

2024 32nd Signal Processing and Communications Applications Conference (SIU 2024)

**Mersin, Turkiye
15-18 May 2024**

Pages 1-682



**IEEE Catalog Number: CFP24559-POD
ISBN: 979-8-3503-8897-8**

**Copyright © 2024 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:	CFP24559-POD
ISBN (Print-On-Demand):	979-8-3503-8897-8
ISBN (Online):	979-8-3503-8896-1
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

Detecting Anomalies in Information Assets with Graph Signal Processing	1
<i>Ayhan Akgün</i>	
A New Approach to Help Diagnose Coronary Artery Disease	5
<i>Samet Aymaz, Şeyma Aymaz</i>	
Advancements in Phishing Website Detection: A Comprehensive Analysis of Machine Learning and Deep Learning Models.....	9
<i>Soudabeh Mousavi, Mahdi Bahaghīhat, Figen Ozen</i>	
AI Powered Image Annotation and Object Detection Platform for Workplace Safety.....	13
<i>Değer Ayata, Uğur Horasan</i>	
Machine Learning and Event-Based User and Entity Behavior Analysis.....	17
<i>Vedat Önal, Halil Arslan, Yasin Görmez</i>	
BayesianOptFs: Bayesian Optimization Based Novel Feature Selection Method for Classification Models	21
<i>Yasin Görmez</i>	
A Security Mechanism Against Man in the Middle Attack in 6TiSCH Networks.....	25
<i>Burak Aydin, Hakan Aydin, Sedat Görmüş</i>	
Lyapunov-Based Controller Design for Precise Monitoring, Speed Control and Trajectory Planning in Autonomous Tractors with Trailers	29
<i>Gülşah Demirhan Aydin, Deren Doğan, Yusuf Tuğberk Türken</i>	
PBC-NAS: Neural Architecture Search for Peripheral Blood Cells Classification	33
<i>Zeki Kuş, Berna Kiraz, Musa Aydin, Alper Kiraz</i>	
Fine-Grained Named Entity Recognition for Turkish	37
<i>Lola Khudoyberdieva, Banu Diri</i>	
The Effect of Class-Weighted Penalization in Deep Neural Networks for Multi-Class Cell Segmentation	41
<i>Musa Aydin, Zeki Kuş, Berna Kiraz, Reyhan Hoşavci, Alper Kiraz</i>	
Revisiting DCT in Deep Learning Era: An Initial Denoising Application	45
<i>Hasan H. Karaoglu, Ender M. Ekşioğlu</i>	
Human Activity Recognition Using CNN-BiLSTM-LightGBM Hybrid Model.....	49
<i>Şeyma Nur Sönmez, İbrahim Alper Doğru, İsmail Atacak, Kazım Kılıç</i>	
A Hybrid CNN-Tree Based Model for Enhanced Image Classification Performance.....	53
<i>Musa Aydin, Zeki Kuş, Zeliha Kaya Akçelik</i>	
Classification of Breast Cancer Subtypes Using Deep Learning Methods.....	57
<i>Ergun Izmirlioglu, Ahmet Enes Atas, Gokhan Bilgin</i>	
Cross-View Gait Recognition Based on Fine-Tuned Deep Networks	61
<i>Büşrahanur Yaprak, Eyüp Gedikli, Özkan Bingöl, Ramazan Özgür Doğan</i>	

Elimination of Sensor Error Sources with Particle Swarm Optimization Algorithm	65
<i>İ. Ahmet Altaş, C. Nurettin Yılmaz</i>	
Adaptive Filter Design with Unconstrained Optimization for Heading Angle Oscillation Problems	69
<i>İ. Ahmet Altaş, C. Nurettin Yılmaz</i>	
A New Approach for Addressing Slip Ratio Optimization and Trajectory Tracking Challenges in Autonomous Tractor Operations	73
<i>Gülşah Demirhan Aydin, Ali Bahadir Aydemir, Mohamad Thaer Kansou, Kemal Orçun Altınuç</i>	
Reconfigurable Optical Filter Based Receiver Structure for Visible Light Communication.....	77
<i>Mehmet Ali Küçük, Cenk Albayrak, Kadir Türk</i>	
Model-Based Design of a Visual Cryptography Scheme and Implementation on an FPGA	81
<i>Zülbiye Küçükömeroğlu, Siddika Berna Örs Yalçın</i>	
Storing and Transferring Data of Parallel Agents to the Parent Process in Agent-Based Simulations	85
<i>Erdemhan Özdin, Saltuk Buğra Selçuklu, Celal Öztürk</i>	
Performance Evaluation of YOLOv4 for Instant Object Detection in UAVs	89
<i>Gül Bahar Keskinoglu, Nimet Selen Yesilkaya, Irem Bayraktar, Ercan Kose</i>	
Initialization in Gibbs Sampling Implementation of LDA	93
<i>Yaşar Tekin</i>	
Multidimensional Performance Analysis of 3GPP 5G Numerology Groupings.....	97
<i>Yusuf İslam Demir, Ahmet Yazar, Hüseyin Arslan</i>	
The Estimation of Forest Aboveground Biomass Using Multiple Satellite Data and Different Machine Learning Models.....	101
<i>Eren Gürsoy Özdemir, Saygin Abdikan</i>	
Triple Analyte Detection with Photonic Crystal Fiber Based Surface Plasmon Resonance Sensor	105
<i>Ahmet Yaşlı, Hüseyin Ademgil</i>	
High Sensitivity Photonic Crystal Fiber Based Surface Plasmon Resonance Sensor for Petrol Purity Sensing	109
<i>Ahmet Yaşlı, Cem Kalyoncu</i>	
RF Communication and RSSI Based Location Detection with Trilateration Method	113
<i>Anıl Çetin, Ertuğrul Işıkli, Ahmet Serdar Türk</i>	
Optimizing Intelligent Transportation Via Routing Protocols in Vehicular Ad-Hoc Networks	117
<i>Tolga Ozcanlar, Naşide Elmasasoglu, Mehmet Faruk Taskiran, Emir Duhan Guler</i>	
Classification of Data Corruption in Microcontroller-Based Serial-Optical Communication with Tensorflow-Lite	121
<i>Yılmaz Küçük, Hakan Çevikalp</i>	
Alzheimer's Disease Detection and Dataset Creation from Spontaneous Speech.....	124
<i>Ediz Akarsu, Zahra Huseynliz, Başar Bilgiç, Banu Diri</i>	
Quality of Service Support for a 5G Network UPF Module: Software Implementation and Realistic Evaluation.....	128
<i>Mustafa Fatih Çemen, Ece Güran Schmidt</i>	

Machine Learning-Assisted Mobile Network Speed Prediction: A Real-World Case Application	132
<i>Emrecan Özkan, İbrahim Yazıcı, Semih Engin</i>	
Ka-Band Parallel Coupled SIR Bandpass Filter	136
<i>Ali İhsan Çubukçu, Akın Özkan, Oğuzhan Orhan</i>	
Photovoltaic Energy Generation Forecasting: Attention-Based Network Using Sky Images	140
<i>Ahmet Karazor</i>	
Emotional Stimulus Classification from Brain Electrical Activity Using Multivariate Empirical Mode Decomposition	144
<i>Merve Dogruyol Basar, Adil Deniz Duru, Aydin Akan</i>	
Detection of Alzheimer's Disease from EEG Signals Using Explainable Artificial Intelligence Analysis	148
<i>Bahadir Arabaci, Hakan Öcal, Kemal Polat</i>	
Enhancing Passive Wi-Fi Sensor Data for Improved Activity Recognition	152
<i>Sabit Gölcük, Filiz Gürkan, Nihan Kahraman</i>	
Syllable-Based Context-Aware Sequence to Sequence Transformer Model for Turkish Diacritic Restoration.....	156
<i>Öznur Acar, Yusuf Coşkuner, Yusuf Sinan Akgül</i>	
Performance Prediction of Surgeon with Eye-Gaze Data for Robot-Assisted-Surgery.....	160
<i>Murat Teksin, Deger Ayata</i>	
An Autonomous Mobile Robotic Platform for Paediatric Respiratory Ventilation Assistance.....	164
<i>John Tran, Şafak Akinci, Ali Haydar Göktoğan</i>	
User Authentication with GRU Based Siamese Networks Using Keyboard Usage Behaviour.....	168
<i>Mehmet Fide, Emin Anarım</i>	
Air-To-Ground Automatic Target Recognition and Estimation of Target Orientation Using Range Profiles	172
<i>Murat Kökçü, Osman Karabayır, Yusuf Alagöz, Bahadır Kürşat Güntürk</i>	
Extractive Summarization Data Sets Generated with Measurable Analyses	176
<i>İrem Demir, Emel Küpçü, Alptekin Küpçü</i>	
Precise On-Site Calibration of PTZ Cameras	180
<i>Yunus Emre Esin, Ömer Özil, Yunus Can Bilge, Şafak Öztürk</i>	
Traffic Light Control with Policy Gradient-Based Reinforcement Learning	184
<i>Mehmet Bilge Han Taş, Kemal Özkan, İnci Sarıçıçek, Ahmet Yazıcı</i>	
Self-Supervised Dense Visual Representation Learning	188
<i>Timoteos Onur Özçelik, Berk Gökberk, Lale Akarun</i>	
A Swin Transformer, YOLO, and Weighted Boxes Fusion-Based Approach for Tree Detection in Satellite Images	192
<i>Ozan Durgut, Cem Ünsalan</i>	
Defining the Optimal Alpha Band Connectivity Pathways to Detect Depression Using Explainable AI.....	196
<i>Farhad Nassehi, Asuhan Par, Aykut Eken, Sinan Yetkin, Osman Eroğul</i>	

