



EMPRESS CATHERINE II SAINT PETERSBURG MINING UNIVERSITY



SAINT PETERSBURG – THE STUDENT CAPITAL OF RUSSIA

Saint Petersburg, founded in 1703 by Peter the Great, is one of the most beautiful cities in the world and rightfully regarded as the cultural capital of Russia.



UNESCO World
Heritage Site



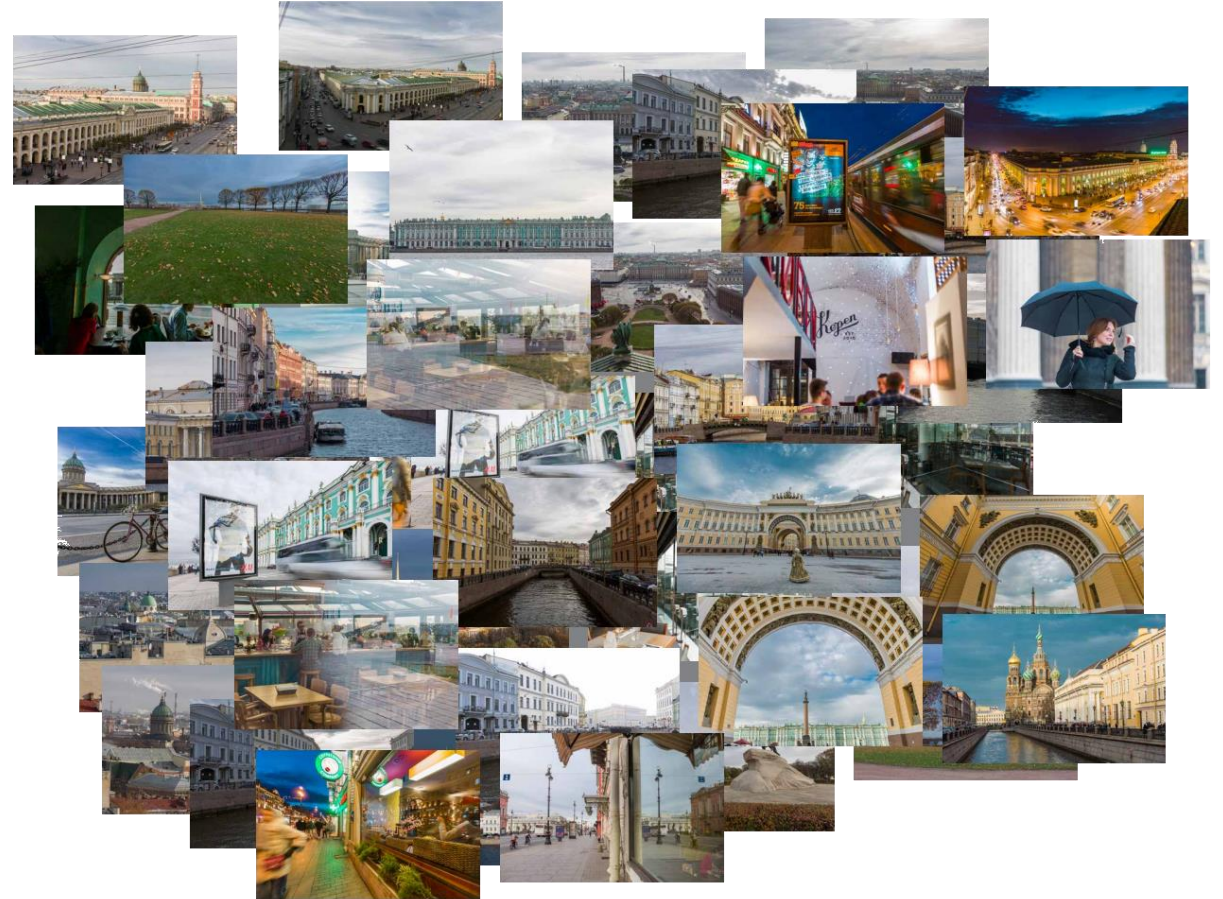
Nearly 4,000 landmarks
and 300 museums



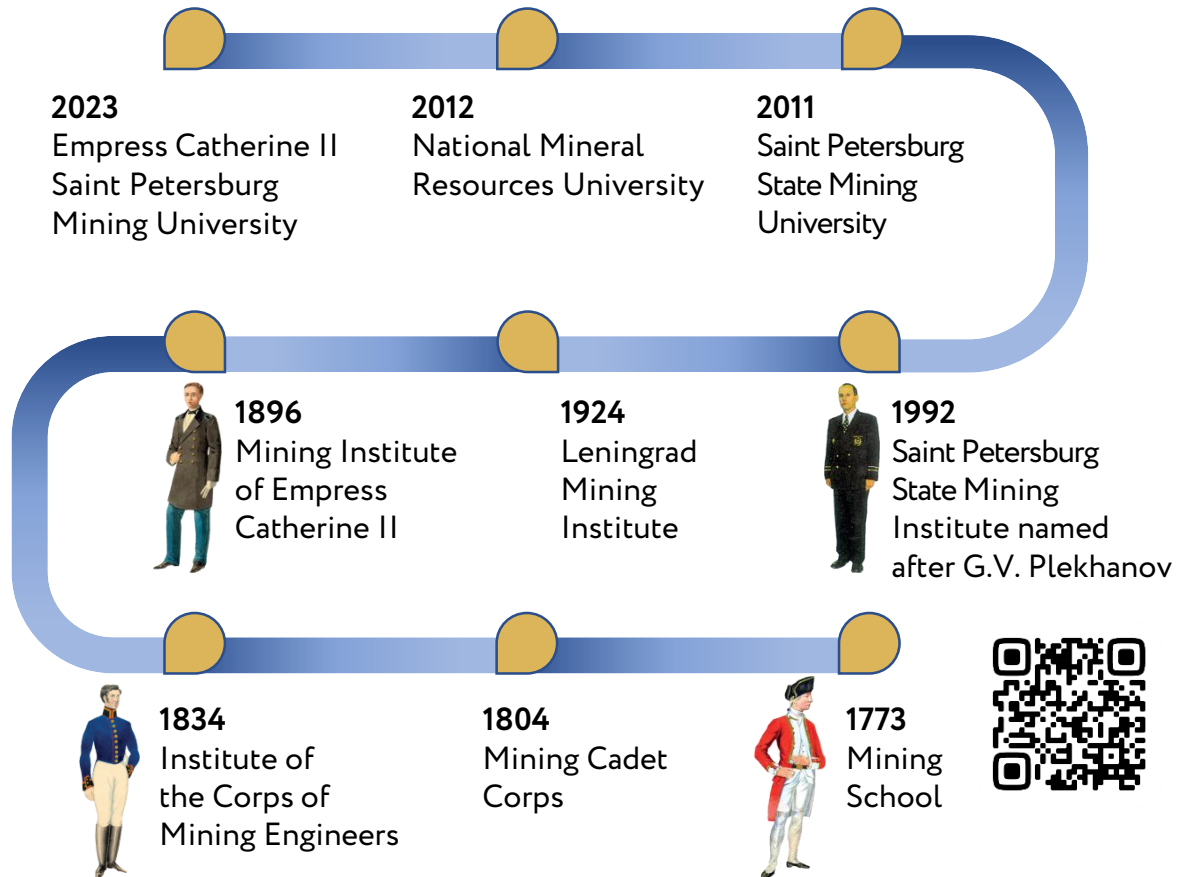
68 rivers and
canals, 580 bridges

The city is not only an "open-air museum" but also one of the largest scientific and educational centres in Russia.

It was in St Petersburg that, by decree of Catherine the Great, Russia's **first higher technical institution** was established – **Saint Petersburg Mining University**.



FIRST HIGHER TECHNICAL EDUCATIONAL INSTITUTION IN RUSSIA



SAINT PETERSBURG MINING UNIVERSITY TODAY

The **university** that holds leading positions in both national and international education rankings, located in **three modern academic buildings** on Vasilievsky Island, close to the historic centre of Saint Petersburg.

Training Centre No. 3,
Engineering Corps



Training Centre No. 2



Training Centre No. 1,
Main building



IN 2023 MINING UNIVERSITY ACHIEVED

QS
by Subject

3rd place
in the world rating
by subject
Engineering - Mineral and Mining



ENGINEERING TRAINING SYSTEM

Training Centre No. 1 'Main building' – built in 1811 by the architect Voronikhin, it serves as the "heart" of the university, housing not only lecture halls and departmental laboratories, but also the deans' offices, administrative units, and the Rector's Office.



