chatbots	594
<i>Atilla Karaahmetoglu, Ugur Yigitoglu, Elif Vardarli, Erdem Ünal, Ugur Aydin, Murat Koras, Mehmet Gönen, Baris Akgün</i>	
Histopathological Classification of Colon Tissue Images with Self-Supervised Models.....	599
<i>Mehmet Bahadir Erden, Selahattin Cansiz, Çigdem Gündüz Demir</i>	
Alternative Data Sources and Psychometric Scales Supported Credit Scoring Models	603
<i>Gözde Filiz, Sahin Nicat, Türkay Sahin, Özden Gebizlioglu Özvural, Tuna Çakar</i>	
Location-Based Visible Light Communication	607
<i>Yasin Celik</i>	
Performance Analysis of Fractional Order Band Pass Filter	611
<i>Yunus Emre Yokus, Aslıhan Özakin, Umut Engin Ayten</i>	
Noise Effect on Forecasting	615
<i>Suat Tuncer, Tuna Çakar, Ersan Kayan</i>	
Online Improvement of CCA Performance in BCI Spellers.....	619
<i>Tarik Keles, Hüseyin Özkan, Aysin Baytan Ertiziün</i>	
Frank-Zadoff Precoded Space-Time Trellis Coded MIMO-OFDM System Design	623
<i>Mehmet Mert Tuncer, Joana Angjo, Samet Yıldız</i>	

Wind Power Prediction Using Machine Learning and Deep Learning Algorithms	627
<i>Ecem Simsek, Aysemeuge Gungor, Oykü Karavelioglu, Mustafa Tolga Yerli, Nejat Goktug Kuyumcuoglu</i>	
Performance Comparison of ESPRIT and Interpolation Applied FFT Frequency Estimation Methods	631
<i>Gamze Cabadag, Ali Degirmenci, Omer Karal</i>	
Characterization of Soft Robotic Antenna for Close-Proximity Distance Perception	635
<i>Ozan Demir, Emre Ozturk, Engincan Sayar, Ismail Uyanik, Solen Kumbay Yildiz</i>	
Design and Analysis of Log-Periodic Dipole Antenna with Wideband and Small Size for RF Energy Harvesting	639
<i>Muhammet Emin Ince, Cetin Kurnaz, Ertugrul Cam</i>	
Classification of Altruistic Punishment Decisions by Optical Neuroimaging and Machine Learning Methods	643
<i>Tuna Cakar, Gozde Filiz, Turkay Sahin, Guclu Akyurek, Ozan Erözden</i>	
Vespertilian Echolocation Calls in Ultrasonic Acoustic Recordings	647
<i>Ata Shaker, Arca Bestek, Tayfun Akgul, Emrah Coraman</i>	
Prediction of Loan Decisions with Optical Neuroimaging (fNIRS) and Machine Learning	651
<i>Tuna Cakar, Semen Son, Alperen Sayar, Yener Girisken, Seyit Ertugrul</i>	
IRS-Aided Communication Systems in the Presence of Multiple Eavesdroppers	655
<i>Mustafa Namdar, Arif Basgumus, Hakan Alakoca, Serdar Ozgur Ata, Lufiye Durak-Ata</i>	
Enhancing Object Detection Algorithms by Synthetic Aerial Images	659
<i>Can Yilmaz, Bahri Maras, Gorkem Yilmaz, Goksu Ceylan, Onder Hamamcioglu, Nafiz Arica, Aysin Baytan Ertuzun</i>	
Detection of P300 Signals Obtained by Using Auditory Paradigm Consisting Musical Notes	663
<i>Fatih Aydin, Onder Aydemir, Onur Erdem Korkmaz</i>	
Blind Domain Adaptation for Semantic Segmentation Via Edge Attention	667
<i>Ali Solak, Cihan Topal</i>	
Neural Correlates of Identity Judgments in the Prefrontal Cortex: An Optical Brain Imaging (fNIRS) Study	671
<i>Tuna Cakar, Annette Hohenberger</i>	
A New Optimization-Based Algorithm for the Estimation of Harmonics Under Power System Frequency Deviations	675
<i>Kenan Gencol</i>	
Fusion Enhanced Click-Through-Rate Prediction	679
<i>Murat Bayraktar, Fatma Ceyda Gokce, Dogukan Aksu, Ismail Sengor Altingovde, Pinar Karagoz, Ismail Hakki Toroslu</i>	
Stance Detection of Turkish Twitter Accounts	683
<i>Mehmet Deniz Turkmen, Dilara Dogan, Osman Abul, Mucahid Kutlu</i>	
Implications of Node Selection in Decentralized Federated Learning	687
<i>Ahnaf Hannan Lodhi, Baris Akgun, Oznur Ozkasap</i>	