Turkish Speech Recognition for Voice Search Applications	200
<i>Hilal Tekgöz, Muhammed Murat Özbek, Tolga Büyüktanır, Harun Uz</i>	
Jamming of GPS Signals by Amplitude Keying Method with Repeater Jammer.....	204
<i>Osman Bağcı, Fatih Kılınç, Recep Akif Taşçı, Mehmet Kemal Özdemir</i>	
Improvements on a Multi-Task BERT Model	208
<i>Mahmut Agral, Selma Tekir</i>	
Radar Cross Section Studies of Low Signature UAVs in X-Band: Simulation, Measurement and Performance Evaluation	212
<i>Dizdar Ünalır, Bengisu Yalçınkaya Gökdoğan, Elif Aydin</i>	
Classification of Fighter Jets with Radar HRRP Data and Machine/Deep Learning Methods.....	216
<i>Sedat Türe, Selçuk Paker</i>	
Advanced Customer Churn Prediction Using Machine Learning	220
<i>Gizem Yüzer, Zeynep Sena Tinaz, Erva Yurtbaş, Değer Ayata</i>	
Review of Hierarchical Transfer Learning Architecture in Low-Resource Machine Translation.....	224
<i>Bilge Kağan Yazar, Erdal Kılıç</i>	
Graph-Based Biomedical Knowledge Discovery	228
<i>Osman Altuner, Burcu Bakır-Gungor, Gokhan Bakal</i>	
Adaptive Beamforming Based on Recurrent Deep Learning for GNSS Bands.....	232
<i>İrem Aras, İşin Erer, Eren Akdemir</i>	
Application of Vector Based Memory Prompt Engineering Using Personality Psychology in Language Model of Conversational Interfaces.....	236
<i>Evren Dağlarlı, Erke Aribas</i>	
Automatic Modulation Recognition with Deep Learning Algorithms.....	240
<i>Ayşenur Çamlıbel, Bahattin Karakaya, Yeşim Hekim Tanç</i>	
A Novel Part-Based Benchmark for 3D Object Reconstruction.....	244
<i>Merve Gül Kantarci, Berk Gökberk, Lale Akarun</i>	
Optimization of Charging Prediction in Electric Vehicle Fleets: An Integrated Approach with EdgeAI and Data Flow Pipelines.....	248
<i>Enes Sevim, Utku Evren Dalgıç, Metin Yılmaz, Eyüp Çınar, Ahmet Yazıcı</i>	
Sentiment Relation Detection Between Main Characters in Turkish Stories	252
<i>Samir Ganbarlı, Banu Diri</i>	
Architectural Works of the Early Republic Period from an Artificial Intelligence Perspective.....	256
<i>Emirkan Burak Yılmaz, Yusuf Sinan Akgül, Funda Tan</i>	
Object Recognition Using Deep Learning Algorithms and Ultrasonic Signals	260
<i>Ahmet Karagöz, Gökhan Dindiş</i>	
Comparative Analysis of Quantization Optimizations for Single-Image Super-Resolution Models.....	264
<i>Alparslan Fişne, Alperen Kalay, Bahri Batuhan Bilecen</i>	
Machine Learning-Based Crop Yield Prediction by Data Augmentation	268
<i>Alper Balmumcu, Koray Kayabol, Esra Erten</i>	

Spoofed GPS L1 Carrier C/A Code Manipulation Attack	272
<i>Mustafa Tanış, Müştak Erhan Yalçın</i>	
Operation Altitude Optimization of Airborne FSO Links in the Presence of Pointing Errors.....	276
<i>Mohammed Elamassie, Murat Uysal</i>	
Comparison of Machine Learning Methods in Assessing Druglikeness of Chemical Molecules: Example of Lipinski Descriptors and Lipinski Rules	280
<i>Anıl Kuşçu, Mehmet Sarigül</i>	
Metagenomic Data Analysis with Machine Learning to Discover Colorectal Cancer-Associated Enzymes	284
<i>Nur Sebnem Ersöz, Cihan Kuzudisli, Malik Yousef, Burcu Bakır-Gungor</i>	
Secrecy Outage Performance of SWIPT-NOMA Network with Alamouti/MRC	288
<i>Büşra Demirkol, Oğuz Kucur, Güneş Karabulut Kurt</i>	
Prediction of Type 2 Diabetes Using Metagenomic Data and Identification of Taxonomic Biomarkers	292
<i>Mustafa Temiz, Cihan Kuzudisli, Malik Yousef, Burcu Bakır-Gungor</i>	
A Comparative Study with Human Data: Do LLMs Have Superficial Language Processing?	296
<i>Onur Keleş, Nazik Dinçtopal Deniz</i>	
Coverage Area Estimation Based on Convolutional Neural Networks	300
<i>Ügür Erbaş, Tahir Bekiryazıcı, Gürkan Aydemir, Mehmet Barış Tabakçıoğlu</i>	
Novel Neuromorphic Computing Elements Using Phase Change Memory Devices	304
<i>Orkun Hasekioglu, Atilla Hasekioglu, Adil Ozturk</i>	
Optimization of Compact Microstrip Monopole Antenna Parameters with NS-RFO and Artificial Intelligence in Antenna Design.....	308
<i>Semih Pak, M. Tahir Güneşer, Cihat Şeker</i>	
Computation of Periodicities for Geomagnetic and Solar Indices Using Fourier Transformation	312
<i>İdrak Heybatlı, Feza Arıkan</i>	
Impactful Neuron-Based Secure Federated Learning.....	316
<i>Eda Sena Erdöl, Hakan Erdöl, Beste Üstübioğlu, Fatma Zehra Solak, Güzin Ulutaş</i>	
Investigation of Breast Cancer in Fabricated Breast Phantom Using Patch Antenna	320
<i>Aylin Zurnacı, Rasime Uyguroğlu, Wael Zeinabedeen, Ali Isin</i>	
A Study on the Segmentation and Classification of Diabetic Retinopathy Images Using the K- Means Clustering Method	324
<i>Ramazan İncir, Ferhat Bozkurt</i>	
Routing with Pickup and Delivery Via Deep Reinforcement Learning.....	328
<i>Özge Aslan Yıldız, İnci Sarıçık, Kemal Özkan, Ahmet Yazıcı</i>	
ANN Based RF Energy Harvesting Antenna Design	332
<i>Hakki Hakan Sözen, Beyza Kanboz, Merih Palandöken</i>	
Experimental Demonstration of an Optic-DAC Based Transmitter Structure.....	336
<i>Oğuzhan Başer, Mehmet Ali Küçük, Cenk Albayrak, Kadir Türk</i>	

