Double Master's Degree Cooperation Agreement

between

Fakultät für Informatik und Elektrotechnik of the Universität Rostock, Germany

and

Saint Petersburg National Research University of Information Technology, Mechanics and Optics St. Petersburg, Russia

regarding

DOUBLE MASTER's DEGREE

ARTICLE I - INTRODUCTION

The National Research University of Information Technology, Mechanics and Optics (hereafter ITMO) established in Saint Petersburg, 49 Kronverksky Pr., St. Petersburg 197101, Russia, represented by Prof. Dr. Vladimir Vasilyev, Rector of the University, and Universität Rostock (hereafter UR) located at Universitätsplatz 1, 18055 Rostock, Germany, represented by its Rector, Prof. Dr. Wolfgang Schareck, express both their intention to strengthen their institutional cooperation in the field of higher education and to develop student exchanges between the two institutions.

ITMO and UR have decided to undertake student exchanges leading to a double Master's degree, one from each institution including the diplomas described below in Article II.

The following articles aim to identify the terms of implementing the agreement, the rights and responsibilities of both parties and define the conditions in which students of the two institutions can obtain the double diploma.

ARTICLE II – DIPLOMAS

ITMO is habilitated by the Federal Law "On Education in Russian Federation" (Федеральный закон об образовании в Российской Федерации) to deliver the Master's Degree diploma in *Master's program in Business Informatics (Магистр бизнес-информатики*) after fulfilling 120 ECTS including the Master Thesis according to the programme.

UR is enabled by State Higher Education Act of Mecklenburg-Western Pomerania (Landeshochschulgesetz Mecklenburg-Vorpommern) and internal rules and regulations to award the Master's Degree diploma in *Master's program in Business Information Systems (MSc in Wirtschaftsinformatik)* to the students that fulfil all the requirements specified by institutional graduate programme which comprises 90 ETCS including the Master Thesis.

ARTICLE III – APPLICATIONS, ADMISSION AND REQUIREMENTS

ITMO and UR will determine an exchange agreement coordinator for this double degree programme. Applications should be presented at the exchange agreement coordinator of the home university in the period established for each teaching term. The home university will preselect the candidates to participate in the programme. Applications need to be approved by the hosting university. Students will be admitted to both master programmes, according to each university's prevailing admission criteria and the corresponding regulations. Both institutions agree that only students having sufficient scientific, personal, and language skills will be selected.

Students will be admitted on a full-time basis to the double degree programme. The application and admission regulations are specified in Annex I to the Agreement.

ARTICLE IV – TUTORING STUDENTS

The host institution will name a member of the teaching staff to tutor each student. The teacher will act as intermediary with the home institution during the entire study period. The visiting students will have access to all the study resources available to students of both institutions.

ARTICLE V – TEACHING LANGUAGE

ITMO offers its study programme in English and Russian. UR offers its study program in English and German. Candidates must provide evidence of proficiency (Knowledge of English language of the advanced level (B2)) in the respective medium of tuition of the host institution. In order to promote cultural integration, host universities will offer elective foreign language courses, Russian at ITMO and German at UR, for exchange students.

ARTICLE VI – ADMINISTRATIVE AND ACADEMIC REGULATIONS

Throughout the study period in the host establishment, the visiting student is subject to the administrative and academic regulations of the host institution. The home institution will accept these regulations.

If a visiting student fails an examination at the host university, the following conditions hold:

- A timely re-examination shall be arranged. The date needs not to be restricted to regular examination periods.
- Re-examinations have to be performed under identical rules as the first examination regardless of the current student's location.
- If a student decides not to extend his stay at the host university for repeating the examination, individual regulations for the re-examination have to be found. Preferably, the re-examination will be repeated at the home university whereat the host institution determines the examination's content. Remote re-examination (e.g. via a video-conferencing service meeting German/European information security standards) maybe used.

An equivalent regulation holds if a student fails an examination at the home university.

Students participating in this double degree programme have to pass all mandatory modules of their home university. Equivalent modules of the host university according to Annex 2 can be chosen alternatively. In all other cases, an individual decision about the replacement of a mandatory module has to be drawn by responsible authorities.

ARTICLE VII – TUITION AND FINANCIAL MATTERS

Students participating in an exchange programme continue to pay tuition or registration fees in their home institution. UR and ITMO shall follow their national policies and regulations regarding tuition fees. Tuition fees in ITMO may be covered from the sources listed in Annex 1. Registration fees will be paid at both the home and the host institution when required by the institution regulations. At UR, international students will, like all German students, pay the registration fee (not equivalent to a tuition fee!), which includes a contribution to the student parliament and a semester ticket for public transportation in Rostock. The amount of registration fees to be confirmed every year.

