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**ПОЛИТЕХ**

Санкт-Петербургский  
Политехнический Университет  
Петра Великого




National Centre for  
Public Accreditation

# SUMMARY REPORT OF THE EXTERNAL EVALUATION

of the double degree educational programme

«Industrial and civil construction of unique buildings and  
structures» (B.Sc.)  
for the specialty «Construction» (08.03.01)

Delivered by Peter the Great Saint–Petersburg  
Polytechnic University



2016

While preparing this Summary Report we used information from the Self-Evaluation Report and the Report on the External Review of the educational programme «Industrial and civil construction of unique buildings and structures» (B.Sc.) for the specialty «Construction» (08.03.01) delivered by Peter the Great Saint–Petersburg Polytechnic University.

The presentation document for the use by the National Accreditation Board.

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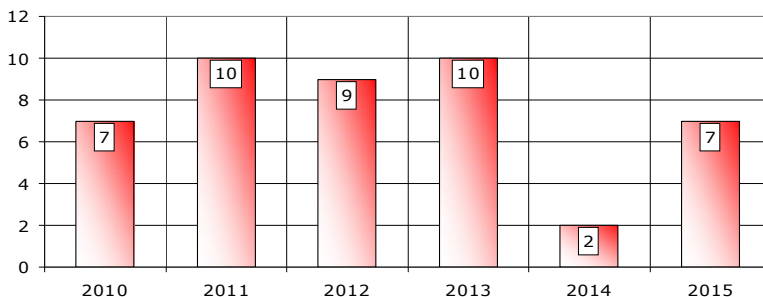
## GENERAL INFORMATION ON EDUCATIONAL INSTITUTION

Full name of the educational institution	<i>Federal State Autonomous Educational Institution of Higher Education "Peter the Great Saint-Petersburg Polytechnic University"</i>	
Founders	<i>Ministry of Education and Science of the Russian Federation</i>	
Year of foundation	<i>1899 – Saint-Petersburg Polytechnic Institute          1910 – Emperor Peter the Great Saint-Petersburg Polytechnic Institute          1914 – Emperor Peter the Great Petrograd Polytechnic Institute          1922 – M.I.Kalinin Petrograd Polytechnic Institute          1924 – M.I.Kalinin Leningrad Polytechnic Institute          1990 – Leningrad State Technical University          1992 – Saint-Petersburg State Technical University          2002 – SEI of HPE «Saint-Petersburg State Polytechnic University»          2011 – FSBEI of HPE «Saint-Petersburg State Polytechnic University»          2014 – FAAEI of HE «Saint-Petersburg Polytechnic University»          2015 – FAAEI of HE «Peter the Great Saint-Petersburg Polytechnic University»</i>	
Location	<i>195251, 29 Politekhnikeskaya Str., Saint-Petersburg, Russia</i>	
Rector	<i>Dr. Of Technical Sc., Professor, Corresponding Member of RAC Rudskoy Andrey Ivanovich</i>	
License	<i>Series 90/101 № 0008517 reg. №1518 of 25 June 2015</i>	
State Accreditation	<i>Certificate of State Accreditation Series 90A01 № 0001196 reg. №1120 от 10.10.2014 до 11.03.2019</i>	
Number of students	<i>24244</i> <i>Full-time 15807</i> <i>On-site and off-site 3087</i> <i>Part-time 5350</i>	

## INFORMATION ON THE EDUCATIONAL PROGRAMME UNDERGOING ACCREDITATION

Educational programmes	<i>«Industrial and civil construction of unique buildings and structures» Construction (08.03.01),</i>
Level of training / Standard period of training	<i>Bachelor Degree Programme /4 years</i>
Structural subdivision (head)	<i>Institute of Civil Engineering (Dr.of Tech. Sc., professor Vatin Nikolai Ivanovich)</i>
Major department (head of major department)	<i>The department of "Construction of Unique Buildings and Structures", (Dr.of Tech. Sc., professor Vatin Nikolai Ivanovich)</i>
Date of the site visit	<i>20-22 October 2015</i>
Person responsible for public accreditation of the study programme	<i>Prof. Dmitry Germanovich Arseniev, Vice-Rector for International Affairs</i>

### ADMISSION DATA FOR THE EDUCATIONAL PROGRAMME «INDUSTRIAL AND CIVIL CONSTRUCTION OF UNIQUE BUILDINGS AND STRUCTURES» (08.03.01\_06)



## **ACHIEVEMENTS OF THE EDUCATIONAL PROGRAMME**

### **Quality of the delivered educational programme**

SPbPU is listed among the best educational institutions of the world; according to the BRICS rating of HEIs and the Times Higher Education Rating for the countries with developing economies SPbPU takes the 18<sup>th</sup> place in the general list and the 2<sup>nd</sup> place among the Russian HEIs. SPbPU takes the 35<sup>th</sup> place in QS EECA (Emerging Europe and Central Asia) rating, and the 11<sup>th</sup> place in the Top-100 HEIs of Russia-2015 (according to RAEX («Эксперт РА»), the 8<sup>th</sup> place among the 24 Russian HEIs in the international University Ranking by Academic Performance; SPbPU is among 5 best HEIs in the country in the sphere of «Technical Sciences, Engineering and Technologies».

