

## Potential scientific supervisors: Urbanism & Civil Engineering

№	Surname	Name	University	Scientific interests	Link to portfolio
1.	Abramkina	Darya	Moscow State University of Civil Engineering	<p>Improving the reliability of ventilation systems considering the influence of climatic peculiarities of the construction area</p> <p>Assessment of the impact of urban environment on indoor air quality</p> <p>Smoke ventilation systems</p> <p>Night cooling of buildings</p> <p>Formation of the mechanism of resource saving and improvement of air quality in the woodworking enterprise</p> <p>Algorithm for the implementation of passive and biophilic technologies in the design of shopping and office centers</p>	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/darya-v-abramkina.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/darya-v-abramkina.php</a>
2.	Adamov	Oleg	Moscow State University of Civil Engineering	<p>Russian Avant-Garde Masters, Contemporary Western Architects</p> <p>Structural-Semiotic and Deconstructivism Research Methods Applicable to the Examination of the Modern Architecture</p>	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/oleg-i-adamov-.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/oleg-i-adamov-.php</a>
3.	Alekseytsev	Anatoly	Moscow State University of Civil Engineering	<p>Resistance of unsplit composite welded beams at removal of intermediate support and static-dynamic loading</p> <p>Resistance of steel frames of buildings under the chain scheme of beams in the accidental situation.</p> <p>Optimization of material consumption of bending elements in composite section under dynamic loading with regard to the change of working scheme</p> <p>Optimization of the rod steel structures considering the criteria of safety and risk of damage in emergency situations.</p> <p>Bearing capacity and deformability of steel frame joints of buildings under dynamic loading</p>	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/anatoly-v-alekseytsev.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/anatoly-v-alekseytsev.php</a>

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				Resistance of steel frame structures with account of corrosion damage under dynamic loading Optimal design of steel structures on the basis of heuristic algorithms and artificial intelligence technologies Reinforced concrete structures	
4.	Belyaeva	Zoya	Ural Federal University named after the first President of Russia B.N. Yeltsin	Issues of stability of compressed, bendable and compressed-bendable structures; Resistance of frames to progressive collapse Mathematical modeling of spatial structures, surface scanning, analytical algorithms for scanning surface elements	<a href="https://urfu.ru/en/research/postgraduate-programs-in-english/admission-options/open-doors-olympiad/research-supervisors/zoia-v-believa/">https://urfu.ru/en/research/postgraduate-programs-in-english/admission-options/open-doors-olympiad/research-supervisors/zoia-v-believa/</a>
5.	Chusov	Aleksandr	Peter the Great St. Petersburg Polytechnic University	Development of scientific foundations and methods of flood protection in adjacent river basins based on modeling the operating modes of a distributed multi-stage system of intercepting hydroelectric systems.	<a href="https://opendoors.spbstu.ru/files/supervisors_portfolio/chusov.pdf">https://opendoors.spbstu.ru/files/supervisors_portfolio/chusov.pdf</a>
6.	Danilina	Nina	Moscow State University of Civil Engineering	Principles of spatial development of territorial systems of cities and settlements using GIS technologies Improving the transport systems of cities and settlements Principles of the development of new forms of mobility and the road network Formation of the natural and ecological framework of cities and settlements Formation of generative models in the field of spatial development of cities and settlements	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/nina-v-danilina.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/nina-v-danilina.php</a>
7.	Denisenko	Elena		Bidirectional architecture, bioapproaches, bidirection, futuristic architecture, architecture of the future	<a href="https://kpfu.ru/portal/docs/F_206851928/Portfolio.Denisenko.E.V.ang.docx">https://kpfu.ru/portal/docs/F_206851928/Portfolio.Denisenko.E.V.ang.docx</a>
8.	Doroshin	Ivan		The study of rational methods of strengthening brickwork during the reconstruction of buildings Research of organizational and technological solutions for the inspection of reinforced concrete structures	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/ivan-n-doroshin.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/ivan-n-doroshin.php</a>

