



7th International Congress on Human- Computer Interaction, Optimization and Robotic Applications

CONGRESS PROGRAM

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May 23-24, 2025 - Ankara, Türkiye

Session 1. (VRoom 1) (Virtual)		Date: May 23, 2025
Chair: Ebubekir Yasar		Time (GMT+3): 09:00 am - 10:30 am
Paper	Author (s)	
467 - Design and Implementation of a Human-Computer Interaction System Using Hand Tracking and Gesture Recognition with a Built-in Camera	Raddad Al King, M. Hayyan AL Sibai , Youssef Zuhir George	
519 - Experimental Investigation on a Power Supply Control System for Hydraulic Actuators	Paolo Righettini, Roberto Strada, Filippo Cortinovis, Jasmine Santinelli , Federico Tabaldi	
434 - Methodological Foundations for Constructing Intelligent Information Security Systems	Serhii Yevseiev, Stanislav Milevskiy , Vladyslav Sokol, Yevhen Melenti, Olena Akhiezer, Kyrylo Petrenko	
346 - Speech Recognition of High Impact Model Using Deep Learning Technique: A Review	Hasan H. Hussein , Oguz Karan, Sefer Kurnaz, Ayca Kurnaz Turkben	
523 - Classification of Eastern Black Sea Tea Using E-Nose: A Deep Learning-Based CNN Approach	Yavuz Kablan , Ayten Atasoy	
215 - Machine Learning-Based Orange Quality Classification: A Hyperparameter Optimization Approach Through Puma Optimizer	Harun Akbulut, Sema Atasever , Eyüp Siramkaya	
Session 2. (VRoom 2) (Virtual)		Date: May 23, 2025
Chair: Oğuzhan Pektezel		Time (GMT+3): 09:00 am - 10:30 am
Paper	Author (s)	
556 - Co-simulation of Impedance and Hybrid Motion-Force Control Strategies on a 4-DOF 5R Parallel Manipulator	Paolo Righettini, Roberto Strada, Filippo Cortinovis , Jasmine Santinelli, Federico Tabaldi	
300 - Critical Analysis of Informal Learning and Affective Design Components in AR for Developing a Conceptual AR Model in Tourism	Siti Salbiah Hamzah , Hasiah Mohamed, Nurulnawan Aziz	
419 - Parçacık Sürüsü Optimizasyon Algoritması Kullanılarak IEEE 33-Bus Sisteminde Elektrikli Araç Şarj İstasyonlarının Optimum Yerleşimi	Achmet Molla , İbrahim Gürsu Tekdemir	
459 - Multi-Parameter Analysis of Biosignals in Long- Term Control Medical Devices Management	Serhii Holdobin , Natalia Brynza, Olha Tiutiunyk, Olena Serhienko, Ihor Sosnov, Pavlo Samus	
Simulink-Based Real-Time Control of ABB Industrial 6-DOF Manipulators for Advanced Robotic Applications	Paolo Righettini, Roberto Strada, Filippo Cortinovis , Jasmine Santinelli, Federico Tabaldi	
483 - "Is It Future or Is It Past?": From Self-contained Microtasks to AI-driven Collaborative Crowdsourcing	Daniel Schneider , Marcos Antonio De Almeida, Ramon Chaves, Benjamim Fonseca, Hesam Mohseni, Antonio Correia	
Session 3. (Marmara 1 Hall) (In-Person)		Date: May 23, 2025
Chair: Deniz Ozsoyeller		Time (GMT+3): 10:00 am - 12:15 pm
Paper	Author (s)	
543 - Using of AI Supported Computer Vision on UAV's	Alpaslan Durmuş , Abdulhamit Sevgi, Ahmet Murat Kadioğlu, Erol Duymaz	
422 - Evolution of Visual Shopping in E-Commerce: Integrating Object Detection and Image Similarity	Enis Teper , Alp Arda Yalman, Mustafa Keskin, Sinan Keçeci, Emre Rençberoğlu	
72 - Products Purchased by Those Who Viewed This Item	Enis Teper , Mustafa Keskin, Okan Kaya, Semih Albayrak	
494 - Enhanced Churn Prediction in Telecom with PSO-Based Feature Selection	Merve Güllü , Nurefşan Ak, Reyhan Dede	
18 - A Securing Transmitted Data in Internet of Autonomous Vehicles	Abdulrahman Alamer , Sultan Basudan, Yunus AlQasim	
92 - Design of Electronic Chess Board Using Analogue Hall-effect Sensors for Piece Identification	Justin Julius Chin Cheong , Praneel Bhatia, Matthias Krauledat, Ronny Hartanto	
95 - Development of a Virtual Reality Traffic Simulation to Analyze Road User Behavior	Ahmad Mohammadi , Peter Park, Mehdi Nourinejad, Muhammed Shijas Babu Cherakkatil	
263 - A Novel Framework to Reduce Response Times for Fire Stations	Masoud Amirdadi , Ahmad Mohammadi, Peter Park, Mehdi Nourinejad, Adriano Solis, Deryn Rizzi, Tracey Martino	
98 - Forming Connected Multi-Robot Teams Utilizing Aerial Robots	Deniz Ozsoyeller	

Session 4. (Marmara 2 Hall) (In-Person)		Date: May 23, 2025
Chair: Hilmi Demirhan		Time (GMT+3): 10:00 am - 12:15 pm
Paper	Author (s)	
162 - A Comprehensive Investigation into Strip Steel Defect Detection using Traditional Machine Learning and Deep Learning Models	Betül Erkantarıcı , Rifat Kurban, Gokhan Bakal, Abdulkadir Köse	
213 - Generating Synthetic EEG Data for Psychiatric Disorders with Variational Autoencoders	Burcu Çınar	
518 - Sensitivity to Emotional Exploitation in Reasoning Models: Stereotypical Analysis	Onur Mert Çeldir , Gökhan Dalkılıç	
703 - Topic-Aware Multi-Class Classification for Financial Complaints: Comparing BERTopic with Classical Machine Learning Algorithms	Sezer Uğuz , Mert Kumbasar, Gül Tokdemir	
427 - Reducing Inventory Counting Errors with Machine Learning: A Data-Driven Approach for E-Commerce	Mert Güneş , Mehmet Ali Ekmiş, Emre Rençberoğlu, Mustafa Buğra Yılmaz, Ali Varal	
1 - Comparative Analysis of Normal and ASD EEG Data Using Hjorth Parameters	Muliyadi Muliyadi , Melinda Melinda, Yuwaldi Away, Syahrul Gazali	
495 - Privacy Preserving Federated Random Forest Approach for Human Activity Recognition	Liza Bala, Nayeema Sultana, Md. Rashedul Islam, Nadeem Ahmed	
264 - Advancing Medical Video Question Answering Through Large Language Models, Temporal Localization and Causal Reasoning	Hilmi Demirhan	