Roadside Barrier Detection and Tracking with Radar: A Real Life Application	691
<i>Emre Acir, Mehmet Murat Gözüm, Abdurrahim Semiz</i>	
PEP Analysis of Downlink NOMA Systems Over the Exponentially Distributed Channels.....	695
<i>Fatma Kebire Bardak, Mustafa Namdar, Arif Basgumus, Lina Mohjazi</i>	
Band-Based Interpretability with SHAP for Hyperspectral Classification.....	699
<i>Ismail Sahin, Alp Ertürk, Erchan Aptoula</i>	
Automatic Segmentation of the Spinal Canal in MR Images with Deep Learning Method	703
<i>Mehmethan Yumus, Merve Apaydin, Ali Degirmenci, Serdar Kesikburun, Ömer Karal</i>	
BER Performance Analysis for NOMA Systems with OTFS Modulation	707
<i>Inci Umakoglu, Mustafa Namdar, Arif Basgumus, Serdar Özürt, Selman Kulaç</i>	
The Use of ANN in the Sound Detection of Lung Diseases: Example of COPD, Asthma, Pneumonia.....	711
<i>Aysen Özün Türkçetin, Turgay Koç, Sule Çilekar</i>	
Anomaly Detection in Predicted Water Treatment Data Using Hybrid CNN-LSTM Network Model	715
<i>Büsra Özgenç, Selen Ayas, Ramazan Özgür Dogan, Bora Çavdar, Ali Kivanç Sahin, Mustafa Sinasi Ayas</i>	
Combination of Pareto Optimal Front with Deep Neural Networks in Optimizing and Enhancing Performance of RF Designs.....	719
<i>Lida Kouhalvandi, Ladislau Matekovits, Serdar Ozoguz</i>	
Elimination of Elevation Induced Errors in Hybrid Direction Finding	723
<i>Doga Mentese, Abdullah Emin Gürel, Adnan Orduyilmaz</i>	
Feature Selection for Differential Diagnosis of Asthma and COPD: A Preliminary Study	727
<i>Serhat Ismet Sargin, Ipek Sen</i>	
Segmentation of Plant Point Clouds for Phenotyping	731
<i>Ahmetcan Yavuz, Berke Arda, Helin Dutagaci, Bülent Sankur</i>	
DepremKit: Human and ChatGPT Labeled Turkish Earthquake Dataset.....	735
<i>Riza Isik, Merve Nur Yilmaz, Özer Tanrisever, Haci Ali Duru, Batuhan Bardak</i>	
Human Detection with Fisheye Camera	739
<i>Abdullah Kaan Karsli, Ihsan Mert Muhaciroglu, Yasin Apalan, Tayfun Akgül</i>	
Blood Pressure Estimation from PPG Signals Using Deep Residual Network with Transfer Learning	743
<i>Hüseyin Murat Koparir, Özkan Arslan</i>	
A Learning-Based Coloring Algorithm for Register Allocation Problem.....	747
<i>Gizem Süngü Terci</i>	
Comparing Two Fitting Algorithms to Determine Cole-Cole Parameters.....	751
<i>Ugur Berkay Çaliskan, Cemanur Aydinalp, Tuba Yilmaz Abdolsaheb</i>	
The Effect of Optimal Selection of ADC Frequencies on Performance in Multirate Sampling Receivers	755
<i>A. Burak Pinarcik, A. Bugra Korucu, Y. Kemal Alp, Adnan Orduyilmaz</i>	

