ISEEE 2025
2025 9th International Symposium of Electrical and Electronics Engineering
https://www.iseee.ugal.ro/2025/

General Program

Thursday, October 30, 2025

Time	Session	Chair	Location
09:30 – 11:00	Registration & Welcome	Organizing Committee	Faculty Lobby
11:00 – 11:30	Opening Ceremony	Conf. Dr. Ing. Ciprian Vlad	Aula Magna
11:30 – 12:20	**Plenary Session 1** Stochastics in Electronics and Signal Processing Applications *Acad.prof.dr.ing. Horia-Nicolai L. Teodorescu* "Gheorghe Asachi" Technical University of Iași		Aula Magna
12:20 – 13:10	**Plenary Session 2** Machine Dynamics, a mandatory topic in the teaching of electrical machines. *Acad. prof.dr.ing. Aurel Cîmpeanu* University of Craiova		Aula Magna
13:30 – 14:30	Lunch Break		Royal Restaurant
14:50 – 15:30	**Plenary Session 3** Solutions for power system stability by applications of power electronics *Prof.univ.dr.ing. Lucian Toma* University POLITEHNICA of Bucharest		Aula Magna
15:30 – 16:00	**Plenary Session 4** Measurements and Models for Emerging Power Systems *Prof.univ.dr.ing. Mihaela Marilena Albu* University POLITEHNICA of Bucharest		Aula Magna

| 16:00 – 16:30 | Coffee Break | Aula Magna Lobby |

| 16:30 – 17:00 | **Plenary Session 5** | Aula Magna |

Peer Assessment in Engineering Education: Sharing Experiences with LearnEval Platform

Prof.univ.dr.ing Elvira Popescu

University of Craiova

| 17:00 – 17:30 | **Plenary Session 6** | Aula Magna |

Advancing the Future: IEEE's Role in Shaping Emerging trends in Electrical Engineering Education

Prof.univ.dr.ing Cristian- Győző Haba

"Gheorghe Asachi" Technical University of Iași

| 17:30 – 18:00 | **Plenary Session 7** | Aula Magna |

Electrical Engineering in Galati-Romania – Academia Evolution, Present Status, and Future Trends

Conf.univ.dr.ing Ciprian Vlad

"Dunărea de Jos" University of Galați

Friday, October 31, 2025

Time	Session	Location	Chair
09:30 – 10:00	Registration & Coffee break	Faculty Lobby	Organizing Committee

Technical Sessions (TS)

10:00 – 12:30   **TS 1 - Advancement in Electric Traction Systems and Power Equipment Technologies**
Y105 – Chair: *Acad.prof.dr.ing. Horia-Nicolai L. Teodorescu,* Vice Chair: Conf.dr.ing. Ion Voncilă
Secrertary: Ș.l. dr. ing. Mădălin Costin

Ion Voncilă, Elena Selim, Ion Paraschiv and Mădălin Costin, *Integration of fractal analysis into rotor fault detection using the current signature method applied to one of the windings*

Lavinia Opris, Calin Munteanu, Claudia Pacurar, Adina Giurgiuman, Claudia Constantinescu, Marian Gliga and Sergiu Andreica, *Magnetic Field Mitigation Below High Voltage Power Lines using Two Passive Loops*

Daniel-Catalin Mitroi, Grigore Stamatescu, Radu Plamanescu and Mihaela Marilena Albu, *Co-simulation of Shortcircuit Current Measurement in LVDC Systems*

Violeta Ciucur, *The effects of changing the excitation current on the operating performance of a synchronous motor*

Hnatiuc Bogdan, Hnatiuc Mihaela, Sorin Sintea and Bogdan Adrian Spanu, *Estimation of vibrations produced by switching of circuit breakers*

Adrian Istrate, Luminița Dumitriu, Ioan Șușnea, Emilia Pecheanu, Marian Viorel Crăciun and Florin Postolache, *Measuring and Calibrating Request-Size Distributions in Virtualized Environments*

10:00 – 12:30   **TS 2 - Power Electronics and Automation**
Y102 – Chair: *Prof.univ.dr.ing. Lucian Toma,* Vice Chair: Prof.univ.dr.ing.habil. Marian Găiceanu
Secrertary: Ș.l.dr.ing. Cristinel Radu Dache

Ciprian Vlad, Nicolae Badea and Cristian Victor Lungu, *Controlling the grid inverter powers through the Synchronous Reference Frame Phase Locked Loop*

Mohamed Osman and Ioan Serban, *An Andronov-Hopf-Based Virtual Oscillator Control for Grid Forming Inverters Under Grid-Connected and Islanded Operation*