Session 5. (VRoom 1) (Virtual)		Date: May 23, 2025
Chair: Ebubekir Yasar		Time (GMT+3): 10:45 am - 12:15 pm
Paper	Author (s)	
310 - Design of an Open Source Piezoelectric Devices for Road Systems of Republic of Türkiye	Alper Doruk Yıldız , Kuzey Ege Hassoy, Atajan Rovshenov, Ali Tunçak	
340 - The Impact of Price-Based Demand Response on DSO-TSO Coordination System	Busra Uzum , Serkan Bahçeci, Yeliz Yoldaş, Ahmet Önen	
527 - NLP ve ChatBot Sistemlerinin Performans Analizi ve Etkileri	Gizem Nur Bikir , Müge Ak, Hasan Tolga Ünal, Özgür Umut Vurgun, Arif Furkan Mendi, Mehmet Akif Nacar	
220 - Coğrafi Bilgi Sisteminde Kullanılan Harita Altlıklarındaki Görüntülerin Telif Hakkının Korunması için Yarı-kör Sağlam ve Kalite Garantili Damgalama Yöntemi	Ertuğrul Gül	
554 - A Systematic Mapping Study on Machine Unlearning in Federated Learning	Büşra Büyüktanır , Kazım Yıldız, Gözde Karataş Baydoğmuş	
561 - Personalized Learning Path Planning in Educational Information Systems: Research on a New Model for Achieving Quality Education	Lei Wei , Lei Wei, Zhiwei Zhang, Shiqi Yang	
127 - Detection of Brain Tumors with AI Techniques	Can Yeşilaras , Sarp Yıldız, Atajan Rovshenov, Ali İhsan Sarı	

Session 6. (VRoom 2) (Virtual)		Date: May 23, 2025
Chair: Oğuzhan Pektezel		Time (GMT+3): 10:45 am - 12:15 pm
Paper	Author (s)	
486 - Cognitive Approach to Cybersecurity: Causality Analysis and Situational Learning	Maksym Tolkachov , Nataliia Dzheniuk, Alla Havrylova, Oleksandr Chechui, Andrii Hapon, Vadym Tiutiunyk	
356 - Artificial intelligence in sustainable supplier search: A comprehensive bibliometric analysis using Scopus database	Katerina Fotova Čiković	
406 - Review of underwater drones vibration propulsion	Ilian Iliev, Desislava Mihaylova	
333 - LWCNN-Based Deep Learning Model for COVID-19 Detection: Performance Analysis on Voice Data	Ipek Atik	
493 - Migraine Analysis with Cross Entropy Based Connectivity Feature: Investigation of Sensory Stimulus Conditions	Fırat Orhanbulucu , Fatma Latifoğlu	
706 - Digital Curation of Traditional Culture Based on VR and AI Interactive Technology: Taking Art into Schools as an Example	Linfeng Shen	
335 - Hidroelektrik, Rüzgar ve Güneş Enerji Sistemlerinde Yapay Zeka ile Sürdürülebilirlik Analizleri	Serdar Mammadov , Mislina Çakalhoğlu, Yusuf Yeşilyurt, Pelin Canbay	

Session 7. (VRoom 3) (Virtual)		Date: May 23, 2025
Chair: Ipek Atik		Time (GMT+3): 10:45 am - 12:15 pm
Paper	Author (s)	
705 - Transformative Methods to Fire Credit Rating: Integrating Data Mining Methods and XGBoost	Junjie He, Juntao Yang	
679 - Safety Performance Assessment by Harnessing IoT and AI in Construction Sites: Leveraging Digital Tools for Safer Construction Practices	Junxiang Chen	
680 - ICT Applications in Business Model Innovation Driven by Information and Knowledge Management	Yijun Fang	
629 - Research on multimodal data fusion technology based on LLM and attention mechanism	Boqian You	
569 - Digital Media Trend Prediction and Future Content Creation Direction Research-Based on Big Data Analysis and Machine Learning	Cong Zhou	
630 - Integration of sustainability and civic morality in new-era educational technology: Methods for developing digital tools for lifelong learning and social responsibility	Fei Song	
666 - AI-Assisted Cross-Cultural Communication Barrier Identification and Solution Research	Lijun Tang	

Session 8. (Marmara 1 Hall) (In-Person)		Date: May 23, 2025
Chair: Hüseyin Ünözkan		Time (GMT+3): 1:30 pm - 3:30 pm
Paper	Author (s)	
421 - Enhancing Fine-Grained Image Retrieval with Advanced Embedding and Loss Functions	Mustafa Keskin, Alp Arda Yalman, Enis Teper, Sinan Keçeci, Emre Rençberoğlu	
420 - Optimizing Approximate Nearest Neighbor Search for Fashion Image Retrieval	Mustafa Keskin, Alp Arda Yalman, Enis Teper, Emre Rençberoğlu, Sinan Keçeci	
439 - Analysing the Friction Effect on Velocity Control of a DC Motor for Gimbal Applications	Ferhat Altunay, Şeniz Ertuğrul, Osman Nuri Şahin	
27 - A Unique Web 3 Product-NFT Usage in Healthcare	Hüseyin Ünözkan	
138 - Identification and Interpretation of Focal Center of Brain Activity from EEG Signal Recordings	Onur Koçak, Ziya Telatar, Cansel Fici	
513 - Design and Manufacture of a Low-Cost Soft Gripper for Industrial Applications	Murat Akar, Bengusu Mura, Yesim Oniz	
496 - Lateral Resolution Enhancement of Ultrasound Images via Auto-Encoder Network	Mahsa Mikaeili, Hasan Şakir Bilge	

Session 9. (Marmara 2 Hall) (In-Person)		Date: May 23, 2025
Chair: İsmail Çalikuşu		Time (GMT+3): 1:30 pm - 3:30 pm
Paper	Author (s)	
94 - Efficiency of Adding a New Template to Network Management System and Zabbix Application	Mehmet Kara, Gökhan Tuğrul	
304 - Hand vein recognition using Mask R-CNN	Mehmet Kiyak, Burcu Kır Savaş, Fulya Akdeniz	
707 - Performance Enhancement of a Stewart Platform Using Joint-Task Space Hybrid Control	Eyyup Sincar, Zeki Y. Bayraktaroglu, Eray A. Baran, Evren Emre	
125 - Optimized Design of an Automated Drying System for Cataphoresis Exit Applications	Pinar Demircioglu, Ismail Bogrekci, Emre Benzer, Gorkem Aydin, Halil Ekici	
222 - Machine Learning-Based Battery State of Health Prediction Using Discharge Voltage	Gökhan Manav, Muhammed Mutlu Yapıcı, Ali Saygın	
405 - Contact Forces in the Gait Cycle: The Role of Different Materials	İsmail Çalikuşu, Uğur Fidan	
341 - Ensuring product detection and product counting on the assembly line using deep learning (YOLOv11)	Muhammed Abdullah Özel, Mehmet Yasin Gül	

Session 10. (VRoom 1) (Virtual)		Date: May 23, 2025
Chair: Ebubekir Yasar		Time (GMT+3): 1:30 pm - 3:30 pm
Paper	Author (s)	
514 - EfficientFER: EfficientNetv2 Based Deep Learning Approach for Facial Expression Recognition	Mehmet Emin Konuk , Erdal Kılıç	
71 - Travel time estimation of New York City taxis: An ensemble machine learning model	Resul Özdemir , Murat Taşyürek, Veysel Aslantaş	
166 - Optimized Soft Voting Ensemble Model for Predicting Net Blotch Disease in Spring Barley with Meteorological Data in Turkey	Recep Sinan Arslan , Nilüfer Akci, Dilara Çelik, Bahatdin Daşbaşı, Kadir Aytaç Özyayın, Teslima Daşbaşı	
425 - AI-Native Use Cases in 6G	Sedat Çimen , Sümeye Nur Karahan, İsmail Duru, İbrahim Yazıcı	
350 - A Three-Level A Stackelberg Game with Virtual Power Plant Clusters Multi-Agent Trading Strategy	Nurcan Yazar , Serkan Bahçeci, Yeliz Yoldaş, Ahmet Önen	
169 - Comparative Study of EKF and SPKF for SOC Estimation of Lithium-ion Batteries	Ahmet Melih Gurbuz , Guven Komurgoz Kiris	
33 - Elliptical Antenna Array Synthesis using Puma Optimization Algorithm	Ali Durmuş, Firat Özbay	
265 - Speech Emotion Recognition Using Hybrid Deep Learning Models and Diverse Acoustic Features	Oluwafemi Ebenezer , Eliane Nsenga, Melike Sah	
268 - Implementing a Method for Privilege Escalation Attacks in Windows Systems	Esra Calik Bayazit, Merve Arac	