Empirical Calculation of Maximum Voice Communication Distance of CoDiver Underwater Optical Voice Communication Device: A Case Study at Istanbul Kumbaba Beach.....	758
<i>Kaan Alper, Mutlu Dulger, Ismail Bayezit, Selcuk Ozyurt, Omer Kemal Kinaci, Nil Girgin Kalip</i>	
A Novel Approach for Microwave Oven Technology Mikrodalga Firin Teknolojisine Yeni Bir Yaklaşım.....	762
<i>Mehmet Duman</i>	
Outage Performance of User-Assisted Alamouti/MRC-SWIPT NOMA Network	766
<i>Büsra Demirkol, Oguz Kucur</i>	
Radar Intrapulse Modulation Classification with Deep Learning	770
<i>Özkan Akbunar, Baris Yüksekkaya</i>	
Alignment of Image-Text and Video-Text Datasets	774
<i>Yunus Emre Özköse, Zeynep Gökçe, Pinar Duygulu</i>	
Real-Time RF Energy Harvesting System with Software Defined Radio	778
<i>Lütfullah Özkan, Saliha Büyükcörak, Günes Karabulut Kurt</i>	
Evaluation of 5G Infrastructure Investment Options Using the AHP-TOPSIS Method.....	782
<i>Semih Aktas, Sadrettin Çodur, Burak Erkayman, Gökhan Yıldız, Ali Gemalmaz, Arsal Dikel</i>	
Secrecy Outage Probability of SWIPT-OFDMA Schemes with Transmit Antenna Selection.....	786
<i>Ahmet Faruk Coskun, Oguz Kucur, Günes Karabulut Kurt</i>	
Federated Topology Preserving Domain Adaptation for Human Activity Recognition	790
<i>Tori Andika Bukit, Ericka Pamela Bermudez Pillado, Seok-Lyong Lee, Bernardo Nugroho Yahya</i>	
Federated Learning Model for Contextual Sensitive Data Quality Applications: Healthcare Use Case	794
<i>Kyung-Chan Jeon, Geun-Seok Han, Chae-Yun Han, Ilyoung Chong</i>	
Comparative Analysis of Prediction Models for Estimating Passenger Volumes in Airline.....	798
<i>Mehmet Cemal Atlıoglu, Merve Gözde Sayın</i>	
Ballistic Target Classification Using Machine Learning	802
<i>Mertcan Sılıktı</i>	
Improving Hate Speech Detection: The Impact of Semantic Representations and Preprocessing Techniques.....	806
<i>Necva Bölcüü, Aysegül Özerdem</i>	
OP Performance of UAV Assisted Multi-User MIMO NOMA SWIPT System.....	810
<i>Harun Çagiran, Oguz Kucur, Saliha Büyükcörak Edibali</i>	
Recent History of Contentious Politics in Turkey: Mapping Intergroup Alliances Via Network Anaysis	814
<i>Ubeyd Oktem, Yagmur Çagatay, Burak Çetiner</i>	
Scalable Federated Learning Simulations Using Virtual Client Engine in Flower.....	818
<i>Thomas Borja, Daniel Alamillo, Anass Anhari, İlker Demirkol</i>	
Investigating the Antenna Feeding Parameter Effect on the Microwave Hyperthermia System.....	822
<i>Nur Banu Aka, Kübranur Yıldırım, Gulsah Yıldız, Tuba Yılmaz</i>	