According to the Webometrics Ranking of world Universities, SPbPU takes the 5<sup>th</sup> place among the Russian Universities.

With 15 other HEIs of Russia SPbPU became a winner of the competition for a special grant of the Ministry of Education and Science to raise competitiveness of Russian HEIs among the world leading research and educational centres.

The quality of the double degree programme is ensured by high level qualifications of the teaching staff, broad international ties, and the use of innovation education technologies in the academic process. The quality of the programme is also confirmed by the students' victories in subject competitions, contests and Olympiads.

### **Provision of up-to-date contents of education**

The up-to-date contents of education is provided by internal evaluation of the study programme, regular updating, including re-design of the curricula, implementation of the research results into the educational process, regular involvement of professionals from foreign HEIs in the study process.

ICE students have an opportunity to study in Finland in the programme for building renovation. The Finnish Higher Education Evaluation Council (FINHEEC) conducted an audit of the Mikkeli University of Applied Sciences and granted a quality certificate, valid during 6 years from 21.02.2013 till 21.02.2019.

### **Competency of the teaching staff**

The total number of full-time teachers involved in the programme is 30 people, including 5 Doctors of Sciences and 6 Candidates of Sciences. Besides, the programme engages foreign visiting professors and 4 Doctors of Technical Sciences on a part-time basis.

The teachers are actively engaged in the educational process and participate in career development programmes.

## Research work

The teachers actively cooperate with the Autodesk company in implementing the open youth projects competition «Mould the Future! – 2015». The ICE teachers take an active part in different level conferences. In 2015 at the conference «New standards in designing insulation of buildings. Technical solutions on the basis of Knauf Insulation technologies” ICE researchers presented the Album of technical solutions on the use of Knauf Insulation materials. At the 71<sup>st</sup> International Technical Fair the Department of Civil Engineering and Applied Ecology was the winner in the competition “research and developments in the priority directions of the science and technology sector of Russia in 2014-2020”.

ICE’s research work is characterized by a number of projects in all directions of research undertaken by the Institute’s Departments.

The research is carried out within the framework of the Federal target programmes, under contracts with industrial and construction companies, including nanotechnologies.

The obtained results are handed over to corporate customers and are also used in lectures, course papers and theses, in laboratory and field research.

The municipal round of the National Olympiad in Strength of Materials is regularly held on the basis of SPbPU; ICE students have been prize winners numerous times. They were prize winners of the Open International Student Internet Olympiad in 2015 in Informatics, Theoretical Mechanics, Strength of Materials, Mathematics, and Physics: 1st place and two gold medals; prize winners in the National engineering competition “Training engineering cadre in Russia: the present state and strategic prospects – the view of the young”; prize winners in the Fifth International Competition of diploma projects in the sphere of construction with the use of TechnoNICOL materials. All research conferences in ICE are held in the English language.

The Journal of Civil Engineering is included in the list of peer-reviewed publications of the State Commission for Academic Degrees and Titles of the Russian Federation and is one of the leading construction periodicals of Russia.

## Material and Technical Resources

SPbPU has all the necessary facilities for quality teaching, including learning and support areas, as well as adequate infrastructure, including dormitories, gymnasiums, university administration offices, the Students’ Club, the Fundamental Library, the Reading Room, the White (Assembly) Hall for 600 seats, the Conference Hall, resource centres, the Museum Complex, the Expo Centre and other auxiliary facilities.

At the University there are 350 laboratories equipped for learning and research, 215 computer classrooms with Internet access.

Rooms are equipped with all the necessary devices, furniture and equipment to provide teaching at a high level and create high-quality social and living conditions for students, teachers and other university staff.

Physical facilities of SPbPU include 18 buildings for teaching and laboratory work, 17 engineering infrastructure facilities, 29 heritage assets, 5 social infrastructure objects, 15 dormitories, 7 residential buildings and 98 objects of other types (including production facilities, boxes, warehouses, garages and other structures) with the total area of over 480,000 square meters, of which 262,789.9 square meters are for teaching and laboratory activities, including large lecture halls, classrooms for skills building and laboratory sessions.

A few multimedia centres have been recently opened.

The Departments of both Universities involved in the Double Degree Programme are supplied with modern innovation equipment. Laboratory and practical classes in the discipline "Construction" are held in the laboratories equipped with modern technology.

The International research and education centre "Heating, ventilating and construction heat engineering" has been established together with Ecomatik AS (Estonia).

### Employability of graduates

The graduates of the study programme are in demand in Saint Petersburg and other regions of Russia. The graduates have an opportunity to enter ICE's two Master's programmes delivered in English: Civil Engineering, Energy Efficient and Sustainable Buildings.