Geological Exploration Faculty



The Oil and Gas Faculty



Faculty of Mechanical Engineering



Construction Faculty



Faculty of Mineral Processing



Faculty of Economics



155 multimedia classrooms



9 canteens and cafes



38 laboratories



7 sports halls



Mining Museum



Main Library



ENGINEERING TRAINING SYSTEM

Training Centre No. 2 – the centre for engineering education for future specialists in key disciplines of mining, energy, construction, and mechanical engineering.



Mining Faculty



Energy Faculty



Faculty of Mechanical Engineering



Civil Engineering Faculty



140 classrooms



7 sports halls



21 multimedia classroom



2 canteens



20 laboratories



Swimming pool



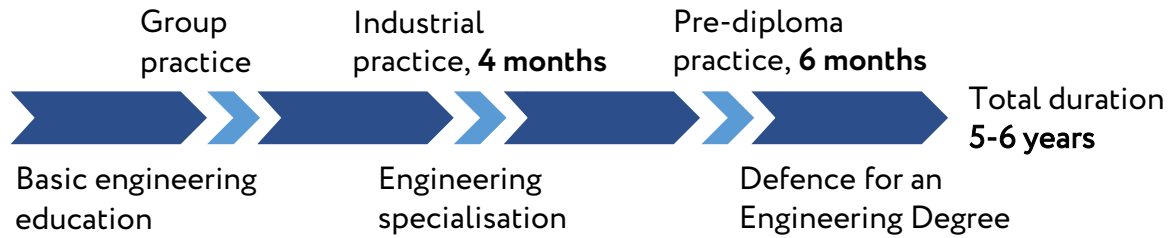
Surveying Museum



Library



ENGINEERING TRAINING SYSTEM



Training Centre No. 3 'Engineering Corps' – the centre for fundamental engineering training of future specialists in core humanities, physics and mathematics, natural sciences, and technical disciplines.



