

"Dunărea de Jos" University of Galați

# Scientific Conference of Doctoral Schools

Perspectives and challenges in doctoral Research  
14<sup>th</sup> Edition of SCDS-UDJG  
11<sup>th</sup> and 12<sup>th</sup> of June 2026

Doctoral School of  
Fundamental and  
Engineering Sciences  
PROGRAMME



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11<sup>th</sup> and 12<sup>th</sup> of June 2026

## CONFERENCE PROGRAMME

### THURSDAY – June 11, 2026

08:00-10:00	Invited plenary lectures
09:00-11:00	Participants registration
10:00-13:00	Invited lectures Oral presentations in concurrent sections
13:00-14:00	Lunch (building D - 1 <sup>st</sup> floor)
14:00-16:00	Oral presentations in concurrent sections
16:00-16:30	Coffee break (building D - 1 <sup>st</sup> floor)
16:00-18:00	Oral presentations in concurrent sections
18:00	Cultural evening

### FRIDAY – June 12, 2026

09:00-10:30	Oral presentations in concurrent sections
10:30-11:00	Coffee break (building D - 1 <sup>st</sup> floor)
11:00-13:00	Posters session
11:00-13:00	Workshop
13:00-14:00	Awarding ceremony. Closing ceremony
14:00-15:00	Lunch (building D - 1 <sup>st</sup> floor)

## SECTION 5: ADVANCED RESEARCH IN ELECTRICAL / ELECTRONIC ENGINEERING, SYSTEM ENGINEERING AND INFORMATION TECHNOLOGIES

Building D, Room 13, 111 Domnească Street

**THURSDAY – June 11, 2026**

### 9:30-10:00 INVITED LECTURE

**CHAIRS:** **Marian GĂICEANU, Viorel MÎNZU**, *Dunărea de Jos University of Galați*

**I.L.5.1.** Marian Găiceanu, George-Andrei Marin, Evolution of the Control Strategies for Parallel Active Power Filters: From Classical Algorithms to Artificial Intelligence  
Ghiorghita Dan Ionut, Marius George Solomon, Razvan Buhosu, Ionut Marcu

### 10:00-12:00 ORAL PRESENTATIONS

**CHAIR:** **Marian GĂICEANU, Viorel MÎNZU**, *Dunărea de Jos University of Galați*

**OP.5.1.** Marin George-Andrei, Marian Găiceanu Optimization of the Operation of a Sinter Machine through Automatic Speed Control  
(10:00-10:20)

**OP.5.2.** Marin George-Andrei, Marian Găiceanu Analysis of Operating Conditions and Current Calculation in a Ship Electrical System Using ETAP  
(10:20-10:40)

**OP.5.3.** Solomon Marius George, Raluca-Elena, Analysis of Three-Phase Induction Motor Operation Under Severe Conditions  
(10:40-11:00) Marian Găiceanu

**OP.5.4.** Mădălina Gabriela Iorga, Luminița Transfer Learning for Automated Mineral Recognition Using Robotic Vision  
(11:00-11:20) Dumitriu, Mihai Culea

**OP.5.5.** Mădălina Gabriela Iorga, Luminița Deep Learning Classification of Feline and Canine Thoracic X-rays from DICOM Data Using Transfer Learning  
(11:20-11:40) Dumitriu, Mihai Culea

**OP.5.6.** Cristina-Ioana CASAPU, Luminita A Multimodal Machine Learning Framework for Early Detection of Extreme Events in Financial Market  
(11:40-12:00) DUMITRIU

**OP.5.7.** Dan Ionut Ghiorghita, Marian Gaiceanu Short term residential load forecasting using NARX model and environmental exogenous inputs  
(12:00-12:20)

**OP.5.8.** Ionut MARCU, Marian Găiceanu Photovoltaic Systems above Aquaculture Ponds: Sustainable Solutions for Energy Infrastructure  
(12:20-12:40)

### 13:00-14:00 Lunch (building D - 1<sup>st</sup> floor)

### 14:00-16:00 POSTERS PRESENTATIONS (on line)

**CHAIR:** **Marian GĂICEANU, Viorel MÎNZU**, *Dunărea de Jos University of Galați*

**PP.5.1.** George-Andrei Marin, Marian Găiceanu Automatic Control of a Rotary Feeder for Achieving the Imposed Material Flow Rate  
(14:00-14:15)

**PP.5.2.** Necula Raluca-Elena, Marian Găiceanu Analysis of the Operating Principle of Overhead Cranes with Suspended Loads of Different Masses  
(14:15-14:30)

**PP.5.3.** Dan Ionut Ghiorghita, Marian Găiceanu AI based fault detection in grid connected photovoltaic systems  
(14:30-14:45)

**PP.5.4.** Necula Raluca-Elena, Marian Găiceanu Advanced control method for industrial crane: integrating trajectory tracking with active oscillation damping  
(14:45-15:00)

**PP.5.5.** Weingart Mircea An Analog computer model proposal for nanorobots used for retina treatment  
(15:00-15:15)

<b>PP.5.6.</b> (15:15-15:30)	<u>Muntenita Cosmin</u> , Filipescu Adrian	Reinforcement Learning for Marine Winch Tension Control: Peak Load Reduction Under Irregular Wave Conditions
<b>PP.5.7.</b> (15:30-15:45)	<u>Gabriel Murariu</u> , Sergiu Sieber, Durval Coelho, Catalin Arama, Viorel Calinescu	Review study for the evaluation of autonomous UAV systems AI-Guided Drone Interceptor System
<b>PP.5.8.</b> (15:45-16:00)	<u>Gabriel Murariu</u> , Sergiu Sieber, Durval Coelho, Catalin Arama, Viorel Calinescu	Preliminary aspect of an Autonomous AI-Guided Drone Interceptor System Development

**16:00-16.30 Coffee break (building D - 1<sup>st</sup> floor)**

**16:30-17:00 Concluding remarks/ Closing Ceremony**

**CHAIR: Marian GĂICEANU, Viorel MÎNZU, *Dunărea de Jos University of Galați***

<b>PP.5.9.</b> (16:30-16:45)	<u>Răzvan Buhosu</u> , Marian Găiceanu	Comparative Control Systems for Omnidirectional Robotic Platforms
<b>PP.5.10.</b> (16:45-17:00)	<u>Răzvan Buhosu</u> , Marian Găiceanu	Model Predictive Control of the Energy Consumption of an Electric Vehicle in the Standardized WLTP Driving Cycle

**17:00-17:30 Concluding remarks/ Closing Ceremony**