The demand for graduates and the opportunities to study on a double degree programme make this programme attractive for school leavers.

According to the average grade of the Unified State Examination of applicants enrolled in "Architecture and Construction" and "Construction" in 2013, 2014 and 2015 the Institute of Civil Engineering ranks first in Russia.

### Academic mobility of students

In order to increase the opportunities of student participation in exchange programmes and in double degree programmes, to enroll in summer and winter schools SPbPU has joined the European Commission project "Enhancing the Attractiveness of European higher education".

The most popular form of student mobility is a semester education (in particular, in the framework of net and joint educational programmes) as well as participation in conferences and seminars in winter/summer schools.

Students may have a short-term or semester education abroad with individual financial support in the framework of the programme "5-100-2020" in Germany, Italy, Spain, USA, Finland. The teachers also can improve their qualification through the programme "5-100-2020".



## International cooperation

SPbPU is a partner to many world leading Universities: it cooperates with Universities from 47 countries. Over 70 companies and organizations from 19 countries of the world have direct cooperation agreements with SPbPU.

SPbPU has concluded 340 cooperation agreements with 253 Universities from 47 countries all over the world. Out of this number 58 Universities are listed in the Top-500 in QS World University Rankings.

The Institute of Civil Engineering takes an active part in:

TEMPUS 144747-TEMPUS-2008-FR-JPCR projects «Development of Master degree programmes “Engineer-economist in the sphere of energetic and sustainable development” and EFEM - Efficient Energy Management in the framework of the SOUTH-EAST FINLAND RUSSIA ENPI programme; 530603-TEMPUS-1-2012-1-LT-TEMPUS-JPCR project “Reformation of the Curricula on Built Environment in the Eastern Neighbouring Area”; EDUSTROI - Development of construction and real estate sector education, Erasmus+ «Master Degree in Innovative Technologies in Energy Efficient Buildings for Russian & Armenian Universities and Stakeholders – MARUEEB».

The results of work of these projects are used in the implementation of the double-degree programme.

## EXTERNAL REVIEW PANEL



**Hans-Joachim Bargstädt** (Germany)

Review Chair, foreign expert

*Dr. Of Engineering, Professor of the Department of Construction and Construction Technologies”, Bauhouse University, Weimar; Chair of the Research Association in Building Engineering and Geodesics (2007-2008)*

A nominee of ACQUIN



**Vladimir Yerofeyew** (Russia)

Deputy Review Chair, Russian expert

*Dr. Of Engineering, Professor , Dean of the Architecture and Construction Faculty; Head of the Department of Building Materials and Technology, N.P.Ogarev Mordovia State University*

A nominee of the Guild of Experts in Higher Education



**Andreas Gerber** (Germany)

Panel member, foreign expert

*Professor of the Faculty of Architecture and Energy Engineering, Bierbach University, Deputy speaker of the Expert Committee of the German Society of Solar Energy; member of «International Building Performance Simulation Association»*

A nominee of ACQUIN



**Vladimir Linov** (Russia)

Panel member, representative of employers

*Project manager of «Architectural Bureau «Studio17», Board member of Saint-Petersburg Union of Architects, Honorary Architect of the Russian Federation*

A nominee of Saint-Petersburg Union of Architects



**Dmitry Petrov** (Russia)

Panel member, representative of students

*5th year student, the Programme “Construction of unique buildings and structures”, Faculty of Construction, Saint-Petersburg State University of Architecture and Civil Engineering*

A nominee of Saint-Petersburg State University of Architecture and Civil Engineering

# COMPLIANCE OF THE EXTERNAL REVIEW OUTCOMES WITH THE STANDARDS

## PART 1. Goals of the study programme

The Double Degree Bachelor Programme is delivered by the Institute of Civil Engineering (ICE) together with the Mikkeli University of Applied Sciences with the objective of training engineers for project manager and administrative positions in the sphere of construction.

The Programme's period of study is 4 years and 5 months and includes 320 ECTS.

The goal of the Double Degree Study Programme under accreditation is training specialists who have multidisciplinary knowledge and are capable of both doing research in Universities and performing building activities in construction companies. After the successful completion of the programme, Bachelor students are awarded 2 diplomas of the Russian and Finnish standards and get profound knowledge of the English language.

The educational programme is integrated into the overall strategy of SPbPU and is aimed at training specialists for the national and international labour markets.

The programme is taught in two languages by two universities; it is multidisciplinary, as it effectively links the disciplines of the construction technologies profile.

SPbPU provides training adhering to the Law on Education in the Russian Federation. The curriculum of the Programme was developed in compliance with FSES 3 and international requirements.

### Good practice

The mission, goals and development strategies of the Bachelor's study programme are formulated, documented and agree with the University's strategy relating to internationalization, interdisciplinary studies and global competitiveness.