Session 11. (VRoom 2) (Virtual)		Date: May 23, 2025
Chair: Oğuzhan Pektezel		Time (GMT+3): 1:30 pm - 3:30 pm
Paper	Author (s)	
462 - Decision Making in Managing the Choice of UTMBased Wireless Mapping Systems for Geospatial Data Transmission via LoRa	Andrii Storozhko , Dmytro Svitlychnyi, Borys Samorodov, Ruslan Trofymenko, Oleksandr Lezik, Andrii Volkov	
525 - Estimation of one indicator of functional stability in case of periodic effects on elements of information system	Oleg Barabash, Andriy Makarchuk , Oleg Kopyika, Oleksii Maistrov, Mykola Myroniuk, Yurii Kolomiets	
196 - Prioritization of indicators in the scheduling of examinations for full-time students in higher education	Fatme Rashidova , Aldeniz Rashidov	
59 - Brain Tumor Classification using Deep Learning: Robustness Against Adversarial Attacks and Defense Strategies	Hafsa Khalid , Cem Direkoglu	
474 - Align: Empowering High School Students with PMS Awareness and Holistic Support	Niriksha D , Ajit Bhagat, Divyadarshan C.S	
54 - MEGUX: A UX Model for Mobile Educational Game Evaluation	Sharifah Nurulhikmah Syed Yasin , Roslina Ibrahim	
99 - Investigating EEG Band Dynamics in Motor Imagery Tasks: A Topographic Brain Mapping Study of a BCI-Trained Individual	Esra Kaya , İsmail Sarıtaş	
357 - Feature Extraction with Scalogram-Based CNN Activations and Activity Recognition in Elderly Individuals with Transfer Learning	Esra Kaya	
77 - Color-Spatial AutoAugment: Automated Image Augmentation and Policy Optimization	Hussien Al-Khafaji , Timur İnan	

Session 12. (VRoom 3) (Virtual)		Date: May 23, 2025
Chair: Ipek Atik		Time (GMT+3): 1:30 pm - 3:30 pm
Paper	Author (s)	
566 - Application of Digital Twin and Augmented Reality Fusion in Remote Maintenance of Complex Equipment	Yisheng Lu, Jingwen Sun	
637 - Implementation of Bayesian Theory in Fire Credit Evaluation: Applications, Challenges, and Future Directions	Junjie He , Juntao Yang	
562 - Advanced Data Analysis and Feature Extraction Technology in Image Repair	Xinyi Lin	
665 - Decentralized Marketplace DMarket: Blockchain-Based Platform for Second-Hand Fashion Product Trading and Authentication	Wang Yujie	
567 - Intelligent Operation and Maintenance and Prediction Model Optimization for Improving Wind Power Generation Efficiency	Xun Liu , Xiaobin Wu, Jiaqi He, Rajan Das Gupta	
648 - Research on The Application of Deep Learning-Based Emotion Recognition Technology in Psychological Counseling	Haodong Xi	
681 - Research on Furniture Design Innovation Based on Artificial Intelligence and Sustainable Systems: Integration of Traditional Culture and Ecological Culture	Hong Chen , Hasnul Azwan Azizan, Jiaqi He	
656 - Research on Multi-Beam Detection Data Optimization and Artificial Intelligence System Decision Support Based on MILP	Xingying Xiang	
623 - Application of Augmented Reality (AR) in English Language Teaching to Enhance Engagement and Acquiring Language	Jin Nan	

Session 13. (VRoom 1) (Virtual)		Date: May 23, 2025
Chair: Ebubekir Yasar		Time (GMT+3): 4:00 pm - 6:00 pm
Paper	Author (s)	
228 - A Universal Method of Digital Content Integrity Expertise	Ivan Bobok, Alla Kobozieva, Oleksandr Laptiev, Viktor Speransky	
441 - Crypto Code Constructions in Post-Quantum Cryptography	Andrii Tkachov, Olha Korol, Natalia Voropay, Sergii Dunaiev , Vadym Stetsenko, Bogdan Tomashevsky	
285 - Implementation of 3D U-NET for Lung Cancer Classification	Serbay Serpen , Atajan Rovshenov	
433 - Autism's Disease Prediction Using Deep Learning	Rihab Qasim , Yaqeen Ali, Sura Searan, Nadia Fahad	
123 - Design of Assistive Wearable Smart Belt for Patients with Parkinson's Disease	İdil Yemez , Melek Seza Körlü, Atajan Rovshenov	
550 - The Impact of New Technologies on Digital Transformation with RPA	Büşra Tural Demir, Zeynep Örpək, Zeynep Destan, İlknur Çoşkuner , Muhammed Ahmet Alkan, Fatih Kazova	
528 - Impact of Silent Regions on Spoofed Speech Detection: A Deep Learning-Based Analysis	Muhammed Ali Irmak , Fulya Akdeniz, Burcu Kır Savaş	
614 - Binary vs. Multiclass Mental Workload Classification from fNIRS Data: A Deep Learning-Based Subject-Specific Analysis	Güzin Özmen	
484 - Automatic Language Identification from Speech using Transformer-Based Models	Hasan Kilimci, H.Hakan Kilinc , Zeynep Hilal Kilimci	
Session 14. (VRoom 2) (Virtual)		Date: May 23, 2025
Chair: Oğuzhan Pektezel		Time (GMT+3): 4:00 pm - 6:00 pm
Paper	Author (s)	
198 - Enhancing Airline Passenger Demand Forecasting in Australia: Machine Learning Models with Bayesian Optimization	Mehmet Özçalıcı, Hasan Emin Gürler	
424 - Approximate Solutions of Hyperbolic Telegraph Equations Arising in Circuit Theory	Aleyna Akaydın , Ahmed Amara, Mehmet Emir Köksal	
163 - Design of Cloud Computing System for Optimized Power Electricity Consumption in Office Buildings	Ali Aleqaby , Laith A. Al-Anzy	
365 - Iris Veri Setinde Özellik Seçimi ve Sınıflandırma için Hibrit IPA-ANN Modeli	Samad Hasanlı , Doğan Yıldız, Sercan Demirci	
233 - Depth Estimation Based Automatic Pose Correction in Hand Images	Betül Koşmaz Sünnetci , Özkan Bingöl, Eyüp Gedikli, Murat Ekinci	
159 - An Exploration of BERT and Its Diverse Applications	Bewar Neamat Taha , Muhammet Baykara, Ferhat Ucar	
423 - Development of an Advanced Blockchains' Classification	Illia Bukatych , Iryna Aksonova, Tetiana Milevska, Anton Smirnov, Dmytro Balagura, Mykhailo Zhyhalov	
338 - Smart Contracts: Classification Problems	Vladyslav Khvostenko , Stanislav Milevskiy, Illia Bukatych, Dmytro Yevseiev, Oleksandr Iegrashyn, Vadym Kyryk	
34 - Leader Selection for Intracompany Projects Using Multi-Criteria Decision Making Techniques	Nisanur Köleoğlu , Yunus Eroglu	
Session 15. (VRoom 3) (Virtual)		Date: May 23, 2025
Chair: Turgut Ozseven		Time (GMT+3): 4:00 pm - 6:00 pm
Paper	Author (s)	
640 - Exploration of Augmented Reality in gaming design utilizing AR technologies for immerse gameplay	Ronghai Yang , Gaoyu Li	
610 - Research on Consumer Privacy Concerns and Willingness to use Intelligent Systems from the Perspective of Informatics	Runda Dai	
678 - Artificial Intelligence-Assisted Emotion Recognition and Adaptive Teaching Strategies in Cross-Cultural Language Teaching	Yang Jiao	
645 - Research on Application and Optimization of Fintech and Computer Technology in Chinese Commercial Bank Efficiency Analysis	Yihang Zeng	
568 - Research on the Application of Intelligent Assistance Systems in Personalized Learning Path Planning of Dance Education	Songni Xu	
621 - Analysis and Imitation Design of Artificial Intelligence Design Concept of Ancient Buildings	Tianyi Zhang	
564 - Application of Internet of Things Technology in Sustainable Community Environmental Monitoring and Governance	Xiu Li , Xiu Li, Gong Wen, Zhixuan Yang	
560 - Analysis of the Formation of Minors Values and the Impact of Ideological and Moral Education Based on Social Media Big Data	Yuxiao Sheng , Wei Lin	
563 - Research on Mine Heat Hazard Risk Assessment and Response Strategies Driven by Advanced Data Analysis	Zhao Yongqi	