Analysis of Viewpoint Dependency in Gait Recognition	340
<i>Dağlar Berk Erdem, Berk Gökberk</i>	
Analysis of Global Positioning System Spoofing Methods.....	344
<i>Umut Berkay Dokumacı, Barış Yükselkaya</i>	
Physical Layer Security with MIMO-Generalized Space Shift Keying Modulation Technique in Li-Fi Systems	348
<i>Sümeyra Hassan, Erdal Panayırıcı</i>	
mmWave Frequency Modulated Continuous Wave Radar-Based Human Action Recognition.....	352
<i>Zehra Bilici, İlhan Aytutlu, Yakup Genc, Yusuf Sinan Akgül</i>	
Diabetic Retinopathy Diagnosis with Image Processing	356
<i>Mehmet Alper Şahin, Ömer Faruk Beyca</i>	
Maximally Selective Fractional Fourier Pooling.....	360
<i>Emirhan Koç, Yunus Emre Ekiz, Haldun Özaktaş, Aykut Koç</i>	
Comparative Analysis of Fusion Techniques for Integrating Single-Cell Multiomics Datasets.....	364
<i>Mehmet Burak Koca, Fatih Erdoğan Sevilgen</i>	
Detecting Audio Forgery with Rasta -PLP	368
<i>Ali Hatipoğlu, Beste Üstübioğlu, Arda Üstübioğlu, Güzin Ulutaş</i>	
Design of a Motion Table for Experimental Verification of Pointing Error in FSO Systems.....	372
<i>Hasan Tahsin Toplар, Murat Uysal</i>	
Identification of Neurological Markers of Sarcopenia Disease Using Functional Near-Infrared Spectroscopy and Machine Learning.....	376
<i>Bora Mert Şahin, Süveyda Şanlı, Kübra Erdoğan, Mahmut Esad Durmuş, Özgür Kara, Bayram Kaymak, Murat Kara, Aykut Eken</i>	
DeepTDOA: Direction Finding Using Deep Learning on Distributed TDOA-Based Systems in the Presence of Time Offset	380
<i>Mehmet Altan Toksoz, Mustafa Küçük, Mustafa Atahan Nuhoglu, Berkin Yıldırım</i>	
A Closed Form Solution for Source Localization Using Change in Rate of Phase Difference	384
<i>Mustafa Atahan Nuhoglu, Hakan Ali Çirpan</i>	
Time Offset Estimation in Distributed TDOA-Based Direction Finding Systems	388
<i>Mehmet Altan Toksoz, Mustafa Atahan Nuhoglu, Berkin Yıldırım, Mustafa Kucuk</i>	
Performance Investigation of TDOA-Based Positioning System Deployed on UAVs.....	392
<i>Burak Ahmet Çelebi, İbrahim Hökelek, Ali Görçin, Mehmet Nuri Akinci</i>	
Enhancing Address Data Integrity Using Transformer-Based Language Models	396
<i>Ömer Faruk Kürklü, Erdem Akagündüz</i>	
Seasonality Aware Topological Graph Neural Network for Recommender Systems	400
<i>Cevher Özden, Alper Özcan</i>	
Anomaly Detection in Hyperspectral Images with High Dimensional Model Representation	404
<i>Derya Bodur, Evrim Korkmaz Özay, Burcu Tunga</i>	
Automatic Recognition of Baby Crying Sounds	408
<i>İbrahim Gülmез, M. Yasin Kayan, M. Fatih Demirci</i>	

Social Network Analysis of Keywords Used in Associate Professorship Applications.....	412
<i>Gülşen Ertuş, Yusuf Yargı Baydilli</i>	
Wide-Angle Scanned Microstrip Rotman Lens Design in X Band	416
<i>Yasemin Estekin, Birsen Saka</i>	
Stacked Causal Convolutional Autoencoder Based Speech Compression Method	420
<i>Tahir Bekiryazici, Gürkan Aydemir, Hakan Gürkan</i>	
Estimating Bent Photonic Crystal Fiber-Based Surface Plasmon Resonance Sensor Properties from Non-Bent Data.....	424
<i>Evren Yılmaz Kızılıkaya, Cem Kalyoncu, Ahmet Yaşı</i>	
Reinforcement Learning Based Cardiac Ultrasound Video Summarization Using Weak Supervision and Proximity Reward.....	428
<i>Ali Çoban, Ceren Guzel Turhan, Duygu Sarikaya</i>	
Empowering Military Vehicle Detection and Classification with YOLOv8 Model Askeri	432
<i>Abdulfattah E. Ba Alawi, Hussein M. A. Mohammed</i>	
Terahertz Photoconductive Antenna Array with Beam Steering and Time-Domain Analysis for 6G and Beyond.....	436
<i>Ahmet Canberk Songur, Ahmet Oğuz Sakın, Mehmet Ünlü</i>	
Classification of Power Quality Disturbances Using Welch-Based Power Spectral Density Features.....	440
<i>Berkis Eristi</i>	
Development of Intelligent Ground Control Station and Autopilot Architectures for UAVs and UGVs.....	444
<i>Emre Çinttaş, Barış Özyer</i>	
Nesne Seçme İçin Beyin Bilgisayar Arayüzü Brain Computer Interface for Object Selection	448
<i>Aleyna Nur Aydağ, Gamze Kantar, Can Aksoy, Nihan Alp, Hüseyin Özkan</i>	
Aircraft Touchdown Detection Using Empirical Mode Decomposition.....	452
<i>Hasan Özkaya, Ufuk Sakarya</i>	
ABC Algorithm Based System Identification Method for Three Degrees of Freedom Helicopter Model	456
<i>Kübra Çiftçi, Engin Hasan Çopur, Hasan Hüseyin Bilgiç</i>	
Real-World Super-Resolution with Residual Consistency	460
<i>Erdi Saritaş, Hazım Kemal Ekenel</i>	
Accuracy-Increasing and Vulnerability-Reducing Improvements in Solar Power Systems' Glare Analysis.....	464
<i>Mehmet Zahid Kartal, Ergin Gökkaya, Ergin Gökkaya</i>	
Clustering and Optimization Based Solutions to Estimate the Range to Tracking Radar	468
<i>Serkan Uçan, Mustafa Atahan Nuhoglu, Bevan Deniz Çilgin, Hakan Ali Çırpan</i>	
Wavelet Knowledge Distillation for Efficient Stain Normalization in Digital Histopathology.....	472
<i>Sefa Keklik, Murat Ekinci, Elif Baykal Kablan</i>	
Direction of Arrival Estimation in Autocorrelation Domain with Deep Learning and Autoregressive Modelling	476
<i>Serkan Ceran, Işın Erer</i>	

Traveling Salesman Problem as a Markov Process and Distribution of Solutions: Case Study	480
<i>Nurhan Güneş, Mustafa Yılmaz</i>	
A Near Field Shooting and Bouncing Method Scheme for Estimating VOR System Bearing Error	484
<i>Sumeyye Taşkan Kolat, Uğur Saynak, Hüseyin Arda Ülkü</i>	
Induced Current Electro-Thermal Imaging in a Realistic Breast Model: A Numerical Study.....	488
<i>Volkan Tanrıverdi, G.N. Gençer</i>	
Online Route Analyzer (ORA): Runtime Verification Service for Routing Optimization of Electric Vehicles	492
<i>Serhat Kahraman, İrem Güneş, Yunus Sabri Kirca, Metin Özkan, Ahmet Yazıcı</i>	
Detection of Epileptic Seizures from EEG Data Using CEEMD Algorithm.....	496
<i>Ulvi Başpinar, Şeyma Yol, Müberra Aydin, Rezzan Gülhan, Zeynep Us</i>	
Discrete Phase Reconfiguration of Intelligent Reflecting Surfaces Via Deep Learning.....	500
<i>Yasin Emre Tok, Ali Murat Demirtaş</i>	
Comparison of Performances for Computerized Ionospheric Tomography Methods	504
<i>Sinem Deniz Yenen, Feza Arıkan, Orhan Arıkan</i>	
Prediction of OSNR in a 7-Channel DWDM/UDWDM Transmission System Under the Combined Effects of FWM, SRS and ASE.....	508
<i>Kübra Kılınçarslan, Sait Eser Karlık</i>	
Airborne RF Emitter Localization Via Phase Difference Rate of Change.....	512
<i>AK Ahmet, Yakup Özkarancı</i>	
Segmentation of Cell Nuclei in Histology Images with Vision Transformer Based U-Net Models	516
<i>Serdar Yıldız, Abbas Memiş, Songül Varlı</i>	
Semantic and Instance Segmentation of Multi-Organ Cell Nuclei Using Deep Learning Based Methods.....	520
<i>Serdar Yıldız, Abbas Memiş, Songül Varlı</i>	
Turkish Image Captioning with Vision Transformer Based Encoders and Text Decoders	524
<i>Serdar Yıldız, Abbas Memiş, Songül Varlı</i>	
Automatic Data Augmentation for Cooking Videos.....	528
<i>Yunus Emre Özköse, Pınar Duygulu</i>	
Polarization Classification with Artificial Neural Network in Electronic Warfare Systems.....	532
<i>Beste Dumluçınar, Sinem Deniz Yenen, Gülşen Çelebi Şeker</i>	
Copy-Move Audio Forgery Detection with Instantaneous Frequency	536
<i>Muhammed Kılıç, Güл Tahaoğlu, Beste Üstübioğlu, Arda Üstübioğlu, Güzin UlutAŞ</i>	
Radar Resource Management in Active Protection Systems.....	540
<i>Abdulmenaf Erdem, Yasin Genc, Cagatay Korkuc, Ahmet Akkoc, Erkan Afacan, Erdem Yazgan</i>	
Distinguishing Cognitive Processes: A Machine Learning Approach to Decode fNIRS Data for Third- Party Punishment and Credit Decision-Making	544
<i>Gözde Filiz, Semen Son, Alperen Sayar, Seyit Ertuğrul, Türkay Şahin, Güçlü Akyürek, Ozan Erözden, Yener Girişken, Tuna Çakar</i>	

