



KAUNAS UNIVERSITY OF TECHNOLOGY

FACULTY OF CIVIL ENGINEERING AND ARCHITECTURE

KTU Library, Amphitheater, Studentu Str. 48, Kaunas

Agenda

Friday, December 5, 2025

08:30 Registration

09:00 Opening of the conference

The Plenary Session of the Conference, Amphitheater

The chairman PhD student Eglė Januškienė

09:05 The Potential Applications of Digital Twins

Speaker: Professor **Darius Pupeikis**, Kaunas University of Technology, Kaunas, Lithuania

09:25 Citizen Science: How to Engage Community into Our Research? 15min Estates Project Approach

Speaker: Professor **Sandra Treija**, Riga Technical University, Riga, Latvia

09:45 Theoretical and Practical Issues of Cultural Landscape

Speakers: Professor **Jūratė Kamičaitytė**, Associate Professor **Indrė Gražulevičiūtė-Vileniškė**, Kaunas University of Technology, Kaunas, Lithuania

10:05-10:20

Coffee Break



Presentations of the Conference

**6th Baltic Conference of Young Researchers in Architecture, Landscape
Architecture, Urbanism and Civil Engineering,**

Library, Amphitheater

The chairman dr. Vytautas Bocullo

- 10:20 Home and Gender Roles in Early Republican Era Magazines**
Speaker: Havva Buse Tuğtepe, Vaidas Petrulis, Kaunas University of Technology
- 10:40 Simulated heritage as an artistic strategy transcending the boundaries of authenticity**
Speaker: Arnas Džiaugys, Kaunas University of Technology
- 11:00 Data Gaps in Lithuanian Educational Building Registry: Implications for EU Energy Performance Directive Compliance**
Speaker: Paulius Vestfal, Lina Šeduikytė, Kaunas University of Technology
- 11:20 Architectural Activism as a Medium for Raising Spatial Awareness and Social Engagement**
Speaker: Ieva Lace-Luksevica, Riga Technical University
- 11:40 Exploring the Use of GIS-Based Multi-Criteria Decision Analysis (MCDA) for Residential Construction Site Selection: A Case Study of Lithuania**
Speaker: Sodiq Ajibola Rasheed, Kaunas University of Technology
- 12:00 HUL and NEB Approaches as a Basis for Evaluating a Historic Market**
Speaker: Skaistė Vaivadaitė, VILNIUS TECH
- 12:20 Biocentric and Holistic Ethics in Nature-Based Solutions: Literature Overview**
Speaker: Diana Žmėjauskaitė, Kaunas University of Technology

12:40-13:20

Lunch Break



Parallel session

Presentations of the Conference

Library, M3

The chairman PhD student Iryna Osadcha

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|--------------|---|
| 13:20 | Enhancing Building Decarbonization Through the Smart Readiness Indicator

Speaker: Cibion Justin Jeya Chandran, Lina Šeduikytė, Kaunas University of Technology |
| 13:30 | Research on the Use of Accumulators of Different Geometries for Building Heating Using Different Soil Fillers

Speaker: Rithika Patel, Kaunas University of Technology |
| 13:40 | Reducing CO₂ Emissions of Cement Systems in Construction Technologies by Replacing the Clinker Part with Mineral Powders

Speaker: Swathi Boggula, Kaunas University of Technology |
| 13:50 | Research on the Modification of Natural Oil Coatings to Improve Wood Surface Protection

Speaker: Mohamed Yasin Rabic Mohamed, Kaunas University of Technology |
| 14:00 | Production and Investigation of Sustainable Binder by Recycling Municipal Solid Waste Incineration Bottom Ash Using Alkaline Fusion

Speaker: Nia Iskandarova, Danutė Vaičiukynienė, Kaunas University of Technology |
| 14:10 | Influence of Organic Corrosion Inhibitors on the Durability and Mechanical Properties of Reinforced Concrete

Speaker: Lukas Bendaravičius, Ignacio Villalon Fornes, Danutė Vaičiukynienė, Kaunas University of Technology |
| 14:20 | Life Cycle Analysis in Infrastructure Projects: the Synergy of Circular Economy and Digital Twins

