

"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  
Mechanical and  
Industrial Engineering  
**PROGRAMME**



# 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

## 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)
16:00-19:00	Oral presentations in concurrent sections

### 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 2: ADVANCED INVESTIGATION METHODS IN ENVIRONMENT AND BIOHEALTH,**  
 Building S, Room SB401, 111 Domnească Street

**THURSDAY – June 11, 2026**

**ORAL PRESENTATIONS (11<sup>30</sup> - 12<sup>50</sup>)**

**CHAIR: Luminița MORARU, Dunărea de Jos University of Galați**

<b>OP.2.1.</b> (11:30-11:50)	<u>Viorel Călinescu, Cătălina Iticescu, Gabriel Murariu, Cătălina Maria Țopa</u>	Modeling the Volume of Municipal Waste Deposited by Tecuci Municipality and Assessing Its Impact on the Designed Capacity of the Valea Mărului Municipal Waste Landfill
<b>OP.2.2.</b> (11:50-12:10)	<u>Danut Dragos Damian, Felicia Anisoara Michis, Lenuta Pana, Luminița Moraru</u>	Coefficient of variation analysis: a method to identify aggressive behavior based on IMU signals
<b>OP.2.3.</b> (12:10-12:30)	<u>Lepadatu Robert, Michis Felicia Anisoara, Anghelache Iulia Nela, Moraru Luminita</u>	Comparative Analysis of CNN Models for Forest Fire Detection
<b>OP.2.4.</b> (12:30-12:50)	<u>Cristinel Gabriel Rusu, Simona Moldovanu, Maria Stan, Luminita Moraru</u>	From Pixel to Diagnosis: Vision Transformers and Foundation Models in Medical Image Segmentation and Analysis
<b>13:00-14.00</b>	<b>Lunch (building D - 1<sup>st</sup> floor)</b>	

**POSTER PRESENTATIONS (14<sup>00</sup> - 17<sup>00</sup>)**

**CHAIR: Simona CONDURACHE-BOTA, Dunărea de Jos University of Galați**

<b>PP.2.1.</b> (14:00-14:15)	<u>Alina Ceoromila (Cantaragiu), Antoaneta Ene, Vasile Bașliu</u>	Combined SEM-EDX, XRF and XRD techniques used in environmental and geochemical studies and characterization of advanced materials
<b>PP.2.2.</b> (14:15-14:30)	<u>Tigau Nicolae, Condurache-Bota Simona, Drasovean Romana, Viorel Calinescu, Murariu Gabriel</u>	Optical transmission and reflection spectra of tin oxide thin films
<b>PP.2.3.</b> (14:30-14:45)	<u>Romana Drasovean, George Sorin Frasina, Murariu Gabriel, Condurache-Bota Simona, Tigau Nicolae</u>	Comparative spectral response of tree leaves to thermohygro-metric stress of the atmosphere
<b>PP.2.4.</b> (14:45-15:00)	<u>Cristian Mugurel Iorga, Gabriel Murariu, Mihaela Marilena Stancu, Puiu Lucian Georgescu</u>	Microbial Identification and Mathematical Modeling for Optimizing the Remediation of Petroleum-Contaminated Soils
<b>PP.2.5.</b> (15:00-15:15)	<u>Gheorghe Petre-Bogdan, Georgescu Puiu Lucian, Burada Adrian, Despina Cristina, Seceleanu-Odor Daniela</u>	A Conceptual Design of Wool-Based Detachable Filtration Layers in Nature-Based Constructed Wetlands
<b>PP.2.6.</b> (15:15-15:30)	<u>Gabriel Murariu, Cristian Mugurel Iorga, Dan Munteanu</u>	Optimization of analytical models that describe the evolution of the concentration of hydrocarbon degrading bacteria for the implementation of applicative solutions
<b>PP.2.7.</b> (15:30-15:45)	<u>Gabriel Murariu, Viorel Calinescu, Romana Drasovean, Simona Condurache-Bota, Dan Munteanu</u>	Implementation of an algorithm for optimizing the selective waste collection process, using recursive back-tracking algorithm

<b>PP.2.8.</b> (15:45-16:00)	<u>Orhan Ibram</u> , Cristina Despina, Adrian Burada, Iasemin Suliman, Mihaela-Iuliana Tudor, Maria-Cătălina Țopa, Cătălina Iticescu, Lucian Puiu Georgescu	Aquatic Macroinvertebrates as Vectors of Heavy Metal Transfer between Aquatic and Terrestrial Ecosystems in the Danube Delta
<b>16:00-16.30 Coffee break (building D - 1<sup>st</sup> floor)</b>		
<b>PP.2.9.</b> (16:00-16:15)	Antoaneta Ene, <u>Alina Sion</u>	Assessment of Potentially Toxic Elements Risk in Urban Soils from Educational and Recreational Areas Using XRF Spectrometry
<b>PP.2.10.</b> (16:15-16:30)	<u>Gabriel Murariu</u> , Viorel Calinescu, Romana Drasovean, Nicolae Tigau, Dan Munteanu	Implementation of an algorithm for optimizing the selective waste collection process, using predictive and Dijkstra-type graph traversal methods
<b>PP.2.11.</b> (16:30-16:45)	<u>Simona Condurache-Bota</u> , Romana Maria Drasovean, Luminita Moraru, Gabriel Murariu, Nicolae Tigau, Darius-Valentin-Gabriel Condurache-Bota	Satellite-Based Assessment of Solar Radiation and Photovoltaic Potential in Romania
<b>PP.2.12.</b> (16:45-17:00)	<u>Stefanut Ciochina</u>	A comparative numerical study for solving the parabolic partial differential equation
<b>Concluding remarks</b>		