Institute of Fundamental Engineering Education



Geological Exploration Faculty



Energy faculty



135 classrooms



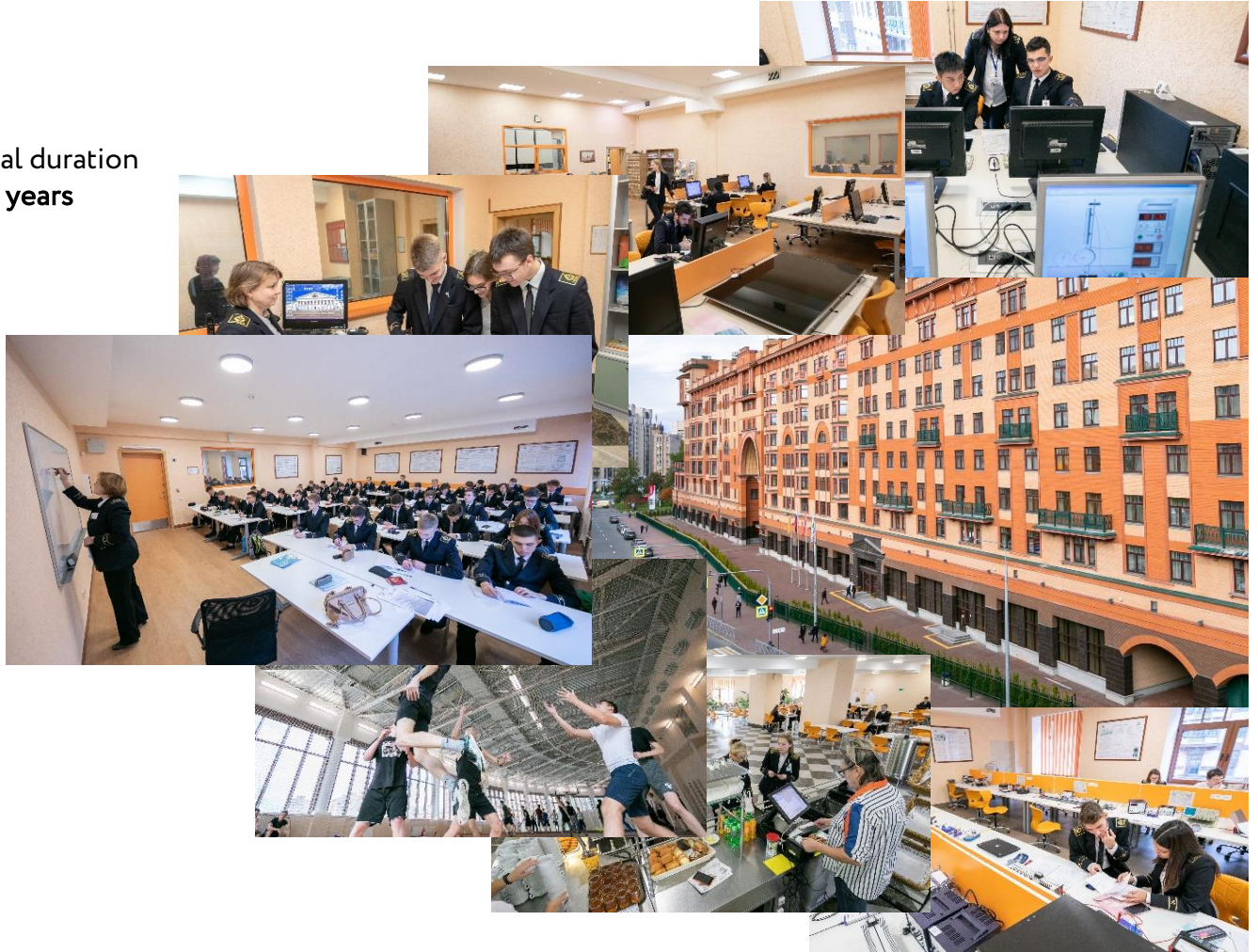
8 canteens and cafes



21 laboratories



5 sports halls



PILOT PROJECT ON IMPROVING HIGHER EDUCATION SYSTEM

In accordance with the **Decree of the President** of the Russian Federation 'On Some Issues of Improving the Higher Education System', Saint Petersburg Mining University is implementing the **Pilot Project on improving the Russian higher education system** with the aim of qualitatively improving the process of personnel training to meet the long-term needs of various sectors of the economy.

Higher engineering education,
duration of study 5-6 years



The objective is to form in the graduate a holistic worldview of the speciality and the place of scientific progress in it, motivating to self-realisation through work in the speciality.

Training of personnel of higher qualification (Postgraduate studies),
duration of study 3-4 years

The objectives are to prepare a teacher for university activities and a researcher capable of conducting and organising research.



Diploma "Higher Engineering Education"



Qualification "Lecturer" in higher education for Major Courses



Diploma "Research Engineer"



Qualification "Researcher" in a scientific field

OIL AND GAS ENGINEERING



Graduates' Key Competences



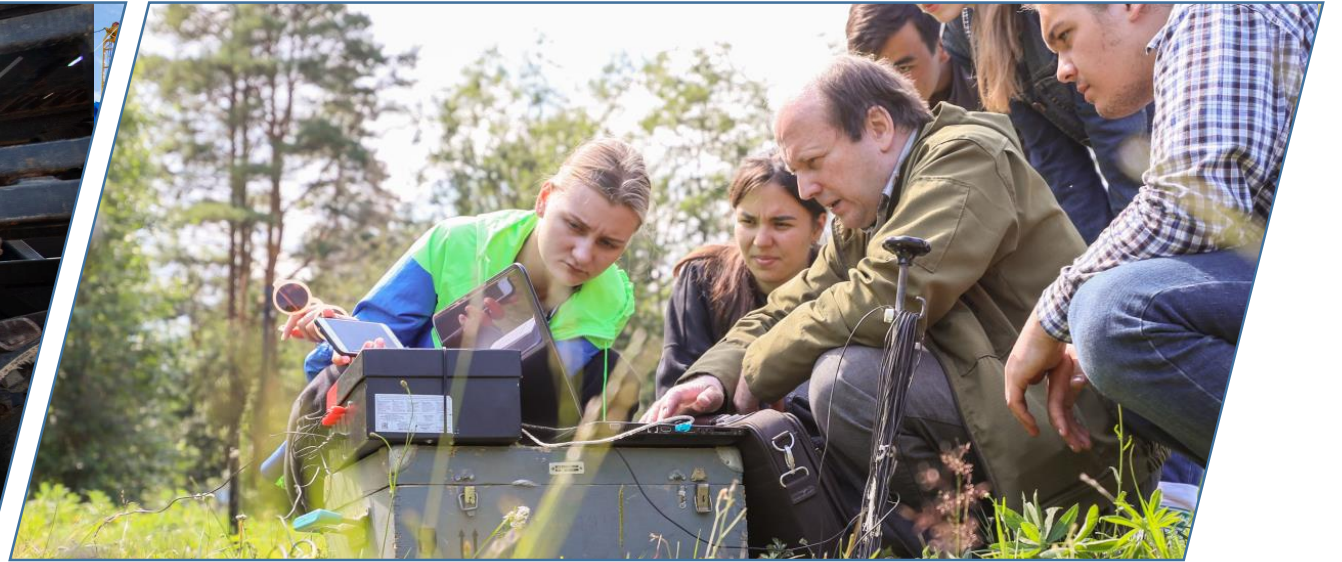
Acquainted with basics of oil and gas business, underground hydromechanics, design, construction and operation of pipelines.

