



**POLYTECH**

Peter the Great  
St. Petersburg Polytechnic  
University

II International Conference «Civil, Industrial and  
Urban Construction 2025»

# CONFERENCE PROGRAM

April 2, 2025

St. Petersburg



## Scientific Committee:

1. Marina Petrochenko - Director of the Civil Engineering Institute, PhD, SPbPU (Russia)
2. Galina Kozinets - Director of the Higher School of Hydrotechnical and Power Engineering, D.Sc. (Eng.), SPbPU (Russia)
3. Yuri Lazarev - Director of the Higher School of Industrial, Civil and Road Construction, D.Sc. (Eng.), SPbPU (Russia)
4. Andrei Andreev - Director of the Higher School of Technosphere Safety, PhD, SPbPU (Russia)
5. Margarita Perkova – Director of the Higher School of Design and Architecture, Doctor of Architecture, SPbPU (Russia)
6. Maya Uspenskaya – Professor of the Higher School of Industrial, Civil and Road Construction, D.Sc. (Eng.), SPbPU (Russia)
7. Vladimir Lalin – Professor of the Higher School of Industrial, Civil and Road Construction, D.Sc. (Eng.), SPbPU (Russia)
8. Natalya Politaeva – Professor of the Higher School of Hydraulic and Energy Construction, D.Sc. (Eng.), SPbPU (Russia)
9. Vladimir Rybakov – Associate Professor of the Higher School of Industrial, Civil and Road Construction, D.Sc. (Eng.), SPbPU (Russia)
10. Viktor Elistratov – Professor of the Higher School of Hydraulic and Energy Construction, D.Sc. (Eng.), SPbPU (Russia)
11. Oleg Zaitsev – Professor of the Department of Infrastructure Energy Systems, D.Sc. (Eng.), Southwestern State University (Russia)
12. Sergey Kornienko – Head of the Department of “Architecture of Buildings and Structures”, D.Sc. (Eng.), Volgograd State Technical University (Russia)
13. Nikita Fomin - Director of the Institute of Construction and Architecture, Head of the Department of Industrial, PhD, Associate Professor, Civil Construction and Real Estate Expertise of the Ural Federal University (Russia)
14. Olga Golushkova, Dean of the Civil Engineering Faculty, PhD, Assoc. Prof., Belarusian-Russian University (Republic of Belarus)
15. Li Zhihua, Vice Director of Office of International Affairs, Professor of School of Environmental and Municipal Engineering, Xi'an University of Architecture and Technology (China)
16. Li Xiaolong, Executive Dean of College of Urban Development and Modern Transportation, Professor of Urban Planning, Xi'an University of Architecture and Technology (China)
17. Emil Akkoziev, Professor of the Department of Non-traditional and Renewable Energy Sources, D.Sc. (Eng.), Kyrgyz-Russian Slavic University named after B. N. Yeltsin (Kyrgyzstan)

18. Galina Frolova, Head of the Department of Water Resources and Engineering Disciplines, PhD, Assoc. Prof., Kyrgyz-Russian Slavic University named after B. N. Yeltsin (Kyrgyzstan)
19. Muradulla Mukhammadiev, Professor of the Department of Hydraulics and Hydropower Engineering, D.Sc. (Eng.), Tashkent state technical University named after Islam Karimov (Uzbekistan)
20. Mukhlis Gadzhiev, Professor, Head of the Department of Building Constructions, D.Sc. (Eng.), Azerbaijan University of Architecture and Construction (Azerbaijan)
21. Elgiz Gasanov, Acting Dean of the Faculty of Water Management and Engineering Communication Systems, PhD, Assoc. Prof., Azerbaijan University of Architecture and Construction (Azerbaijan)
22. Sine Diakité, Professor, Director of the Higher Institute of Architecture and Urban Planning (Guinea Republic)
23. Esaii Daou, Professor, Rector of the University of Segou (Mali)
24. Bezzazi Boudjeme, Professor, Rector of Tahri Mohammed University (Algeria)