Session 16. (VRoom 1) (Virtual)		Date: May 23, 2025
Chair: Ebubekir Yasar		Time (GMT+3): 6:30 pm - 8:30 pm
Paper	Author (s)	
120 - Real-Time Object Detection: A Comparative Analysis of YOLO, SSD, and EfficientDet Algorithms	Elif Nur Yılmaz , Tuğba Selcen Navruz	
43 - Predicting Compulsory Earthquake Insurance Tendencies In Turkey Using Machine Learning Algorithms	Elif Serra Bayram , Ezgi Aktar Demirtas	
203 - Improved Conjugate Gradient Algorithm For Removing Noise From Images	Hisham M. Khudhur , Ruaa Z. Mahmood	
212 - Machine Learning for Drug Discovery and Development	Ans Ibrahim Mahameed , Fatima Ayad Abd Al_Zahraa, Ahmed Bahaaulddin A. Alwahhab, Ahmed A. Radhi, Bourair Al-Attar, Anna Dronach, Nadheer Mahmoud Ameen	
262 - A New Class of Dai-Liao Method for Solving Iteration Problems	Basim A. Hassan , Marwa Muthana Mohammed	
410 - Soldering Quality Control With Semi-Supervised Deep Learning Model	Emre Köymen , Bahadır Gölçük, Emrah Üstün	
642 - Innovative Application of Tangible Interaction Narrative System in Visually Impaired Education from the Perspective of Informatics	Xiyi Peng	
221 - Evaluation of Anomaly Detection and Adversarial Attacks in the IEEE 9-Bus System	Emrecan Bingöl , Mustafa Şinasi Ayas, İsmail Hakkı Altaş	
465 - A Review on Underwater Optical Wireless Communication (UOWC) Technology: Current Trends and Future Prospects	Noor Hamdullah , Mesut Cevik	

Session 17. (VRoom 2) (Virtual)		Date: May 23, 2025
Chair: Oğuzhan Pektezeli		Time (GMT+3): 6:30 pm - 8:30 pm
Paper	Author (s)	
60 - Recognition of Hand Gestures Using a Smart Glove with Inductive Sensors	Shokoufeh Davarzani , Maryam Ravan, Reza K. Amineh	
133 - A Comparative Analysis Between a Custom Optimization Experiment with Confidence Intervals in AnyLogic and OptQuest	Soheila Antar , Felipe Haro	
455 - A Comprehensive RAG-Based LLM for AI-Driven Mental Health Chatbot	Anish Ilapaka , Robin Ghosh	
28 - Application of Generative Artificial Intelligence from Neural Networks in Data Centers	Antonio Cortes	
565 - Fashion Design Copyright Protection System Combining AI Color Trend Prediction Model and Blockchain Hash Storage Technology	Wang Yujie	
708 - Quantifying Linguistic Variation in Bangla through Dialect-to-Dialect Translation Metrics	Md Riaz Hasan , Fariha Sultana, Harun Or Rashid	
454 - Deep Learning-Based Multi-Classification of Breast Cancer Ultrasound Images Using Convolutional Neural Networks	Andres Dewendt Urdaneta , Robin Ghosh	
531 - Leveraging Large Language Models for Security Patch Detection and CWE Classification	Betul Gokkaya	
510 - Natural Language and LLMs in Human-Robot Interaction: Performance and Challenges in a Simulated Setting	Kelvin Olaiya, Giovanni Delnevo, Chiara Ceccarini , Chan-Tong Lam, Giovanni Pau, Paola Salomoni	
161 - Implementation Analysis of Collaborative Robot Digital Twins in Physics Engines	Christian König , Jan Petershans, Jan Herbst, Matthias Rüb, Dennis Krummacker, Eric Mittag, Hans D. Schotten	

Session 18. (Marmara 1 Hall) (In-Person)		Date: May 24, 2025
Chair: Inayet Hakki Cizmeci		Time (GMT+3): 09:00 am - 11:00 am
Paper	Author (s)	
432 - Hybrid Deep Learning for Acute Lymphoblastic Leukemia Diagnosis	Ali Han Özdoğan , Koray Kahraman, Mehmet Chotzoglou Chalil, Selcan Kaplan Berkaya	
234 - Screen-cam Resistant Watermarking for Turkish Document Images	Efe Yılmaz Taşyürek , Abdullah Himmet Özcan, Sevinç İlhan Omurca, Erol Gerçeker, Hüseyin Kara	
329 - Yağlı ve Kuru Tip Transformatörlerde TEDAŞ MLZ Şartnamesine Göre Enerji Kayıplarının Değerlendirilmesi	Kamran Dawood, Furkan Gezer , Güven Kömürgöz, Semih Tursun	
704 - A Novel Approach to ADHD Detection Using Handwriting and Image Processing	Ozlem Yildiz Budak , M. Fatih Adak, Enes Sarıgedik	
308 - Transformatörlerdeki Elektromanyetik Kuvvetlerin Değerlendirilmesi: Açık Devre ve Kısa Devre Koşulları	Kamran Dawood , Güven Kömürgöz	
330 - Güç Transformatörü Türlerinin Finansal ve Fiziksel Özelliklerine İlişkin Karşılaştırması	Kamran Dawood , Furkan Gezer, Güven Kömürgöz, Semih Tursun	
364 - K-Faktörünün Transformatör Maliyeti ve Ağırlığı Üzerindeki Etkileri: Karşılaştırmalı Bir Değerlendirme	Kamran Dawood, Muhammed Alperen Çakır , Güven Kömürgöz, Semih Tursun	
504 - Ters Ozmoz Sistemlerinde Akış Kanalı Tasarımı ve Analizi: Ön Çalışma	Rabiya Karalı Türker , Halil Ekici, Cemanur Aydıralp	
282 - Stacking Ensemble Based Hybrid Machine Learning Approach for Predicting Obesity Levels	Inayet Hakki Cizmeci , Hayri Incekara	

