

DESCRIPTION OF ACADEMIC PROGRAMME TAUGHT IN RUSSIAN AND ACCEPTING INTERNATIONAL STUDENTS FOR THE FOREIGN-LANGUAGE SUSU WEBSITE

Division: *Institute of Architecture and Construction*

Academic programme: *2.1.1 Structures, Buildings and Constructions*

Mode of study: *full-time*

Programme length: *4 years*

Programme level: *postgraduate studies*

Language of instruction: *Russian*

Programme description: *Graduates of this programme for training researchers and teaching staff become specialists conducting studies in the following fields:*

- 1. Building and developing of the theory, elaborating of analytical and computational methods of calculating the mechanical safety and fire resistance, rational design and optimization of structures and structural systems of buildings and constructions.*
- 2. Developing of physical and numerical methods of experimental studying of structural systems, bearing and envelope structures, structural properties of materials.*
- 3. Developing of the theory and methods of evaluating the stress condition, vulnerability, risk, reliability, remaining life and operational life of structures, buildings and constructions, including in case of emergency situations, specific and beyond-design impacts, and substantiation of the criteria of acceptable safety level.*
- 4. Developing and elaborating of methods of monitoring, quality assessment and diagnostics of the technical state of structures of buildings and constructions during their construction, operation and reconstruction.*
- 5. Substantiation of the technical solutions for reconstruction, reinforcement and restoration of the elements and structures of buildings and constructions under operation.*
- 6. Scientific substantiation of predicting the loads and impacts on structures, buildings and constructions at the stages of their creation, operation and reconstruction.*
- 7. Developing of rational forms and parameters, space-planning solutions for buildings and constructions with consideration to the conditions of their location in the site development, functional and technological processes, thermophysical, illumination-engineering, acoustic and other hygiene-and-sanitary conditions, fire safety and environmental safety.*
- 8. Developing of new and improvement of the rational types of bearing and envelope structures, design solutions for buildings and constructions with consideration to the processes occurring in them, natural-and-climatic conditions, mechanical safety, fire safety and environmental safety.*
- 9. Developing and elaborating of the theoretical foundation and methods of calculating of envelope structures of buildings and constructions with consideration to natural-and-climatic, thermophysical, illumination-engineering, acoustic and other conditions.*

Main programme-specific classes:

- *History and Philosophy of Science*
- *Foreign Language*
- *Structures and Constructions*

Programme manager: *Candidate of Sciences (Engineering) Maksim V. Mishnev*

Full name and contacts (phone number, e-mail) of the person in charge of the information accuracy: Maksim V. Mishnev, 89995851936
mishnevmv@susu.ru