An international orientation of the programme allows its graduates to have real opportunities for the future career development.

In 2014 fifteen students of ICE were trained abroad in double degree programs.

The double degree study programme "Industrial and civil construction of unique buildings and structures" is one of the few Russian-Finnish double degree programmes in the field of Construction.

The Rector and management bodies of the University very clearly understand their duties and the importance of the Programme for the University, thus, adequately reacting to the problems arising in the learning and working context.

The study programme is characterized by an academic and scientific approach.

It is good practice of the programme to carry out self-evaluation and adapt the curriculum to the labour market demands. By disciplines revision at the level of departments it is possible to further develop and improve the programme.

#### Areas for improvement:

- It is recommended to involve employers and representatives of the labour market to the revision of the goals of the educational programme and provide them with sufficient information on the double degree programme.
- Students should be better motivated to be employed by the construction companies.

## **PART 2. Concept**

The concept of the study programme consists in training engineers for project and managerial positions in the sphere of construction, training qualified specialists with the knowledge of two languages – Russian and English – for working in Russian and foreign construction companies and for research within the framework of international projects.

The double degree programme “Industrial and Civil Construction of Unique Buildings and Structures” is open on the basis of the Department of “Construction of Unique Buildings and Structures” but it also includes courses delivered by other departments of the University. This allows the students to acquire a broad spectrum of knowledge and to become multi-skilled specialists.

### **Good practice**

The basis of the concept of the educational programme of the University is internationalization and improving the efficiency of educational and research activities of the University through implementation of the best international practices, taking into consideration national traditions in fundamental university education, formation of highly professional and high-tech environment that meets international standards and ensures quality development of education and science, strengthening export attractiveness of SPbPU educational and scientific programs through integration of advanced international technologies and national professional knowledge and skills in the field of international education and research.

### **Admission requirements**

Admission requirements are regulated by the normative documents on education in the Russian Federation, the RF Ministry of Education and Science, and by the admission regulations and requirements for entrance examinations of the University.

Admission of the Russian Federation citizens to the first year of the double degree educational programme is carried out on a competitive basis. All candidates must have a certain level of proficiency in English.

The admission rules and requirements established by the University accommodate different categories of applicants with special needs depending on their disabilities.

### **Structure of study programmes**

The double degree programme is designed for 4 years and 5 months: 8 semesters are taught in SPbPU; 2 semesters – in the Mikkeli University of Applied Sciences, including five months for writing a thesis for a Bachelor degree.

The curriculum is built logically, based on the continuity of disciplines. The disciplines are rationally distributed during the semester in accordance with the academic work load of students and teachers.

The joint educational program focuses on the strengthening of professional competence formation and international cooperation in the field of science.

The organization independently chooses teaching methods and tools, education technology and course books based on the needs of the students in order to achieve expected learning outcomes.

In order to successfully implement the programme various teaching technologies are used, including distance learning and e-learning.

### **Modularization and workload**

The joint educational program under accreditation that is implemented in cooperation with Mikkeli University of Applied Sciences is designed for 4 years and 5 months and comprises 320 credits, 240 of which are awarded in SPbPU and 80 – in Mikkeli University of Applied Sciences.

Students enrolled in the double degree programme study in Mikkeli for one calendar year. The last five months of the programme are used for the preparation of the Bachelor graduation thesis (15 ECTS credits), traineeship (5 ECTS credits). Work placement can take place either in Saint-Petersburg or in Finland during the summer semester.

The educational programme is well-structured and divided into three modules: Humanities and Economics Module; Mathematics and Natural Sciences Module; Professional Module, Physical Education Module.

The core modules provide for comprehensive education and training of students as they are focused not only on theoretical studies, but also on practical skills through practical and laboratory classes, as well as through research under the guidance of an academic adviser.

In order to get a Bachelor degree from Mikkeli University of Applied Sciences 240 credits earned during the period of study in SPbPU are transferred.

A wide range of compulsory subjects and elective courses of the programme allows students to gain knowledge in different scientific fields, as well as to expand their knowledge in the disciplines that are likely to be connected with the student's future career.

### **Learning context**

The double degree study programme programme utilizes different forms of teaching and learning, which support and complement each other: lectures, skills building sessions and laboratory work, workshops, self study and research. These learning activities ensure that students acquire theoretical knowledge, practical and research skills.

The educational programme undergoing accreditation widely uses project learning, CDIO standards, which represent an engineering ideology covering the main stages of engineering under the principle "think-design-create-manage", carrying out interdisciplinary students projects (complex course papers fulfilled in the following disciplines Building Architecture, Parametric Modeling, Industrial and Civil Construction Design, Information Technologies in Construction,

Engineering Systems including Engineering Systems of Unique Buildings and Constructions and other disciplines).

One of the key issues of engineer training is mandatory traineeships in the construction industry.

Both Universities use Moodle e-learning platform.

Additionally, free English language and Russian language courses are organized at SPbPU.

