# POLYTECH Peter the Great St. Petersburg Polytechnic University $\pi$ International Polytechnic Summer schoo

# Come Welcome to and **Peter the Great** St. Petersburg enjoy **Polytechnic University!** Vour THE UNIVERSITY that gathers keen students from all over the summer globe willing to expand their knowledge and get a great time in the most hospitable and charming city ever. Come and enjoy advanced studies and friendly life people around, whilst making the most of what Saint Petersburg has to offer to our students! with US International Polytechnic Charming city – Accommodation Contact Saint Petersburg and Student life



well.

Polytechnic Summer School offers invaluable insights into key business disciplines. It is enriched by a cultural program and networking events, and gives you the chance to explore the great city - Saint Petersburg!

of our guests starting from the airport throughout the whole staying at SPbPU campus.

Here, you can explore outstanding studies with star professors from over the globe and a huge campus, which is 15 minutes far from the city center by metro, take part in our cultural program and get fun and remarkable experience in our fabulous city!

# **WHEN**

June - September

# PRICE

Tuition fee: avg. 17500 Rubles per

week (approx. 250 euro)

Registration fee: 3300 Rubles (approx.

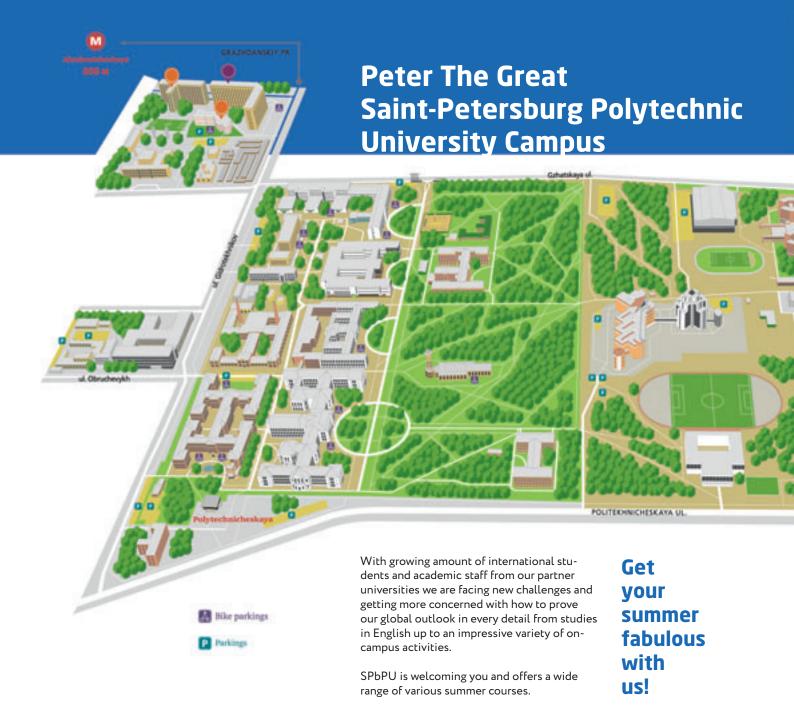
45 euro)

Accommodation fee: approx. 7 euro

per night













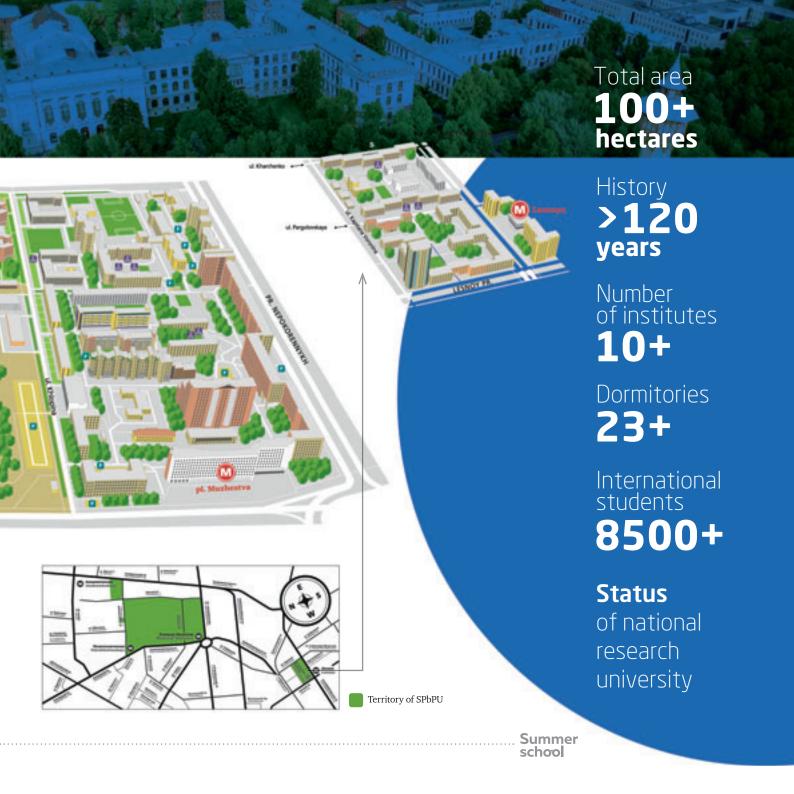














# International Polytechnic Summer School

EVERY YEAR we host international students from varied countries. You may choose any courses you want, which suit your personal interests, from a number of courses and combine your individual track.

We invite star professors from overseas partner universities to give more insights into up-to-date and real-life issues in different fields of studies: space technology, natural science and engineering, digital technology, IT, civil engineering, energy technology, economics and business, humanities, Russian language and culture.

# **About Programs**

NUMBER OF COURSES:

**DURATION:** 

1-4 weeks

ECTS:

2-6

40+

PARTICIPATION FEE\*:

avg. 17500 Rubles per week (approx. 250 euro)

ACCOMMODATION

FEE:

approx. 7 euro per night

MONTHS: June - September

SCHOLARSHIPS: available

TUTORS' SUPPORT: English-speaking students of SPbPU

Participation fee\* includes tuition fee, study materials, field trips, basic cultural and outside activities.