Public Opinion on UK Public Transportation Through Sentiment Analysis and Topic Modeling	826
<i>Aslıgül Aksan, Hatice Camgöz Akdag</i>	
Numerical Model Sensitivity Analysis for Breast Cancer Microwave Hyperthermia Treatment	830
<i>Kübranur Yıldırım, Nur Banu Aka, Gulsah Yıldız, Tuba Yılmaz</i>	
Transformer-Based Bug/Feature Classification.....	834
<i>Ceyhun E. Öztürk, Eyüp Halit Yılmaz, Ömer Köksal</i>	
A Structural Damage Assessment Model Based on Deep Learning	838
<i>G. Taskin, H. Kaya, Ö. T. Turan, T. Çınar, A. İlki</i>	
LDA Topic Modeling on Twitter Data Concerning Immigrants and Refugees.....	842
<i>Halil İbrahim Ergül, Aysecan Terzioglu, Murat Tercan, Berrin Yanıkoglu, Inanç Arin</i>	
A Multi-Agent System Empowered by Federated Learning and Genetic Programming.....	846
<i>Luis Gomes, Bruno Ribeiro, Fernando Lezama, Zita Vale</i>	
Improved ECA-DenseNet Framework for Brain MRI Image Classification.....	850
<i>Halise Nur Aydin, Oktay Yıldız</i>	
Performance of Multiuser MIMO-SWIPT Layered Transmission Systems	854
<i>Serdar Özuyurt, Oguz Kucur</i>	
Fed-SIC: Selecting Important Clients for Federated Learning.....	858
<i>Hyun Woo Lim, Sean Yonathan Tanjung, Ignatius Iwan, Bernardo Nugroho Yahya, Seok-Lyong Lee</i>	
Reducing Carbon Emissions in Websites: Estimation and Sustainable Practices for Eco-Friendly Web Development	862
<i>Sait Furkan Teke</i>	
Non-Terrestrial Network Applications on the Disaster Case Communication	866
<i>Fahrettin Dogan, Erdem Demircioğlu</i>	
Investigation of Detectabilities of the Dielectric Objects in a Through-The-Wall Microwave Imaging Setup.....	870
<i>Semih Dogu</i>	
Quantitative Evaluation of Wrist Rigidity in Parkinson's Disease by Natural Frequency Method.....	874
<i>Ugur Dinçer, Günay Züngör, Sabiha Tezcan Aydemir, Fatma Nazlı Durmaz Çelik, Evren Samur, Çetin Yılmaz, Muhittin Cenk Akbstancı</i>	
Fine-Grained Mapping of Migrants in Istanbul Using Satellite Imaging and Mobile Phone Data.....	878
<i>Bilgeçag Aydogdu, Çağla Balçık, Subhi Güneş, Rahman Momeni, Albert Ali Salah</i>	
Big Data Analytics for Anomaly Detection in Blockchain.....	882
<i>Mahmut Lutfullah Özbilen, Elif Özcan, Mustafa Berk Keles, Merve Zeybel, Havanur Dervisoglu, Aslinur Dogan, Mehmet Haklidir</i>	
Very Large Scale Distributed Training Data and Federated Learning: A Case Study in DAS.....	886
<i>M. Bolukbasi, E. Kapusuz, H. Genc, I. Uzun, R. C. Sahin, E. Ozkan, Y. Genc</i>	
Footfall Prediction Using Graph Neural Networks	890
<i>Hasan Alp Boz, Mohsen Bahrami, Selim Balcisoy, Alex Pentland</i>	

Analysis of a Free-Space Optical Communication System	893
<i>Serap Kılıç Evran, N. Özlem Ünverdi</i>	
Synthetic Aperture Radar Imaging Using a Low-Cost Radar Mounted on a Mini Drone	897
<i>Orhan Tunç, Süleyman Baykut, Isin Erer</i>	
Modeling of Hybrid Fiber Optic and Free-Space Optical Communication Systems.....	901
<i>Serap Kılıç Evran, N. Özlem Ünverdi</i>	
Using Pose Estimation for Reference Tracking in Turkish Sign Language.....	905
<i>Onur Keles, Ceren Oksal, Emre Bilgili</i>	
A Bibliometric Analysis of Computational Social Science in Turkish Academia	909
<i>Tuba Bircan, Almila Akdag Salah, Haodong Qi</i>	
Modeling of Free-Space Optical Communications in Aviation	913
<i>Ataberk Durali, N. Özlem Ünverdi</i>	
Victim Detection System Via Geophone Arrays.....	917
<i>Arda Aras, Melike Girgin, Tayfun Akgil</i>	
Adversarial Learning of Failure Prevention Policies.....	921
<i>Mert Can Kutay, Abdullah Cihan Ak, Sanem Sariel</i>	
Performance Analysis of Optical Filters.....	925
<i>Muhsin Atas, N. Özlem Ünverdi</i>	
Federated Learning in Predicting Heart Disease	929
<i>Burak Ülver, Rabia Arkan Yurtoglu, Havanur Dervisoglu, Rusen Halepmollasi, Mehmet Haklidir</i>	
Deep Multi-Object Symbol Learning with Self-Attention Based Predictors.....	933
<i>Alper Ahmetoglu, Erhan Öztöp, Emre Uğur</i>	
SIU2023-NST - Hate Speech Detection Contest	937
<i>Inanç Arın, Zeynep İzik, Seçilay Küçük, Somaiyeh Dehghan, Arzucan Özgür, Berrin Yanıkoglu</i>	
A Novel Motor Imagery Recognition Approach Based on Perception Latency and Short-Lived Synchronizations	941
<i>B. Orkan Olcay Ve, Bilge Karaçali</i>	
Automatic Surgical Caption Generation in Nephrectomy Surgery Videos.....	945
<i>Sevdenur Küttük, Marco Bombieri, Diego Dall'Alba, Paolo Fiorini, Duygu Sarikaya</i>	
BaDENAS: Bayesian Based Neural Architecture Search for Retinal Vessel Segmentation.....	949
<i>Zeki Kus, Berna Kiraz</i>	
Ranging and Channel Access Protocol for Ultra-Wideband Mesh Swarm Networks	953
<i>Cihan Emre Kement, Ali Bulut Üçüncü, Fırat Karatas</i>	
Characterization of Orbital Angular Momentum-Multiplexed FSO Channel in the Presence of Pointing Errors	957
<i>Mohammed Elamassie, Hamed Tadayyon, Murat Uysal</i>	
A Transformer-Based Prior Legal Case Retrieval Method	961
<i>Ceyhun E. Öztürk, S. Barış Özçelik, Aykut Koç</i>	