SPbPU official website has a special version for visually impaired students.

### Areas for improvement:

- It is necessary to elaborate quality assurance actions on the level of the educational programme. Particularly, it is necessary to make sure, that teachers discuss assessment results with their students. In this respect it is also worthwhile to consider the derived grades, if the assessment results are not high enough.
- It is recommended to increase the number of students enrolled in the programme.
- It is advisable to increase the number of students learning English.

## **PART 3. Implementation**

The sufficient equipment of the University and the Department provides for high level implementation of the double degree programme. The students have access to modern equipment and library resources both in SPbPU and Mikkeli University of Applied Sciences.

The University carries out obligations for providing career development opportunities for its teaching staff. The teachers of the Institute actively participate in international cooperation. They take an active part in developing training manuals and methodological materials.

### **Good practice**

#### **Resources**

The Department of Industrial and Civil Construction of Unique Buildings and Structures is the leading department in the area of improving educational quality. The teaching staff consists of 30 teachers; this includes 5 Doctors of Sciences and 6 Candidates of Sciences. 4 Doctors of Sciences have been invited as part-time teachers.

SPbPU has all the necessary material and technical conditions for conducting a quality study process, this includes: academic and support facilities, dormitories, gyms, management offices, a students' club, Fundamental Library, Reading Hall, White (assembly) hall for 600 places, Conference hall, resource centers, Museum complex, Exhibition centre and other support facilities. The premises are supplied with all the necessary technical facilities, furniture and equipment, which helps to conduct the study process at a high level and create high-quality social conditions for students, teachers and other staff.

The laboratory equipment is adequate for research work of undergraduate and postgraduate students, and the teaching staff.

The departments of both Universities, which participate in the academic process in the double degree programme, are supplied with state-of-the-art equipment. Both departments have in place research laboratories.

The educational platform Moodle is an important resource used in both partner Universities; educational and methodological materials for students are placed there.

The Institute has tight connections with the leading construction companies of St. Petersburg. The Institute also cooperates with the construction companies with international capital, which use English as internal working language: Skanska, NCC, YUIT and other. These companies conduct practical training and workshops; the leading specialists conduct lectures in the English language.

#### **Organization and Decision-making processes**

Decisions regarding introducing and improving study programmes are taken at the Institute and University, Academic Council and the Rector's level.



The ICE Directorate organizes the academic process; the Directorate employees make a timetable, monitor students' performance, maintain students' personal files and schedule exams. The Program's Coordinator and Research Advisor are appointed on a university order. The coordinator is responsible for interaction with a counterpart structure in Mikkeli University of Applied Sciences.

The organization of academic mobility of the program is provided by the International Academic Mobility department.

### **Cooperation**

Achievements in the area of training specialists are connected with important cooperation of the teaching staff and research workers with specialists, who work in other subdivisions of the University, conduct activities in other spheres of science, participate in online education and further training.

All the Departments of ICE and their vast research potential are engaged in the implementation of the joint study programme under accreditation. 11 Institutes (105 Departments) are involved in cooperation.

### **Assessment system**

The teachers' work and examination load is distributed equally. Different forms of assessment are used. SPbPU provides special rules and assessment requirements of knowledge/competencies for disabled students, and students in difficult life situations.

### **Transparency and Documentation**

A comprehensive set of documents regulating the assessment of knowledge and competencies of applicants and students has been developed and approved by the University. It includes: details of study programmes, admission regulations and requirements to entrance examinations, admission criteria, details of the learning process, requirements to assessing the level of knowledge and competences of students. The documents are published and are available to students.

SPbPU takes an active part in the procedures of independent assessment of students, e.g. Federal Internet Exam in Higher Education.

### **Gender equality and equal opportunities**

There is a general gender balance at the Department (the teaching staff consists of 78 teachers: 40 male and 38 female teachers)

The student/teacher ratio in the programme is 1:5.

The teaching and examination load are distributed equally.

### **Areas for improvement:**

- It is necessary to improve students' participation in the management of education (equal partnership).
- It is recommended to improve employment opportunities in the native country (founding grants for returnees).

## **INFORMATION ON THE LEADING TEACHERS OF THE EDUCATIONAL PROGRAMMES**

### **Vatin Nikolay Ivanovich**

*Doctor of Technical Sciences, Professor, Head of the Department "Construction of Unique Buildings and Structures", Director of the Institute of Civil Engineering; SCOPUS - 13, RSCI - 20. Honorary Worker of Higher Professional Education of the Russian Federation*

### **Korsun Vladimir Ivanovich**

*Doctor of Technical Sciences, Professor of the Department "Construction of Unique Buildings and Structures"; SCOPUS - 2, RSCI - 1*

### **Gamayunova Olga Sergeevna**

*Senior lecturer of the Department "Construction of Unique Buildings and Structures" SCOPUS - 13, RSCI - 4*