Skills in engineering support of hydrocarbon fields development on the basis of innovative knowledge-intensive technologies.

Acquainted with the peculiarities of drilling deep and ultra-deep wells while ensuring all stages of their construction.

Mastery methods of technical diagnostics of machines and equipment.

GEOLOGY



Graduates' Key Competences



Understanding of natural and anthropogenic geological processes.

Acquainted with the geology of mineral deposits, the conditions of their formation and their location in the Earth's crust.

Mastery of methods for diagnosing and studying minerals, rocks and ores.

Skills in preparing a scientifically based forecast of the mineral deposit location, selection of a rational methods of prospecting, exploration, reserves estimation and optimal development mode.

ARCHITECTURE



Graduates' Key Competences



Acquainted with the basic of architecture, geodesy and topography.

Skills in developing author's conceptual architectural design.

Acquainted with the requirements to the architectural section of the design documentation of capital construction projects.

Skills in supervising the architectural section of design documents.

Mastery of methods of defect elimination during facility operation.

MINING



Graduates' Key Competences



Acquainted with the methods of safe, resource-saving and cost-effective technologies of development of mineral deposits.

Mastery of technologies of mining operations in open and underground mining and modern mining equipment.

Mastery of the methods of design, construction, operation, reconstruction and re-equipment of mining enterprises.

Skills of computer technologies for modeling of deposits and mining operations.

ENGINEERING ECOLOGY



Graduates' Key Competences



- Skills of organization of engineering and environmental surveys.
- Mastery of modern methods of environmental monitoring.
- Mastery of order of environmental expertise of projects.
- Development of environmental protection methods.
- Acquainted with the methods of rational use of resources and software in the field of environmental protection

CIVIL ENGINEERING



Graduates' Key Competences



- Acquainted with the methods of technical and economic assessment of construction conditions, investments.
- Skills in developing of volume-planning solutions of industrial and civil buildings.
- Mastery of methods of design and construction of load-bearing structures of buildings and facilities.
- Mastering the techniques and technology of construction and installation works with a focus on innovative developments.

ELECTRONICS AND NANOELECTRONICS



Graduates' Key Competences



- Acquainted with the physical fundamentals of electronics, microprocessor technology and power electronics
- Acquainted with designing, calculation, construction and modernisation of electronic devices at the circuit and element levels.
- Skills of using specialised computer-aided design systems.
- Mastery of skills of mathematical modelling of electronic devices, circuits and devices of various functional purposes.

HEAT POWER ENGINEERING



Graduates' Key Competences



- Acquainted with the basic thermophysics and thermodynamics.
- Skills in the steam and gas turbines design, design and principles of operation of thermal and nuclear power plants, renewable and non-traditional energy sources.
- Mastery of the methods of design and construction of load-bearing structures of buildings and facilities.
- Mastering the techniques and technology of construction and installation works with a focus on innovative developments.

ENGINEERING TRAINING SYSTEM

Educational and industrial placements – the mandatory part of training highly qualified engineering professionals, ensuring the consolidation of skills acquired at university.