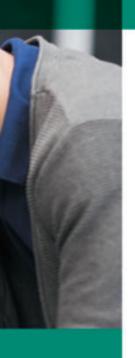








# List of programs



# **Summer Graduate Schools**



The 35th ECMI Modelling Week



PolyPhotonics



Cyber-Physical Systems Technologies: Applications in Industry (Sochi Dialogue)

# Engineering and Natural Sciences (ENS)



Advanced Technologies for Materials Processing (Polytech - BTU)



Microelectronics Materials, Circuits and Devices



«Plasma Physics and Controlled Fusion (Polytech -SOKENDAI) on cooperation with IAEA»



Space Technologies

# Information and Digital Technologies (IDT)



Computer Modeling and Simulation for Engineers (Polytech – ■ UNED)



Smart Manufacturing and Digital Future



Digital Engineering



Machine Learning: Theory and Application



Modern SAP Technologies



3D Design and Digital Fabrication



Game design: 3D Character animation

# Civil Engineering (CE)



Civil Engineering



Digital Construction

# **Energy Technology (ET)**



Nuclear Engineering



Turbomachinery



**Electrical Engineering** 



Oil & Gas in Energy Industry



Digitalization in Energy Industry



Renewable Energy



Energy Efficiency and Sustainable Development

# Life Science (LS)



Molecular Gastronomy



«Sport Management & Marketing (Polytech -■ Université de Lorraine) oin cooperation with INSHS

# Economics and Business (EB)



Doing Business in Russia



Logistics and Supply Chain Management



City Branding



🌞 Tourism Marketing Toolkit



HR Analytics and Human Capital Development



International Strategic Management



Quantitative Finance (Polytech - E City, University



Entrepreneurship and Technology Leadership

# Russian Studies and Humanities (RSH)





Russian Language, Literature & Business Culture



Russian Language for Business Communication (session 1, 2)



Russian Language, Politics & Art



Intensive Survival Russian Language for Exchange Students



Russian Language, History & Literature



Preparation for TORFL test



Leadership in Communication



Sociocultural Studies



**International Polytechnic SUMMER & WINTER SCHOOLS** 

school

# Admission

# **ENTRANCE REQUIREMENTS:**

- Age: over 18 years old (students under 18 can be admitted to the program only in case they come in group with a teacher)
- Good command of English. All classes and extracurricular activities are conducted in English.

# **APPLICATION PACKAGE:**

- Completed application form (to be requested from coordinators)
- Scanned copy of international passport (for non-EU citizens passport must be valid for more than 18 months after the program beginning)
- Jpeg photo (passport-size)

# APPLICATION DEADLINES:

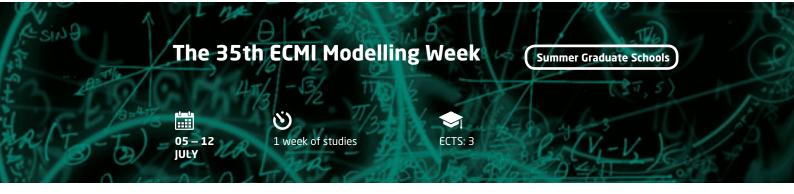
# For EU countries citizens:

• 1-1.5 months before the starting date of the program

# For non-EU countries citizens:

• 2-2.5 months before the starting date of the program

Please, check the exact deadlines at our website: www.english.spbstu.ru or summerschool.spbstu.ru



E uropean Consortium for Mathematics in Industry (ECMI) has been running annual Modelling Weeks for students since 1988.

Students come from all over Europe to spend a week working in small multinational groups on problems which are based on real life problems. Each group is led by an ECMI instructor who introduces the problem — usually formulated in non-mathematical terms — on the first day and then helps to guide the students to a solution during the week. The students present their results to the other groups on the last day and then write up their work as a report.

The main aims of the Modelling Week are to train students in Mathematical Modelling and stimulate their collaboration and communication skills, in a multinational environment.

# PROGRAM PARTNERS:

European Consortium for Mathematics in Industry (ECMI)

















he summer school course PolyPhotonics is appropriate for graduate students and early-career professionals who are interested in photonics and its applications. The program covers optical telecommunications, fiber optics, biomedical optics, image processing, AR/VR technologies and quantum cryptography. The school consists of theoretical courses and intensive workshops.

# PROFESSORS AND LECTURERS:

Scientists and industry experts experienced in the fields of optics and photonics



yber-physical systems (CPS) are impacting on manufacturing and production processes to the extent that their effects are likened to a "fourth industrial revolution." Others use terms such as "smart production." The business case for introducing CPS is most immediately clear with large scale, complex manufacturing, where significant gains can result from early adoption.

Researchers conduct fundamental and applied research in the field of intelligent robotics and control systems; practising innovative technologies and hard- and software solutions for the problems of industrial automation and high-tech industrial control systems.

Engineers analyse the interactive environment of cyber-physical and robotic systems to create new solutions and mathematical models in the field of intelligent robotics and control systems, studies technologies of industrial object remote control, group control of team behaviour of collaborative robots and situational control in conditions of uncertainty in the framework of applied developments. Our module is useful for future researchers as well as for practicing engineers.

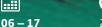
# PROFESSORS AND LECTURERS:

Vyacheslav V. Potekhin, Associate Professor, Director of Centre SPbPU-FESTO «Synergy»

# **Advanced Technologies** for Materials Processing (Polytech - BTU)



JULY







**Engineering & Natural Sciences** 

his is a joint program developed in cooperation with Brandenburg University of Technology Cottbus-Senftenberg (Germany). The School provides the unique opportunity to attend intensive academic program, which is focused on the processing technologies (PT) and joining techniques (JT) with experience of professors from European countries, with different opinions and approaches. The two-weeks course is divided in two blocks: Basics and Advanced. First block will give you the theoretical knowledge, basic descriptions of the technologies and an overview of their applications. Second block consists in advanced topics on these technologies based on state-of-the-art practice based activities in research laboratories and deep aspects of the material microstructure evolutions during processing.

### PROGRAM PARTNERS:

Brandenburg University of Technology Cottbus-Senftenberg (Germany)

# **CULTURAL PROGRAM:**

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)

# **PROFESSORS** AND LECTURES:

Ralf Ossenbrink, Dr.-Ing. Brandenburg University of Technologies Cottbus-Senfteberg; Nickolav Dovnov, Dr.-Ing. Brandenburg University of Technologies Cottbus-Senfteberg; Anton Naumov, associate professor, Polytech, Russia.

# Microelectronics Materials, **Circuits and Devices**







2 weeks of studies



**Engineering & Natural Sciences** 

his is a program developed in cooperation with industrial partners. Students will expand their knowledge in the field of advanced microelectronics. The lectures will include some basics of prospective materials and devices, of microelectronic circuit simulations and design. Students will apply these fundamentals to the area of functional and organic electronics and electronics for telecommunications.

This program will help students to achieve solid understanding how modern digital circuits can be built using Verilog Hardware Description Language (HDL) and tested with FPGA devices. We will start from basic digital devices described with Verilog and evaluated on FPGA development boards. Next step will involve more complex digital circuits, including system-on-chip (SoC) based on SCR1 microprocessor - open source and free to use RISC-V compatible MCU core, designed by Syntacore company. The course is based on regular classes held in SPbPU and will be carried out by very experienced and highly qualified experts.

# **PROFESSORS** AND LECTURES:

Prof. Alexander Korotkov: Dr. Ivan Piatak, Dr. Viktoria Kapralova.