### **Gravit Marina Viktorovna**

*Candidate of Technical Sciences, Senior Lecturer of the Department "Construction of Unique Buildings and Structures"*

### **Ulybin Aleksey Vladimirovich**

*Candidate of Technical Sciences, Senior Lecturer of the Department "Construction of Unique Buildings and Structures"; RSCI - 5*

### **Zolotova Yulia Sergeevna**

*Lecturer of the Department "Construction of Unique Buildings and Structures"; certified teacher of Autodesk. SCOPUS - 2, RSCI - 1*

### **Korsun Artem Vladimirovich**

*Candidate of Technical Sciences, Senior Lecturer of the Department "Construction of Unique Buildings and Structures"; SCOPUS - 2, RSCI - 1*

### **Nedviga Ekaterina Sergeevna**

*Senior lecturer of the Department "Construction of Unique Buildings and Structures"; certified teacher of SCAD*

### **Nemova Darya Viktorovna**

*Teacher of the Department "Construction of Unique Buildings and Structures"; SCOPUS - 6, RSCI - 12; winner of grant competition 2013 for students of Saint Petersburg, post graduate students of branch and academic institutions.*

### **Petrochenko Marina Vyachslavovna**

*Candidate of Technical Sciences, Senior Lecturer of the Department "Construction of Unique Buildings and Structures"; SCOPUS - 2, RSCI - 5*

### **Simankina Tatyana Leonidovna**

*Candidate of Technical Sciences, Senior Lecturer of the Department "Construction of Unique Buildings and Structures"; RSCI - 3; author and*

*co-author of more than 30 published research and methodological works including 28 research articles, 1 text book, and 8 study manuals.*

**Strelets Ksenia Igorevna**

*Candidate of Technical Sciences, Senior Lecturer of the Department "Construction of Unique Buildings and Structures"; SCOPUS – 2, RSCI – 4*

**Trubina Darya Alekseevna**

*Assistant lecturer of the Department "Construction of Unique Buildings and Structures"; SCOPUS – 1, RSCI – 2*

*ассистент кафедры «Строительство уникальных зданий и сооружений»,*

**Usanova Ksenia Yuryevna**

*Lecturer of the Department "Construction of Unique Buildings and Structures"; certified teacher of Autodesk. SCOPUS - 1, RSCI – 3*

## **PART 4. Quality management**

SPbPU has its own system of quality management. In the study programme management the information systems are used. They focus on the support of the learning process specifically forming informational and communicational environment, which provides transparent delivery of computer, communication and information services.

### **Good practice**

In 2015, SPbPU made its new webpage. The webpage structure and navigation blocks faced comprehensive changes. The usage of the "flexible modular reference system" made the webpage available from a wide range of devices, from mobile phones to wide screens, with all pre-set functions available.

In 2015, there has been on-going work on the introduction of the Galaktika University Management information system based on the Galaktika ERP platform and the Galaktika Class Schedule based on the Galaktika Xafary platform. So far, the following modules have been in pilot operation: Students Management, Learning Process and Student Academic Progress Records.

For the first time it has become possible to provide the information on students' performance through the learning-process automation system.

There was a pilot effort to generate Masters' diplomas with the help of the system.

Sensor terminals to access the University timetable are installed at the main building and at the R&D building. The time-table is also available via the SPbPU mobile app.

### **Follow up on the results of quality assurance procedures**

Internal evaluation of the Study Program is performed by monitoring which covers all main aspects of its provision in order to improve and ensure the training quality.

Internet testing of students is considered to be an important stage in the education quality monitoring and one of the measures to enhance the effectiveness of services in the sphere of higher education.

The internal quality control in SPbPU (elements of QMS) is conducted on the basis of the comprehensive evaluation methodology and includes the analysis of indicators of SPbPU Institutes' effectiveness, internal rating, passports of the University's academic subdivisions.

The results of complex evaluation of the institutes are presented in the annual digest "University ratings and complex evaluation of SPbPU's Institutes according to the monitoring indexes of effectiveness, departments' passports and internal rating" of the series "Quality Management in Polytechnic University".