G-HCF: Product Recommendation by GNN Based Hybrid Collaborative Filtering.....	965
<i>Serhat Tadik, Sadi Güzel, Kaan Çullu, Burak Acar</i>	
A Turkish Text Classification Based Feature Selection and Density Peaks Clustering	969
<i>Ezgi Zorarpaci</i>	
Recovering JPEG Compression Loss Via Deep Learning-Based Super Resolution Techniques.....	973
<i>Muhammet Bolat, Nurullah Çalik, Lütfiye Durak Ata</i>	
Anomaly Detection with False Alarm Rate Controllable Classifiers	977
<i>Soner Özgün Pelvan, Basarbatu Can, Hüseyin Özkan</i>	
CA-CFAR Based Target Detection in FMCW Radars.....	981
<i>Oytun Günes, Safak Bilgi Akdemir</i>	
Automatic Selection of Compiler Optimizations by Machine Learning	985
<i>Melih Peker, Özcan Öztürk, Süleyman Yıldırım, Mahiye Uluyagmur Öztürk</i>	
Ambient Aware User-Numerology Association for 5G and Beyond	989
<i>Halenur Sazak, Ahmet Yazar</i>	
Epilepsy Detection Using Time-Frequency Domain and Entropy Based EEG Analysis	993
<i>Cansel Fiçici, Ziya Telatar, Onur Koçak</i>	
Creation of Annotated Synthetic UAV Video Dataset for Object Detection and Tracking.....	997
<i>Can Yilmaz, Bahri Maras, Nafiz Arica, Aysin Baytan Ertüzün</i>	
Message-Product Matching for Advertising Systems: Hierarchical Category Vectorization and Deep Learning Approach	1001
<i>Kadriye Marangoz, Feyza Zeynep Salam, Burak Gözütok</i>	
Interpretable Deep Learning for Myocardial Infarction Detection from ECG Signals.....	1005
<i>Mehmet Yigit Balık, Kaan Gökçe, Sezgin Atmaca, Emre Aslanger, Arda Güler, İlkay Öksüz</i>	
Accelerometer-Based Timing Analysis for Parkinson's Disease Classification	1009
<i>Fatih Onay, Bilge Karaçali</i>	
An Experimental Study of the Sample Complexity of Domain Adaptation	1013
<i>Hüseyin Karaca, Özlem Akgıl, Ömer Faruk Arslan, Atilla Can Aydemir, Firdevs Su Aydin, Enes Ata Ünsal, Elif Vural</i>	
Performance Prediction of Power Amplifiers for the Extended Bandwidth Via Neural Networks	1017
<i>Lida Kouhalvandi, Serdar Ozoguz, Simona Donati Guerrieri</i>	
Improving Microwave Component Characterization Using Wavelet Denoising Method	1021
<i>Anil Karatay, Bilal Orkan Olcay, Fatih Yaman</i>	
Insult Detection in the Turkish Language Through Different Machine Learning Algorithms.....	1025
<i>Kerem Özgen, Lavdie Rada</i>	
Experimental Demonstration of an FPGA-Based Outdoor VLC Broadcasting System.....	1029
<i>Ibrahim Baglica, Bismillah Nasir Ashfaq, Sude Ergin, Burak Kebapçı, Tuncer Baykas, Murat Uysal</i>	
Multi-Carrier and Single-Carrier Waveform Decision Method in Non-Terrestrial Networks	1033
<i>Ayça Hançer, Ahmet Yazar</i>	

Automatic Detection of Knee Osteoarthritis Severity with SOTA Deep Learning Models and
Ordinal Loss 1037
Ilknur Aktemur, Ilkay Öksüz

Detection of Human Respiratory and Range by IR-UWB Radar 1041
Ali Shakfa, Mahdi Esmaeilishahir, Saeid Karamzadeh

Author Index