University	Peter the Great St. Petersburg Polytechnic University
Level of English proficiency	Fluent
Courses and fields of studies offered for applicants	*2.1.6 Hydraulic engineering, hydraulics and engineering hydrology*
Projects for potential academic supervision	1. Investigation of the impact of new construction on existing buildings and structures 2. Analysis of the stress-strain state of the tailings dam 3. Assessment of the impact of new construction on the existing underground collector 4. Reconstruction of hydraulic engineering facilities
Topics offered for prospective researches	1. Engineering protection of territories from floodings 2. Stability, strength and deformations of soil dams 3. Construction and reconstruction of hydraulic structures 4. Ensuring the safety of underground industrial facilities (tailings dumps) 5. Design and calculations of pile foundations 6. Stress-strain condition of sheet pile walls 7. Assessment of the impact of new construction on underground structures
 Research supervisor: Vladimir Konyushkov Candidate of Science/PhD (SPbGASU)	An international map of science corresponding to the field of research: *Design and construction of civil facilities*
	Supervisor's research interests: *Geotechnics, pile foundations, tongue-and-groove fences, underground structures, soil dams, hydraulic engineering*
	Study program highlights: *Geotechnical and hydraulic engineering are the most important areas in construction worldwide. The geotechnical and hydraulic engineer specialist is highly qualified in the field of analytical calculations and has professional skills in working with computing software systems*.
	Supervisor's specific requirements: A postgraduate student is required to study the following disciplines: Engineering Geology, Soil Mechanics, Geotechnics, Hydraulic engineering. The graduate student must have the skills to work in the following software packages: AutoCAD, Plaxis, Midas GTS, etc.
	Supervisor's publications: 1. Analysis of bored piles' field test results. Key Engineering Materials. Trans Tech Publications Ltd, Switzerland. 2020. (828). pp. 194–201. 2. Side friction of sandy and clay soils and their resistance under the toe of deep bored piles (at the depth of up to 100 m). Architecture and Engineering. Volume 5. Issue 1. St.Petersburg. SPbGASU. 2020. pp. 36-44. 3. Application of 4D BIM modelling in planning and construction of zero cycle works. E3S Web of Conferences 164, 08024 (2020) TPACEE-2019. 4. Mechanical safety of buildings and structures during underground construction of linear objects in complex geotechnical conditions. Construction of Unique Buildings and Structures; Article No 11503. 2025.

	5. Reliability assessment of new construction impact of existing structures using finite element analysis (in print) 2025.
	Impacts of Supervisor's research: 1. Scientific and technical support for the operation (ensuring stability) of the enclosing dam of the tailings dam. SPbPU 2025 2. Scientific and technical expert opinion on the estimated impact of new construction on the existing sewer system. SPbPU. 2025