Session 19. (Marmara 2 Hall) (In-Person)		Date: May 24, 2025
Chair: Gökçe Nur Yılmaz		Time (GMT+3): 09:00 am - 11:00 am
Paper	Author (s)	
301 - A Review of Control Methods in Lower Limb Exoskeleton Robots: From Classical to Machine Learning Approaches	Ali Foroutannia , Masoud Mohammadian, Kumudu Munasinghe	
267 - Shadow Users: Cyber-Physical Threats from a Human Computer Interaction Perspective	Andrew George Peck , Iain Phillips, Tim Watson	
306 - Comparative Analysis of LSTM and XGBoost for Cryptocurrency Trend Prediction	Drissia Ennagoura , Kamal El Kehal, Khalid El Fahssi, Mohamed El Far, Safae Merzouk, Badre Bossoufi, Mohamed Taj Bennani	
157 - Reducing Chattering by Hybrid Control of a DFIG-based Wind Power System	Farah Echiheb , Badre Bossoufi, Safae Merzouk	
158 - Performance Optimization of Photovoltaic Water Pumping Systems: A Comparative Study of PSO-Based and ANN-Based MPPT with Real-Time Validation	Ikram Saady , Btissam Majout, Badre Bossoufi, Mohammed Karim, Safae Merzouk	
199 - "AI doesn't have a soul." Exploring Gen Z's Perceptions of Social Chatbots	Mohammad Amin Kuhail , Jihene Mrabet, Rafiq Hijazi, Justin Thomas	
272 - Integrating Physical Effects into Action-Conditioned Frame Prediction for Robotic Manipulation	Nicolas Rodriguez Peña , Maximilian Hoh, Samed Doğan, Nico Leuze, Alfred Schoettl	
481 - Investigation of Depth Perception Through Gaming	Sıla Sarı, Arda Gök, Gökçe Nur Yılmaz , Kutluk Bilge Arkan, Ali Berkol, Yücel Çimtay	

Session 20. (VRoom 1) (Virtual)		Date: May 24, 2025
Chair: Ebubekir Yasar		Time (GMT+3): 09:00 am - 11:00 am
Paper	Author (s)	
540 - Empowering Education Through Virtual Reality-driven Course and Examination System	Mehmet Sedat Yildiz, Berkay Mustafaoglu , Wisam Elmasry	
342 - A Hybrid CGAN-FNN Framework for Robust Hand Gesture Recognition in Real-Time Systems	Bilge Toprak , Onur Köroğlu, Osman Bayram, Emre Gür, Mehmet Iscan	
195 - Enhancing Industrial IoT Cybersecurity with Explainable AI: A SHAP and LIME-Based Intrusion Detection Methodology	Burçak Asal , Alperen Çakın, Selma Dilek	
526 - Interpretable Energy Forecasting: Comparative Analysis of Voting Regression and NODE Models for Electricity Power Consumption Prediction	Burçak Asal	
438 - A Human-AI Collaborative Approach for Credit Card Fraud Detection: Integration of LSTM Networks with Interactive Web Interface	Burhanettin Burun , Mehmet Göktürk	
542 - Multilingual and Multi-Class Sentiment Classification Using Machine Learning, BERT, and GPT-4o-mini	Tuğba Tosun Patacı , Furkan Göz	
458 - NSGA-II Based Optimization of LLC Resonant Converter for 270V to 28V DC-DC Conversion in More Electric Aircraft	Taha Yasin Kıymaz , Murat Taşkiran, Atiye Hülya Obdan, Kamuran Nur Bekiroğlu	
46 - Strawberry Ripeness Detection: Optimizing Harvesting Efficiency with YOLOv11	Tahsin Soyak , Nur Bilge Özcan, Gökalp Çınar	

Session 21. (VRoom 2) (Virtual) Chair: Oğuzhan Pektezel		Date: May 24, 2025 Time (GMT+3): 09:00 am - 11:00 am
Paper	Author (s)	
548 - AI - Human Cooperation in "Second Brain" Technology, as a Modern Implementation of General Evolution in Human-Machine Interaction	Vladislav. V. Kytainyk , Alexander G. Yushchenko, Daniil. Y. Lyalin	
355 - Support Vector Machines (SVM) in Traffic Prediction for Intelligent Transportation Systems- A comprehension Review	Omar Saghrje , Oguz Karan, Sefer Kurnaz, Ayca Kurnaz Turkben	
472 - ELYRA: Edge-Optimized Lightweight YOLO with ROI Alignment for Real-Time SOP Compliance Monitoring in Crowded Environments	Le Ying Lim , Herrick Han Lin Yeap, Jiehan Teoh, Kian Meng Yap	
475 - Reducing the Risks Associated with Over The Counter Abortion Pills	Arundhati Atul Deshmukh , Ajit Bhagat, Divyadarshan C.S	
551 - Fuzzing Based Approach for Vulnerability Detection in Smart Contracts	Osman Bashirov , Serdar Solak	
74 - A Deep Learning Based Fusion Model For Plant Leaf Disease Classification	Muhammad Hamza Ishaq , Cem Direkoglu	
100 - Early Detection of Diabetic Foot Ulcers through CoAtNet Model: A Scalable Solution for Healthcare Integration	Muhammad Abdullah Khan, Muhammad Zaman , Tanzila Kehkashan, Nikola Ivković, Vedran Uroš, Adnan Akhunzada	
331 - Error-Corrected Quantum CNN for Gender-Based Micro-Expression Analysis in Affective Computing	Hafiz Khizer Bin Talib, Kaiwei Xu, Yanlong Cao, Muhammad Zaman , Adnan Akhunzada	

Session 22. (VRoom 3) (Virtual) Chair: Ipek Atik		Date: May 24, 2025 Time (GMT+3): 09:00 am - 11:00 am
Paper	Author (s)	
225 - Towards 6G Semantic Communication: Technologies, Applications, and Research Challenges	Sümeşe Nur Karahan , Osman Kaya	
552 - Nonlinear Aircraft Trim Using A Newton-Raphson Based Whale Optimization Algorithm	Şeyda Aydın , Hakan Yazıcı	
517 - Backstepping Control of an Industrial Delta Parallel Robot Model	Selim Sivrioğlu , G. Ceyda Hacıoğlu, A. Suat Yıldız	
457 - Experimental Investigation of Artificial Intelligence Models for Recommender Systems	Onur Özbey , Fatih Kılıç	
402 - Websites Quality and Online Success: A Bibliometric Analysis	Muhammet Sait Ağ , Kutun Koruyan, Cigdem Tarhan	
97 - Introducing Interval Neural Networks for Uncertainty-Aware System Identification	Mehmet Ali Ferah , Tufan Kumbasar	
137 - Nonlinear Spring-Damping Modeling for Cable- Driven Bionic Fingers: A Pressure-Dependent Approach	Osman Bayram , Onur Köroğlu, Bilge Toprak, Emre Gür, Mehmet İscan	
473 - CNN and LSTM-Based In-Memory Malware Detection: Performance Improvement with Transfer Learning	Şeyma Nur Özdemir , Gözde Karataş Baydoğmuş, Önder Demir	
359 - Optimizing Battery Cooling with Reinforcement Learning: A Dynamic Control Strategy for Energy Storage Systems	Necati Aksoy , Fatih Çakıl, Mustafa Özden	

Invited Speaker (Virtual)
11:00 am - 11:30 am
"____"
Assoc. Prof. Dr. Cabbar Veysel Baysal
Çukurova University, Türkiye
📍 **VRoom 1**

Panel Session (In-Person)
"Avionics & Artificial Intelligence"
Panelists: Ali Berkol, Nilsun Okan, Uğur Topak, I. Gökçe Demirtaş, G. Nur Yılmaz
Moderator: Güven Çankaya
📍 **Marmara 1**

