

ASYU - Akıllı Sistemlerde Yenilikler ve Uygulamaları 2025 SEMPOZYUM PROGRAMI

10 EYLÜL 2025-ÇARŞAMBA

10:30-11:00

Açılış

Saygı Duruşu ve İstiklal Marşı

Açılış Konuşması

11:00-12:30 Salon Ali Sürmen
Davetli Konuşmacı-Invited Speaker

Doç. Dr. Aykut ERDEM (Koç Üniversitesi, İstanbul, Türkiye)

12:30-13:30 Öğle Arası-Lunch

13.30-14.30 Salon Ali Sürmen

Eğitim Oturumları I/ Tutorial Sessions I

Sentetik Görüntü Üretimi ile Veri Zenginleştirme ve Model Eğitimi
ACD Veri Mühendisliği

13:30-15:00 Oturum/Session A-I

Siber Güvenlik I / Cyber Security I

82- Efficient Detection of IoT-Based DDoS Attacks Using Machine Learning Models

Abdel-Hamid Abdelkerim Mahamat and Omer Karal

86- Chained Exploitation of Metadata Leakage and IDOR: A Case Study in Weak Access Control

Tuğberk Kocatekin

95- Makine Öğrenmesi ile Girdi Manipülasyonu Atak Tespiti

Berkay Özçam, Berksu Ant Solmaz, Mehmet Fatih Amasyalı, Mustafa Kara, Muhammed Ali Aydın, and Hasan Hüseyin Balık

159- Detection of Fake Websites Using Machine Learning Algorithms

Mahmut Alperen Çavuş and Güray Yılmaz

162- Real-Time Cyber Attack Detection via Machine Learning and Deep Learning Approaches

Miray Mutlu

13:30-15:00 Oturum/Session B-I

Derin Öğrenme I / Deep Learning I

154- Improved CNN and YOLOv8 based Deep Learning Model for Brain Tumor Classification

Türkalp Türker Ünlü, Sevcan Kahraman and Mehmet Sezgin

19- Analysis of MLP, CNN, and GNN Architectures for MNIST Digit Classification: Accuracy, Inference Time, and Memory Trade-offs

Yunus Koç, Furkan Yardımcı, Doğukan Köse and Ahmet Ayberk Tarçın

192- Multi-Scenario Anomaly Detection with a Hybrid Dataset: A Benchmark and Comparative Study