Educational Practices

7 training and research grounds in the Leningrad region and in the Republic of Crimea:



Drilling



Geodesic



Geoecological



Oil and gas



Geological-geophysical



Hydrogeological

Industrial Practices

Partner companies, leading enterprises in the field of mineral resources extraction, including:



TRAINING AND RESEARCH GROUND “SABLINO”

Training in working professions, conducting practical training to obtain the necessary skills and experience in accordance with educational programmes, assessing the possibility of testing new technical means and technologies in conditions close to the operating conditions of facilities.

Facilities:



Oil drilling and geological exploration training site



Training energy complex with renewable energy sources



Oil and gas transport and storage site



Centre for processing of big data arrays



Experimental workshop for resource processing



Test Module of Antarctic Drilling Technologies



Engineering centre for project support



Industrial site for hydrocarbon production

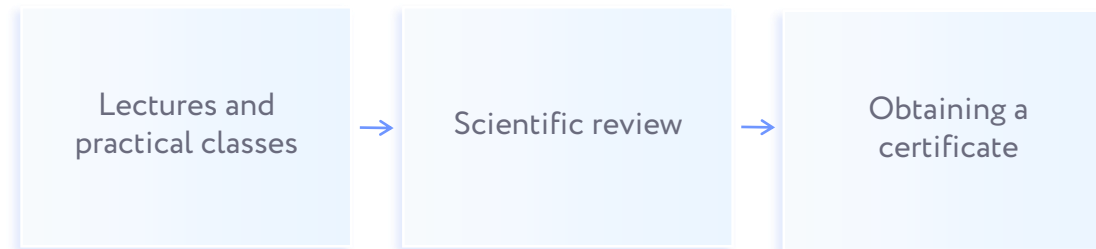


TRAINING OF SCIENTIFIC-PEDAGOGICAL STAFF

International programme 'Philosophy of Science' – training of highly qualified specialists with scientific competence to provide scientific and pedagogical staff for profile universities, including training of qualified researchers for scientific and technological development of the national economy.



Part I: Theoretical course



Fundamentals of publication activities

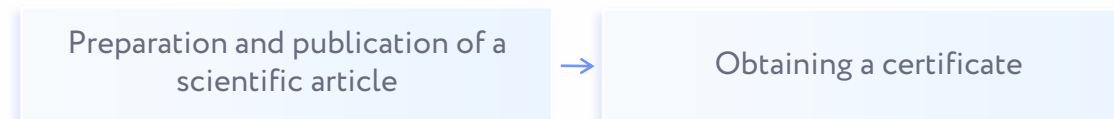
- 📍 Magazine choice
- 📍 Publishing ethics
- 📍 Patent law



Fundamentals of scientific research

- 📍 Methodology of the experiment
- 📍 Setting a goal and objectives
- 📍 Selection of the object and subject research

Part II: Practical course



ADVANCED SCIENTIFIC RESEARCH AND DEVELOPMENT

The Mining University was the main design bureau of the Russian Empire, the USSR, and now Russia. The University's scientists create and implement breakthrough technologies at mineral and raw materials enterprises, modernise production chains, and conduct experiments related to minimising anthropogenic impact on nature.

Research centres in priority fields of study:



Educational and Scientific Center for Digital Technologies



Scientific Centre 'Problems of Processing of Mineral and Technogenic Resources'



Scientific Centre 'Ecosystem'



Scientific Centre 'ARCTICA'