# **CULTURAL PROGRAM:**

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)















# Plasma Physics and Controlled Fusion (Polytech-SOKENDAI)

\* in cooperation with IAEA



JULY







**Engineering & Natural Sciences** 

his is a joint program of SPbPU and SOKENDAI (the Graduate University for Advanced Studies, Japan), organized in cooperation with the International Atomic Energy Agency (IAEA). The course is suitable as the first plasma physics course or an add-on course for senior undergraduate students and graduate students. The primary objective of the course is to present the fundamentals of plasma physics particularly highlighting high-temperature plasma physics and its applications to controlled fusion. The course begins with an overview of plasma phenomena and their applications. The lectures cover Coulomb collisions, single particle motion in magnetic field, magnetic traps, principles of controlled fusion, plasma heating and diagnostics. The program also includes study visits to a tokamak laboratory and a laboratory for plasma technologies.

# PROGRAM PARTNERS:

SOKENDAI: The Graduate University for Advanced Studies (Japan),
A.F. loffe Physico-Technical Institute and Institute of Electrophysics and Electric Power of Russian Academy of Sciences.

## **CULTURAL PROGRAM:**

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)

**Engineering & Natural Sciences** 

# PROFESSORS AND LECTURERS:

N. Tamura, Ph.D., SOKENDAI, Japan; P.R. Goncharov, Ph.D., Polytech, Russia.

# **Space Technologies**



06 – 17 JULY



2 weeks of studies



CCTC

he summer school course "Space Technologies" is suitable for senior undergraduate and graduate students as the first space technology course or an add-on course. The program aims to provide advanced techniques of space engineering and understanding the core physics principles related to space exploration. Space industry problems are also considered during the program in addition to technology topics. The theoretical courses cover astrophysics, space technology and physics. Students will train their practical skills during a hackathon (a creative coding marathon) and an interactive business simulation workshop. The speakers are industry experts and scientists experienced in the field of space technology.

### PROGRAM PARTNERS:

The Institute of Applied Astronomy of the Russian Academy of Sciences, Pulkovo Observatory, Ioffe Institute, Astronomicon

# CULTURAL PROGRAM:

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)

# PROFESSORS AND LECTURES:

Aleksander Ivanchic, corresponding member of RAS; Aleksander Blinov, professor of Space Investigation department, SPbPU; Oleg Tsybin, professor of IPNT, SPbPU; Vitaly Egorov, Dauria Aerospace; Denis Malygin, head of Astronomicon; Vladimir Mostepanenko, Pulkovo Observatory.

# Computer Modeling and Simulation for Engineers (Polytech - UNED)

ntroduction in Object-Oriented Modeling is based on two courses

Model Designer for beginners» developed for InMotion Project. Mod-

elica and Model Vision Language are object-oriented, equation based

modeling languages for modeling and simulation complex dynamical

practical work and independent work with tools for visual modeling.

systems. Models of complex dynamical systems are hierarchical, compo-

nent models with event-driven behavior. Both courses include lectures,

«Modeling and Simulation with Modelica for engineers» and «Rand

**Information & Digital Technologies** 

Information & Digital Technologies



06 – 17 IULY





PROGRAM PARTNERS:

UNED: Universidad Nacional de Educación a Distancia (Spain)

## PROFESSORS AND LECTURERS:

Prof. Alfonso Urquia, UNED, Spain Prof. Carla Martín-Villalba, UNED, Spain Prof. Yuri Senichenkov, Polytech, Russia.

# **CULTURAL PROGRAM:**

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)

# Smart Manufacturing and Digital Future



sess. 1: 06 – 17 JULY sess. 2: 03 – 14 AUGUST



2 weeks of studies



per session

he program provides students fundamental and applied research activities in the field of intelligent robotics and control systems; practicing innovative technologies and hard- and software solutions for the problems of industrial automation and high-tech industrial control systems. Students analyze the interactive environment of cyber-physical and robotic systems to create new solutions and mathematical models in the field of intelligent robotics and control systems.

Teams of students studies and demonstrate technologies of industrial object remote control, group control of team behavior of collaborative robots and situational control in conditions of uncertainty in the framework of applied developments.

# PROGRAM PARTNERS:

Technische Universität Berlin (Germany); FESTO; RAKURS.

# PROFESSORS AND LECTURERS:

Vyacheslav V. Potekhin, Associate Professor, Director of Centre SPbPU-FESTO «Synergy»; Vladimir N. Khokhlpvskiy, Associate Professor; Vadim A. Onufriev, Associate

# CULTURAL PROGRAM:

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)

International Polytechnic









Professor.







he program provides students with a challenging task of creating a proof of concept prototype of a raw idea from scratch in 15 days of intense group workflow.

All the project ideas would be linked with each other with theme of living in cities and making cities "user-friendly".

The workflow will include lectures on digital fabrication, rapid prototyping, workshops on CAD, electronics and programming etc.

Also, program accepts student ideas for realization so it's a great opportunity for student entrepreneurs.

# PROGRAM PARTNERS:

Wurth Elektronik

# PROFESSORS AND LECTURES:

Polina Dyatlova, Associate Professor Gleb Miroshnik, Digital Engineering Specialist Petr Maximov, Digital Engineering Specialist.

**Information & Digital Technologies** 

## CULTURAL PROGRAM:

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)

# Machine Learning: Theory and Application



sess. 1: 20 – 31 JULY sess. 2: 03 – 14 AUGUST



2 weeks of studies



ects: 4

The course introduces students to the theoretical foundations of machine learning and data science, as well as to the solution of real business problems

with the help of computer vision, classification and regression algorithms. The optimal balance between theory and practice provides both a good foundation and the ability to apply knowledge in practice

# PROFESSORS AND LECTURERS:

Vyacheslav Potekhin – Associate Prof., Department of Cyberphysical Systems and Control, SPbPU; Nikita Kudryashov – PhD, Institute of Computer Science and Technology, SPbPU; Gazprom-neft leading specialist

# CULTURAL PROGRAM:

Boat city tour, excursion to the Hermitage, full-day trips to Tsarskoye Selo and Peterhof (optional)



This course describes the fundamental theory of enterprise resource planning systems and shows how the basic business processes interact with the SAP ERP in different functional areas.

After the course has been completed students will be able to: understand the integration of business processes in SAP ERP; understand the architecture of In-memory computing; learn how SAP HANA provides new ERP analytical capabilities. There will be e-learning, exercises and self-tests as well. There is an option to take a course of the Russian language.

# PROGRAM PARTNERS:

SAP SE, University of Magdeburg, TU München

# PROFESSORS AND LECTURERS:

Anna Valyukhova, expert in SAP ERP Mikhail Brusakov, visiting professor, SAP HANA Consultant at T-systems, Berlin (Germany).

# **CULTURAL PROGRAM:**

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)



he course aims at bridging the gap between ideas and their physical representation by introducing students to the basics of three-dimensional modeling, analytic drawing and rapid prototyping technologies. It gives a unique opportunity to learn about product design process and practice different approaches to develop an idea into a prototype with the help of digital and analog techniques. Cross-disciplinary curricula offers courses which represent different stages of design process from hand drawing to computer visualization and production. The facilities for the courses include well-equipped laboratories, computer rooms and drawing studios of SPbPU and prototyping center of St. Petersburg - Technopark "Ingria".