<i>Ziya Şen, Ali Sarıkaş and Kazım Yıldız</i>
195- An AI-Powered Mobile Application for Aroid Identification and Interactive Learning: Enhancing Pharmacognosy Education through Deep Learning and NLP <i>Nazlı Tokatlı, Yakuphan Bilmez, Yusuf Kılıç and Abdulkerim Alpınar</i>
206- Detection of Face Mask Wearing Conditions using YOLOv8s <i>Abdelkerim Oumar Soumaine and Sevcan Kahraman</i>
13:30-15:00 Oturum/Session C-I
Makine Öğrenmesi I / Machine Learning I
5- On the Tunability of Random Survival Forests Model for Predictive Maintenance <i>Yiğitcan Yardımcı and Mustafa Cavus</i>
109- Automated Machine Learning for Predictive Maintenance in Tire Manufacturing Machines <i>Alperen Ünlü, Hamdi Erdoğan, Mehmet Zeki Konyar and Kerem Küçük</i>
163- Prediction of Airline Passenger Satisfaction Using Machine Learning and Deep Learning Approaches <i>Sena Bilgin</i>
186- Hyperparameter Tuning of RBF-SVR Models Using Metaheuristic Algorithms <i>Güney Kaya and Osman Altay</i>
13:30-15:00 Oturum/Session D-I
Özel Oturumlar I / Special Sessions I
Endüstriyel Yapay Zekâ Uygulamaları/ Industrial Artificial Intelligence Applications
62- Termal Görüntüleme Tabanlı Derin Öğrenme Yöntemleriyle Gerçek Zamanlı Biber Oluşumunun Takibi <i>Emre Yılmaz, Doğa Nalcı, Yüksel Kara, Birsan Sarıtoprak, Yusuf Sinan Akgül and Yelda Özden Çiftçi</i>
74- Açıklanabilir Yapay Zeka ile WiFi Kapsama Skoru Tahmini <i>İbrahim Yazıcı and Mehmet Galip Tezcan</i>
103- Performance Evaluation of Generative AI Models in Industrial Quality Control: A Case Study in Bus Chassis White-Body Inspection <i>Taha Uz, Alim Kerem Erdoğmus, Dilara Bayar, Omer Sahabas, Gürol Çokünlü and Muhammed Oguz Tas</i>
117- IoT-Powered Voice Interaction and Proactive Gas Leak Detection System for Smart Homes with Embedded Gas Sensing and Instant AI Alerts <i>Yıldıran Yılmaz</i>
13:30-15:00 Oturum/Session E-I (Online)
Çevrimiçi Oturumlar I / Online Sessions I
134- NeuroVision-Lite: A Lightweight and Explainable Deep Learning Framework for Brain Tumor Detection on Edge Devices <i>Rakib Hossain Sajib, Md Rokon Mia and Md Baharul Islam</i>
244- Mitigating Evasion and Poisoning Attacks in Malware Detection Systems: An In-Depth Exploration of Robustness and Resilience <i>Abdul Kadar Muhammad Masum, Md Fokrul Islam Khan Khan, Chanda Rani Debi, Sanzina Hossain, Sumona Akter Shimu and Erfanul Hoque Bahadur</i>
47- Customized DenseNet201 Architecture for Enhanced Waste Classification <i>Anas Aouadi</i>
271- Quantization Robustness to Input Degradations for Object Detection <i>Toghrul Karimov, Hassan Imani and Allan Kazakov</i>
147- Optimized Real-Time Bimodal Sign Language Recognition And Translation System <i>Neaw Aik Ka, Nirase Fathima Abubacker, Mafas Raheem and Md Baharul Islam</i>
15:00-15:15 Çay-Kahve Arası / Break
15:15-16:45 Oturum/Session A-II
Akıllı Optimizasyon Algoritmaları / Intelligent Optimization Algorithms

33- Ağırlık Paylaşımli Çok Kanallı LMS Algoritması Kullanılarak Radar Sinyallerinin Tahmini Emin Demirbaş, İlyas Çiçek and Engin Cemal Mengüç
116- PI Controller Design for D-STATCOM in PV-Integrated Distribution Grids Using Metaheuristic Algorithms Şule Şenyiğit, Büşra Özgenç, Mustafa Şinasi Ayas and İsmail Hakkı Altaş
168- Comparative Study of GA and PSO Algorithms in EMI Filter Optimization Zehra Yılmaz, Mert Ince, Mustafa Ayas and Emirhan Sag
224- A Multi-Resolution Dendritic Cell Algorithm with Genetic Feature Selection for Intrusion Detection Behnam Lal Moghaddam, Ali Daghighi, Mahyar Teymourneshad and Guray Yılmaz
248- PID Control in SEPIC Converters: Comparative Analysis of ARO and Cohen-Coon's MATLAB Based Simulation Saadet Hacısalihoğlu, Furkan Muhammed Kırıkcı, Yaren Gökçe Kale, and Hakan Kahveci
15:15-16:45 Oturum/Session B-II
Siber Güvenlik II / Cyber Security II
67- Handling Impersonal Information in Recommendation Systems Çağrı Yeşil
222- Smart Phishing Detection via URL Characteristics: Machine Learning and Deep Learning Techniques Ozan Duru
160- Towards Explainable and Distributed Intrusion Detection in IoTs: A Federated Learning-Based Approach Özgür Koray Şahingöz, Gökay Mutlu and Neşe Rihani
15:15-16:45 Oturum/Session C-II (Online)
Derin Öğrenme II / Deep Learning II
256- A Near-Real Time Automatic Audio Classification: Special Case for Hacivat and Karagoz Shadow Play Onur Eren Sevdı, Yakup Topaloğlu and Selma Yılmazyıldız Kayaarma
55- Ottoman HTR: Recognition of the Ottoman Rika Font using Deep Learning Models İshak Dölek and Atakan Kurt
28- Classical and Deep Learning Approaches for LargeScale Academic Text Classification Efe Mehmet Karabulut and İrfan Kösesoy
15:15-16:45 Oturum/Session D-II
Makine Öğrenmesi II / Machine Learning II
204- Optimizing Diabetes Detection with ML and DL: Performance Evaluation on Large-Scale Patient Data Mehmet Yılmaz
209- Machine Learning for Predictive Risk Evaluation in Drug Substitution: A Data-Driven Approach Beril Güngör
258- Stacked Ensemble Learning for Chickpea Yield Prediction Using Meteorological and Soil Data Enise Kara, Büşra Bastan and Hakan Kutucu
126- Decision Support System by Artificial Intelligence in Social Assistance Applications Kemal Burak Gökbulut and Serkan Savaş
267- User Identification with Deep Learning on MEU-Mobile KSD Muhammed Karadeli and Nihan Kahraman
15:15-16:45 Oturum/Session E-II (Online)
Çevrimiçi Oturumlar II / Online Sessions II
76- On canonical modelling alternatives for probabilistic multi-class support vector machines Muhammad Azeem, Ondrej Šuch and Ali Haidar
96- Freight Rate Dynamics: A Comparative Study of Classical and Machine Learning Models Integrating Macro and Micro Factors Cemile Solak Fiskin, Remzi Fiskin, Erkan Çakır, E. Fırat Akgül, Efendi Nasibov and Tuba Akkaya
234- ResNeXt50: Revolutionizing Early Skin Cancer Detection with High-Accuracy Dermatoscopic Image Classification Abdul Kadar Muhammad Masum, Md Arifur Rahman, Maruf Hassan, Farid Dewan and Md Zia Uddin
135- A Bidirectional ASL Communication System for Real-Time Sign-to-Text and Text-to-Sign Translation

