# ICEEECS2025

# 2nd International Conference on Advances in Electrical, Electronics, Energy, and Computer Sciences

## CONFERENCE PROGRAM

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October 24-25, 2025 | Skopje - North Macedonia

| October 24, 2025 | | | | |
|---|---|---|---|---|
| Time (GMT+2) | Session | Meeting ID | Password | Join |
| 08:30 am - 10:30 am | Session 1 (ROOM1) | | | |
| 12:30 pm - 3:00 pm | Session 2 (ROOM1) | | | |

| October 25, 2025 | | | | |
|---|---|---|---|---|
| Time (GMT+2) | Session | Meeting ID | Password | Join |
| 08:00 am - 11:00 am | Session 3 (ROOM1) | | | |
| 08:00 am - 11:00 am | Session 4 (ROOM2) | | | |
| 12:30 pm - 3:00 pm | Session 5 (ROOM1) | | | |

| Session 1 (ROOM1) Chair: Oğuzhan Pektezel | Date: October 24, 2025 Time (GMT+2): 08:30 am - 10:30 am |
|---|---|
| **Paper** | **Author (s)** |
| 3 - Industrial Symbiosis Improvement With Digital Twins | **Aleksandar Anastasovski** |
| 75 - Data Complexity-Oriented Classification of Multispectral Remote Sensing Imagery via Machine and Deep Learning Approaches | **Berrin İşlek**, Hamza Erol |
| 34 - Customer Review Summarization in Production with Large Language Models for E-Commerce Platforms | **Hikmet Bahadir Sahin**, Mustafa Furkan Eseoglu, Berk Taskin, Aysenur Karadag, Ömer Faruk Bal |
| 49 - User-Centric Product Discovery for Personalized E-Commerce Recommendations | Mustafa Keskin, **Enis Teper**, Sinan Keçeci |
| 57 - NLP-Based Query Interface for InfluxDB: Designing a Hybrid Architecture with SpaCy and Large Language Model | **Fatih Kaya**, Pinar Kirci |
| 4 - Traffic Monitoring using AI : Overview and a Case Study | Shkelqim Sherifi, **Festim Halili**, Merita Kasa-Halili |
| 38 - Emotion Recognition Using Machine Learning Models On EEG Signals | **Gizem Yıldız**, Önder Yakut |
| 20 - The environment and wind energy production by analyzing noise filtering in wind signals to improve the efficiency of energy systems | Naim Baftiu, Ana Atanasova, **Tatjana Pacemska**, Petre Lameski |
| 54 - Recognition of Mushroom Species Using Few-Shot Learning Method with a Siamese Network | **Göktürk Öztürk**, Köksal Erentürk |

| Session 2 (ROOM1) - Click for Join Chair: Ebubekir Yasar | Date: October 24, 2025 Time (GMT+2): 12:30 pm - 3:00 pm |
|---|---|
| **Paper** | **Author (s)** |
| 13 - Assessment of Pregnancy Outcomes in Gynecological Cancer Patients Undergoing Fertility-Sparing Surgery with Machine Learning Techniques | **Jale Sade**, Hale Gonce Kocken, Nazli Albayrak, Mehmet Tunc, Mete Gungor, Ali Ayhan |
| 36 - A Hybrid Framework for Conversion-Optimized Query Suggestion in E-commerce Search | **Melis Umut Öztürk**, Mustafa Keskin, Selçuk Açıkalın, Halil İbrahim Ergül |
| 43 - A Novel Method For Word Segmentation And Spell Correction In E-Commerce Search Engines | Melis Umut Öztürk, Mustafa Keskin, **Muhammed Bera Kaya** |
| 47 - Temporal Popularity-Based Recommender Systems for E-Commerce: A Comprehensive Evaluation | **Mustafa Keskin**, Enis Teper, Sinan Keçeci |
| 46 - Predicting Purchase Frequency in E-Commerce: Hybrid Machine Learning Approach | **Nilay İşeri**, Mustafa Keskin, Onur Arda Raştak |
| 25 - Comparative Performance Analysis of Ensemble and Attention-Based Deep Learning Methods for Depression Classification | **Nur Sultan Yüce**, Abdullah Ammar Karcıoğlu, Mesut Karabacak |
| 7 - Impact of Signal Segmentation on EEG-Based Seizure Detection: A Comparative Time-Frequency Analysis | **Nuri Ikizler**, Gunes Ekim |
| 42 - A Multi-Factor Image-Based Authentication Scheme for Secure Facilities | **Qutaiba Albluwi**, Sara AlSatari, Anfal Alqudah, Liyan AlQadome |
| 9 - A Machine Learning Model for Estimating Daily Rainfall in Mediterranean Climate | Ali Karah Bash, Amin Gharehbaghi, **Shahaboddin Daneshvar** |
| 41 - Uncovering Student Engagement and Performance in Applied AI in Finance: A Learning Analytics Approach | **Neslihan Ademi**, Aleksandra Porjazoska Kujundziski, Damir Rahmani |