Development of PDMS Nanocomposite Polymer for Optical Waveguide Applications	548
<i>Mediha Tutgun, Çiğdem Tuç Altaf, Ahmet Karatay, Ahmet Arif Varsak, Elif Yıldız</i>	
Vision Transformers for Single Image Specular Highlight Detection	552
<i>Levent Karacan</i>	
Few-Shot Audio Classification Using Contrastive Training.....	556
<i>Enes Furkan Çigdem, Hacer Yalim Keles</i>	
Classification of Ionospheric Disturbances Using Long Short Term Memory Algorithm.....	560
<i>Saide Eda Gül, Secil Karatay, Feza Arikán</i>	
Feature Enrichment Via Similar Trajectories for XGBoost Based Time Series Forecasting.....	563
<i>Elif Yılmaz, Ümit İslak, Tuna Çakar; İlker Arslan</i>	
Improving the Explain-Any-Concept by Introducing Nonlinearity to the Trainable Surrogate Model	567
<i>Moune Zaval, Sedat Ozer</i>	
Different Isolation Approaches in Reconfigurable Antenna Design with Even and Odd Modes	571
<i>Eren Kuş, Sedat Aydincik, Kamil Karaçuha</i>	
Imaging of Reinforced Concrete Structures Using Radar	575
<i>Cem Arda Yıldırım, Orhan Apaydın, Selçuk Paker, İşin Erer</i>	
Human Movement Personality Detection Parameters	579
<i>Sinan Sonlu, Yalın Doğan, Arçin Ülkü Ergüzen, Musa Ege Ünalan, Serkan Demirci, Funda Durupınar, Uğur Güdükbay</i>	
Detection of Autism Spectrum Disorder Using Deep Learning Methods on Human Microbiota Data.....	583
<i>Serhat Agit Satıcı, Habil Kalkan</i>	
Performance Evaluation of Passive and Active Intelligent Reflecting Surfaces Assisted OMA and NOMA Systems.....	587
<i>Bilal Karaman, İlhan Baştürk, Sezai Taşkin</i>	
Damaged Building Detection from Post-Earthquake Drone Images Using Deep Learning.....	591
<i>Beyza Gürer, Mine Elif Karşılıgil</i>	
Vehicle Direction Classification System	595
<i>Serkan Uysal, İrem İşlek, Çağla Çığ Karaman</i>	
Dynamic Feature Weighting Layer in Artificial Neural Networks	599
<i>Can Özbeý, Emre Kaplan, Müslüm Ersel Er</i>	
Classification of Breast Cancer Molecular Subtypes with Grouping-Scoring-Modeling Approach that Incorporates Disease-Disease Association Information.....	603
<i>Emma Qumsiyeh, Burcu Bakır-Gungor, Malik Yousef</i>	
A Novel Attention-Based ConvMixer Model for Enteroscope Biopsy Histopathological Images	607
<i>Hussein M. A. Mohammed, Aslı Nur Ömeroğlu</i>	
Examining the Effect of Color Spaces on Histopathological Image Segmentation with the SHAP Explainable AI Method.....	611
<i>Omer Faruk Karaaslan, Gökhan Bilgin</i>	
RISC-V Simulator Library for Real-Time Applications: Development and Verification	615
<i>Utkucan Doğan, Alperen Koyun, Suleyman Samet Yalçın, Ece Güran Schmidt</i>	

Active-Only Meminductor Emulator Circuit.....	619
<i>Hacer Atar Yıldız</i>	
Image Stitching Evaluation by Object Detection and Geometric Transformation in Retail	623
<i>Nermin Uzay, Onur Aydemir, Azmi C. Özgen, Mehmet Kayaoğlu, Server Calap, Lütfü Çakıl</i>	
An Approach for RCS Estimation Based on SBR Implemented on GPU	627
<i>Ergin Gökkaya, Uğur Saynak</i>	
Studying Generalization Performance of Random Feature Model Through Equivalent Models	631
<i>Samet Demir, Zafer Doğan</i>	
Wet-Ink Signature Forgery Detection Using Siamese ResNeXt.....	635
<i>Serkan Can Çağlayan, Şevval Uyanık, Nurullah Çalık</i>	
Interpolation Based Distributed Learning	639
<i>Mehmet Akalış, Mehmet Fatih Amasyali</i>	
Reflection Curves and Machine Learning-Based Tissue Characterization for Early Diagnosis of Breast Cancer with Microwave Imaging	643
<i>İremnur Duru, Nurhan Güneş, Timuçin Emre Tabaru</i>	
Multi-Person Respiration Monitoring During Sleep	647
<i>Can Uysal, Mertkan Karakaya, Elif Karakaş</i>	
The Effects of Infrared Sensor Wavelength on Panchromatic Image Colorization Performance	651
<i>Süleyman Emir Akin, Toygar Akgün</i>	
Correlation Analysis Between Vital Signs of Patients in Intensive Care Unit.....	655
<i>Fırat Fuat Olcay, Dilek Göksel Duru</i>	
Secrecy Rate Maximization for Indoor Multi-Color VLC Systems	659
<i>Besra Çetindere Vela, Cenk Albayrak, Kadir Türk</i>	
Conformal Antenna Array Design for LEO-To-GSO Satellite Communications.....	663
<i>Ümit Güler, Tansu Filik, Alper Çabuk</i>	
Modeling Crosstalk Coefficients in Orbital Angular Momentum-Multiplexed FSO Channels Under Gaussian Pointing Errors	667
<i>Mohammed Elamassie, Maysa Yaseen, Salama S. Ikki, Murat Uysal</i>	
Classification of Moving Ground Targets Using Accelerometer and Microphone Data	671
<i>İsmail Can Büyüktepe, Kürsat İnce, Ali Köksal Hocaoglu</i>	
Classification of Spyware from Network Packets with Decision Trees Using Recursive Feature Elimination (RFE)	675
<i>İrfan Kılıç, Orhan Yaman</i>	
Accurate Segmentation of Brain Tumors in Magnetic Resonance Images with Pyramid Stage Decomposition Network Approach	679
<i>Berna Gürler Ari, Hüseyin Üzen, Abdulkadir Şengür</i>	
Federated Learning Resistant to Byzantine Attacks with Quantil-Based Statistical Propagation	683
<i>Fatma Zehra Solak, Beste Üstübioğlu, Eda Sena Erdöl, Güzin Ulutaş, Yazılım Mühendisliği, Bilgisayar Mühendisliği</i>	