Jack Leser and Md Baharul Islam
15:15-16:45 Oturum/Session F-I
Özel Oturumlar II / Special Sessions II Endüstriyel Yapay Zekâ Uygulamaları / Industrial Artificial Intelligence Applications
118- SynthVision Suite: A Modular and Comprehensive No-Code AI Platform for End-to-End Synthetic Image Generation and Evaluation Alim Kerem Erdogmus and Muhammed Oguz Tas
119- EFICAS: Empowering Non-Experts to Build AI Applications via No-Code Development Muhammed Oguz Tas, Hande Ates Samanli, Muhammed Ozberk, Muhammet Tarik Yilmaz, Zeynep Tugba Cem, Dilara Bayar and Alim Kerem Erdogmus
157- Robust Estimation of Fuel Pump Volumetric Efficiency Using Tree-Based Ensembles Elif Doylan, Turgay Tugay Bilgin, Zeynep Dilara Kenar, Yiğit Akyüz and Erhan Yıldız
11 EYLÜL 2025-PERŞEMBE
09:30-11:00 Salon A Davetli Konuşmacı / Invited Speaker Prof. Dr. Kasım Murat KARAKAYA (TED Üniversitesi, Ankara, Türkiye)
11.00-12.00 Salon Ali Sürmen Eğitim Oturumları II/ Tutorial Sessions II MATLAB & Simulink Embedded Coder ile Gerçek Zamanlı Mikroişlemci Kontrolleri FIGES
11:00-12:30 Oturum/Session A-III
Derin Öğrenme III / Deep Learning III
65- Deep Learning - Based Depression Detection via Wavelet Coherence Analysis of EEG Signals Nadide Gülşah Gülenç and Mahmut Öztürk
57- Optimized AI Models for Gingiva Analysis and Real-Time Dental Segmentation On Mobile Devices Salih Karagöllü, Özgün Yücel and Yusuf Sinan Akgül
265- An XAI-driven Hybrid YOLOv8-LRP Architecture for the Detection of Impacted Mandibular Third Molars in Panoramic Radiography İsmail Kayadibi, Utku Köse, Gür Emre Güraksın and Bilgün Çetin
233- A Comparative Study of Deep Learning Models for Automated Liver and Tumor Segmentation in 2D CT Images Nazlı Tokatlı, Yakuphan Bilmez, Mücahit Bayram, Beyzanur Bayır, Helin Özalkan, Zeynep Nuriye Tekin and Halis Altun
11:00-12:30 Oturum/Session B-III
Doğal Dil İşleme I / Natural Language Processing I
8- TurkEmbed: Turkish Embedding Model on Natural Language Inference & Sentence Text Similarity Tasks Özay Ezerçeli, Gizem Gümüşçekiçi, Tuğba Erkoç and Berke Özenç
102- Implementing a RAG-Based Chatbot in Industrial Operations: A Real-World Case Study Atra Zeynep Bahçeci, Faruk Demirok, Mehmet Kayaoğlu and Berkay Topçu
188- A Semantic Search Engine for Turkish and English Research Resources Omer Karabacak and Emrah Inan