Date: May 24, 2025	
Session 23. (Marmara 1 Hall) (In-Person)	Time (GMT+3): 1:30 pm - 3:30 pm
Chair: Nimet Karabacak	
Paper	Author (s)
709 - Dam Water Levels Prediction Using Different Time Series Models for Yusufeli and Deriner Dams	Ahmet Enes Yegin , Abdullah Ammar Karcioğlu
463 - Augmented Reality-Assisted Surgical Guidance System for Kidney Nephrectomy with Remote Expert Consultation	Ali Efe Karagül , Murat Hatunoğlu, Anıl Yaşartürk, Emre Sümer
312 - An Approach with Effective Guided Filter and Lipschitz Constraint Based CLAHE for Improving X Ray Image Details	Emre Kağan Aytekin , Mehmet Dikmen
461 - Real-Time Identification and Self-Tuning PID Controller for 1-DOF Helicopter System	Enes Erdoğan , Aydoğan Soylu, Şahin Serhat Şeker, Barış Başpınar, Tufan Kumbasar
26 - SAM Based Automatic Object Segmentation Based on User Selection	Muhammet Tarık Yılmaz , Muhammed Ali Pala
75 - Machine Learning-Supported Strategic Procurement Application for a Construction Chemicals Manufacturer	Mehmet Erol Kara , Ezgi Aktar Demirtas, Aydın Sipahioglu
70 - Kansei Engineering Applications to Multifunctional Cooker	Nimet Karabacak
456 - Using Bio-Cryptographic Key Extracted from Heartprint Signal by a Deep Neural Network for Authentication	Orkun Koçak , Saiful Islam, Onur Gümüş, Gökçe Nur Yılmaz
529 - Graph Based Business Process Anomaly Detection with Edge Feature Reconstruction and Advanced Linear Networks	Teoman Berkay Ayaz , Rabia Çevik, Alper Özcan, Akhan Akbulut
Date: May 24, 2025	
Session 24. (Marmara 2 Hall) (In-Person)	Time (GMT+3): 1:30 pm - 3:30 pm
Chair: Zeynep Altan	
Paper	Author (s)
440 - Computability and Explainability on the Evolution of Intelligent Systems	Zeynep Altan
436 - Importance Of AI In Acoustic Emission Testing and Enhancement Provided Through Compound AI	Zia Uddin , Serdar Dindar
366 - Recent Applications of Machine Learning and Deep Learning in Identifying Alloys with Specific Conductivity	Sahba Tabarraei , Omid Karimi Sadaghiani, Ahmet Ekrem Mermer
358 - Detection of Panic Attacks Using Convolutional Neural Networks on ECG Data	Parisa Ebrahimpour M.T. , Gokhan Soysal, Osman Erogul
160 - Examining the Impacts of Different Characteristics of Water on Coplanar Patch Antenna	Mehmet Duman , Oğuzhan Mert, Rabia Özkan, Feyza Ramazan, Yusuf Yılmaz, Mustafa Duman, Łukasz Knypinski
503 - Smart Agents as Customers: A Semi-Autonomous Digital Commerce Model for Industry 5.0	Mehmet Şahin Sümer , Talha Özsoy, Feyza Yıldırım Okay, İbrahim Kök
61 - Optimized YOLOv8 (YOLO-Prime), M-CNN, and Dynamic Linear Regression for Real-Time Aerial Vehicle Detection in Embedded Systems	Halil Hüseyin Çalışkan , Talha Koruk
408 - Trajectory Generation and Control for UAVs Using PH-Curves and Kolmogorov-Arnold Networks	Fatma Şengüler Çiftçi , Yesim Oniz
Date: May 24, 2025	
Session 25. (VRoom 1) (Virtual)	Time (GMT+3): 1:30 pm - 3:30 pm
Chair: Ebubekir Yasar	
Paper	Author (s)
468 - IOT Environment and Related Technologies For Monitoring with Deep Learning Methods	Mays Qasim Jebur Al-Zaidawi , Mesut Cevik
131 - Open-Circuit Fault Detection in T-Type MLI Using XGBoost: A Machine Learning-Based Approach	Murat Karakılıç , Hasan Hataş, İshak Pacal
305 - Detection of Credit Card Fraud with Machine Learning Methods	Murat Mehmet Koska , Cemal Aktürk, Tarık Talan
135 - Detecting Clickbait Turkish Titles in YouTube Videos Using Machine Learning	Enes Baydar, Mürsel Uçar , Sibel Dağ, Zeliha Ergül Aydın
558 - Detection of Parathyroid Adenoma in Primary Hyperparathyroidism using Deep Learning Models	Muhammad Saad Bin Abdul Ghaffar , Radhwan Ali Abdulghani Saleh, Humam AbuAlkebash, Muhammad Kiziltepe, Burcu Alparslan, H. Metin Ertunç
509 - Electric Vehicle Impacts on Electric Power System: A Literature Survey	İbrahim Arslanoğlu , Mehmet Büyük
76 - Investigation of Machine Learning-Based Algorithms for Identification of Diabetes Disease	Ali Shafique , Arslan Saleem, Abdul Sami, Muhammad Hamza Ishaq, Hazrat Bilal, Yeliz Yesilada
502 - SCADA-Based Smart Grid: Integrating PV Systems and PLC Automation Using TIA Portal	Anas Abduladheem Kamil , Laith A. Al-Anzy, Shamam Alwash