## PROFESSORS AND LECTURERS:

Simon Schur (industrial designer, expert in additive technologies), Yuliana Karpova (artist and designer).

# **CULTURAL PROGRAM:**

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)

















nowledge in the environment of computer modeling and animation is more relevant than ever today. Animation, computer games, tutorials and video-the development of multimedia creates an incredible demand for competence in the fields of computer graphics. You have a unique opportunity not only to get acquainted with the world of computer graphics, but also to create your character that will look and move as you wish. A unique two-week course will plunge you into the world of fantasy and animation. The module consists of 2 weeks of intensive teaching: cross-disciplinary curricula offers courses which represent different stages of design process from hand drawing to computer modeling and animation opportunities. Extensive practical work is aimed at gaining insight into contemporary product design process and is led by qualified professors. The facilities for the courses include well-equipped laboratories, computer rooms and drawing studios of SPbPU.

# PROFESSORS AND LECTURERS:

Simon Schur (industrial designer, expert in additive technologies)

# CULTURAL PROGRAM:

Boat city tour, excursion to the Hermitage, full-day trips to Tsarskoye Selo and Peterhof (optional)



he program aims at gaining professional competences in the field of building information modeling and energy efficiency of the buildings as well as development of creative thinking and non-standard approach application. The program is cut out for international students whose major is Civil Engineering, Architecture or Construction. The course is carried out by very experienced, highly qualified professors and experts. Interactive training methods, field trips and group discussions are used to activate students' involvement. In addition, students are granted with the Autodesk certificates upon completion of the program course "BIM: general ideas and problems". For the case studies in the frame of "Russian Civilization and Architecture" course students are offered the most beautiful and famous sights of St. Petersburg.

## PROGRAM PARTNERS:

Autodesk Authorized Training Center, Autodesk Expert Elite, Vysotsky Consulting

# PROFESSORS AND LECTURERS:

Aleksandr Vysotskiy, CEO of Vysotsky Consulting, expert in BIM; Daria Zaborova, leading lecturer of SPbPU.

# CULTURAL PROGRAM:

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)

# **Digital Construction**

Civil Engineering



03 - 14 AUGUST



2 weeks of studies



CTS: 5

he course provides students with comprehensive introduction to the process of construction object's design, building and operation with application of different technologies assumed by the concept of digital economy – Building information modeling, Additive manufacturing and Building automation systems.

The course includes practical hands-on exercises with using modern software to design, test and implement corresponding project and technological solutions in the area of industrial and civil engineering.

### PROGRAM PARTNERS:

Vysotsky Consulting, IBCON

# **CULTURAL PROGRAM:**

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)

# PROFESSORS AND LECTURERS:

Alexander Vysotsky, General Director of LLC "Vysotskiy Consulting" Daria Zaborova, Assistant Professor, department "Hydraulics and strength" Daria Sprengel, Specialist on construction, IBCON engineering company.

# **Nuclear Engineering**



20 JULY – 07 AUGUST



2 first weeks, 2 last weeks, 3 weeks **Energy Technology** 



ECTS: 4 / 5 for 2 / 3 weeks respectively

his School was designed to meet the highest demands of students interested in nuclear engineering. Leading European professors with vast experience both in scientific research and in practical aspects of the industry provide intensive academic program, covering in detail the following aspects: introduction to nuclear engineering, physical basis of nuclear energy, nuclear reactor kinetics, nuclear reactor dynamics, nuclear reactor stability, multiphysics modeling of nuclear reactors, nuclear safety and economics of nuclear power, active and passive systems, fuel cycle, reactor accidents, excursion to the fully operating Leningradskaya NPP-1 and to Leningradskaya NPP-2, which is being constructed at the moment, is an essential part of the program.

## PROGRAM PARTNERS:

State Atomic Corporation
"Rosatom", Central Institute
for Advanced Studies of State
Atomic Corporation "Rosatom", Rosenergoatom, the
branch of "Leningrad Nuclear
Power Plant", Power Machines
Industry, Politecnico di Milano, Politecnico di Torino.

# PROFESSORS AND LECTURES:

SPbPU professors, leading international professors and guest speakers from companies

# CULTURAL PROGRAM:

Boat city tour; excursion to the Hermitage; trip to Peterhof, world famous for its fountains; picnic at the seashore of the Gulf of Finland; excursion to suburbs near St. Petersburg with the palaces' visit. Pushkin / Pavlovsk / Oranienbaum; sport's activities; photocross; campus tour; Russian language & culture class; closing ceremony in art space

















The School provides a unique opportunity to attend intensive academic program that is composed of different lectures and gives insights into important problems of reliability and performance of turbomachinery.

During the School students will study theoretical and practical issues of steam, gas and micro-turbines. Lectures include active student participation and dialogue between a student and a professor.

## PROGRAM PARTNERS:

Siemens, REP Holding, Power Machines Industry, University of Genova, Lappeenranta University of Technology, Politecnico di Milano

# PROFESSORS AND LECTURERS:

SPbPU professors, leading international professors and guest speakers from companies

# **CULTURAL PROGRAM:**

Boat city tour; excursion to the Hermitage; trip to Peterhof, world famous for its fountains; picnic at the seashore of the Gulf of Finland; excursion to suburbs near St. Petersburg with the palaces' visit. Pushkin / Pavlovsk / Oranienbaum; sport's activities; photocross; campus tour; Russian language & culture class; closing ceremony in art space



he program lectures cover general terms of power systems; basic concept of power system stability, electrical 3-phase system. Fundamental terms of short-circuit currents calculations, electrical aspects of photovoltaic generators, technologies of power electronics and electrochemical storage are introduced. Additionally, the course focuses on topic Grid Integration of Renewable Energies (SMART GRID), solar and wind generation and e-Mobility. Active teamwork in small groups on projects of the course will bring deeper understanding of the subject.

### PROGRAM PARTNERS:

Electroapparat, South-West CHP, Brandenburg Technical University Cottbus, Politecnico di Milano, Joint Stock Company «Scientific and Technical Center of Unified Power System», Power Machines Industry

# PROFESSORS AND LECTURERS:

SPbPU professors, leading international professors and guest speakers from companies

# CULTURAL PROGRAM:

Boat city tour; excursion to the Hermitage; trip to Peterhof, world famous for its fountains; picnic at the seashore of the Gulf of Finland; excursion to suburbs near St. Petersburg with the palaces' visit. Pushkin / Pavlovsk / Oranienbaum; sport's activities; photocross; campus tour; Russian language & culture class; closing ceremony in art space

# Oil & Gas in Energy Industry

**Energy Technology** 







he course provides a comprehensive overview of the oil and gas industry from upstream exploration and production to downstream refining, pumping, sales and marketing. Participants will learn all the subtleties of the processes and technologies of viscous oil extraction, oil preparation and gas recovery under the supervision of leading Russian and International professors and experts. They will gain an appreciation of industry dynamics and the key issues affecting its development and future. This course will provide a thorough foundation for understanding the changing "Oil & Gas" industry dynamics.