231- Optimal RAG System Design for Turkish Textbooks: A Comprehensive Evaluation and Performance Enhancement Study Elif Nur Öner, Sinem Ceyhun, Muhammed Halil Yıldız, Andalib Goncharova, Türkan Sena Yücel, Himmet Toprak Kesgin and Mehmet Fatih Amasyalı
11:00-12:30 Oturum/Session C-III
Görüntü İşleme I / Image Processing I
27- Comparative Analysis of YOLOv8 and Florence-2 for Multimodal Drone Detection Using Infrared and Visible Image Fusion Tülin Akkaya, Sema Hilal Şen and Mehmet Kılıçarslan
56- Kayıpsız Görüntü Sıkıştırma Uygulamalarında Evrimsel Kodlayıcı-Kod Çözücü Mimarının Etkisi Saadet Arpacı, Banu Diri and Songül Varlı
84- Artificial Intelligence Supported Driver Pose Estimation Said Bora Özdamar, Murathan Elcuman, Gökhan Bora Esmer and Engin Maşazade
114- Reinforcement Learning Approach to Instance Segmentation Using Double DQN Atalay Denknalbant, Majid Ahangari, Barış Kaya, Abdussamat Saidburkhan and Erkut Arıcan
11:00-12:30 Oturum/Session D-III
Özel Oturumlar III / Special Sessions III
Arıza Tespiti ve Teşhisine Yönelik Akıllı Öğrenme Yaklaşımları / Intelligent Learning-Based Approaches for Fault Detection and Diagnosis
21- Şehir İçi Toplu Ulaşımda Akıllı Filo Yönetimi: Gerçek Zamanlı CAN-Bus Verileri ile Makine Öğrenmesi Tabanlı Kestirimci Bakım Beyza Nur Büyükdemir, Suat Köroğlu, Bahar Ataş, Nurcan Gökırmak and Enis Karaarslan
22- Development of an AI-Based Predictive Maintenance and Fault Diagnosis System for Marine Diesel Engines Defne Çelik, İbrahim Can Gök, Necaattin Barışçı, Kürşat İnce and Gazi Koçak
85- Utilizing Large Programming Language Models on Software Vulnerability Detection Mert Kaan Aslan, Muhammed Burak Alican, Yunus Emre Alkan and Özgür Özdemir
153- Telecom Customer Churn Prediction and Root Cause Analysis Using Network Quality Metrics Busra Orhan and Engin Masazade
247- Credit Card Fraud Detection: A Comprehensive Study of Traditional, Deep, and Generative Models Maya Altell and Guray Yilmaz
11:00-12:30 Oturum/Session E-III (Online)
Çevrimiçi Oturumlar III / Online Sessions III
2- Development of a CanSat-Based Miniature Satellite with Suborbital Capability: Demonstrated Atmospheric Analysis at Low Altitude Kumar Manas, Pratham Gupta, Priyanshu Verma and Shreshtha Gandhi
128- Advanced Validated Mathematical Model for Multiple Inputs Single Output Photovoltaic System Nasar Aldian Shashoa
142- Reaching Consensus under DoS attacks on the Communication Layer Mohammad Fiuzy and Stefa Rass
214- SPIRAL: Self-Play Incremental Racing Algorithm for Learning in Multi-Drone Competitions Onur Akgun
12:30-13:30 Öğle Arası / Lunch
13:30-15:00 Oturum/Session A-IV
Doğal Dil İşleme II / Natural Language Processing II
24- Turkuaz-RAG — A Turkish Multi-Context Retrieval Benchmark Enes Uysal and Mehmet Fatih Amasyalı
34- Türkçe Sosyal Medya Metinlerinden İlgili Kamu Kurumunun Tespiti için Makine ve Derin Öğrenme Yöntemlerinin Karşılaştırılması

