

YOUNG SCIENTIST 2025

Technical University of Košice, Faculty of Civil Engineering

17th International Scientific Conference Civil and Environmental Engineering

Topics

- Building Information Modeling
- Building Physics and Services
- Construction Economics, Marketing and Management
- Construction Techniques, Organization and Management
- Environmental Engineering
- Indoor Environment
- Hydrotechnical Engineering
- Innovations in Construction Design and Technology
- Material Engineering and Technology
- Statics, Dynamics and Modeling
- Structural Engineering and Bridges
- Sustainable Architecture and Energy Efficiency
- Sustainable Civil and Environmental Engineering
- Sustainable Water Management
- Transport and Geotechnical Engineering
- Urban Engineering

26th-28th March 2025,

High Tatras, Slovakia.

Program:

Wednesday, March 26, 2025

11:00 – 12:30	Registration
12:30 – 14:00	-
Chairs:	Congress hall Alena SIČÁKOVÁ - Samuel BEREŽNANIN
14:00 – 14:20	Opening of the conference Dušan Katunský, Dean of the Faculty of Civil Engineering
14:20 – 14:40	Alexander Jiponov Feasibility study based on multi-criteria Analysis for location of Third Bridge across the Danube River between Romania and Bulgaria
14:40 – 15:00	Ján Pecka, Katarína Gajdošová Comparison of methods for calculating the resistance of slender columns strengthened with CFRP strips
15:00 -15:20	Marek Miazgowicz, Lucyna Domagała Study of the scale effect on the mechanical properties of high-strength concretes
15:20 -16:00	Coffee break
Chairs:	Congress hall Zuzana VRANAYOVÁ - Mária GRAZIANOVÁ
16:00 -16:20	Aleš Průcha, Jiří Šlanhof, Barbora Nečasová Analysis of Size Influence on Tensile and Shear Failures in Adhesive Joints Between ETICS and Sheet Metal Elements
16:20 -16:40	Patrik Šťastný, Oto Makýš Remedial technologies against rising damp with the possible use of ATP - a case study in situ investigating the effectiveness of the application

16:40 -17:00	Dariia Voloshchuk, Maria Kozlovska Prefabricated construction in Ukraine: Historical and technological context
17:00 -17:20	Ivana Halászová, Mária Kozlovská A Proposal for Incorporating Vegetation Elements into BIM Libraries
19:00	Welcome drink, Dinner

Thursday, March 27, 2025

Chairs:	Congress hall Andrej ŠOLTÉSZ - Anatolii KUHAL
9:00 - 9:20	Štefan Gorás, Dušan Katunský, Eva Krídlová Burdová, Michal Gorás, Using chimney ducts for daylight
9:20 - 9:40	Marián Dobranský Discovery of old River Branches: Hydrodynamic Analysis of the Orava River in Slovakia
9:40 – 10:00	Knut Pavol, Vranay František Evaluation of Biosolar Roofs: Global Insights and Planned Research in Slovakia
10:00 – 10:30	<i>Coffee break</i>
10:30 -11:00	Metrostav Ing. Jakub Čičák
11:00 -11:30	Mesto Košice Eva Singovszká The city of Košice in the context of climate change
11:30 -12:00	Košický samosprávny kraj Peter Serfözö Impacts of the strategic investment on key regional development themes

Chairs:	Congress hall Vojtěch VÁCLAVÍK - Dominika HUSÁRIKOVÁ
12:00 -12:20	Andrea Hrubovcakova, Peter Mesaros, Marcela Spisakova Efficiency in Building Renovation: A Review of Its Definition and Importance
12:20 -12:40	Jakub Krzempek Exploring the Nexus Between Life Cycle Assessment and Energy Efficiency in Buildings: A Literature Review
12:40 -13:00	Dana Kangalakova Women's involvement in civil engineering: a case study of Kazakhstan
13:00 -14:00	-
14:00 - 15:00	<i>Excursion</i>
15:00 - 15:30	<i>Coffee break</i>
15:30 - 17:00	Poster section Kamila KOTRASOVÁ - Denis KONOVALOV
1.	Jana Krempaská, Viktória Bajzecerová Modeling of Semi-Rigid Beam Connections in Timber-Concrete Composite Bridges
2.	Klaudia Tutkova, Štefan Kušnir Integrated concrete bridge
3.	Martin Jaš, Adriana Eštoková, Vojtěch Václavík, Tomáš Dvorský, Martin Halík Comparative study of environmental impacts of extraction methods of aggregate and loader equipment
4.	Radoslav Gandel, Nestor Plastun, Petr Cmiel and Katerina Matyskova Adhesion and interaction of inorganic binder systems with a biodegradable polymer based on polylactic acid
5.	Radoslav Gandel, Premysl Pavka, Jan Jerabek and Andrea Peknikova Evaluation of the degradation of concrete composites using digital microscopy

6.	Radoslav Gandel, Jan Jerabek, Petr Cmiel and Oldrich Sucharda Design of concrete mixtures and prediction of their compressive strength using machine learning
7.	Zuzana Marcalikova, Radoslav Gandel, Pavlina Mateckova Technology of 3D printing and possibilities of use in building elements
8.	Zuzana Dická, Erika Dolníková, Dušan Katunský Phase Change Materials (PCM) for Building Energy Efficiency: A Review
9.	Alexandra Viodvá, Lea Čubánová Assessment of Fish Pass Design Parameters to Meet Required Hydraulic Criteria
10.	Adela Rutzká, Ján Rumann, Roman Tóth Optimizing Fish Pass Design: Utilisation of Photogrammetry in Hydraulic Modeling
11.	Serhii Nosan, Alena Dyadenchuk Study of the Influence of Doping and Layer Thickness on the Efficiency of ZnO/porous-Si/Si Photoconverters
12.	Seitova Guldana, Soltanova Dinara, Butobayeva Aigerim, Kaskyrbayev Dias, Bugaeva Alla Environmental monitoring of water resources of Taldykorgan city
13.	Dagmar Sukopová, Martin Mohapl Use of recycled and waste materials as part of the substrate of green roofs
17:00 -17:30	Closing of conference sessions, <i>discussion</i>
19:00	Competitions, Informal discussion

Friday, March 28, 2025

Chairs:	Congress hall Kamila Kotrasova - Denis Konovalov
8:00 - 8:20	Dominika Husáriková, Erika Dolníková, Martin Lopusniak Double skin facade: Literature review
8:20 -8:40	Samuel Berezňanin, Mária Kozlovská Industrial Building Systems – Content Scoring System for assessing the prefabrication rate of construction projects
8:40 - 9:00	Denis Konovalov, Jozef Švajlenka, Dušan Katunský Awareness of options utilization digital tools and their application in the field of Facility management
9:00 - 9:20	Anatolii Kupal Revitalisation of the Latorica river embankment, Mukachevo
9:20 -9:40	Peter Mésároš, Maria Grazianova Retrofit as a specific form of renovation of the existing building stock: ICT and BIM as tools for innovation and sustainability
9:40 -10:00	<i>Discussion</i>

Thank You
for your participation!