# PROGRAM PARTNERS:

Gazprom Transgaz, Gazprom Neft, Surgutneftegaz (Kirishi oil refinery) Branch of PJSC OGK-2 - Kirishskaya TPP

# PROFESSORS AND LECTURERS:

SPbPU professors, leading international professors and guest speakers from companies

**Energy Technology** 

## **CULTURAL PROGRAM:**

Boat city tour; excursion to the Hermitage; trip to Peterhof, world famous for its fountains; picnic at the seashore of the Gulf of Finland; excursion to suburbs near St. Petersburg with the palaces' visit. Pushkin / Pavlovsk / Oranienbaum; sport's activities; photocross; campus tour; Russian language & culture class; closing ceremony in art space





20 JULY – 07 AUGUST



2 first weeks, 2 last weeks, 3 weeks



ummer School Digitalization in Energy Industry will provide an immersion into the world of Digital technologies in electrical engineering and power engineering. The course includes different topics on Digitalization in Energy Industry, its tendencies and problems, new elaborations and projects. Part of the course will include information on Digital Transformation in Oil&Gas Complex and in Nuclear Industry.

## PROGRAM PARTNERS:

Gazprom Transgaz, Gazprom Neft, Surgutneftegaz (Kirishi oil refinery), Rosenergoatom, Rosseti

# PROFESSORS AND LECTURES:

SPbPU professors, leading international professors and guest speakers from companies

## **CULTURAL PROGRAM:**

Boat city tour; excursion to the Hermitage; trip to Peterhof, world famous for its fountains; picnic at the seashore of the Gulf of Findand; excursion to suburbs near St. Petersburg with the palaces' visit. Pushkin / Pavlovsk / Oranienbaum; sport's activities; photocross; campus tour; Russian language & culture class; closing ceremony in art space

















p-to -date interdisciplinary program provides an overview of technical and engineering aspects of innovative energy system design and implementation. Theoretical courses will analyze characteristics of renewable energy sources and examine the socioeconomic impact of energy transition. International professionals will boost your knowledge and skills in this highly demanded field of expertise.

# PROFESSORS AND LECTURES:

SPbPU professors, professors from partner universities, guest lecturers from companies

# CULTURAL PROGRAM:

Boat city tour, excursion to the Hermitage, picnic at the seashore of the Gulf of Finland



his program offers training in the field of energy efficiency technologies and renewable energy. You will gain essential technical skills in this area as well as study financial, marketing and managerial aspects of modern business. Multidisciplinary approach, critical review of existing practice throughout the program will enable you to come up with original and creative solutions to problems within the energy sector.

# PROFESSORS AND LECTURERS:

SPbPU professors, professors from partner universities, guest lecturers from companies

# CULTURAL PROGRAM:

Boat city tour, excursion to the Hermitage, picnic at the seashore of the Gulf of Finland



ur unique course is specifically designed for those who are willing to understand how fragrant breakfast buns appear out of flour and water or raw potatoes are transformed into crunchy chips at the molecular level. You will learn whether the focused control of these complex physical and chemical processes is possible or cooking is the high art of avant-garde gastronomy though.

During the course students are engaged with interactive lectures and training cooking classes with tasting sessions. These classes are designed to provide students with the new skills of cooking popular dishes of traditional and modern Russian cuisine.

# PROFESSORS AND LECTURERS:

DSc Yulia Bazarnova, PhD Svetlana Eliseeva, PhD Nadezhda Zhilinskaya, Kirill Klukvin (chef)

# **CULTURAL PROGRAM:**

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)



his is a joint program of SPbPU and Université de Lorraine (France), organized in cooperation with the International Network in Sport and Health Science (INSHS).

The school is devoted to management issues in sports organizations, professional and student sports clubs, advanced scientific research in the field of sports, health and support technology. The main goal is to train managers specializing in the field of physical and / or sports activities based on an interdisciplinary scientific, technical and methodological approach in the field of sports and health.

# PROGRAM PARTNERS:

■ Université de Lorraine International Network in Sport and Health Science (INSHS)

# **CULTURAL PROGRAM:**

Guided city tour, excursion to the Hermitage, visit to world-class sports facilities

## PROFESSORS AND LECTURERS:

Vladislav Bakayev, Director of the Higher School of Sports Education (SPbPU); Prf Dr. Joel Gaillard, President of International Network in Sport and Health Science (INSHS), France; Professor at Faculty of Sport Nancy, Université de Lorraine, France.

















he program perfectly suits the students major in business, management or economics, willing to get introduced to peculiarities of business in Russia or considering options of perspective cooperation with Russian companies in future.

The course aims at gaining professional knowledge on Russian business environment, major markets and industries, special characteristics of entrepreneurship and business marketing in Russia along with investment potential of Russian international companies in terms of accounting. The program also provides students with learning basics of Russian Language (or improving the language background).

# PROFESSORS AND LECTURERS:

Oksana Evseeva, Associate Professor, D.Sc; Olesia Kuzakova, Associate Professor, D.Sc; Alexei Trykov, Assistant Professor, PhD; Irina Gladkikh and Irina Baranova, Associate Professors, D.Sc.

## **CULTURAL PROGRAM:**

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)

# Logistics and Supply Chain Management 306 – 17 JULY Logistics and Supply Economics & Business ECTS: 5

ogistics and SCM became rapidly of higher value over the last years and allows companies to stay competitive in their fields. This course introduces the challenges of managing supply chains and how innovative technologies and management techniques are used to overcome these challenges. Academic training includes Purchasing and Production Management, Supply Chain Systems Design, Supply Chain Strategy, Inventory, Forecasting and Data Management in Supply Chain, Sustainability and Green Logistics. The course key feature is an innovative web-based business simulation "Fresh Connection". Working in teams and being confronted with various real-life, real-time dilemmas, participants will represent the functional roles of sales, purchasing, supply chain and operations.

# PROGRAM PARTNERS:

Wismar University of Applied Sciences

# PROFESSORS AND LECTURERS:

Professor, Dr. Sci. Anna Svirina, APICS Master CPIM Instructor Dmitry Gavrilov, professors from partner universities, guest lecturers from companies.

# CULTURAL PROGRAM:

A field trip to "Baltika" Brewery, a picnic at the seashore of the Gulf of Finland, excursion to Peterhof a city tour with a walking trip through the Peter and Paul Fortress



he course "City Branding" is designed to provide students with practical introduction to such a topical phenomenon as branding of areas, cities and regions. The course covers a comprehensive and integrated review of existing projects in city, urban, regional and global branding; branding of tourist destinations in different countries of the world. The emphasis is put on Russian experience. Within the module you will gain the knowledge about Russian culture, traditions and identity. You will get the closer look at Saint Petersburg in the context of Russian culture, examine the best practices in territorial branding implementations.