Mine Çapan and Halil Yiğit
46- Otomatik Çevrilmiş ve Etiketlenmiş Türkçe Haber Metinleri için Dil Modellerinin Duygu Analizine Uyarlanması Sezin Çağla Serficeli, Berke Udunman, and Emrah Inan
112- Retrieval Augmented Generation Based System to Analyze Turkish News Texts According to Sustainable Development Goals Using Large Language Models (RAGaze) Ceren Özgür, Ayça Dernek and Ayça Kumluca Topallı
251- VISPEAR: Video Summarization by Prompt Engineering and Serverless Architecture Ismail Arı
13:30-15:00 Oturum/Session B-IV
Görüntü İşleme II / Image Processing II
139- Comparative Analysis of ORB-SLAM2 and ORB-SLAM3 under Visual Image Degradations Dursun Alp Kızılöz and Murat Peker
149- Training-Free Blink Detection with Histograms: An Interpretable Approach Selim Furkan Şentürk and Mehmet Sezgin
169- Görme Engelliler için Yapay Zeka Tabanlı Mobil Banknot Tanıma Uygulaması Sezen Bal, Hayriye Korkmaz and Maedeh Bizhani Avval
185- Mask-to-Height: A YOLOv11-Based Architecture for Joint Building Instance Segmentation and Height Classification from Satellite Imagery Mahmoud El Hussieni, Bahadır K. Güntürk, Hasan Ates and Oğuz Hanoğlu
193- OSTEODEEP: AI-Driven Bone Health Assessment with Chatbot Integration using X-rays Zainab Lawal, Kaan Dedeoğlu, Emre Aygür and Selcan Berkaya
13:30-15:00 Oturum/Session C-IV
Makine Öğrenmesi III / Machine Learning III
17- Forecasting the Impact of Weather and Economic Factors on Bakery Sales Using Bi-LSTM and Transformer Models Ebrar Sude Doğan, Tuna Kodal and Yücel Çimtay
54- Real-Time Anomaly Detection in Business Process Analytics Using Self-Supervised Transformers and Digital Twins Sonay Duman
184- AI-Powered Deepfake Detection in Biometric Systems Utku Murat Atasoy, Mehmet Altıntaş and Tolga İnan
272- Hand gesture recognition with FMCW radar using data reshaping and machine learning Harun Sevinç and Levent Seyfi
174- A Comparative Study of DDoS Attack Detection in Traditional and SDN Networks Using Time and Frequency Domain Features Esra Aksoy, Behçet Uğur Töreyn and Ramin Fadaei Fouladi
13:30-15:00 Oturum/Session D-IV
Özel Oturumlar IV / Special Sessions IV
Vuru Üreten Nöral Ağlar ve Uygulamaları/Spiking Neural Networks and Applications
13- Fraud Detection using Machine Learning in Banking Operations Ahsen Tetik and Ensar Gul
144- Sürekli Zaman Uzayında Vuru Üreten Nöral Ağın Öngörüsöl Davranışı Yavuz Isler, Emirhan Bilgiç, Neslihan Serap Şengör, Rahmi Elibol and Aykut Görkem Gelen
190- Heterosinaptik Esneklığe Dayanan Öz-Düzenleyici Bir Kazanan-Her-Şeyi Alır Mekanizması / A Self-Organizing Winner-Takes-All Mechanism Based on Heterosynaptic Plasticity Serhat Çağdaş, Ege Demir, Barış Yumak, Onur Alptürk, Neslihan Serap Şengör and Ismail Akturk
219- Vuru Üreten Nöronlarda Sinaptik Plastisite ile Öğrenme ve Çıkarım Analizi Aykut Görkem Gelen, Özge Bakır, Neslihan Serap Şengör, Yavuz Selim İşler, Rahmi Elibol and Emirhan Bilgiç