Brain Changes in Attention Deficit Hyperactivity Disorder: Volumetric MRI Study	687
<i>Zeynep Tuğçe Karamustafa, Hayriye Aktaş Dinçer</i>	
Exploring the Newly Introduced Data Augmentation Technique in TensorFlow Library	691
<i>Onur Ardiç, Gökçen Çetinel</i>	
User-Centric Visible Light Communication	695
<i>Kardelen Horunlu, Yasin Celik</i>	
Consumer Preference Estimation Using EEG Signals and Deep Learning	699
<i>Burak Ceylan, Yalçın Çekiç, Aydin Akan</i>	
Multi-Model Stacking Ensemble Approach for Improving Oral Cancer Diagnosis.....	703
<i>Berrin Beyza Özen, Fadime Karadaş, Abdulfattah Ba Alawi</i>	
Comparison of Six Different Dielectric Substrates in Microstrip Patch Antenna Design	707
<i>Fatih Göksel, Saeid Karamzadeh</i>	
Design of an Efficient RF Energy Harvesting Antenna for GSM1900 and LTE2100 Bands	711
<i>Beyza Kanboz, Hakkı Hakan Sözen, Merih Palandöken</i>	
Analysis of ZnO Diaphragm for Acoustic Sensor Applications	715
<i>Gamze Bayırbağ, İremnur Duru, Timuçin Emre Tabaru</i>	
Scene Text Recognition Using Permutated Autoregressive Sequence Model and YOLOv8.....	719
<i>Berna Gürler Ari, Zafer Cömert</i>	
Modeling the Sprott E Chaotic System with HAVOK Analysis.....	723
<i>Osman Alparslan Soysal, Gülnur Yılmaz Bingöl, Enis Günay</i>	
Modelling of Ionospheric Trend During High Solar Activity Years for Turkey and the Balkans.....	727
<i>Sölen Kumbay Yıldız, Feza Arıkan</i>	
Robust Point Tracking Based on Image Matching and Machine Learning on Video Images Taken from Fast Moving Camera.....	731
<i>Ali Güven, İmam Şamil Yetik</i>	
Location-Based Performance Management of Sales Teams.....	735
<i>Hande Kastan, Kerem Kaşıkçı, Remziye Güneş, Melih Güven, Murat Koraş, Barış Akgün, Mehmet Gönen</i>	
Low Complexity RCP-OTFS Systems with Fractional Doppler Shifts.....	739
<i>Hüseyin Samet Kara, Ahmet Serbes, İbrahim Hökelek, Ali Görçin</i>	
Robust Brain Tumor Segmentation with Deep Residual Supervision and Mixed Precision Training.....	743
<i>Fuat Arslan, Melih Berk Yılmaz, Tolga Cukur</i>	
Moving Target Detection in SAR GMTI Application Using Gap Statistics and k-NN	747
<i>Mücahit Enes Eker, Osman Karabayır, Mesut Kartal</i>	
An Automatic Fuel Dispensing System Using YOLOv5-Based Vehicle Identification: A Real-Life Application	751
<i>Gokhan Azizoglu, Ahmet Nusret Toprak, Sedat Akkaya</i>	
System Design and Analysis for Vital Sign Detection Using Ultra Wide Band Radar.....	755
<i>Yusuf Salih Gurbet, Burak Baykal, Özgür Özdemir</i>	

Solar Energy Production Estimation in Distribution Networks with Limited Number of Measurements.....	759
<i>Özgür Arda Küçükaslan, Murat Göl</i>	
Outage Probability Analysis of Triple-Hybrid RF/FSO/THz Communication System.....	763
<i>Emre Berker Bakırçı, Evla Safahan Ahrazoğlu, İbrahim Altunbaş, Eylem Erdoğan</i>	
Meta-Heuristic Supported Feature Selection in Classification Algorithms for Diabetes Diagnosis.....	767
<i>Gözde Alp, Fatih Soygazi</i>	
Image Manipulation Detection Using Residual and Dense Connection-Based Deep Learning Models.....	771
<i>Rukiye Karakış, Kali Gürkahraman, Emre Ünsal</i>	
Comparative Analysis of Computational Intelligence Techniques in Financial Forecasting: A Case Study on ANN and ANFIS Models	775
<i>Erman Özer, Nurullah Sevinçkan, Erdem Demiroğlu</i>	
Determination of Alzheimer's Disease Levels by Ordinal Logistic Regression and Artificial Learning Algorithms.....	779
<i>Nurgül Bulut, Tuna Çakar, İlker Arslan, Zeynep Karaoglu Akinci, Kevser Setenay Öner</i>	
Information Extraction from Sustainability Reports in Turkish Through RAG Approach.....	783
<i>Ozgur Ardic, Mahiye Uluyagmur Ozturk, Irem Demirtas, Secil Arslan</i>	
Interpretable Algorithm for Diagnosing Myocardial Infarction from Electrocardiography Data.....	787
<i>Bariş Özcan, Yakup Genç, Yusuf Sinan Akgıl</i>	
Coherence Analysis of Surface Electromyography Signals of Facial Mimic Muscles.....	791
<i>Veysel Alcan, Mehmet Şeker</i>	
Performance Evaluation of 5G RAN Slicing in Terms of Physical Resource Usage	795
<i>Aykut Çubukçu, Özlem Çubukçu, Adnan Kavak, Kerem Küçük</i>	
SDN and NFV Based Dynamic QoS Management for 5G and Beyond Networks	799
<i>Özlem Çubukçu, Aykut Çubukçu, Adnan Kavak, Kerem Küçük</i>	
Indoor Measurements of Reconfigurable Intelligent Surfaces in 5G Millimeter-Wave Networks.....	803
<i>Cemil Karakuş, Hakan Koçak, Sefa Kayraklık, Samed Keşir, Zehra Yiğit</i>	
Reliability Study of Psychometric Tests in a Credit Scoring Model	807
<i>Şahin Nicat, Gözde Filiz, Özden Gebizlioglu Özbural, Tuna Çakar</i>	
Industrial Fault Detection and Classification with the Optimal Windows Size Approach	811
<i>Ömer Ayana, Ali İnan</i>	
Class-Incremental Continual Learning for Human Activity Recognition with Motion Sensors	815
<i>Ahmet Yıldırım, Özlem Durmaz İncel</i>	
An Evaluation of AES Encryption Modes on Data Transmission Performance in Distributed Systems.....	819
<i>Bilal Aydos, İbrahim Onuralp Yiğit, Kemal Candan, Oğuz Yusuf Bolata, Selçuk Altınay</i>	
Frequently Asked Question Retrieval Problem: A Text Classification Approach.....	823
<i>Sıtkı Can Toraman, Mustafa Erden</i>	

Deep Learning Approach to Improve Breast Cancer Classification for Screening Mammography	827
<i>Fatemah Faraji, Gokhan Bilgin</i>	
The Effect of Surface Temperature on Infrared Reflections in a Thermal Image.....	831
<i>Duru Bektas, Melike Girgin, Tayfun Akgül</i>	
Gemi Pervane Tonellerinin Sezimi Detection of Ship Propeller Tonals	835
<i>Eren Taha Yüzgeç, Melike Girgin, Umut Firat, Hüsne Altıok, Tayfun Akgül</i>	
Enhancing Road Scene Visibility by Removing Sun and Headlight Glare in ADAS Camera Images with Image Fusion	839
<i>Ahmet Haydar Erdem, Aysun Tasyapi Celebi</i>	
Response Performance Evaluations of ChatGPT Models on Large Language Model Frameworks.....	843
<i>Alper Kaplan, Ismail Utku Sayan, Hüseyin Şahan, Emre Begen, Ahmet Tuğrul Bayrak</i>	
Anomaly Detection in Stock Market Transactions: A Comparison of Deep Learning Methods	847
<i>Sultan Ceren Öner, Hüseyin Şahan, Melike Demirdağ, Ahmet Tuğrul Bayrak</i>	
Time-Frequency Representations of Classical Spectrum Estimation Methods for Micro-Doppler Analysis of Variable Wing Number Helicopters.....	851
<i>Deniz Can Acer, Mücahit Hüseyin Özdelekler, Tayfun Akgül</i>	
A DIS Attack Resistant Algorithm for RPL Routing Protocol in 6TiSCH Networks	855
<i>Hakan Aydin, Burak Aydin</i>	
Evaluating Public Sentiments About Turkish Universities Through Twitter Using Deep Learning Techniques.....	859
<i>Abdulfattah E. Ba Alawi, Ferhat Bozkurt</i>	
Autonomous TDOA Localization Via Swarm UAV Concept.....	863
<i>Atakan Yiğit, Ali Osman Kalaycý, Eren Akdemir</i>	
A ³ L-FEC-FSFB: Age-Aware Application Layer Forward Error Correction with Fixed Sampling Rate and Fixed Block-Length.....	867
<i>Sajjad Baghaee, Elif Uysal</i>	
Selecting Augmentation Methods for Domain Generalization and Out-Of-Distribution Detection Using Unlabeled Data.....	871
<i>Ülkü Tuncer Küçüktaş, Fatih Uysal, Fırat Hardalaç</i>	
Detection of Autism Spectrum Disorders from EEG Signals Using Multi-Input One-Dimensional Convolutional Neural Networks.....	875
<i>Bilal Karakaya, Abdulkadir Şengür</i>	
Feature Engineering to Detect People Behind Walls Using UWB Sensor	879
<i>Zainab Malik, Ziya Cihan Taysi, M. Elif Karsligil</i>	
Deterministic RG-Trees Via Voronoi Diagrams	883
<i>Ferhat Gölbol, Klaus Werner Schmidt</i>	
Development of Context-Sensitive Formulas to Obtain Constant Luminance Perception.....	887
<i>Ergun Akleman, Bekir Tevfik Akgün, Adil Alpkocak</i>	
Deep Learning Based Determination of Graf Standart Plane on Hip Ultrasound Scans	891
<i>Baran Pelit, Huseyin Abay, Burhan Bilal Akkas, Aysun Sezer</i>	