The training course will be held in the format of scientific-practical discourse as close as possible to the realities of today's international competition.

# PROGRAM PARTNERS:

Joint program with Tourism Development Center "Red Izba" (Novgorod the Great)

## **CULTURAL PROGRAM:**

Full-day field trip with academic session to Novgorod the Great, boat city tour, excursion to the Hermitage, full-day trip to Peterhof

# PROFESSORS AND LECTURERS:

PhD Nelli Kozlova - expert in territorial marketing, SPbPU D.Sc Elena Korchagina - expert in regional marketing, SPbPU PhD Ksenia Kuzmina, expert in tourism destination management, HSE Marina Lebedeva - expert in city branding, Executive Director of Centre of Tourism "Red Izba"



he course provides the students with hands-on practical knowledge and skills in how to cater tourists needs and wants successfully. The 2-weeks program gives the opportunity to combine a number of marketing courses covering such topics as international tourism marketing, segmentation and targeting, consumer behavior, digital marketing and more. The course covers a comprehensive review of existing mechanisms for innovative tourist product creation and promotion. The emphasis is put on Russian experience. Within the module you will gain the knowledge about Russian culture, traditions and identity. You will get the closer look at Saint Petersburg in the context of Russian culture, examine the best practices of Russian tourist industry.

# PROGRAM PARTNERS:

Joint program with Tourism Development Center "Red Izba" (Novgorod the Great)

# **CULTURAL PROGRAM:**

Full-day field trip with academic session to Novgorod the Great, boat city tour, excursion to the Hermitage, full-day trip to Peterhof

# PROFESSORS AND LECTURERS:

PhD Nelli Kozlova – expert in territorial marketing, leading professor of SPbPU, D.Sc Elena Korchagina – expert in regional marketing, leading professor of SPbPU, Rafael Arutyunyan – expert in hospitality industry, trainer in tourism Olga Puksant – expert in tourism, Head of Information Department of Centre of Tourism Development "Red Izba"

















he program provides a unique chance to study in Saint-Petersburg. The purpose of the program is to provide students with knowledge on aspects of human capital development. Within two weeks of this Summer School international students and Russian students are going to study and learn multi-cultural aspects of International Human Resource Management. A distinctive feature of the program is a consideration of such aspects as creating a business-oriented system of HR metrics that support the organization's goals, managerial skills in the context of the Fourth Industrial Revolution and current trends in human capital development. Various training methods and interactive study methods are used during the Summer School module.

## PROGRAM PARTNERS:

Zyud University of Applied Science, Netherlands

# CULTURAL PROGRAM:

Boat city tour, excursion to the Hermitage, full-day trips to Peterhof and Tsarskoye Selo (optional)

# PROFESSORS AND LECTURERS:

Dr.Sc. (Econ), prof. Olga Kalinina:

Dr.Sc. (Econ), prof. Alexander Kozlov;

PhD, associate prof. Oksana

Evseeva;

PhD, associate prof. Svetlana Evseeva:

guest lecturers from companies



he main goal of this program is to provide students with the knowledge about strategic aspects of doing business worldwide. During one week of September international students and students from Russia study main features of international business environment. There is a special focus on strategies of international companies in Russia. The program includes research tours to companies. It helps students to understand every day practices of international business. Academic training includes: international management & diversity, strategic management in Russia, entrepreneurship and innovative business: theory and reality.

# PROFESSORS AND LECTURERS:

Professors from SPbPU

# CULTURAL PROGRAM:

Excursions to famous churches and cathedrals of Saint Petersburg, the Hermitage, city tour with a walking trip through Peter and Paul Fortress



**Economics & Business** 







ECTS: 4

he summer school "Quantitative Finance" is your chance to study modern technologies used in finance in the framework of the digital society transformation. The program is cut out for international students whose major is finance, economics and business. The theoretical block is called "Portfolio Theory and Asset Management" and implemented by professors from City, University of London, one of the leading universities in Europe. Having mastered this module, you will gain invaluable insights into key business and finance knowledge and skills. The practical block is offered to choose from Matlab programming for finance or modeling in Stata software package. This block is implemented by professors from City, University of London and SPbPU.

## PROGRAM PARTNERS:

City, University of London, Business School Cass; Stock Exchange "St.Petersburg";

# **CULTURAL PROGRAM:**

Field trip to the Stock Exchange "St. Petersburg" and to the Money history museum, boat city tour, excursion to the Hermitage, full-day trip to Peterhof (optional), the picnic at the seashore of the Gulf of Finland (optional), trip to "Heineken" Brewery (optional)

# PROFESSORS AND LECTURERS:

Dr. Dirk Nitzsche, Senior Lecturer in Finance, Associate Dean for International Relations, City, University of London; Dr. Natasha Todorovic, Senior Lecturer in Investment Management, City, University of London; Dr. Anton Tichomirov, Expert in Financial Markets and risk Management, SPbPU; Angi Skhvediani, Expert in econometrics, SPbPU.

# Entrepreneurship and Technology Leadership



01 – 12 SEPTEMBER



2 weeks of studies



Economics & Business

S ummer School on Entrepreneurship and Technology Leadership will show participants the way how to commercialize their ideas by guiding them through the processes of ideation, investigating the market, raising finance and presenting their ideas. Participants go through the full cycle of state of the art innovation methods (co-creation, design thinking, business modelling) to develop their innovations and inspire their entrepreneurial mindset. The international group of participants provide an inspirational atmosphere

# PROGRAM PARTNERS:

Polytech Strascheg, RVC, BIOCAD

# PROFESSORS AND LECTURERS:

SPbPU professors and mentors, professors from partner universities, entrepreneurs and experts guest lecturers

# CULTURAL PROGRAM:

Boat city tour, excursions to the Hermitage and Tsarskoye

















his summer school runs in the magic White Nights time and provides unique opportunities for the language and cultural immersion experience. Intensive Russian language study is combined with exciting trips and excursions to the best sights of St.Petersburg and its suburbs. Apart from that, the program involves English-taught courses on Politics and History of the Russian Art covering the main stages, events and reforms of the Russian political system and providing an overview of the Russian art in a historical context. The program comprises: classroom lectures, video and language lab classes, field trips, speaking clubs, group and individual activities.

This summer school is open for the students with all levels of Russian language, including absolute beginners.

# **RUSSIAN LANGUAGE** LEVELS: A0-C1

PROFESSORS

AND LECTURERS: SPbPU professors

## **CULTURAL PROGRAM:**

The White Nights city tour to see the drawbridges opening, full-day Peterhof bus tour, excursion to the Hermitage, picnic at the seashore of the Gulf of Finland







4 weeks of studies



his summer school offers intensive Russian language study combined with elective Englishtaught courses in the field of Russian Studies and exciting cultural activities. As a result, the students will obtain or considerably improve the key communication skills, feel confident about using the Russian language in a wide variety of contexts, break the communication barrier, understand the native speakers better and form comprehensive understanding of the Russian culture, literature, mentality and business environment.