## **Organizing Committee:**

1. Marina Petrochenko – Director of the Civil Engineering Institute
2. Andrei Andreev – Director of the Higher School of Technosphere Safety
3. Galina Kozinets – Director of the Higher School Hydrotechnical and Power Engineering
4. Yuri Lazarev – Director of the Higher School of Industrial, Civil and Road Construction
5. Margarita Perkova – Director of the Higher School of Design and Architecture
6. Mikhail Romanov – Associate Professor of the Higher School Hydrotechnical and Power Engineering
7. Issa Togo – Associate Professor of the Higher School Hydrotechnical and Power Engineering
8. Tatiana Koryakovtseva – Associate Professor of the Higher School of Hydrotechnical and Power Engineering
9. Dmitrii Zotov – Leading Programmer of the Higher School of Hydrotechnical and Power Engineering
10. Ekaterina Linnik – Assistant of the Higher School of Industrial, Civil and Road Construction, Editor-in-Chief - Editorial Board of the "Engineering and Construction Journal"
11. Anna Zanina – Senior Lecturer of the Higher School of Industrial, Civil and Road Construction
12. Alexander Panfilov. – Associate Professor, Higher School of Hydrotechnical and Power Engineering
13. Oleg Stolyarov – Associate Professor, Higher School of Hydrotechnical and Power Engineering
14. Olga Gamayunova – Associate Professor, Higher School of Industrial, Civil and Road Construction
15. Evgeniya Zavodnova – Senior Lecturer, Higher School of Industrial, Civil and Road Construction
16. Natalia Bokovaya – Lead Engineer, Higher School of Industrial, Civil and Road Construction
17. Daniil Zanin. – Programmer, Higher School of Industrial, Civil and Road Construction

## II International Conference «Civil, Industrial and Urban Construction - 2025»

Responsible for the section: **Tatiana Koryakovtseva**, PhD, Associate Professor

Moderators: **Marina Petrochenko**, PhD, Director of the Civil Engineering Institute;  
**Mikhail Romanov**, PhD, Associate Professor; **Issa Togo**, PhD, Associate Professor;  
**Anna Dontsova**, Assistant

Date, time and place: **April 2, 2025, beginning 10:00 (Moscow time), room 411, Hydrobuilding – 2**

Registration of participants starts at **9:00 (Moscow time)**

Remote connection for participants **09:30 (Moscow time)**

10:00	<b>WELCOMING SPEECHES</b>	
	<b>Yuri Fomin,</b> <i>Vice-Rector for Research of Peter the Great St. Petersburg Polytechnic University</i>	
	<b>Marina Petrochenko,</b> <i>Director of the Civil Engineering Institute</i>	
	<b>Elgiz Hasanov,</b> <i>Acting Dean of the Faculty of Water Management and Engineering Communication Systems, Azerbaijan University of Architecture and Construction</i>	
	<b>Olga Golushkova, (online)</b> <i>Dean of the Civil Engineering Faculty of the Belarusian-Russian University</i>	
10:15	<b>Hongzhe Pan (online)</b> Identifying Urban River Pollution Sources from Wet-Weather Discharges Using an Integrated Deep Learning and Data Assimilation Approach <i>China, Nanjing, Hohai University</i>	
	10:30	<b>Yaning Wang (online)</b> Can water level regulation of reservoirs in southern China effectively mitigate the risk of sudden black water pollution ? <i>China, Nanjing, Hohai University</i>
		10:45

11:00	<b>Luo Pingping</b> (online)
	Urban 2D Hydrodynamic Modelling for Extreme Rainfall Based on GPU and CPU
	China, School of Water and Environment, Chang'an University
11:15	<b>Zhinhua Li</b> (online)
	Development and Application of Bio-Ecological Coupling Technology Based on Microalgal-Bacterial Symbiosis System
	<i>China, School of Environmental and Municipal Engineering, Xi'an University of Architecture and Technology</i>
11:30	<b>Muradulla Mukhammadiev, Victor Elistratov</b> (online)
	Development of hydropower complexes in Uzbekistan
	<i>Uzbekistan, Tashkent, Tashkent State Technical University Russia, St.-Petersburg, Peter the Great St.-Petersburg Polytechnic University</i>
11:45	<b>Elena Afanasyeva</b> (online)
	Verification of the Ritz method for discrete approximation of displacements
	<i>St Petersburg State University of Architecture and Civil Engineering</i>
12:00	<b>Amenah Hasan Felaih</b> (online)
	Earthquake Resistance Systems and Global Design Strategies for Highway Bridges
	<i>Iraq, Baghdad, University of Thi Qar</i>
12:15	<b>Tatyana Khlebtsova</b> (online)
	Construction Study of the Rheological Properties of Concrete Mixtures Using Additives–Modifiers
	<i>Russia, Kaliningrad, Immanuel Kant Baltic Federal University</i>
12:30	<b>Benoudjafer Ibtissam</b> (online)
	When the recycled materials using for thermal insulation and enhanced energy efficiency in residential building located in hot arid region
	<i>Algeria, Béchar, Tahri Mohamed University</i>
12:45	<b>Nabil Bella</b> (online)
	Geotechnical and environmental Modelisation of Coal Waste in Road Construction
	<i>Algeria, Béchar, Tahri Mohamed University</i>
13:00	<b>Yacouba Daou</b> (online)
	Volumetric stress state with stress features. Evaluation of its strength
	<i>Mali, ENETP-National School of Technical and Professional Higher Education</i>