245- Hardware Implementation of a Hippocampus Model for Navigation Sertan Uzun
15.00-17.00 Salon Ali Sürmen Eğitim Oturumları III/ Tutorial Sessions III MATLAB ile Deep Learning uygulamaları ve Python Entegrasyonu FIGES
15:00-15:15 Çay Kahve Arası / Break
15:15-16:45 Oturum/Session A-V
Robotik, Gömülü Sistemler ve Uygulamaları / Robotics, Embedded Systems and Their Applications
48- OMPL Algoritmalarının Performans Analizi Alpaslan Burak Inner and Hazal Selen
179- Bir Serbestlik Dereceli Elektro-Hidrolik Deney Düzeneği için Dijital İkiz Tabanlı Simülasyon Modelinin Geliştirilmesi Şule Taşkingöllü, Erman Selim and Enver Tatlicioglu
266- A Hybrid Vision-Guided Autonomous Firefighting System with Dynamic Stabilization on a Stewart Platform Sevilay Bozdemir, Burak Altunsu, Ammar Abdülbaki, Yiğit Burak Varol, Ahmet Kağızman and Volkan Sezer
32- Adaptif Fourier Lineer Birleştirici Kullanarak El Hareketlerinin Gerçek-Zamanlı olarak STM32 Üzerinde Modellenmesi Muhammed Emin Gügenir, İlyas Çiçek, Engin Cemal Mengüç and Rıdvan Demir
15:15-16:45 Oturum/Session B-V
Derin Öğrenme IV / Deep Learning IV
83- EEG Sinyallerine Dayalı Duygu Sınıflandırmasında Gelişmiş Çizge Sinir Ağı Modelleri İmran Gül and Şeyma Derdiyok
113- Gizlilik Duyarlı Parçalı Sinir Ağı Modeli ile Dikey Federe Öğrenme Hayri Öztürk and Bahriye Akay
132- Hiperspektral Görüntülerin Sınıflandırılması: Görü Dönüştürücü ve Evrişim Temelli Modellerin Karşılaştırılması Saadet Arpacı and Gökhan Bilgin
223- Derin Öğrenme Tabanlı Model Füzyon Yaklaşımı ile Otomatik Radyoloji Raporu Oluşturma Rukiye Başkara, Osman Furkan Karakuş, Banu Diri, Ali Can Karaca, Arzu Serpil Arslan, Burcu Alparslan and Berk Sünnetçi
252- Gerçek Zamanlı Çoklu Nesne Takibinde Performans Analizi Bedirhan Yıldırım, Abdussamed Böğü, Muhammed Taha Alpbalta and Filiz Gürkan
254- Harmandalı Figürlerinin Derin Öğrenme Yöntemleriyle Sınıflandırılması Burakhan Buz and Selma Yılmazyıldız Kayaarma
15:15-16:45 Oturum/Session C-V
Görüntü İşleme III / Image Processing III
212- Deep Learning and Selective Classification Approaches for Predicting Hospitalization Duration and Severity Classification in Acute Pancreatitis Patients Aysun Sezer
241- Enhancing Generative Adversarial Network Performance with a Hybrid Operational Neural Network Generator Kamil Dinleyici and Ali Seydi Keçeli
242- Akıllı Okul Sistemleri için HOG-CNN Tabanlı Gerçek Zamanlı Yüz Tanıma ve Duygu Analizi Selin Koçak, Beyza Çirik, Sinem Başkan, and İrem Topal
26- Deniz Taşıtlarının Sınıflandırması için VGG16 Tabanlı Derin Öğrenme Modeli Serenat Varol and Sevcan Kahraman

