

XIX International Scientific Conference

Košice – Rzeszów – Lviv



24th-26th September 2025

Herľany, Slovakia

Program:

Wednesday, September 24, 2025

13.00 – 15.00	Registration
15.00 – 15.15	Opening ceremony
15.15 – 16.15	Presentations of Faculties - Deans' speech
16.15 – 16.45	Coffee break
Lecture block I.	
Chairs:	Yaroslav Blikharskyy - Piotr Nazarko
16.45 – 17.00	Nazarii Mykhalevskyi, Pavlo Vegera, Yaroslav Blikharskyy , Zinovii Blikharskyy The Analysis of Stress and Deformation in Reinforced Concrete Beams Using DIC Topic: Design, realization and testing of building structures
17.00 – 17.15	Zuzana Dicka, Erika Dolnikova, Dusan Katunsky Assessment of Visual Comfort in Industrial Halls: A Case Study Topic: Building physics, energy efficiency in architecture and building engineering
17.15 – 17.30	Piotr Nazarko , Natalia Broz, Samindi Samarakoon Application of soft computing methods in estimating of the crack width in reinforced concrete beams Topic: Design, realization and testing of building structures
17.30 – 17.45	Cherniuk Volodymyr , Bihun Iryna, Cherniuk Matvii, Vitalii Lytvyn Transformation of Toms' effect during the flow of aqueous solutions of polyoxyethylene through a sharp narrowing of pipe Topic: Water management and infrastructure of water construction facilities
18.30	Social evening

Thursday, September 25, 2025

08.00 – 09.00	Breakfast
Lecture block II.	
Chairs:	Vasyl Zhelykh - Andrzej Wojnar
09.00 – 09.15	Oleksandr Riabenko, Oksana Halych, Volodymyr Tymoshchuk, Oksana Kliukha, etc. Use of Near-critical Flows in the Operation of Hydropower and Water Management Facilities Topic: Renewable energy sources
09.15 – 09.30	Vasyl Zhelykh, Yurii Furdas, Volodymyr Shepitchak, Khrystyna Myroniuk, Stergios-Aristoteles Mitoulis Passive Technologies for Supporting the Microclimate in Modular Houses Topic: Renewable energy sources
09.30 – 09.45	Eva Bílková, Petr Nowak, Oksana Halych, Lesya Vovk Water Microturbines for Drinking Water Industry Topic: Renewable energy sources
09.45 – 10.00	Karol Kołat, Paulina Zajdel Joint Shaping in Floating Marina Piers of Steel and Aluminium Structure Topic: Design, realization and testing of building structures
10.00 – 10.15	Roman Tytarenko, Roman Khmil, Jacek Selejdak, Rostyslav Vashkevych A New Model for Predicting the Remaining Service Life of CFRP-Strengthened RC Beams Topic: Design, realization and testing of building structures
10.15 – 10.30	Wojnar Andrzej, Chernieva Olena, Kasprzak Wiktoria, Stability of an Industrial Hall in an Accidental Design Situation - Internal Explosion, According to EN 1991-1-7 Topic: Design, realization and testing of building structures
10.30 – 11.00	Coffee break
Lecture block III.	
Chairs:	Jacek Abramczyk - Zuzana Vranayova
11.00 – 11.15	Martina Zeleňáková, Tatiana Soláková, Rastislav Fijko, Hany F. Abd-Elhamid, Marcela Bindzárová Gergeľová, Slávka Galaš Using Green Roofs and Fasades for Climate Change Resilience in Urban Areas: a Case Study of Technical University of Kosice Topic: Architectural and urban design