	<b>Samake Mamoutou</b> (online)
13:15	Adoption of modern irrigation systems in Sahel region
	<i>Mali, University Hamed Baba ( Bamako)</i>

**Break 30 minutes (13:30-14:00)**

	<b>Valeriya Lapshina</b>
14:00	Assessment of the Comprehensive Safety of a Construction Site at the Stage of Development of a Construction Master Plan
	<i>Russia, St.-Petersburg, Peter the Great St.-Petersburg Polytechnic University</i>
	<b>Lunis Gallyamov</b>
14:15	Model for Increasing the Efficiency of Resource and Calendar Planning for the Construction of Residential Buildings
	<i>Russia, Kazan, Kazan State University of Architecture and Engineering</i>
	<b>Artem Shitokhin</b>
14:30	Quality Management of Design and Working Documentation using Artificial Intelligence
	<i>Russia, St.-Petersburg, LLC "QUALITY ENGINEERING"</i>
	<b>Elgiz Hasanov</b>
14:45	On the stability and durability of concrete structures used in coastal marine protection structures
	<i>Azerbaijan University of Architecture and Construction</i>
	<b>Galina Kozinets</b>
15:00	The research of the safety of hydraulic engineering structure
	<i>Russia, St.-Petersburg, Peter the Great St.-Petersburg Polytechnic University</i>
	<b>Pavel Kozinets</b>
15:15	Calculation of Response Spectra of Concrete Damps
	<i>Russia, St.-Petersburg, Peter the Great St.-Petersburg Polytechnic University</i>
	<b>Leonid Yakunin</b>
15:30	Study of the Processes of Formation and Treatment of Surface Wastewater from University Campuses
	<i>Russia, St.-Petersburg, Peter the Great St.-Petersburg Polytechnic University</i>

15:45	<b>Kirill Zubarev</b> (online)
	Temperature and Humidity Conditions of Building Envelopes
	<i>Russia, Moscow, Moscow State University of Civil Engineering, RUDN University, Research Institute of Construction Physics of the Russian Academy of Architecture and Construction Sciences</i>
16:00	<b>Sergey Chuikin</b> (online)
	Heat Transfer during the Flow of a Thin Liquid Film on a Horizontal Plate under the Action of Shear Forces from the Air Flow
	<i>Russia, Voronezh, Voronezh State Technical University</i>
16:15	<b>Oleg Zaitsev</b>
	Autonomous life support systems in residential complexes with limited energy supply
	<i>Russia, Kursk, Southwestern State University</i>
16:30	<b>Natalia Rydalina</b> (online)
	Study of Heat Transfer Parameters in Heat Exchangers with Porous Intensifiers
	<i>Russia, Tyumen, Tyumen Industrial University</i>
16:45	<b>Sergey Kornienko</b>
	Bioclimatic Analysis of Livestock Buildings in the Summertime
	<i>Russia, Volgograd, Volgograd State Technical University</i>
17:00	<b>Vitaly Savvateev</b>
	New Design and Technological Solutions for Waterproofing Working Joints of Concreting Using Metal Waterstops
	<i>Russia, Yekaterinburg, Ural Federal University named after B.N. Yeltsin</i>
17:15	<b>Musa Abubakar Abdullahi</b>
	The Potential of Plastic Fiber-Reinforced 3D Printed Concrete in Energy-Efficient Construction
	<i>Russia, St.-Petersburg, Peter the Great St.-Petersburg Polytechnic University</i>

**Discussion and summary of the conference (17:30-17:45)**