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				Rational organizational and technological solutions for roofing of buildings Modern methods of inspection of reinforced concrete structures Effective methods of strengthening pile foundations in the process of reconstruction of a residential building	
9.	Galishnikov a	Vera	Moscow State University of Civil Engineering	Numerical analysis of the stress-strain state of spatial thin-walled rod structures taking into account non-uniform torsion Mathematical models of seismic isolating supports Building information modeling based on the skeleton approach Reinforced concrete structures Mathematical models of the stress-strain state of structures manufactured by 3-D printing Design of digital twins of construction projects Methodology of digital construction production	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/vera-v-galishnikova.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/vera-v-galishnikova.php</a>
10.	Gravit	Marina	Peter the Great St. Petersburg Polytechnic University	Development of rational forms and parameters of structures, volume-planning solutions of buildings and structures, based on the conditions of placement in the building, functional and technological processes, thermal-physical, fire safety. Development of new and improvement of rational types of supporting and enclosing structures, structural solutions of buildings and structures taking into account the processes taking place in them, the natural and climatic conditions and fire safety.	<a href="https://opendoors.spbstu.ru/files/supervisors_portfolio/gravit.pdf">https://opendoors.spbstu.ru/files/supervisors_portfolio/gravit.pdf</a>
11.	Kantarzhi	Izmail	Moscow State University of Civil Engineering	Composite Modeling in Determining the Optimal Layout of Port Protective Structures Control of suspension capacity by wave flows Methods of organizing additional flushing of the harbor of the yachting port Reflection of waves from structures, determination of	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/izmail-g-kantarzhi.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/izmail-g-kantarzhi.php</a>

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				<p>wave loads and effects taking into account the reflection</p> <p>Local erosion of the base of gravity offshore platforms</p> <p>Harmonization of the method of numerical simulation of waves and flows and modern normative methods of calculation</p> <p>Preventing oil from sticking to port facilities in case of emergency oil spills in the port</p>	
12.	Kazaryan	Armen	Moscow State University of Civil Engineering	<p>Late Antique and Early Christian architecture</p> <p>A medieval city on the example of one of the cities or archaeologically uncovered ancient settlements of the Middle East and Central Asia</p> <p>Questions of the origin and development of the compositions of the Eastern Christian churches</p> <p>Modern development of the historical city</p> <p>Archaeological settlement with monuments of ancient and medieval architecture</p> <p>Problems of studying and preserving ancient and medieval residential buildings</p> <p>Issues of reconstruction and the theory and practice of restoration of ancient and medieval buildings and structures.</p> <p>Issues of the formation of national architecture in the countries of Eastern Europe and the South of the Russian Empire in the second half of the 19th – early 20th century.</p> <p>Orientalism in European and Russian architecture of the 19th – early 20th century.</p>	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/armen-yu-kazaryan.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/armen-yu-kazaryan.php</a>
13.	Koroteev	Dmitry	Moscow State University of Civil Engineering	<p>Comprehensive analysis of energy costs in the construction industry by stages of the life cycle of construction projects, as well as in the production of building materials.</p> <p>Assessment of the scale of construction in Russia and forecast of the need for energy resources for</p>	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/dmitry-d-koroteev.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/dmitry-d-koroteev.php</a>

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				<p>construction work.</p> <p>Development of a mathematical model for energy supply of construction projects in conditions of energy resource deficit based on decision-making theory and the flow method.</p> <p>Improvement of the method of scheduling construction work with flow energy supply.</p>	
14.	Kudryavtsev	Sergey	Ural Federal University named after the first President of Russia B.N. Yeltsin	<p>Load-bearing steel structures of multi-story civil buildings with corrugated webs</p> <p>Load-bearing steel structures of single-story industrial buildings with corrugated webs</p> <p>Large-span steel structures with corrugated webs</p> <p>Strengthening of reinforced concrete structures with composite materials</p> <p>Strengthening of masonry structures with composite materials</p> <p>Strengthening of wooden structures with composite materials</p> <p>Strengthening of steel structures with composite materials</p> <p>Restoration of cultural heritage structures using modern composite materials.</p>	<a href="https://urfu.ru/en/research/postgraduate-programs-in-english/admission-options/open-doors-olympiad/research-supervisors/sergey-v-kudryavtsev/">https://urfu.ru/en/research/postgraduate-programs-in-english/admission-options/open-doors-olympiad/research-supervisors/sergey-v-kudryavtsev/</a>
15.	Kuznetsov	Sergey	Moscow State University of Civil Engineering	<p>Seismic barriers for protection against surface seismic waves</p> <p>Seismic isolators based on acoustic black holes</p> <p>Development of seismic metasurfaces for protection against seismic and vibration impacts</p> <p>Diffraction and scattering of Rayleigh-Lamb seismic waves on pile fields</p> <p>Development of seismic protection systems for airfield runways from a wide range of wave impacts</p>	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/sergey-v-kuznetsov.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/sergey-v-kuznetsov.php</a>
16.	Lazarev	Yuri	Peter the Great St. Petersburg	Study of traffic flows interaction, including high-speed ones, with structures during operation and construction to develop methods for improving the	<a href="https://opendoors.spbstu.ru/files/supervisors_portfolio/lazarev.pdf">https://opendoors.spbstu.ru/files/supervisors_portfolio/lazarev.pdf</a>