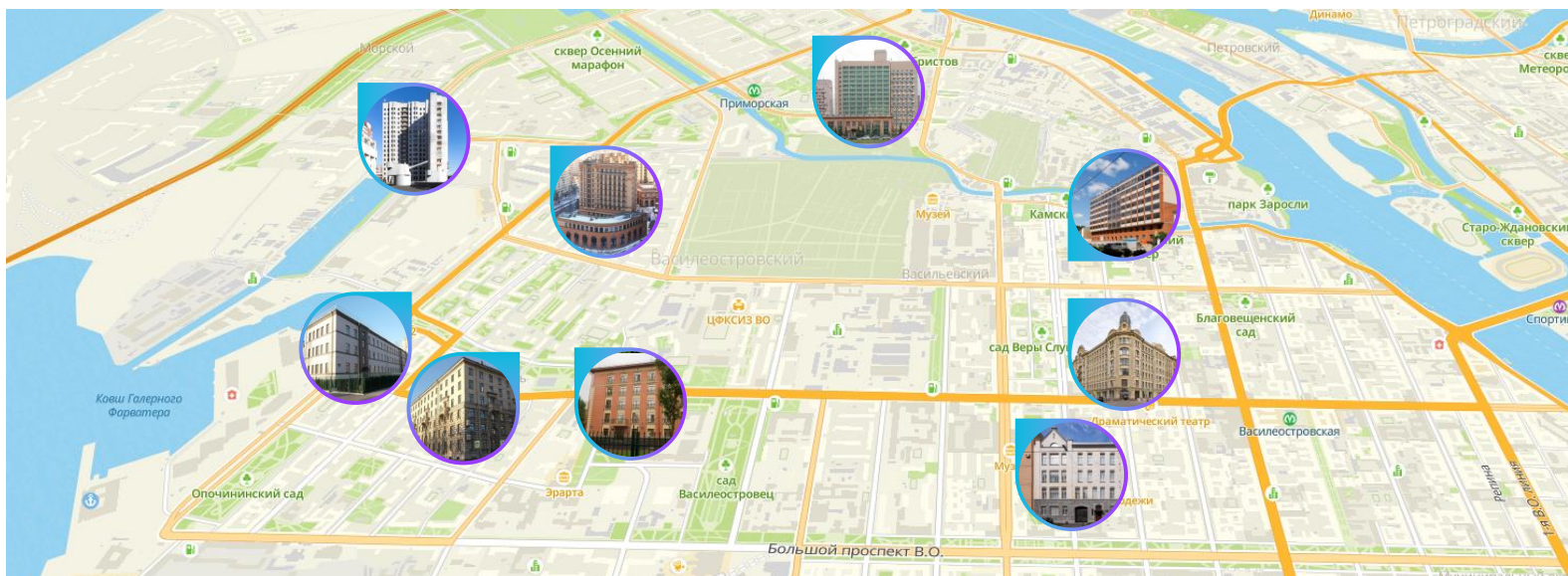


Scientific Centre for Geomechanics and Mining Problems



COMFORTABLE ACCOMMODATION FOR STUDENTS AND YOUNG SCIENTISTS

9 comfortable dormitories located on Vasilevsky Island in close proximity to the academic centres of St. Petersburg Mining University.



Flexible pricing policy determined by the comfort level of the hostel



Maximum travel time to the training centre by transport ~ 15 minutes



Computer classes, classrooms for individual work



Laundries and ironing rooms

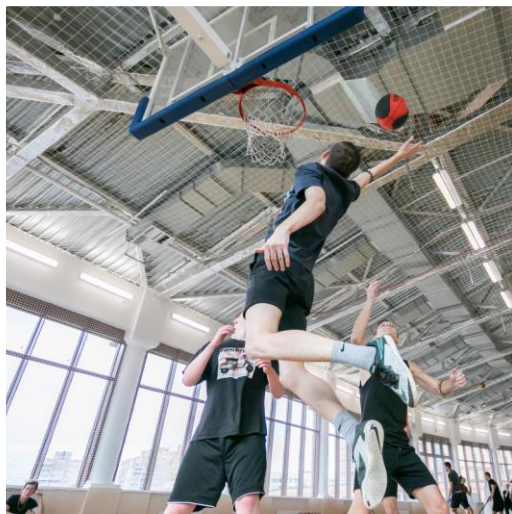


Gyms



Secured territory, entrance by individual chip cards

SPORTS



Saint Petersburg Mining University pays special attention to sports. Each of the training centres has modern multifunctional sports halls available to all students and staff.



The total area of the university's sports facilities is more than 8,000 sq. m.



There are more than 80 sections, including: judo, basketball, swimming, hockey, rugby, rowing and others.



The teachers are world champions and honoured masters of sport.



There is a swimming pool at Training Centre No. 2 and a climbing wall at Training Centre No. 1



The University is a venue for high level university and international competitions

STUDENT LIFE



19 hobby clubs



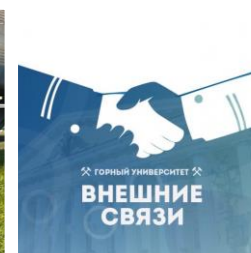
more than 200 events



7 public associations



more than 4,000 participants





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