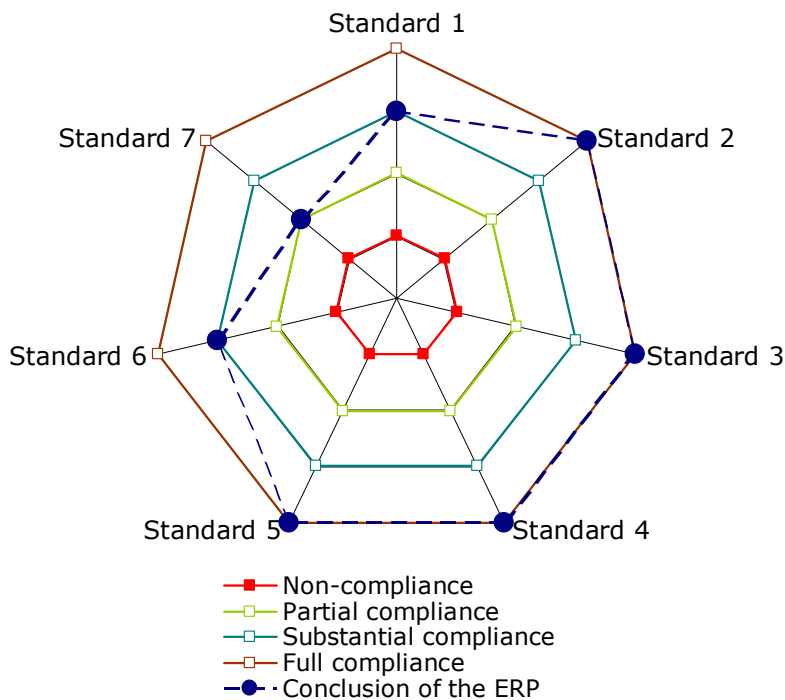
A prospective plan was drawn up to involve the SPbPU institutions into the quality management system development, followed by the QMS

certification. Upon completion of this project, a long-term programme will be made for the period until 2020 to introduce the QMS in all SPbPU structural units.

#### Areas for improvement:

- It is recommended to more actively involve employers and labor market representatives in revising the study programme's goals and supply employers with more extensive information on the double degree programme.
- It is recommended to provide students with the opportunity to express their opinion on the extent and the type of knowledge assessment, specifically if they consider assessment procedures to be "fair".
- It is recommended to conduct periodical reviews of study programmes.

## DISTRIBUTION DIGRAM OF THE EXTERNAL REVIEW OUTCOMES



- Standard 1. Policy (mission, vision) and procedures for quality assurance
- Standard 2. Approval, monitoring and periodic review of programs and qualifications
- Standard 3. Assessment of student learning outcomes / competencies
- Standard 4. Quality assurance and competencies of teaching staff
- Standard 5. Learning resources and student support
- Standard 6. Information system providing effective implementation of the study program
- Standard 7. Public information

## CONCLUSION OF THE EXTERNAL REVIEW PANEL

Based on the self-evaluation report analysis, documents and data submitted, interviews with the representatives of the professional communities, students staff and administration of the educational institution the External Review Panel came to the conclusion that the double degree educational programme«Industrial and civil construction of unique buildings and structures» (B.Sc.) for the specialty «Construction» (08.03.01) delivered by Peter the Great Saint–Petersburg Polytechnic University **substantially complies** with the standards and criteria of joint international accreditation (accreditation by the National Centre for Public Accreditation NCPA together with the Accreditation, Certification an Quality Assurance Institute ACQUIN) .

The External Review Panel recommends the National Accreditation Board **to accredit the double degree educational programme«Industrial and civil construction of unique buildings and structures» (B.Sc.) for the specialty «Construction» (08.03.01) delivered by Peter the Great Saint–Petersburg Polytechnic University with recommendations.**

## SCHEDULE OF THE SITE VISIT OF THE EXTERNAL REVIEW PANEL

<b>Montag</b> <b>Понедельник</b>	<b>19 Октября 2015/ 19 Oktober 2015</b>	
<b>Uhrzeit</b> <b>Время</b>	<b>Gespräch/Aktivität</b> <b>Мероприятие</b>	<b>Ort/Raum</b> <b>Место</b>
<b>В течение дня</b>	Ankunft in St.-Petersburg/ Прибытие в Санкт-Петербург	Flughafen Pulkovo in St.- Petersburg/ Аэропорт Пулково
<b>В течение дня</b>	Transfer zum Hotel/ Трансфер в отель Ankunft im Hotel / Размещение в отеле	Hotel Ambassador Отель Ambassador
<b>16.30 – 18.00</b>	Interne Besprechung der Gutachter (gemeinsam)/ Внутреннее заседание экспертов (совместно)	Konferenzraum/ Конференц-зал отеля «Премьера»
<b>18.15 – 19.45</b>	Interne Besprechung der Gutachter (parallel)/ Внутреннее заседание экспертов (по кластерам)	Konferenzraum/ Конференц-зал отеля
<b>20.00</b>	Gemeinsames Abendessen / Ужин экспертов	Hotelrestaurant/ Ресторан в отеле