105- Automating Mobile UI Generation: A Study on Linux Mobile UI Prototyping Using YOLOv8 Mehmet Aktay and Tacha Serif
15:15-16:45 Oturum/Session D-V
Biyoenformatik / Bioinformatics
235- Heterogeneous Classifier Fusion for Preeclampsia Risk Assessment Rukiye Akıncı Hazır, Mehmet Sevri, Hatice Kübra Koç, İlknur Merve Ayazoğlu, Sibel Doğan Polat, Bülent Yılmaz and Çiğdem Sazak Turgut
16- Beta Talasemi Minör Taşıyıcılığının Tespitinde Klasik Makine Öğrenimi Algoritmalarının Karşılaştırmalı Değerlendirilmesi Eren Partal, İrfan Kösesoy and Fatma Ceyla Eraldemir
59- SpecEdgeNet: A Hybrid Graph Neural Network Architecture Integrating Information from Spectrum to Bond for Drug Property Prediction Muhammed Ali Pala
220- An Optimized Machine Learning Framework Using Slime Mould Algorithm for Gallstone Disease Classification Esra Cansu, Muhammet Yusuf Yılmaz, Muhammed Furkan Gül and Halit Bakır
217- Real-Time Analysis and Visualization of Nurse Stress Levels in IoT-Based Wearable Systems Emrullah Aydoğan and Tülin İnkaya
250- Dual-Perspective XAI for Preeclampsia Risk: SHAP and LIME Analysis Hatice Kübra Koç, Mehmet Sevri, Rukiye Akıncı Hazır, İlknur Merve Ayazoğlu, Bülent Yılmaz, Sibel Doğan Polat and Çiğdem Sazak Turgut
12 EYLÜL 2025 - CUMA
09:30-11:00 Oturum/Session A-VI
Derin Öğrenme V / Deep Learning V
14- Attention-Enhanced Encoder-Decoder Architectures for Left-Ventricle Segmentation in Echocardiographic Videos Kenan Kocadurdu, Nihan Özbaltan and Orhan Er
23- Kemik Tümörü Sınıflandırması için Derin Öğrenme Yöntemlerinin Karşılaştırılması Mehmet Emiroğlu and Gokhan Bilgin
164- ECG Arrhythmia Detector with Custom Designed Wavelet-Based Convolutional Autoencoder for Unbalanced Data Öykü Eravcı, Çağla Sarvan Cibil and Nalan Özkurt
207- Süper Çözünürlük Yöntemlerinin Algısal ve Yapısal Değerlendirmesi Ahmet Metin and Yusuf Kayıpmaz
44- Derin Öğrenme ile Mamografi Görüntülerinin Anlamsal Bölütlenmesi Alper Kalamanoğlu, Mehmet Emiroğlu and Gokhan Bilgin
09:30-11:00 Oturum/Session B-VI
Gömülü ve Otonom Sistemler / Embedded and Autonomous Systems
93- Parameter Optimization of a One-pedal Drive System for an Electric Vehicle using a Virtual Simulation Platform Mehmet Duran Menekşe and Mustafa Caner Aküner
120- STPA-Guided SOTIF Analysis of Adaptive Cruise Control with Scenario-Based Validation on CARLA Okan Özçetin and Cansu Baştabak Kızılay
180- Autonomous Air Defense System Supported by Embedded Image Processing Enes Mert Aydın, Sefa Demirel and Özgün Ersoy
269- Estimation of Temperature-Dependent Inductance Value at Different Operating Frequencies with ANN for PLC Controlled Induction Heating Systems Osman Bilgin, Mehmet Toprak and Rabia Toprak