| Session 3 (ROOM1) - Click for Join | Date: October 25, 2025 |
|---|---|
| Chair: Ebubekir Yasar | Time (GMT+2): 08:00 am - 11:00 am |
| **Paper** | **Author (s)** |
| 39 - Comparative Evaluation of Zero-Shot, Latent Dirichlet Allocation, and Similarity-Based Methods for Automatic Topic Labeling in News Texts | **Dilara Adıgüzel**, Işıl Karabey Aksakallı, Burcu Yalçıner |
| 21 - Carbon Sequestration and Oxygen Production with Microalgae: Digital Bioreactor Design and Experimental Results | Mehmet Emin Korkusuz, Nihal Arı Korkusuz, **Dilara Gündüz**, Ayşe Sena Türeyen |
| 24 - Future Vibration Estimation Using LSTM for Condition-Based Maintenance of Aircraft Systems | **Hüseyin Şahin**, Ömer Faruk Göktaş |
| 37 - Flexible Production Systems (FPS) for Engineering and Technology Efficiency | **Ionela Luminita Canuta (Bucuroiu)**, Adrian Ioana, Ileana Mariana Mates, Augustin Semenescu, Massimo Pollifroni |
| 48 - Water Cashier Offices Location Optimisation Using Machine Learning-Based Clustering Approaches: A Case Study of Ordu Altınordu | **Kübra Selvi**, Murat Taşyürek, Celal Öztürk |
| 27 - CineFinder: A Movie Recommendation System Using Visual and Textual Deep Features | Mehmet Tuğrul Sarıçiçek, **Rukiye Orman**, Murat Dener |
| 29 - Who Completes, Who Gets a Certificate? Digital Traces and Learning Outcomes in MOOCs | **Rukiye Orman**, Hasan Cakir, Nergiz Ercil Cagiltay |
| 73 - An Asymmetric Minimal Component Count Three-Phase Multilevel Converter Suitable for PV Applications | **Samuel Nii Tackie**, Zubeir Mohamed Nur, Ozgur Cemal Ozerdem, William Olurotimi Falana |
| 60 - Additive Multiply Module Architecture for Low Power 8-Bit Multipliers in VLSI | **Vasudeva G** |
| 30 - Evaluation of Solar Resource Availability and Smart Load Scheduling for Residential Buildings | **William Olurotimi Falana**, Ikechukwu Samuel Obidi, Samuel Nii Tackie |
| 63 - High Order Sliding Mode Control for Power Regulation: Comparative Insights with PI Controller CUK Converter Implementation | **Muhammed Mahho**, Mehmet Yılmaz, M. Fatih Çorapsız |