<b>Dienstag</b> <b>Вторник</b>	<b>20 октября 2015/ 20 Oktober 2015</b>	
<b>Uhrzeit</b> <b>Время</b>	<b>Gespräch/Aktivität</b> <b>Мероприятие</b>	<b>Ort/Raum</b> <b>Место</b>
<b>08.30</b>	Transfer zur HS / Выезд в ВУЗ, Гражданский проспект 28а	16 корпус
<b>9.00 – 10.30</b>	Gespräch mit der Hochschulleitung (gemeinsam) / Встреча с руководством университета: Ректор и Проректоры, ответственные за аккредитацию (совместно) Teilnehmer: Anhang /Список: приложение	Аудитория 220
<b>10.45 – 12.45</b>	Gespräch der Gutachtergruppe mit den Programmverantwortlichen und Lehrenden der Studiengänge (parallel) / Первая встреча с преподавателями Teilnehmer: Anhang / Список: приложение	Аудитория 220 а
<b>13.00 – 14.00</b>	Mittagessen / Обед	Mensa / Столовая
<b>14.00 – 15.00</b>	Interne Beratung der Gutachtergruppe / Внутреннее заседание экспертов	Аудитория 222
<b>15.15 – 16.45</b>	Gespräche mit den Studierenden / Беседа со студентами	Аудитория 220 а
<b>17.00 – 18.00</b>	Gespräch mit Absolventen (parallel) / Встреча с выпускниками (по кластерам) Teilnehmer: Anhang / Список: приложение	Аудитория 220 а
<b>18.15 – 19.00</b>	Interne Besprechung der Gutachtergruppe / Внутреннее заседание экспертов	Аудитория 222
<b>19.00</b>	Transfer zum Hotel / Выезд в отель	Hotel / Отель
<b>ab 20.00</b>	Internes Abendessen der Gutachtergruppe / Ужин (только эксперты)	Restaurant im Hotel /Ресторан в гостинице



<b>Mittwoch</b>	<b>21 октября 2015/ 21 Oktober 2015</b>	
<b>Среда</b>		
<b>Uhrzeit Время</b>	<b>Gespräch/Aktivität Мероприятие</b>	<b>Ort/Raum Место</b>
<b>08.30</b>	Transfer zur Hochschule / Выезд в ВУЗ	
<b>9.00 – 11.00</b>	Gespräche mit den Mitarbeitern der Abteilung für Didaktik und Lehre sowie des Zentrums für QM (gemeinsam)/ Встреча с представителями Департамента учебно-методической деятельности, Центра менеджмента качества (совместно три кластера)	Главное здание, ул. Политехническая, 29 Аудитория 130
<b>11.00 – 11.30</b>	Bibliothek (gemeinsam) / Библиотека (совместно три кластера)	Главное здание
<b>11.30 – 11.45</b>	Transfer zur Hochschule für Werkstoffkunde, Maschinenbau und Transport/ Переезд в Инженерно-строительный институт	
<b>12.00 – 12.30</b>	Gespräche mit dem Leiter der Hochschule, dem stellvertretenden Leiter für internationale Angelegenheiten, Leitern des Programms (parallel) Встреча с директором института, заместителем директора, руководителями программы Teilnehmer: Anhang / Список: приложение	Гидрокорпус-2, Аудитория 220
<b>12.45 – 13.45</b>	Mittagessen / Обед	столовая вуза
<b>14.00 – 15.00</b>	Rundgang durch das Institut: Besichtigung des Labors / Экскурсия по институту.	
<b>15.15 – 16.15</b>	Zweites Gespräch mit den Lehrenden / Programmverantwortlichen (parallel) / Вторая встреча с преподавателями Teilnehmer: Anhang / Список: приложение	Гидрокорпус-2, Аудитория 411
<b>16.30 – 17.30</b>	Gespräch mit Arbeitsgebern (parallel) / Встреча с работодателями Teilnehmer: Anhang / Список: приложение	Гидрокорпус-2, Аудитория 411
<b>17.45 – 19.00</b>	Interne Besprechung der Gutachtergruppe / Arbeit am Bericht. Ausfüllen von Bewertungsbögen Внутреннее совещание экспертов. Работа с отчетом. Заполнение оценочных листов.	Гидрокорпус-2, Аудитория 411
<b>Ab/c 19.00</b>	Transfer zum Hotel / Выезд в отель	

<b>Donnerstag</b>	<b>22 октября 2015/ 22. Oktober 2015</b>	
<b>Четверг</b>		
<b>Uhrzeit</b> <b>Время</b>	<b>Gespräch/Aktivität</b> <b>Мероприятие</b>	<b>Ort/Raum</b> <b>Место</b>
<b>08.00</b>	Transfer zur Hochschule / Выезд в ВУЗ	16 корпус, Ресурсный центр
<b>08.30 – 11.00</b>	Interne Besprechung der Gutachtergruppe: Gutachterbericht, Empfehlung an die Akkreditierungskommission, Fazit für die abschließende Besprechung mit der HS-Leitung/ Внутреннее заседание комиссии: работа с отчетом, подведение предварительных итогов посещения вуза, подготовка устного доклада комиссии по его результатам	Аудитория 222
<b>11.00 – 12.00</b>	Abschließendes Gespräch mit der HS-Leitung/ Итоговая встреча с руководством вуза	Аудитория 220
<b>12.00 – 13.00</b>	Mittagessen/ Обед	столовая вуза
	Transfer zum Flughafen/ Трансфер в аэропорт	