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			Polytechnic University	efficiency of the transport system, convenience, safety and environmental friendliness of traffic, and environmental protection.	
17.	Makisha	Nikolay	Moscow State University of Civil Engineering	Improvement of biological methods of wastewater treatment Research on the application of biomembrane wastewater treatment technologies Assessment of the life cycle of wastewater disposal facilities Development of sustainable technological solutions for the construction and modernization of wastewater treatment plants Analysis of the energy efficiency of wastewater disposal facilities	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/nikolai-a-makisha.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/nikolai-a-makisha.php</a>
18.	Savin	Sergei	Moscow State University of Civil Engineering	Arch action of two-span reinforced concrete beams at removal of an intermediate support and static-dynamic loading Robustness of reinforced concrete frames at catenary action of beams as a result of an accidental design situation. Bearing capacity of reinforced concrete beams of composite cross-section under static-dynamic loading considering the change of the design scheme. Stiffness and crack resistance of reinforced concrete beams of composite section with dispersed reinforcement Reinforced concrete frames	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/sergei-y-savin.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/sergei-y-savin.php</a>
19.	Sharapov	Dmitry	Peter the Great St. Petersburg Polytechnic University	Numerical modeling, Arctic constructions, ice impacts, soil foundations, ice loads, wave loads.	<a href="https://opendoors.spbstu.ru/files/supervisors_portfolio/sharapov.pdf">https://opendoors.spbstu.ru/files/supervisors_portfolio/sharapov.pdf</a>
20.	Stolyarov	Oleg	Peter the Great St. Petersburg	Fibrous materials, composites, structural mechanics, mechanical properties, test methods, durability, modelling.	<a href="https://opendoors.spbstu.ru/files/supervisors_portfolio/stolyarov.pdf">https://opendoors.spbstu.ru/files/supervisors_portfolio/stolyarov.pdf</a>

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21.	Tamrazyan	Ashot	Moscow State University of Civil Engineering	<p>Evaluation of the reliability of joints of prefabricated and monolithic reinforced concrete structures of frame and panel buildings in the stage of manufacturing and operation;</p> <p>Calculation of monolithic steel concrete ceiling panels on the basis of the recording of shear deformations and forces in the contact of corrugated board and reinforced concrete panel;</p> <p>Evaluations of the reliability of panels in the case of fire impacts, taking into account the temperature inhomogeneity;</p> <p>Reinforced concrete bending elements;</p> <p>Analysis of the reliability of statically defined and uncertain rays developed with redistribution of the moment;</p> <p>Evaluation of the reliability of reinforced concrete panels on the basis of the development of a probabilistic model of corrosion processes.</p>	<a href="https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/ashot-g-tamrazyan.php">https://mgsu.ru/postupayushchim/olimp/olimpiady/open-doors/open-doors-en/research-supervisors/ashot-g-tamrazyan.php</a>
22.	Timashev	Svyatoslav	Ural Federal University named after the first President of Russia B.N. Yeltsin	<p>Stochastic structural mechanics,</p> <p>Probability theory and mathematical statistics,</p> <p>FEM software, optimization (benefit-cost) software,</p> <p>Artificial neural networks software,</p> <p>Bayesian network software</p>	<a href="https://urfu.ru/en/research/postgraduate-programs-in-english/admission-options/open-doors-olympiad/research-supervisors/sviatoslav-a-timashev/">https://urfu.ru/en/research/postgraduate-programs-in-english/admission-options/open-doors-olympiad/research-supervisors/sviatoslav-a-timashev/</a>