123- Parameter Identification In Nonlinear Systems Using Enzyme Action Optimizer Davut Izci, Serdar Ekinici, Rıdvan Fırat Çınar, Gökhan Yüksek, Mostafa Rashdan and Mohammad Salman
09:30-11:00 Oturum/Session C-VI
Bulanık Mantık / Fuzzy Logic
226- Dynamic Takagi-Sugeno Fuzzy Modeling of Nonlinear Systems Using Semi-Gradient n-Step SARSA Method Cenk Ulu and Oğuz Canbek
31- Determining Risk Score in Epidemic Diseases Using Fuzzy Logic: The Case of Covid-19 İbrahim Arslanoğlu
172- Adaptive Neural Network with Dynamically Adjusted Activation Function Based Robust Control of Robot Manipulators Bayram Melih Yılmaz and Cagri Hindistan
230- Investigation of the Effect of Apex Point Variation on the Performance of a Single-Input Interval Type-3 Fuzzy PD Controller Cenk Ulu and İhsan Şahin
11:00-11:15 Çay Kahve Arası / Break
11:15-12:45 Oturum/Session A-VII
Veri ve Yöntem Güvenilirliği / Data and Reliability of Method
66- Büyük Dil Modelleri ile Üretilen Bankacılık Yazılımlarının Güvenlik ve Kalite Açısından Değerlendirilmesi Resul Sezgin Albayrak, Meltem Kurt Pehlivanoğlu and Nur Banu Albayrak
145- Evaluation of Anomaly Detection Methods for OTA-Integrated Automotive Systems Engin Subaşı and Muharrem Mercimek
173- Differentially Private NILM Using On-Off Matching and Naive Bayes Classification Berkant Şimşek, Mustafa Alparslan Zehir and Engin Maşazade
72- An Investigation and Performance Evaluation of Aggregation Algorithms in Federated Learning Architecture Ahmet Önlü, Burak Akça, Büşra Büyüktanır, Kazım Yıldız and Gözde K. Baydoğan
232- STPA Enhanced Safety Study for AI-based Automatic Emergency Braking System: A Combined Approach with Cause Tree Analysis Talha Enes Ercan and Mustafa Doğan
11:15-12:45 Oturum/Session B-VII
Akıllı Şehirler ve Şebekeler / Smart Cities and Grids
70- Route Orchestrator: An Integrated Multi-Agent Path Finding Framework with Hybrid Path Conversion to SUMO Fatih Kaya and Pınar Kırıcı
89- Model Predictive Control for a 22-Bus Agricultural Microgrid under ANN and Statistical PV Forecasts Irmak Önal Korkut, Sezai Polat, Emrah Bıyık and Hacer Şekerci Öztura
166- An alternative approach for periodicity detection in various time series data of electrical power systems İbrahim Tekdemir
210- Elektrikli Araçlar İçin Gerçek Yol Ağlarında Şarj Kısıtlı, Enerji Farkındalıklı Q-Öğrenme Tabanlı Rota Planlama Ahmet Metin and Sena Dikici
211- Monitoring Household Appliances' Energy Consumption Using Embedded Systems with SILM and Providing Energy Saving Recommendations Ali Aytekin
81- An Intelligent Reality Application in the Field of Cultural Heritage: Mamurt Kaleh Ahmet Denker, Deniz Dinçel and Emir Can Sağırkaya
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156- The Integration of Agentic AI in 6G Wireless Networks: State-of-the-Art, Challenges, and Future Perspectives

Sedat Çimen, Sümeye Nur Karahan, Deniz Karhan, Merve Güllü and Mustafa Serdar Osmanca
189- Trajectory Planning for UAVs in Static Environments with Circular Obstacles Sefa Çelik, Mahyar Teymournezhad and Güray Yılmaz
197- Simulation and Control of 6-DOF Dynamics for a T-45 UAV Platform Yesim Oniz and Mohamed Mahrous Mohamed
198- A Reinforcement Learning Approach to Stock Trading with Macroeconomic Indicators Ömer Faruk Akyapak and İlhan Tunç
6- Optimization and Performance Comparison of Overcurrent Relay Settings in Power Systems Using Genetic Algorithm, League Championship Algorithm, and Black Hole Algorithm İbrahim Arslanoğlu and İsmail Hakkı Altaş
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Yapay Zekada İleri Yöntemler / Advanced Methods in Artificial Intelligence
152- Comparative Analysis of Shallow Regression Models for Evapotranspiration Estimation with Climate Variables Gökhan Yüksek, Rıdvan Fırat Çınar, Timur Lale, Serdar Ekinci and Davut İzci
111- Attention Management Through Brain-Computer Interface Supported Mind Games Hatice Yağmur Aktaş, Ardahan Aytan, Kübra Erat and Pınar Onay Durdu
155- LoRA+ID: Enhancing Identity Preservation in Generative Models through Face-Conditioned LoRA Training Kutay Özbay, Anıl Erdem Ulusoy and Yalın Baştanlar
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122- Dynamic Enzyme Action Optimizer (dEAO): An Adaptive Bio-Inspired Approach for Classical Benchmark Functions Serdar Ekinci, Davut İzci, Gökhan Yüksek, Rıdvan Fırat Çınar, Mostafa Rashdan and Mohammad Salman
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