Explainable Profiling Attacks on Ethereum Blockchain Users Based on Volumetric and Temporal Behaviour	895
<i>Yasir Kılıç, Ali İnan</i>	
Detection of Vital Signs in Debris Environment Using SFCW Radar.....	899
<i>Bařış Yilmaz, Fikriye Öz, Işın Erer, Süleyman Baykut</i>	
Experimental Demonstration of a Compact Microwave Sensor for Liquid Dielectric Analysis	903
<i>Fulya Bagci, Baris Akaoglu</i>	
Polarization Purity, Jamming Power and Time-Sharing Analysis for Cross Polarization Jamming	907
<i>Baran Kirdar, Ahmet Uslu</i>	
Channel Modeling of Reconfigurable Intelligent Surface-Aided Underwater Acoustic Communication System.....	911
<i>Cagatay Edemen, Mhd Tahssin Altabbaa, Murat Uysal</i>	
Detection of Asphalt Pavement Cracks with YOLO Architectures from Unmanned Aerial Vehicle Images	914
<i>Ebrar Ödübek, Muhammed Enes Atik</i>	
Detection and Analysis of Photovoltaic Panel Faults Using Thermographic Infrared Images and Deep Learning Methods	918
<i>Volkan Yamaçlı</i>	
Super Resolution MRI Via Upscaling Diffusion Bridges.....	922
<i>Muhammad Usama Mirza, Fuat Arslan, Tolga Çukur</i>	
Enhancing Trip Suggestions with Deep Learning Based Recommender System.....	926
<i>Necati Erkal, Nurdan Saran</i>	
Generalizable Deep MRI Reconstruction with Cross-Site Data Synthesis.....	930
<i>Valiyeh Ansarian Nezhad, Gökberk Elmas, Fuat Arslan, Bilal Kabaş, Tolga Çukur</i>	
Wireless Charge Control System for Non-Terrestrial Networks	934
<i>Ali Arsal, Fahrettin Doğan</i>	
Optimization of the SPHINCS+ PQC Algorithm with Custom Instructions and LLVM Integration on a RISC-V Processor.....	938
<i>Mert Paşa Çukur, Ece Olcay Güneş</i>	
Multi-Tier Non-Terrestrial Networking for Disaster Communications: A Layered Clustering Approach	942
<i>Metin Ozturk, Berk Çiloğlu, Görkem Berkay Koç, Halim Yanikomeroglu</i>	
Generating Automatic Surgical Captions Using a Contrastive Language-Image Pre-Training Model for Nephrectomy Surgery Images.....	946
<i>Sevdenur Küttük, Tuba Çağlıkantar, Duygu Sarıkaya</i>	
Determining Sauter Mean Diameter Using Simple Optical Cell and Machine Learning Techniques.....	950
<i>Osman Özyurt, Muhammed Taha Kavlak</i>	
Classification Method of Plants with Support Vector Machine (SVM) Using Local Binary Gaussian Model (LBGP) for Smart Agriculture.....	954
<i>Irfan Kılıç, Orhan Yaman</i>	

Comparison of a Novel Time Delay Estimation Method with Generalized Cross-Correlation Models.....	958
<i>Selim Gökcan Karatop, Sultan Aldırmaz Çolak</i>	
Fall Detection Using Transformer and Pose Estimation.....	962
<i>Nermin Nur Aydoğan, Ertuğrul Cengiz, Murat Bal, Onur Eker</i>	
Automatic Unit Test Code Generation Using Large Language Models	966
<i>Akdeniz Kutay Öçal, Mehmet Keskinöz</i>	
Super Resolution with Deep Learning in Thermal Images.....	970
<i>Mehmet Can Öz, Tuğba Selcen Navruz</i>	
Secure Boot Design for a RISC-V Based SoC and Implementation on an FPGA.....	974
<i>Yasin Adıgüzeli, Sıddıka Berna Örs Yalçın</i>	
The Non-Terrestrial Communication Network Applications in Türkiye on the Way to 6G – Universal Project Phase 3	978
<i>Erdem Demircioğlu, Hasan H. Ertok, İlyas Çankaya</i>	
Motor Imagery Events Classification by Utilizing Covariance and Correlation Matrices Generated from Electroencephalogram Signals.....	982
<i>Salih Mendi, Sami Arica</i>	
Real-Time Multi-Object Tracking with YOLOv8	986
<i>Durmus Berk, Mert Adak, Berk Adak, Cansu Celik, Hasan F. Ateş</i>	
Neural Decoding of Brand Perception and Preferences: Understanding Consumer Behavior Through fNIRS and Machine Learning.....	990
<i>Tuna Çakar, Yener Girişken, Esin Tuna, Gözde Filiz, Yassine Drias</i>	
Multi-Contrast MR Image Synthesis with a Brownian Diffusion Model	994
<i>Bilal Kabas, Fuat Arslan, Valiyeh Ansarian Nezhad, Tolga Çukur</i>	
Sliding Mode Control Scheme with PID Sliding Surface for Dynamic Control of Autonomous Underwater Vehicle	998
<i>Handan Gürsoy-Demir</i>	
Visible Light Communication with Solar Cell Receiver for Indoor IoT Applications	1002
<i>Roozbeh Bonakdar, Cagatay Edemen, M. Emin Akbulut, Onur Keskin, Onur Kaya, Murat Uysal</i>	
Traffic Engineering Analysis of Middle Point Selection in Segment Routing	1006
<i>Murat İlter Yüksel, Müge Sayit</i>	
Visualization of Human Brain Network for the Analysis of Alzheimer's Disease	1010
<i>Gönül Günal Değirmendereli, Ulaş Sedat Aydin, Abdulla Ahmadkhan, Barış Türnükli Ve, Fatos T. Yarman Vural</i>	
XGBoost-Based QoE Prediction for Mobile Networks.....	1014
<i>A. Burak Dayı, Evren Tuna</i>	
Image Transformation for IoT-Based Anomaly Detection	1018
<i>Imran Bamus, Feyza Yıldırım Okay</i>	
Embedded Machine Learning System Design for Post-Earthquake Structural Health Assessment	1022
<i>Mustafa Erdem Tusun, Elif Mehlika Metin, Ferhat Tigrel, Cem Ünsalan</i>	