Ana-Maria-Cristiana Sandu, Mihaela-Gabriela Boicu, Ioana Făgărășan, Cosmin-Florin Fudulu, Mihaela Vasluianu and Marius-Alexandru Dobrea, *Occupancy-centred building thermal control*

Marius-George Solomon, Marian Gaiceanu and Dan Ionut Ghiorghita, *Optimizing the Operation of Loopers in Hot Strip Lamination*

Amina Alshekh, Chivon Choeung, Mehmet Ali Usta and Yahya Danayiyen, *Analysis of FCS Model Predictive Control Strategy for Grid-Connected 7-Level Cascaded H-Bridge Multilevel Inverter*

Andronic Michel Rajaona, Ömür Akyazi and Yahya Danayiyen, *Implementation And Tuning a Model Predictive Control (MPC) Scheme for a Single-Ended Primary-Inductor Converter*

10:00 – 12:30   **TS 3 - Education in Electrical and Electronic Engineering**
Y106 – Chair: *Prof.univ.dr.ing. Cristian-Győző Haba,* Vice Chair: Prof.dr.ing.
Mariana Dumitrescu
Secrertary: Ș.l.dr.ing. Adriana Burlibașa

Laurentiu Marius Baicu, Mihaela Andrei and Lucian Traian Dimitrievici, *Brute-Force Cyberattacks Using ESP and MATLAB: A Hybrid Educational Approach*

Constantin George Druga, Gabriel Sirbu and Dorel Aiordachioaie, *On the Use of AI in Signal Processing Programming Applications at the Master of Science Level*

Gabriel Sirbu and Dorel Aiordachioaie, *On State-Space Models for Circuit Analysis. A Review of Causal Systems at the Limit*

Andrei Arusoaie, Claudiu-Nicu Bărbieru, Oana-Otilia Captarencu, Paul-Flavian Diac, Emanuel Onica and Cosmin-Nicolae Vârlan, *An Introductory Study on the Power Consumption Overhead of ERC-4337 Bundlers*

Costin-Anton Boiangiu, Nicolae Tarbă and Mihai-Lucian Voncilă, *Dusting off Dirac: A Signal Representation Model using Elemental Dust Particles*

13:00 – 13:50   Lunch Break   Royal Restaurant

Special Sessions (SS)

14:00 – 16:00 **SS 1 - Exploiting the boundaries of computer vision techniques and artificial intelligence algorithms**
Y105 – Chair: *Conf.univ.dr.ing. Simona Moldovanu, Vice Chair:* Conf.univ.dr.ing. Dan Munteanu
Secrertary: Ș.l.dr.ing. Elena Răducan

Andreea Alexandra Anghel, Antonio Ștefan Bălău, Andrei Iordache, Marian Viorel Crăciun and Cătălin Anghel, *Estimating Tourist Location Ratings Using Cross-Sourced Data and Machine Learning*

Cristina-Ioana Casapu and Simona Moldovanu, *Multimodal Deep Learning Approach for Alzheimer's Disease Diagnosis*

Mihai Grecu, Ioana Năvălici, Simona Moldovanu, Aurelia Romila and Diana Oprea, *Solutions for generating ground truth in cervical nucleus images utilized in the segmentation process with Convolutional Neural Networks*

Venkatesh Daggupati, *Enhanced Fault Diversity in Transmission Line Fault Detection and Classification Using Deep Learning*

Florin Octavian Robu and Dan Munteanu, *Machine Learning-Based Analysis of Celestial Objects Using the SDSS17 Dataset*

Elena Raducan, Dragos Radu and Adriana Burlibasa, *The efficiency in breast cancer detection of PyCaret's auto-ML with GLCM*

Velu Kaliappan, *Literary AI: Character-Centric Dialogue Systems with Contextual Data*

14:00 – 16:00 **SS 2 - Industrial Partners Networking**
D02 – Chair: *Prof.univ.dr.ing. Mariana Dumitrescu, Vice Chair:* Ș.l.dr.ing. Elena Selim
Secrertary: Ș.l.dr.ing. Romeo Păduraru

Nuclearelectrica

iDNA POWER

Docerom

Blackfrog

Eekels Romania SRL

Hoglund

14:00 – 16:00	**SS 3 – Research technology implementation laboratory** Campus Științei – Chair: *Conf.univ.dr.ing. Ciprian Vlad,* Vice Chair: Ș.l.dr.ing. Mădălin Costin Secrertary: As.dr.ing. Cristian Victor Lungu