Speaker: Agnė Grigaitytė, Lina Šeduikytė, Kaunas University of Technology |
| 14:30 | Properties Research of Concrete with Glass Powder and Ultra-Low Amount of Portland Cement

Speaker: Andrius Kaleininkas, Evaldas Šerelis, Kaunas University of Technology |



- 14:40** **Application of Point Cloud to Automate HBIM Model Development by Applying Visual Programming Algorithms**
- Speaker: Saulius Balbieris, Vytautas Bocullo, Kaunas University of Technology
- 14:50-15:00** **Break**
- 15:00** **Development of a Construction Monitoring Tool using Photogrammetry Data**
- Speaker: Syed Amir Hashmi, Kaunas University of Technology
- 15:10** **Sustainable Integration of Biomass Ash into Self-Compacting Soil**
- Speaker: Mantas Budrys, Gediminas Stelmokaitis, Kaunas University of Technology
- 15:20** **Real Estate Development Model for Smart and Resilient Cities**
- Speaker: Davies Oppong, Rasa Apanavičienė, Kaunas University of Technology
- 15:30** **Research of Steel Columns Filled with Rubberized Concrete**
- Speaker: Iveta Malinauskaitė, Deividas Martinavičius, Kaunas University of Technology
- 15:40** **Studies on the Biological and Atmospheric Resistance of Wood Paneling Impregnated with Natural Oils**
- Speaker: Patricija Boreišaitė, Ernestas Ivanauskas, Kaunas University of Technology
- 15:50** **The Technology of Colouring Natural Aggregates and Research on the Properties of Dyed Water-Permeable Pavement Elements**
- Speaker: Shree Naveen Jagateesan Balamurugan, Kaunas University of Technology
- 16:00** **Replacement of Cement, Coarse and Fine Aggregates with Construction and Demolition Waste**
- Speaker: Ernestas Papšelis, Paulius Živatkauskas, Danutė Vaičiukynienė, Ignacio Villalon Fornes, Kaunas University of Technology
- 16:10** **Study of Crack Resistance Properties of Bamboo Fiber in Reinforced Concrete Beam**
- Speaker: Oleksii Lozytskyi, Pranta Dev Nath, Ignacio Villalon Fornes, Danutė Vaičiukynienė, Kaunas University of Technology
- 16:20** **LCA Comparison of Precast vs Cast-in-Place Columns and Beams for a Warehouse Building**



Speaker: Armin Madadkhanivahidi, Eglė Klumbytė, Kaunas University of Technology

16:30 Research on Production Technologies of Precast Concrete Elements with Different Surface and Structure

Speaker: Liucija Kazlauskaite, Kaunas University of Technology

16:50 Conference Closing, Amphitheater

Parallel session

Presentations of the Conference

Library, M7

The chairman PhD student Arnas Džiaugys

13:20 Carbon Fiber – Building Uses, Attributes and Design Trends

Speaker: Anhelina Shestavetska, Odeta Viliūnienė, Kaunas University of Technology

13:30 Facility Management Effectiveness Modelling: Sustainable Development Strategy Approach

Speaker: Daria Bratu (ONLINE), Kaunas University of Technology

13:40 Implementation of Nature-Based Solutions in Workplace Architecture for Human Well-being and Biodiversity Enhancement

Speaker: Hariharasuthan Sivakumar, Indrė Gražulevičiūtė-Vileniškė, Kaunas University of Technology

13:50 Public Spaces Activation through Inclusive Urban Design Principles

Speaker: Ieva Stulpinaitė, Kaunas University of Technology

14:00 Innovations in Apartment Blocks Renovation: Mitigating Urban Heat Stress and Enhancing Community Cohesion through Public Space Interventions

Speaker: Dmytro Oleksiienko, Kaunas University of Technology

14:10 Center for Sustainable Initiatives in the Natural Environment, Urbanized Environment, and Society Relations, Vydūno ave. 4, Kaunas. A Review of Theoretical Research