The program comprises: classroom lectures, video and language lab classes, field trips, speaking clubs, project work.

This summer school is open for the students with all levels of Russian language, including absolute beginners.

Morning course: Russian Language.

Afternoon elective courses: Russian Literature; Russian Business Culture.

RUSSIAN LANGUAGE LEVELS: A0-C1

PROFESSORS AND LECTURERS:

SPbPU professors

## **CULTURAL PROGRAM:**

Boat city tour, full-day Peterhof bus tour, excursion to the Hermitage, picnic at the seashore of the Gulf of Finland

# **Russian Language for Business** Communication (session 1, 2)

**Russian Studies & Humanities** 







Session 1: 06 - 24 IULY Session 2: 03 - 21 AUGUST 3 weeks of studies

ECTS: 6 per session

his summer school focuses on providing the students with practical Russian language skills required for confident professional communication in a variety of business scenarios. Russia is one of the key players in the major world industries, so learning Russian language for business communication is a smart investment in your future success. During the program you will increase your businessrelated vocabulary, improve your writing skills and learn how to efficiently put those into practice during negotiations, presentations etc. Apart from the intensive language study, you will develop understanding of the Russian business culture, work relationships and business practices in Russia, attitudes towards foreign partners and gender aspects.

The program involves excursions to the best sights of St. Petersburg to inspire you for further achievements.

The program runs in two equal sessions allowing participation of the students with different academic calendars.

# **PREREQUISITES**

Russian language proficiency level over A2

# AND LECTURERS:

## **CULTURAL PROGRAM:**

# Russian Language, **Politics & Art**



03 - 28AUGUST (5)

4 weeks of studies



his summer school offers full immersion into the Russian language and culture. The intensive language course is aimed at developing the key communication skills with the focus on speaking practice, building up your vocabulary, improving your grammar, breaking the communication barrier and increasing your confidence using Russian language in real-life situations.

The program also includes English-taught courses on Politics and History of the Russian Art covering the main stages, events and reforms of the Russian political system and providing an overview of the Russian art in a historical context. Apart from obtaining an impressive number of transferrable credits, you will participate in diverse excursions and explore the great city of St. Petersburg. This summer school is open for the students with all levels of Russian language, including absolute beginners.

**PROFESSORS** 

# SPbPU professors

Boat city tour, full-day Peterhof bus tour, excursion to the Hermitage

## **RUSSIAN LANGUAGE** LEVELS: A0-C1

# **PROFESSORS** AND LECTURERS:

SPbPU professors

# CULTURAL PROGRAM:

Boat city tour, full-day Peterhof bus tour, excursion to the Hermitage, picnic at the seashore of the Gulf of Finland













**Russian Studies & Humanities** 



# Intensive Survival Russian Language for Exchange Students





4 weeks of studies





his summer school is designed for the students of all majors arriving to the Fall semester exchange programs or English-taught degree programs willing to obtain or improve their practical Russian language skills, feel more comfortable, safe and independent in everyday situations. This intensive course focuses on speaking, so that by the end of the summer school the students could communicate with the native speakers and understand them better. Due to constant tutors support, social and cultural activities the program also facilitates adapting to a new environment and coping with the cultural shock.

This summer school is open for the students with all levels of Russian language, including absolute beginners.

RUSSIAN LANGUAGE LEVELS : A0-C1

PROFESSORS
AND LECTURERS:
SPbPU professors

**Russian Studies & Humanities** 

# CULTURAL PROGRAM:

Boat city tour, full-day Peterhof bus tour, excursion to the Hermitage, picnic at the seashore of the Gulf of Finland

# Russian Language, History & Literature



31 AUGUST – 11 SEPTEMBER



2 weeks of studies



FCTS: 4

his summer school is designed for the students willing to obtain or improve the Russian language skills and to develop personal vision of the Russian culture and mentality. Intensive language study is combined with English-taught courses providing an overview of the main historical stages of country's development together with the analysis of the trends and problems emphasized in the Russian Literature by the world-known Russian writers as well as their correlation with the realities of the modern society.

Field trips, speaking clubs and excursions included in the program will boost your inspiration for further discoveries and achievements in the field of Russian Studies.

This summer school is open for the students with all levels of Russian language, including absolute beginners.

RUSSIAN LANGUAGE LEVELS A0-C1

PROFESSORS AND LECTURERS: SPbPU professors

SPDPU proressor

**CULTURAL PROGRAM:** 

Full-day Peterhof bus tour, city tour, excursion to the Hermitage.



**S** PbPU is one of few Russian universities having its own authorized TORFL Testing Center on campus. We have been successfully testing the foreign citizens since the year 2001, and the Center is constantly developing its activities to meet the growing demand. The students of the August and September modules of our Summer School of Russian Studies are

The students of the August and September modules of our Summer School of Russian Studies are offered a unique opportunity to prepare for a TORFL test—upon completing the summer school. The program involves tutorship of the Russian language professors, analysis of the sample tests, explanation of the important requirements and assessment scales.

# RUSSIAN LANGUAGE LEVELS

B1-C1 (TORFL I, II, III)

# PROFESSORS AND LECTURERS:

SPbPU professors authorized to conduct TORFL tests



What is the relevance of communication in the leadership process of reaching best achievable outcomes? How does the primary communication professional attain expert influence and success in a leadership position? Leadership communication defines, drives, and creates value for a commercial enterprise—its employees, its owners, and those whom they serve. The program concentrates on general principles of leadership and social communication includes social-scientific perspectives on leadership, key scientific concepts about leading, social communication and interaction. Students study main characteristics of leaders and their environments; and strategies, tactics, and tools of leadership. By focusing on key topics, this unprecedented program offers students more detailed information and depth of discussion about the quality of leadership in any organization—business, social, military, and government.

# PROFESSORS AND LECTURERS:

SPbPU professors, professors from partner universities, guest lecturers from companies

# **CULTURAL PROGRAM:**

Excursions to the Hermitage and the State Museum of Political History of Russia field trip to the "Baltika" Brewery or "Coca-Cola" factory, picnic at the seashore of the Gulf of Finland (optional).

















We offer interdisciplinary program "Sociocultural Study" that explores the complex networks linking local social and cultural life with global structures and processes. This program, being a unique integration of Sociology and Social Anthropology, History and Social Geography, focuses on the interaction between people and their environments, built and natural, and on local-global linkages. The program provides students opportunities to transcend outmoded disciplinary boundaries and benefit from cross-cultural exchanges.