El-Nav – Power Electronics

Y301 – Renewable Energy

Building J – Microproduction laboratory

16:00 – 16:30	Coffee break	Y104

16:30 – 18:00	**TS 4 - Signal and data processing, theory and applications** Y106 – Chair: *Prof.univ.dr.ing.habil. Dorel Aiordachioaie,* Vice Chair: Ș.l.dr.ing. Petrea George Secrertary: Ș.l.dr.ing. Mihaela Andrei

Cătălin Anghel, Marian Viorel Crăciun, Emilia Pecheanu, Adina Cocu, Adrian Istrate and Andreea Alexandra Anghel, *Rubric-Guided Evaluation Framework for Consistent Scoring with Large Language Models*

Mihaela Andrei, George Petrea and Viorel Nicolau, *Robustness of MIMO Receivers under Impulsive Channel Conditions*

Florin Dudu, Georgel Chirita, Bogdan Codres and Marian Barbu, *Artificial intelligence-based application for automatic waste classification*

Marius Sorin Pavel, Dorel Aiordachioaie and Gabriel Sirbu, *Comparative Analysis of Full-Face and ROI-Based Thermal Images with Noise for Binary Emotion Classification*

Elena Bicova, Irina Vasiliev and Larisa Moraru, *Forecasting a set of energy security indicators using neural networks*

Mihaela Andrei and Narcis-George Alupoaie, *Automation of Qualification Test Data Processing for Hydropower Generating Units*

16:30 – 18:00   **TS 5 - Smart and Green Power Solutions**
Y105 – Chair: *Prof.univ.dr.ing. Mihaela Marilena Albu,* Vice Chair:
Conf.univ.dr.ing. Ciprian Vlad
Secrertary: As.dr.ing. Cristian Victor Lungu

Mariana Dumitrescu, *Residential AC Consumers Supplied by DC Renewable Electric Microgrids Research Study*

George-Andrei Marin, Marian Gaiceanu, Silviu Epure, Adriana Burlibasa and George Petrea, *Monitoring of a Hybrid Photovoltaic (PV) System*

Harshraj Bhoite, *Artificial Intelligence Applications in Power Electronics and Renewable Energy Systems*

Adriana Burlibasa, Cristian Victor Lungu, Ciprian Vlad, Cristinel Radu Dache, Aymen Haj Salem and Anis Sakly, *AI-Based Prediction Models for Renewable Energy Source Performance*

Sorin Musuroi, Ciprian Sorandaru, Marcus Svoboda, Samuel Ciucurita and Danut Tokar, *Experimental and Simulation-Based Determination of Wind Turbine Power Characteristics under Time-Variable Wind Speeds*

George Ifrim, Simona Vasilica Oprea and Adela Bara, *Research Trends in Control for Energy Communities from a Bibliometric Perspective*

16:30 – 18:00   **TS 6 - Energy Storage Challenges**
Y102 – Chair: *Prof.univ.dr.ing. Elvira Popescu,* Vice Chair: Conf.univ.dr.ing. Gelu Gurguiatu
Secrertary: Drd.ing. George Andrei Marin

George-Andrei Marin, Marian Gaiceanu, Silviu Epure, George Petrea and Adriana Burlibasa, *Case Study on Power Quality Improvement in Industrial Networks Using Capacitor Banks*

Dan Ionut Ghiorghita, Marius-George Solomon and Marian Gaiceanu, *Study of The Smart Charging of an Electric Vehicle Battery*

Badr Attary, Mohamed Ouassaid and Mohammed Mokhtari, *Optimizing Load Profiles in Industrial Microgrids through Demand-Side Management: Enabling Photovoltaic Integration for Moroccan Industry*

Romeo Paduraru, Traian Munteanu and Teodor Dumitriu, *Load test of a DC-DC converter in marine hybrid system. Bidirectional power supply integration as battery emulator*

Gelu Gurguiatu, Alexandru Dușa, Gelu Coman and Cristian Iosifescu, *Assessing the Role of Residential Battery Storage in Enhancing Energy Autonomy and Grid Flexibility*

Elena Selim, Ion Voncila and Madalin Costin, *DYNAMICS AND PRECISION: PREDICTING LI-ION BATTERY STATE OF CHARGE THROUGH VOLTAGE ANALYSIS*

Muhammad Adnan, *Integrating Solar Energy Systems in Urban Infrastructure: A Comprehensive Analysis of Photovoltaic Technologies and Storage Solutions*

18:00 – 18:30   **Closing remarks and acknowledgements**
                 Y106 – Chair: *Conf.univ.dr.ing. Ciprian Vlad*

Saturday, November 1, 2025

10:30 – 13:30   **Danube Sailing - KaptanM Ship - Malnaș restaurant**
                 Faleza Dunării Alley, on the Danube bank