Session 26. (VRoom 2) (Virtual)		Date: May 24, 2025
Chair: Oğuzhan Pektezel		Time (GMT+3): 1:30 pm - 3:30 pm
Paper	Author (s)	
702 - Comparative Analysis of M5 and MOH Core Materials in Dry-Type Transformers Electromagnetic Performance and Cost Evaluation	Tugce Saadet Altunsoy , Merve Demirci, M. Cengiz Taplamacioglu	
437 - Cloud-based Ambulance Tracking and Movement Facilitation Through Traffic Light Control	Abeer Khadhim , Laith A. Al-Anzy, Hadeel Abdullah Mohammed	
484 - Automatic Language Identification from Speech using Transformer-Based Models	Hasan Kilimci, H.Hakan Kilinc , Zeynep Hilal Kilimci	
411 - Project Management for Scientific Research: Strategy, Leadership, and Implementation	Arpan Dutta	
471 - Advanced Anomaly Detection Framework Using CNN-Grid Autoencoder Integration and Recursive Fuzzy Feature Selection Approach	Reem Talal Al-Dulaimi Al-Dulaimi, Ayça Kurnaz Türkben Türkben, Mohammed Kareem Hussein , Ali Tariq Kalil Al-Khayyat, Osman Nuri Ucan	
611 - UUVs Navigation Environment Reconstruction Using Active Vision System	Ihab Elaff	
612 - Modelling Humanoid Robot Audition for Sound Source Localization Using Artificial Neural Network	Mohammad Ibrhaim Al Karaki, Ihab Elaff	
17 - Cost Distribution in ICT Infrastructure During the AI Era: A Model for Data Centers, Power Grids, and Telecommunications	Ioannis Patias	
Session 27. (VRoom 3) (Virtual)		Date: May 24, 2025
Chair: Turgut Ozseven		Time (GMT+3): 1:30 pm - 3:30 pm
Paper	Author (s)	
156 - IoT-Based Smart Farming: Benefits, Attacks, and Security Solutions	Kadir Ileri	
63 - Autonomous UAV-Based Monitoring of Fuel Tanks Using YOLOv8 for Global Energy Management	Nesli S. Azdavay, Leslawa M. Nowakowska, Zofia G. Zajac, İlayda Boz	
522 - Maximizing Energy Efficiency in a Solar Tracking System Using IoT-Based Image Processing	İsra Narman , Gökhan Uçkan	
93 - Advancing Solar Panel Inspections: UAV-Based Detection of Cracks Using YOLO Algorithms	Mahrus Thabit Moghadam, Funda Sermsar, Mert Akin Maydamis, Merve Koca	
506 - Comparative Analysis of MPC, RL and P&O for MPPT of PV Systems Under Partial Shading Conditions	Hisham Darwish , Tolgay Kara	
416 - Analyzing Correlations Between Refined Comfort Score, Usability, and Performance in Assistive Technology	Hakan Özcan	
298 - The Analysis of Leakage Inductance for Planar Transformer	Halil Bayramoğlu , Erdem Akboy	
Session 28. (Marmara 1 Hall) (In-Person)		Date: May 24, 2025
Chair: Göknu Arıcan		Time (GMT+3): 4:00 pm - 6:00 pm
Paper	Author (s)	
516 - vEMB-SLAM: An Efficient Embedded Monocular SLAM Framework for 3D Mapping and Semantic Segmentation	Abdülamed Dönmez , Bekircan Köseoğlu, Mert Araç, Serkan Günel	
553 - Recent Applications of Machine Learning and Deep Learning in the Development of Superconductors	Ahmet Ekrem Mermer , Omid Karimi Sadaghiani, Sahba Tabarraei	
337 - A Computer Vision-Based Physical Activity Application for Children with Autism	Eda Obuz , Kaan Toraman, Serdar Solak	
507 - A Short Survey on Embedded AI with Edge Computing for Maritime Applications	Ali Kılınç, Ezgi Yağmur Çakmak Cebesoy , Volkan Uslan	
336 - A Digitalized Business Wargame Model for Foresight-based Future Planning and Decision-Making	Kaan Toraman , Eda Obuz, Merve Durukan Kaya, Serdar Solak	
415 - Bridging Genetic Algorithms and Gradient-Based Learning: A Case Study on the Dinosaur Game	Ömer Bilgin Bilgili , Kemal Uçak	
307 - Maximum Period Pseudo-Random Number Generator Filter Based on Hash Function	Eyyub Abbasquliyev , Irada Rahimova, Roman Korolov, Tetiana Milevska	
303 - A Comparison Study on the Selection of the Optimum Electrical Equivalent Circuit Model for Lithium-Ion Batteries and Parameter Accuracy Analysis by the Least Squares Method	Seyit Emre Ozcan , Hayri Arabacı	
511 - Deep Learning-based Ensemble Multi-Architecture Model with Hybrid Approach for CIFAR10	Veli Nakçı, Göknu Arıcan , Eren Aktaş, Mustafa Altun	

Session 29. (Marmara 2 Hall) (In-Person)		Date: May 24, 2025
Chair: Tolga Özaslan		Time (GMT+3): 4:00 pm - 6:00 pm
Paper	Author (s)	
270 - Use of Classification Algorithms in the Determination of Diabetes Level and Drug Recommendation Process	Nisa Şahinoğlu, Hasret Irmak Baran , Gulay Cicek	
347 - Controller Synthesis with a Cone Complementarity Linearization Algorithm for CACC System Under Time-varying Delay	Hilal Bingöl	
32 - Capturing Aerodynamic Characteristics of ATTAS Aircraft with Evolving Intelligent System	Aydoğan Soylu , Tufan Kumbasar	
464 - Hybrid Learning Approach for Accurate Resolver Position Estimation Based on Error Metrics	Mert Aygen Ercan , Sibel Zorlu Partal	
230 - NLP-Driven Fake News Detection: A Machine Learning Perspective	Mert Korkut Çoban , Gokhan Bakal	
229 - Detection of Tobacco Use through Motion Analysis from Camera Images	Zilan Aze Karabay , Mustafa Özden	
426 - Classification of Ear Diseases from Otoscopic Images Using DenseNet121 and Grow-and-Learn Network	Merve Yağmurcu , Özlem Polat	
533 - Motion Control and Path Planning for Gantry Cranes in Cluttered Environments	Tolga Özaslan	
485 - Optimizing Deep Learning Models for Ophthalmic Disease Detection on Resource-Constrained Devices	Zaina Abushaban , Salih Eren Yüzbaşıoğlu, Selma Dilek, Suleyman Tosun	
Session 30. (VRoom 1) (Virtual)		Date: May 24, 2025
Chair: Ebubekir Yasar		Time (GMT+3): 4:00 pm - 6:00 pm
Paper	Author (s)	
217 - ASL UNDERPRESSURE: Gamification of American Sign Language Learning Through Human-Computer Interaction	Osama Atia, Hussam Asskar , Oussame El Kharchy, Wisam Elmasry	
530 - Reflective Surface Detection and Its Impact on SLAM Trajectory Accuracy	Ibrahim Aydin , Ertugrul Bayraktar	
278 - Use Of Logic Functions In The Diagnosis Of Hepatitis Disease Through A Web-Based Expert System Design: A Different Approach	Hayri Incekara , Inayet Hakki Cizmeci	
360 - Investigation of Structural Response of Active Acoustic Metamaterial Cell	Fevzi Cakmak Bolat , Neven Alujevic	
35 - Imitation Learning for Autonomous Driving: Insights from Real-World Testing	Hidayet Ersin Dursun , Yusuf Güven, Tufan Kumbasar	
62 - Deep Learning and Remote Sensing for Intelligent Damage Detection in Industrial Pipelines	Melis Duhter, Hilal Kuzu	
216 - Prediction of fake news on X: An analysis of LLMs and machine learning methods on TruthSeeker	Dilara Çelik , Recep Sinan Arslan	
78 - Improved YOLOv9 for Real-Time Traffic Sign Detection in Intelligent Transportation Systems	Behiye Sahin , Ipek Neslihan Alpugan	
79 - Enhancing Occupational Safety through Deep Learning-Based Helmet Detection in Hazardous Workplaces	Koksal Semercigil, Ipek Neslihan Alpugan, Behiye Sahin , Mehmet Metin Bozbey	
Session 31. (VRoom 2) (Virtual)		Date: May 24, 2025
Chair: Oğuzhan Pektezel		Time (GMT+3): 4:00 pm - 6:00 pm
Paper	Author (s)	
613 - Human Face Localization in 3D For Humanoid Robot Vision	Insaf El Guemmam, Ihab Elaff	
202 - Enhancing Explainability of Chemical Oxygen Demand Prediction Models for Industrial Wastewater Treatment in Delfzijl, the Netherland	Kamil Dimililer, Ismaila Abubakar Bobboi	
200 - A Computationally Efficient Approach to Nonlinear Control and Estimation of a Slider-to-Gimbal Platform	Esra Kurhan , Berk Vatan, Altay Dursun, Emre Gür, Mehmet Iscan	
271 - Handling Class Imbalance Problem for Diabetic Retinopathy Fundus Image Classification	Chibuzor Iluno , Melike Sah	
226 - LQG/LTR Controller Design to Single-Link Rotary Flexible Joint	Furkan Yazıcı , Ufuk Güner	
512 - Enhancing Cancer Treatment with AI: Deep Learning for Predicting Neoadjuvant Therapy Response	Bita Kheibari , Şebnem Bora, Burçin Pehlivanoglu, Anil Aysal Ağlar, Özgül Sağol	
466 - A Multi-authority Security System based on the Cloud and Radio Frequency Identification Systems	Hadeel Abdullah Mohammed	
544 - Dictionary-based data augmentation for Libyan dialect	Hassan Ebrahim , Imen Touati, Lamia Belguith	
354 - Building Trust in AI for Public Administration: A Strategic Framework for Transparency, XAI, Participation, and Digital Literacy	Panagiotis Tsarouhas, Konstantinos Grigoriadis	