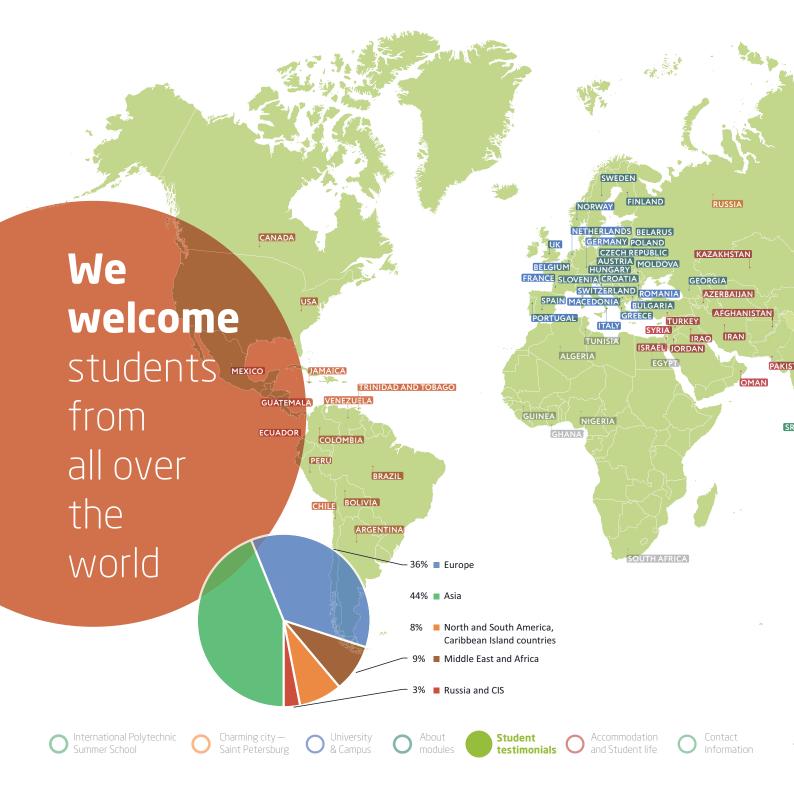
# PROFESSORS AND LECTURERS:

SPbPU professors, professors from partner universities, guest lecturers from companies

# CULTURAL PROGRAM:

Excursions to the Hermitage and the State Museum of Political History of Russia field trip to the "Baltika" Brewery or "Coca-Cola" factory, picnic at the seashore of the Gulf of Finland (optional).









THE WHOLE PROGRAM EXCEEDED MY INITIAL EXPECTATIONS. The courses I followed were well structured and the teachers well prepared. I feel like I gained much knowledge and will certainly help my curriculum and my university studies. Saint Petersburg has amazed me in terms of its greatness: the historical buildings are richly decorated and full of history. I have nothing but dear memories from this experience and I hope I'll be able to go back to Saint Petersburg soon!

Michele Paravano, Polytechnic University of Turin, Italy (Summer School "Biomedical Engineering", "Russian Language for Business Communication")



THE SUMMER SCHOOL WAS HIGHLY ENJOYABLE. I met some wonderful people and became acquainted with the incredible city of St. Petersburg. I very much valued the experience of being immersed in the Russian culture as well as talk-

ing with people from all over the world. I remain in awe of the city's history, design and philosophy and remember my time at the summer school fondly.

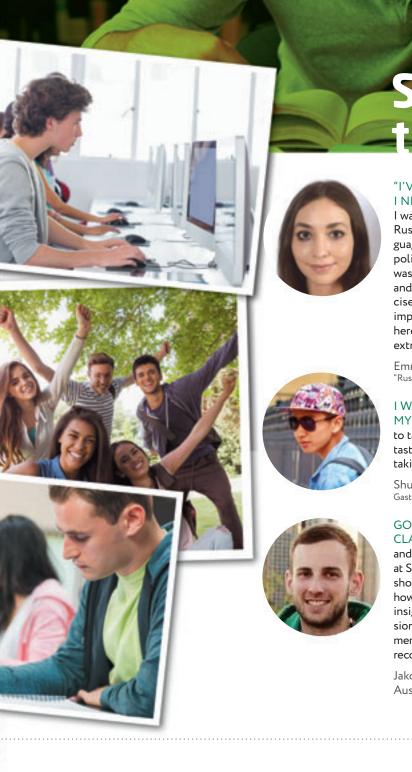
Joseph McGovern, King's College London, UK (Summer School "Plasma Physics and Controlled Fusion")

THE SUMMER SCHOOL GAVE ME A GREAT INSIGHT INTO THE FIELD OF ERP SYSTEMS AND SAP. I liked the small classes and cozy learning atmosphere. Moreover, I benefitted a lot from the intercultural atmosphere by communicating with the other international students attending the summer school program. A lot of great events and trips were planned by the university, so that we could experience St. Petersburg to the fullest. St Petersburg is a great and beautiful city with a lot of sights, restaurants, cafes and bars to visit. It's got an amazing culture and I will never regret my decision to have participated in the SPbPU Summer School Program. I can definitely recommend it!

Christina Halemba, Technical University of Munich, Germany (Summer School "Modern SAP Technologies")







# Student testimonials

"I'VE BEEN STUDYING RUSSIAN FOR SEVERAL YEARS, AND I NEEDED PRACTICING IT WITH NATIVE SPEAKERS. Besides,

I wanted to know more about society, politics, culture, and arts of Russia. I very much liked the practical and theoretical Russian Language classes; I also enjoyed the lectures on the history of art and politics, as well as the exciting trips we had during the program. It was wonderful to study in such a pleasant and friendly atmosphere, and our teachers are true professionals. We had lots of useful exercises and speaking clubs, and all this has helped me to significantly improve my language skills. In addition, I've got many new friends here, and the tutors helped us to know more about the city, I am extremely thankful for this experience!"

Emma Trento, Ca' Foscari University of Venice, Italy (Summer School "Russian Language, Politics and Art")

I WAS VERY HAPPY TO TAKE THE MOLECULAR GASTRONO-MY COURSE AT SPBPU LAST SUMMER. It was very interesting to talk about gastronomy with friends from all over the world and taste dishes of Russian cuisine. Looking forward to more students taking this course!.

 $Shuaishuai\ LI,\ Beihang\ University,\ China\ (Summer\ School\ "Molecular\ Gastronomy")$ 

GOING TO SUMMER SCHOOL IS NOT ONLY ABOUT THE INCLASS EXPERIENCE. I am so glad I decided to go to summer school and I am very grateful to every single one who made my experience at SPbPU this summer so extremely awesome. Students of all levels should be able to attend the "Doing Business in Russia" program, however, also further advanced students will get a great and broad insight into the Russian market and economy from Russian professionals and their personal experiences. I will long look back at the memories I created there with a smile on my face and definitely recommend everybody to take the chance and experience the same!

Jakob Kaufmann, University of Applied Sciences Wiener Neustadt, Austria (Summer School, "Doing Business in Russia")