Speaker: Juras Jurgelionis, Kaunas University of Technology

14:20 Study on Conversion Opportunities of the Area Near the Panemunė Bridge in Žemieji Šančiai

Speaker: Karolina Mankiene, Kaunas University of Technology



14:30 **Feasibility Study for the Development of the Kaunas Old Town Territory Between M. Valančiaus, Šauklių, and Jonavos Streets: A Review of Theoretical Research**

Speaker: Gustė Janušauskaitė, Gintaras Prikockis, Kaunas University of Technology

14:40 **How Public Spaces Become Platforms for Dialogue Between Past and the Present: The Case of Kaunas**

Speaker: Ceren Arya Anik, Kaunas University of Technology

14:50-15:00 **Break**

15:00 **The Interaction of Architectural Expression of Interwar Buildings and Their Environment**

Speaker: Emilija Čeplinskaitė, Aušra Mlinkauskienė, Kaunas University of Technology

15:10 **Which is Better for Cities: Green Roofs or Green Walls?**

Speaker: Ieva Butauskaitė, Kaunas University of Technology

15:20 **Renovation of Buildings Located in Cultural Heritage Zones in Kaunas Old Town, Feasibility Study**

Speaker: Kornelija Brazytė, Gintaras Prikockis, Kaunas University of Technology

15:30 **Search of Architectural and Urban Development of the Town of Pagėgiai in Lithuania Minor**

Speaker: Gintarė Marozaitė, Aušra Mlinkauskienė, Kaunas University of Technology

15:40 **Challenges of Territorial Development in Cultural Heritage Zones: the Case of Kaunas Old Town. Development Feasibility Study of the Plot at Šv. Gertrūdės Str. 16**

Speaker: Domantė Blažaitytė, Kaunas University of Technology

15:50 **Transformation and Sustainable Integration of Abandoned Buildings into Existing Structures. Feasibility Study for a Pilgrim Centre near Kaunas Christ's Resurrection Church. Žemaičių Str. 31A**

Speaker: Faustas Rugys, Kaunas University of Technology

16:00 **Conversion of Sacred Space: Adaptation of the Virbalis Evangelical Lutheran Church into a Children and Youth Center**

Speaker: Kamilė Ožalaitė, Aušra Mlinkauskienė, Kaunas University of Technology



16:10 **Integration of Generative Artificial Intelligence and Digital Twin Platforms in the AECO Sector. A Strategic Vision for Automated Optimisation, that Requires New Approach to Data Governance and Legitimacy of Client Needs in Digital Environment**

Speaker: Karolis Vaikšnys, Kaunas University of Technology

16:20 **Fostering Social Reconciliation and Cohesion Through Urban Design**

Speaker: Darya Maniuk, Kaunas University of Technology

16:30 **Transport Infrastructure Architecture and its Research in UNESCO City**

Speaker: Modestas Petkus, Kaunas University of Technology

16:40 **Designing Regenerative Neighborhoods: Integrating Ecosystem Restoration, Social Infrastructure and Renewable Energy**

Speaker: Gunavarthan Ramesh, Kaunas University of Technology

16:50 **Conference Closing, Amphitheater**

Scientific Committee: Prof. dr. Andrius Jurelionis, KTU; Prof. dr. Sandra Treija, RTU; Prof. dr. Ugis Bratuškis, RTU; Assoc. prof. dr. Liutauras Nekrošius, VILNIUS TECH; Prof. dr. Kęstutis Zaleckis, KTU; Prof. dr. Jūratė Kamičaitytė, KTU; Prof. dr. Mindaugas Daukšys, KTU; Prof. dr. Danutė Vaičiukynienė, KTU; Assoc. prof. dr. Vaidas Petrulis, KTU; Assoc. prof. dr. Aušra Mlinkauskienė, KTU; Assoc. prof. dr. Eglė Klumbytė, KTU; Assoc. Prof. dr. Indrė Gražulevičiūtė-Vileniškė, KTU; Assist. dr. Ignacio Villalon Fornes, KTU

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Conference website

<https://sbe.ktu.edu/> ; <https://sbe.ktu.edu/phdstudents/>