| Session 4 (ROOM2) - Click for Join | Date: October 25, 2025 |
|---|---|
| Chair: Oğuzhan Pektezel | Time (GMT+2): 08:00 am - 11:00 am |
| **Paper** | **Author (s)** |
| 19 - Short-Term Wind Energy Production Forecasting and Target Plant Selection Based on Meteorological Data Using Empirical Mode Decomposition | **Israfil Karadöl** |
| 31 - Analysis of Power Quality in Industrial Environments Using Synchronous Machines: A Case Study | **George-Andrei Marin**, Marian Gaiceanu |
| 44 - TabM vs. Traditional ML for E-commerce Product Ranking: A Multi-Signal Framework for Frequently Bought Together Recommendations | **Dilge Karakaş**, Enis Teper, Okan Kaya |
| 55 - A ROS and MATLAB/Simulink Framework for Modeling and Control of a Robotic Manipulator | **Antonia De Amorim**, Vladimir Hristov |
| 65 - Analysis of Battery Management System | **George-Andrei Marin**, Marian Gaiceanu, Silviu Epure |
| 69 - Visual SLAM-Based Position Estimation for UAVs in GPS-Denied Environments | **İsmail Yavuz**, Egnar Özdikililer |
| 76 - Development and Implementation of a 2D Vision-Guided Robotic System for Industrial Inspection and Manipulation | **Vladimir Hristov**, Dimitar Pepedziev |
| 56 - Development of a Remote Control Interface for a Mobile Robot using ROS and LabVIEW | **Vladimir Hristov**, Antonia De Amorim |
| 8 - Generative AI for Synthetic Sensor Data Generation in Embedded Systems | **Ali Berkol** |
| 51 - Integrated Analysis of Student Surveys with Machine-Learning | **Neli Kalcheva**, Maya Todorova, Evgeniya Rakitina-Qureshi, Ivo Rakitin, Hristo Nenov, Dimitrichka Nikolaeva |

| Session 5 (ROOM1) - Click for Join | Date: October 25, 2025 |
|---|---|
| Chair: Ebubekir Yasar | Time (GMT+2): 12:30 pm -3:00 pm |
| **Paper** | **Author (s)** |
| 2 - Enhancing Network Security with RNA-Based Intrusion Detection and Cuckoo Search Algorithm | **Omar Rashid,** Hind Moutaz Al-Dabbas, Humam Al-Shahwani |
| 74 - Simulation-Based Analysis of A*, RRT*, Genetic Algorithm, and Ant Colony Optimization for Autonomous Robot Path Planning in Obstacle-Dense Maps | **Omer Ba Faqas**, Necati Aksoy, Oğuz Mısır |
| 45 - A Benchmark Study on Classical Data Augmentation for Image Classification with Custom CNNs | **Fatma Çakıroğlu**, Ali Durmuş, Ercan Karaköse, Rifat Kurban, Selami Parmaksızoğlu |
| 33 - Digital Twin Technology in Vocational Education in Machinery: Processes for Digital Twin Transformation and CNC Router Case Study | **Güllü Akkaş**, Feyza Gürbüz |
| 53 - Application of the simplex method in tasks for determining an optimal production program | **Maya Todorova**, Ginka Marinova, Neli Kalcheva |
| 18 - Explainability-Based Artificial Intelligence Governance: A Legal Framework Analysis of Ethical and Social Impacts | **Bulut Keken**, Cemal Aktürk |
| 14 - A Literature Review on Digital Restoration: Preservation of Historic Buildings with HBIM, Artificial Intelligence and Virtual Reality | **Dilan Kakdaş Ateş**, Sevilay Akalp |
| 28 - RC5-Based Secure Communication Protocol Design and Intrusion Detection Mechanisms for Wireless Sensor Networks in Smart Grids | Selçuk Yılmaz, **Abdullah Orman**, Murat Dener |
| 62 - Solar Energy Advancements and Deployment Strategies in Kwara State, Nigeria: A Comprehensive Review | **Adeleye Adeolu Otepola**, Samuel Nii Tackie, William Olurotimi Falana, Kamil Dimililer |
| 16 - Energy Selective Surface Superstrate on Antenna both Gain Enhancement and HPM Protection | **Adem Kocyigit**, Burak Çelik, Mahmut Burak Karadeniz, Onur Arsalı, Ebru Efeoğlu, Bahattin Türetken |