City-Level User Location Detection from Social Media and Analysis of Political Participation.....	1026
<i>Alp Önder Yener, Ali Najafî, Onur Varol</i>	
An Experimental Setup for Mechanical Vibration Analysis Using VLC.....	1030
<i>Ahmet Mücahit Yılmaz, Ali Boyacı, Ali Rıza Ekti, Serhan Yarkan</i>	
The Impact of Fine-Tuning in Embedding Models on Query-Dependent Retrieval Performance	1034
<i>Berkin Alkan, Onur Özcan, Yahya Bahadır Karataş, Muhammed Cihat Ünal, Oğuz Kolukısa, İsmail Karakaya, Alper Karamanlioğlu, Berkan Demirel</i>	
Conditional Handover for UAV-UEs.....	1038
<i>A. Burak Dayı, Aydanur Kayalar</i>	
System Identification of Extended Kalman Filter for LEO Satellite Orbit Motion	1042
<i>Seda Karadeniz Kartal, Esra Özbağ, Yağnur Yılmaz, Yasin Burak Kaya, Altan Akyol, Tayfun Dar</i>	
High Accuracy Detection of S and T Peaks in ECG Signals	1046
<i>Fatih Aydin, Sefer Usta, Mehmet Öztürk, Özge Aydogdu, Ezgi Kalaycioglu, Önder Aydemir</i>	
Estimation Method of Sound Speed for Photoacoustic Imaging Systems in 3-Layered Media	1050
<i>Hasan Akyürek, Ali Can Şahin, Özgür Özdemir</i>	
Safe Fault-Tolerant Clock Synchronization for Controller Area Network	1054
<i>Tan Çağatay Acar, Klaus Werner Schmidt</i>	
Calculation of Control Input Using Bilinear Interpolation Method in Unmanned Aerial Vehicles	1058
<i>Üzeyir Varlı, Onur Akbati</i>	
Unmixing Based Mucilage Analysis from GÖKTÜRK-I Data	1062
<i>Çağatay Esi, Alp Ertürk, Halim Aytekin Ergül</i>	
A 2-6 GHz Driver Amplifier with 27 dBm Output Power and 35 dB Gain.....	1066
<i>Engin Çağdaş, Oğuzhan Kızılbey, Metin Yazgı</i>	
CBWO: A Novel Load Balancing Technique for Cloud Computing Systems.....	1070
<i>Vahideh Hayyolalam, Öznur Özkasap</i>	
Detection and Analysis of Laser Spots with Known and Periodic Temporal Behavior on Video.....	1074
<i>Fatih Yavuz</i>	
Cyber Intrusion Detection Using Shallow Neural Network with Generalized Attack-Sharing Loss.....	1078
<i>Muhammed Cihat Ünal, Alper Karamanlioğlu, İsmail Karakaya, Berkan Demirel</i>	
Sarcasm Detection in News Headlines with Deep Learning	1082
<i>Zeynep Karkiner, Mustafa Sert</i>	
A New Energy Efficient and Antenna Selection Based Index Modulation Technique	1086
<i>Fatih Cogen, Burak Ahmet Ozden, Erdogan Aydin</i>	
Analysis of Interrupted SFCW Radar Data Corresponding to Living Targets Behind Obstruction	1090
<i>Buse Nur Fidan, Fikriye Öz, Mehmet Nuri Akinci, Süleyman Baykut</i>	
Uncovering Public Attitudes: Utilizing a PCA-Based Approach to Examine Anti-Immigrant Attitudes	1094
<i>Ubeyd Oktem</i>	

Cloverleaf Planar Antenna Designed for Synthetic Aperture Radar and Electronic Warfare Applications.....	1098
<i>Atakan Çağatay Bekdemir, Salih Mehmed Bostan</i>	
Evaluating Electrophysiological Responses Due to Identity Judgments	1102
<i>Tuna Çakar, Annette Hohenberger</i>	
Comparative Analysis of Deep Recurrent Neural Networks for Speech Recognition.....	1106
<i>Pascal Bahavu Atosha, Emre Özbilge, Yönal Kırsal</i>	
Detection of Voices Generated by Artificial Intelligence with Deep Learning Methods.....	1110
<i>Satuk Buğrahan Öztürk, Barış Özyer, Özgür Temiz</i>	
Gender-Specific Political Agendas: A Topic Modeling Analysis of Turkish Grand National Assembly Speeches	1114
<i>Ladin Toplu, Tuğçe Şahinyılmaz, Didem Gündoğdu</i>	
Statistically Improving K-Means Clustering Performance.....	1118
<i>Abdullah İhsanoğlu, Mounes Zaval</i>	
Comparison of Machine Learning Algorithms and Large Language Models for Product Categorization	1122
<i>Abdullah İhsanoğlu, Mounes Zaval, Olcay Taner Yıldız</i>	
Design of Microwave Frequency Selective Surface Operating in X-Band Using Ensemble Learning Algorithm	1126
<i>Begüm Filiz, Ernur Demirel, Esra Neriman Öz, Peyman Mahouti, Hasan Kiyik, Mehmet Ali Belen</i>	
An Effective Method for Determining Node Dominance Values: Malatya Centrality Algorithm.....	1130
<i>Furkan Öztemiz, Selman Yakut</i>	
Automatic Vehicle Accident Detection and Classification from Images: A Comparison of YOLOv9 and YOLO-NAS Algorithms	1134
<i>Ahmed Naji Musleh Nusari, Ibrahim Yucel Ozbek, Emin Argun Oral</i>	
GAN and Diffusion Based Speech Enhancement.....	1138
<i>Değer Ayata, Uğur Horasan</i>	
Correlating Cell Sizes with Spectral Analysis Methods in Photoacoustic Imaging.....	1142
<i>Berkay Mutlu, Sila Köksal, Zülal Çelik, Elif Yaprak Sarac, Ceren Çıracı, Özgür Özdemir</i>	
Assessment of Rain Attenuation in Satellite Telecommand Signals Using Numerical Weather Prediction Model and Artificial Neural Networks.....	1146
<i>Arif Armağan Gözütok</i>	
Feature Extraction Strategy for Runtime of MOT	1150
<i>Emirhan Bayar, Cemal Aker</i>	
Deep Convolutional Neural Network Based Antenna Scan Type Classification Using Power-Time Images	1154
<i>Mustafa Talha Bayram, Halim Sinan Balaban, Behçet Uğur Töreyin</i>	
Robot-Object Manipulation Failure Anticipation Using Knowledge Distillation	1158
<i>Tuğçe Temel, Arda İnceoğlu, Sanem Sariel</i>	

Safety Tracking System for Bathroom Shower Environment.....	1162
<i>Eren Ölmez, Mehmet Oktay Özsoy, Ramil Jabiiev, Beren Ansen, Umut Eren Aktürk, Ege Bora Oral, Can Soygür, Billur Barshan, Mehmet Alper Kutay, Yasemin Afacan</i>	
Optimization of Mixed Pooling Using Genetic Algorithm for Convolutional Neural Networks	1166
<i>Kali Gürkahraman, Rukiye Karakış</i>	
Otomatik Meibomian Bezi Ve Göz Kapağı Bölütlemesi.....	1170
<i>Öykü Diribaş, Volkan Okbay, Onat Akça, Ömer Mustafa Bilgiç, Nilüfer Yeşilirmak, Gözde Bozdağı Akar</i>	
Physical Activity Monitoring with Smartwatch Technology in Adolescents and Obtaining Big Data: Preliminary Findings	1174
<i>Gözde Filiz, Nilay Arman, Nuray Aktay Ayaz, Asena Yekdaneh, Asya Albayrak, Tunahan Bozkan, Tuna Çakar</i>	
Machine Learning in Triassic Paleogeography for Fossil Fuel Extraction Site Discovery	1178
<i>Batiray Erbay, Özlem Şahin</i>	
Improvements of Slotted Waveguide Antennas with Wing Structures for S-Band Applications.....	1182
<i>Merna Tanbkji, Fulya Bagci, Baris Akaoglu</i>	
Predicting Phenological Stages with Deep Neural Network Models to Increase Efficiency in Tomato Production	1186
<i>Fatma Azizoğlu, Gökhan Azizoğlu, Ahmet Nusret Toprak, Cevdet Sağlam</i>	
The Application of Two Bayesian Personalized Ranking Approaches Based on Item Recommendation from Implicit Feedback	1190
<i>Burak Tağtekin, Zeynep Şahin, Tuna Çakar, Yassine Drias</i>	
Low-Light Image Enhancement Using Attention Mechanisms on Edge-Connect Architecture.....	1194
<i>Muhammet Nuri Dudak, Büşra Söylemez, Serdar Çiftçi</i>	
Conceptual Design of Starlink Based Radio Locationing System.....	1198
<i>Doğukan Kök, Yakup Özkanç</i>	
Numbering of Teeth in the Mixed Dentition Stage Using Deep Learning.....	1202
<i>Altuğ Hamdi Altuntaş, Ayhan Küçükmanısa, Oğuzhan Urhan</i>	
Reshaping Active Sensing Via Closing a Feedback Loop Around Free Behavior.....	1206
<i>Sinan Topçakar, Emin Yusuf Aydin, Alp Demirel, İsmail Uyanık</i>	
Autoencoder-Based Enhanced Joint Delay-Doppler Index Modulation for OTFS Modulation.....	1210
<i>Yusuf Islam Tek, Ertugrul Basar</i>	
Detection of Mucilage Bloom in the Sea of Marmara from PRISMA Satellite.....	1214
<i>Kemal Gürkan Toker, Seniha Esen Yiğit Erdem</i>	
Sea Clutter Analysis at 10 GHz for Vertical and Horizontal Polarizations.....	1218
<i>Zeynep Albayrak, Nursel Akçam</i>	
Design of a Symmetrical Lattice Type Phase Shifter for 5G and Beyond Communication Systems	1222
<i>Merve Kılınç, Sedat Kılınç, Fırat Kaçar, B. Siddik Yarman</i>	
MinNet Based Contactless Fingerprint Matching Method	1226
<i>Yusuf Artan</i>	