11.15 – 11.30	<p>Zuzana Vranayova, Danica Kosicanova, Daniela Kaposztasova System for Rainwater Harvesting within Usable Elements of Green Architecture in a Selected Urban Area</p> <p>Topic: Water supply and sewage disposal on the scale of a building, housing estate, district, city</p>
11.30 – 11.45	<p>Jacek Abramczyk, Wiesław Bielak Unconventional Parametric Building Envelopes and Their Performance Optimized with Respect to Meteorological Conditions Occurring in Temperate Climate</p> <p>Topic: Building physics, energy efficiency in architecture and building engineering</p>
11.45 – 12.00	<p>Martin Lopusniak, Erika Dolníková, Dominika Husáriková Developing BIM Models for Building Approval</p> <p>Topic: BIM in the design and realization of building structures</p>
12.00 – 12.15	<p>Natalia Bróz, Piotr Nazarko, Anna Prokop, Artur Borowiec, Rafał Lichotał Deep Learning Models for The Recognition of Building Elements in Residential Floor Plan Drawings</p> <p>Topic: BIM in the design and realization of building structures</p>
12.30 – 13.30	Lunch
Lecture block IV.	
Chairs:	Aleksander Duda - Oleksii Hunyak
14.00 – 14.15	<p>Przemysław Smela, Leonard Ziemiań The Dynamic Analysis of the Cryogenic Tank in Different Fluid Level Conditions</p> <p>Topic: Mechanics of building structures, material strength</p>
14.15 – 14.30	<p>Anna Szewczyk, Jolanta Dzwierzynska, Andrzej Wojnar Design of Parking Shelters for Accident Situations-Vehicle Collision with a Column</p> <p>Topic: Geometrical shaping of building objects</p>
14.30 – 14.45	<p>Aleksander Duda Innovative Solutions for Stay-In-Place Formwork Reinforced with GFRP Bars for Bridge Structures</p> <p>Topic: Design, realization and maintenance of roads and bridges</p>
14.45 – 15.00	<p>Mateusz Szarata, Magdalena Szpytma, Cezary Szpytma Sustainable Urban Mobility Plan. Case Study of Programming Architectural Competition of Rzeszow Nowa Library</p> <p>Topic: Design, realization and maintenance of roads and bridges</p>
15.00 – 15.15	<p>Oleksii Hunyak, Uliana Marushchak, Yuriy Turba Research of the Properties of Recycled Concrete Aggregates for Structural Application</p> <p>Topic: Engineering and research of building materials</p>

15.15 – 15.45	Coffee break
Poster section (15.45 – 16.45)	
Moderators:	Oksana Pozniak - Magdalena Stręk
1.	<p>Assessment of the Stress-Strain State of Restored RC Beams Using Digital Image Correlation (DIC) Andriy Klym, Yaroslav Blikharsky, Illia Lytvynenko, Petro Kholod,</p> <p>Topic: Design, realization and testing of building structures</p>
2.	<p>The Influence of Basalt Fibres on Properties of Concrete Under Load Yurii Turba, Danylo-Myroslav Sobol, Taras Markiv, Zinoviy Blikharsky</p> <p>Topic: Building materials and technologies</p>
3.	<p>Research of Properties of Dry Building Mixtures for Renovation Works Khrystyna Sobol, Oleksandr Khita, Andriy Melnyk, Oksana Pozniak</p> <p>Topic: Building materials and technologies</p>
4.	<p>Bitumenous binder and asphalt concrete compositions development using a modifier obtained from coal processing by-products Yuriy Demchuk</p> <p>Topic: Building materials and technologies</p>
5.	<p>Ukraine's Experience in Slurry Surfacing Mix Applications Iurii Sidun</p> <p>Topic: Building materials and technologies</p>
6.	<p>Methodology for Risk Management of Emergency Situations at Gas Stations Nataliia Kichata, Oleg Tretyakov, Galyna Kalda, Batyr Khalmurado</p> <p>Topic: Climate, meteorology, air pollution</p>
7.	<p>Assessment of water intake safety Jakub Żywiec, Dawid Szpak, Diana Gałuszka</p> <p>Topic: Water management and infrastructure of water construction facilities</p>
8.	<p>The Water Network Tanks as an Alternative Water Source During Crisis Situation Magdalena Stręk, Izabela Piegdoń, Janusz Rak</p> <p>Topic: Water management and infrastructure of water construction facilities</p>
9.	<p>Failure Analysis and Assessment of a Sanitary Sewer Network - a Case Study Katarzyna Pietrucha-Urbanik, Andrzej Studziński</p> <p>Topic: Water supply and sewage disposal on the scale of a building, housing estate, district, city</p>
18.00	Dinner

Friday, September 26, 2025

07.30 – 08.30	<i>Breakfast (Herlany)</i>
10.15 – 11.45	<i>Excursion (Guided tour of the historical city center of Košice)</i>