Session 32. (VRoom 3) (Virtual) Chair: Turgut Ozseven		Date: May 24, 2025 Time (GMT+3): 4:00 pm - 6:00 pm
Paper	Author (s)	
501 - Atom Search Optimizer-driven Lead Compensator Design for Unstable Ball and Beam System	Serdar Ekinci , Davut Izci, Mohammad Salman , Raymond Ghandour	
45 - Global Numerical Optimization Using Tent Chaotic Maps and Golden Sine Mechanism Enhanced Artificial Electric Field Algorithm	Afi Feda, Ezgi Ulker, Abosedo Tibetan, Opeoluwa Ojekemi, Oluwaseun Ojekemi, Oluwatayomi Adegboye	
353 - The performance of modified SEPIC converter for dynamic conditions with PI controller	Muhammed Mahho , Mehmet Yılmaz, Muhammed Fatih Çorapsız	
57 - Efficient Path Planning for Differential Drive Mobile Robots Using the Rapidly-Exploring Random Tree (RRT) Algorithm	David W. Simone, Jean M. Pavos, Nahom Kidane, Muhammed Nurullah Avran	
58 - Trajectory Tracking and Control of Differential Drive Mobile Robots Using Feedback Linearization	Nahom Kidane, Muhammed Nurullah Avran , Jean M. Pavos, David W. Simone	
339 - High-Quality Synthetic Image Generation for Accurate Classification of Brain Tumors Using ACGAN	Mert Büyükdede, Doruk Kılıç	
480 - Real-Time Communication for Smart Methane Power Generation in Wastewater Treatment using PLC S7-1200-SCADA	Luay Mahdi , Samir Jasim, Qais Al-Gayem	
Session 33. (VRoom 1) (Virtual)Chair: Ebubekir Yasar		Date: May 24, 2025 Time (GMT+3): 6:30 pm - 8:30 pm
Paper	Author (s)	
130 - YouTube Video Comments Sentiment Analysis Using Custom NLP Model	Yavuz Selim Ercikan , Wisam Elmasry	
524 - Solar Energy and Supercapacitor Integration: Efficient Energy Storage Solutions	Yusuf Dayar , Fesih Keskin	
80 - Scalable Optimization for Drone and Mobile Robot Routing Using Genetic Algorithms	Orxan Shahbazov, Ilqar Mamishov, Nesli Elxansoy, Zeynep Sahutoglu	
81 - The Impact of Aerial Vehicle Quantity and Battery Capacity on Task Route Planning in Multi-Hybrid Systems	Sukur Mehraliyeva, Nesli Elxansoy, Orxan Shahbazov, Zeynep Sahutoglu	
201 - Plant Disease Classification Using an Ensemble Learning Model of Convolutional Neural Networks and Vision Transformers	David Aderinwale , Melike Sah	
261 - A High-Efficiency LLC Resonant Converter For LED Driver Applications	Yüksel Baş , Erdem Akboy	
520 - Obesity Prediction Using Machine Learning Methods: Performance Analysis of DT, RF, and ANN Models	Huseyin Fatih Sen, Yavuz Selim Taspinar	
505 - Automatic Botox Injection Points Detection Based on Deep Learning	Tolgahan Gulsoy , Elif Baykal Kablan, Selen Ayas, Leyla Baykal Selcuk, Deniz Aksu Arica	
555 - A Comparative Analysis of Deep Learning Architectures for Robust Fruit Detection	Rukiye Ertürk Erşahin , Fesih Keskin	
269 - Design and Development of a Modular Mission Control Board for Autonomous Systems	Şiar Tunçdemir , Ömer Can Tolun	

Date: May 24, 2025	
Session 34. (VRoom 2) (Virtual)	
Chair: Oğuzhan Pektezel	
Time (GMT+3): 6:30 pm - 8:30 pm	
Paper	Author (s)
469 - Leveraging Machine Learning to Analyze Socioeconomic Disparities in U.S Cancer Clinical Trials	Krysta Ray , Robin Ghosh
428 - Enhanced Environmental Awareness and Security for Smart Devices using WiFi-Sensing	Gad Gad , Iqra Batool, Mostafa M. Fouda, Zubair Md Fadlullah, Mohamed I. Ibrahim
431 - EXAD: A Framework for Designing Explanations in Adaptive User Interfaces	Iqra Batool , Gad Gad, Mostafa M. Fouda, Mohamed I. Ibrahim, Zubair Md Fadlullah
29 - Artificial Intelligence in Telehealth: Enhancing Diagnostic, Monitoring, and Accessibility Solutions	Saket Ganti
348 - Hybrid CMOS Low Noise Amplifier with Kapu Optimizer	Zainab Mustafa Hussein , Hassan Jassim Motlak
412 - Impact of Image Filtering Techniques on Deep Learning-Based Kidney Disease Classification Using CT scans	William Olurotimi Falana , Kamil Dimililer
227 - Deep-Learning-Based Image Preprocessing and Classification for Kidney Disease Detection in CT Scans	William Olurotimi Falana , Ali Serener, Ayodeji Falana, Samuel Nii Tackie
417 - Advancing Simulation of 6-Mercaptopurine and Methotrexate Therapy by Using Synthetic Childhood Acute Lymphoblastic Leukemia Patients	Utku Kose , Gamze Yuksel, Sadik Kacakci, Mustafa Can Ince, Hakan Sokun
232 - A Preliminary Research on Lightweight approach of Noise Reduction in Image Processing: Gaussian Smoothing and Super-Resolution via Resizing	Kamil Dimililer, Rasha Habeeb
Session 35. (VRoom 3) (Virtual)	
Chair: Turgut Ozseven	
Date: May 24, 2025	
Time (GMT+3): 6:30 pm - 8:30 pm	
Paper	Author (s)
311 - Rule-Based And AI-Based Routing Protocols For Mobile Ad Hoc Networks: A Comparative Review	Maher AL-Mashhadani , Kamel Karoui
460 - Secure Data Exchange Technologies in Mobile and IoT Devices	Serhii Pohasii, Maksym Tkach , Anatolii Salii, Tymur Kurtseitov, Dmytro Pecherytsia, Vitalii Hrunovych
140 - Ontology-Based Intelligent Control and Optimization of Ukraine's Energy System	Natalia Chernova , Olena Serhienko, Inna Ippolitova, Oleksiy Petrukhnov, Oleksandr Kaganovskyy, Andrii Negliad
413 - Preliminary Design and Methodological Framework for an AI-Driven Decision Support System in Earth Observation Satellites	Abdallah Alabed , Tarık Özkul
167 - Energy Generation Forecasting in Biomass Power Plants: Integrating AI and Smart Grid Technologies	Abdullah Kürşat Aktar , Murat Karakılıç, İshak Pacal
401 - Actor-Critic Reinforcement Learning for Helicopter Trim Actuators: An Optimal Control Approach with Hamilton-Jacobi-Bellman Principles	Batuhan Temiz , Osman Bayram, Onur Köroğlu, Emre Gür, Mehmet Iscan
73 - Artificial Intelligence-Driven Decision Support System for Career Planning	Batuhan Kışlacı , Hanife Yıldızhan, Rasim Fatih Zengin, Zeliha Ergül Aydın
134 - Identifying Limitations in End-to-End Testing: A Systematic Review of Coverage Analysis Techniques	Blerand Zendeli , Artan Luma, Besnik Selimi, Blerim Rexha