Viscosity Measurement in Microfluidic Chips Via Fast Fourier Transform (FFT)	1230
<i>İlyar Jafari, Onur Ferhanoğlu, Ahmet C. Erten</i>	
Hand Movement Classification with Four Channel EMG Signals for Underactuated Hand Prosthesis Test Platform	1234
<i>Atila Yılmaz, Barış Büyükyılmaz, Hasan Can Sert, Oğulcan Uğuroğlu, Ayber Eray Algünler</i>	
Comparative Analysis of Vision Transformers and Morphological Approaches for Ki-67 Index Estimation on Histopathologic Images: An Experimental Evaluation.....	1238
<i>Ahmet Sezer Akdeniz, Berkan Özgür, Emre Şahin, Özge Öztimur Karadağ, Özlem Ceren Günizi</i>	
Design of a Telerehabilitation System Including Electromyography Driven Dynamic Arm Support for Duchenne Muscular Dystrophy Patients.....	1242
<i>Doruk Güzel, Melih Girgin, Muhammed Ali Özkiç, Aliberk Serin, Eren Güler, Atila Yılmaz, Ayber Eray Algünler, İpek Gürbüz, Özlem Ülger</i>	
Effect of Image Noise Removal Using Bottleneck Attention Mechanism	1246
<i>Neval Karaca, Serdar Çiftci</i>	
Instagram Account Classification: Influencer Vs. Company Profiles	1250
<i>Ozgun Yargı, Onur Varol</i>	
The Evaluation of Wireless Power Transfer Systems Based on Electric Vehicle Applications	1254
<i>Asmail Algazel, Abbas Uğurenver, Demiral Akbar, Erol Duymaz</i>	
Detection and Classification Architecture for SDR Based Radar Electronic Support Measure Systems.....	1258
<i>Göktuğ Sami Yavuz, Berkay Sayılı, Yasin Aydinlı, Rıfat Dalkırın, İrem Eşin, Meriç Uluçay, Batuhan Uykulu, Sümeyye Sena Kiyima, Orhan Arikan, Ayberk Yarkın Yıldız</i>	
Compression Analysis of Automotive Radar Raw Data.....	1262
<i>Ömer Eroğlu, Adnan Orduyılmaz</i>	
Multi-Scale Recursive Context Aggregation Network for Semantic Segmentation.....	1266
<i>Abdullah Yalçın, Mehmet Keskinöz</i>	
Comparison of Different Approaches to Patent Search	1270
<i>Buğra Şimşek, Onur Demirel, Ali Kemal Tamkoç, Behiç Kılınçkaya, Özcan Somuncu, Pınar Duygulu Şahin</i>	
Filter Design in Richards Domain for 5G Communication Systems.....	1274
<i>Mehmet Aytuğ Ormancı, Sedat Kılınç, Binboğa Siddik Yarman</i>	
Estimation of Two Dimensional Electric Field Distribution Through Deep Learning: Preliminary Study.....	1278
<i>Toygar Tanyel, Gulsah Yıldız, Cemanur Aydinalp, İlkay Öksüz</i>	
Predicting Credit Repayment Capacity with Machine Learning Models	1282
<i>Gözde Filiz, Tolga Bodur, Nihal Yaşlıdağ, Alperen Sayar, Tuna Çakar</i>	
Social Media Monitoring and Rapid Response to Earthquake Emergencies: A Study on Twitter Data	1286
<i>Dilara Candan Karadaş, Gülşah Tümüklü Ozyer</i>	
Failure Prevention in Bimanual Robots Using Deep Deterministic Policy Gradient	1290
<i>Asel Menekşe, Ak Abdullah Cihan, Sanem Sarıel</i>	

Complex Network Analysis of EEG Signals of Epilepsy Patients	1294
<i>Nevzat Olgun, Emrah Özkaraynak</i>	
Implementation of an AoI-Aware Wi-Fi Network	1298
<i>Alperen Balci, Batu Saatçi, Emir Atak, Elif Uysal</i>	
Sentiment Analysis in Turkish Sign Language Through Facial Expressions and Hand Gestures	1302
<i>Şeyma Takır, Barış Bilen, Doğukan Arslan</i>	
Mobile Node AoA Localization Using a Quadrilateral Anchor Array in TSCH Scheduled WSNs.....	1306
<i>İsmail Hakkı Turan, Melek Şentürk, Sercan Demirci</i>	
Zaman-Frekans Bölgesi özniteliklerine Dayalı Derin Sinir Ağıyla Fonokardiyogram Sinyalleri	
Gürültü Giderme.....	1310
<i>Kenan Gençol</i>	
SkelResNet: Transfer Learning Approach for Skeleton-Based Action Recognition.....	1314
<i>Ügur Kılıç, Özge Öztimur Karadağ, Gülsah Tümükli Özyer</i>	
A Lightweight Facial Expression Recognition Model Specialized for Hearing-Impaired Children.....	1318
<i>Erhan Biçer, Hatice Köse</i>	
Artificial Intelligence Based Marble Block Analysis System for Sustainable Green Transformation.....	1322
<i>Ümmühan Özkaraynak, Şahika Ercan, Fatma Banu İspir, Muharrem Tuncay Gençoğlu, Erkan Tanyıldızı</i>	
Testing the Multi-Frequency Complex Dielectric Permittivity Estimation with a Low-Cost Pocket Vector Network Analyzer and an Open-Ended Coaxial Probe	1326
<i>Sulayman Joof, Cemanur Aydinalp, Gulsah Yıldız, Mehmet Nuri Akinci</i>	
Examination of Micro-Doppler Signatures of Drone and Seagulls with X-Band Noise Radar.....	1330
<i>Kartal Kaan Gumen, Selçuk Paker, Kubilay Savci</i>	
A Performance Analysis Method for Power Transistors to Be Used in 5G and Beyond	1334
<i>Sedat Kılınç, Mehmet Aytuğ Ormancı, B. Siddik Yarman</i>	
Signal Generation with FPGA for Circular Motion in a Dual-Axis System.....	1338
<i>Mehmet Unutkan, Onur Akbatı</i>	
Performance Analysis in Gigabit Passive Optical Networks	1342
<i>Bilal Doğan, N. Özlem Ünverdi</i>	
Modeling of Radio Communication Over Fiber in Rail Transportation Systems.....	1346
<i>Ümmühan Yavuz, N. Özlem Ünverdi</i>	
Analysis and Optimization of Optical Communication Systems According to Transmission Channels	1350
<i>İbrahim Öztürk, N. Özlem Ünverdi</i>	
Modeling of Transmitter and Receiver Layers in Hybrid Fiber Optic and Free Space Optical Communication	1354
<i>M. Emin Özdemir, N. Özlem Ünverdi</i>	
Modeling of Doped Amplifiers and Filters in Hybrid Optical Communication Systems.....	1358
<i>M. Emin Özdemir, N. Özlem Ünverdi</i>	

Performance Analysis in WDM/TDM Passive Optical Networks.....	1362
<i>Birnur Kopuz, Özlem Ünverdi</i>	
Effect of Deblurring on the Value of the Modulation Transfer Function of Electro-Optical Satellite Images	1366
<i>Edanur Bayrakci, Alper Berkin Yazici, Talha Berk Erpolat, N. Özlem Ünverdi</i>	
LoRa Technology Overview and Smart Parking System Design	1370
<i>Alper Berkin Yazici, N. Özlem Ünverdi</i>	
Maritime Applications and Modeling of Optical Communication Technology.....	1374
<i>Ömer Özgün, N. Özlem Ünverdi</i>	

Author Index