Visiting students are responsible for obtaining sufficient health insurance, including medical evacuation and repatriation. Furthermore students should take out a personal accident and liability insurance. The host institution may require the visiting student to present insurance papers covering individual responsibility and medical insurance.

ARTICLE VIII: VALIDATION OF STUDIES BY THE HOST INSTITUTION

At the end of the course of study undertaken by the visiting student, the host institution will send to the home institution details of the grades obtained by the student and will indicate if the student has satisfactorily completed all of the requirements. Students who validate all their study semesters in the host institution obtain the double diploma. The form and procedure for providing information about grades are specified in Annex I.

ARTICLE IX - GRADUATION AND AWARD OF DEGREE

A student who fulfils the following conditions for the double Master degree described in this agreement will receive a diploma from each of the two institutions (see Article II).

In order to obtain the double Master degree from ITMO and UR, students have to successfully complete four semesters (120 ECTS). Students from ITMO must achieve 90 ECTS at their home institution and 30 ECTS at the host institution. Students from UR have to complete at least 60 ECTS at their home institution and 60 ECTS at the host institution. Student from UR may complete 30 of 60 ECTS at the host institution in distance education form. The workload to complete at the host institutions will be defined in advance to get the full recognition from the corresponding home institutions. The structure and content of the double degree Program offered by the Parties are specified in Annex II.

The master thesis shall be supervised jointly by lecturers of both institutions.

ARTICLE X - CONTINUATION, WITHDRAWAL, TERMINATION OF CANDIDATURE

Students of a master programme are required to follow the rules and regulations of both ITMO and UR master candidates, including the conditions for continuation, withdrawal and termination of master studies. If a student wishes to leave the master double degree programme he/she will be free to pursue a regular degree at either university, provided that existing regulations permit it.

ARTICLE XI – GOVERNING LAW

This Cooperation Agreement shall be governed by and construed in accordance with the laws of Germany and Russia.

The Agreement is to be implemented by the Parties within the legal requirements in accordance with the national educational legislation and other relevant educational laws and regulation. The autonomous position of the universities shall not be diminished. No constraints shall be imposed by either Party upon the other Party when implementing the present Agreement.

University of Rostock and ITMO University shall appoint a Coordinator for the double degree program. In case of a dispute, arising out of or in connection with the present Agreement, the two coordinators at University of Rostock and ITMO University shall endeavour to settle it on a collegiate basis, if necessary by involving the existing study program boards at each university. If the dispute cannot be solved this way, the matter shall be submitted to the Rectors of the two universities.

ARTICLE XII - EFFECTIVE DATE AND TERMINATION

This Cooperation Agreement will become effective upon signing and shall remain in effect for a period of five years from the date of the last signature. Both partner universities may at any time review this Cooperation Agreement and the actions taken under it. Modifications to this Cooperation Agreement may be made by mutual agreement and confirmed through an exchange of letters. The Cooperation Agreement may be extended by mutual consent by the two parties.

Both parties agree that in the event of any party wishing to terminate the Cooperation Agreement, the student enrolled under the double program will be allowed to proceed and graduate under the program.

The termination notice period is one year.

For University of Rostock	For ITMO University		
Rector of University of Rostock	Rector of the ITMO University		
Name Prof. Dr. Wolfgang Schareck	Name Prof. Dr. Vladimir Vasilyev		
Date	Date		
Signature	Signature		
Dean Faculty of Computer Science and Electrical Engineering	Dean Faculty of Information Technologies and Programming		
Name: Prof. Volker Kühn	Name: Prof. Dr. Vladimir Parfenov		
Signature	Signature		
Master Program Coordinator Institute of Computer Science	Master Coordinator International Laboratory 'Intelligent Technologies and for Socio-Cyberphysical Systems		
Name: Prof. Kurt Sandkuhl	Name: Prof. Dr. Alexander Smirnov		
Signature	Signature		

ANNEX 1

ARTICLE I - CONDITIONS TO OBTAIN THE MASTER DEGREE DIPLOMA FROM ITMO AND UR

The MSc. Program in Business Informatics at ITMO is organized in four semesters, the first and third (Autumn term) start in September while the second and fourth (Spring term) start in February. The corresponding examination periods are in January and June, respectively. In July, re-examinations can be attended. Regular students obtain the Master degree diploma if at least 120 credit point in courses in accordance to the established itineraries including the obligatory modules comprising the Master Thesis with a workload of in total 30 ECTS are fulfilled.

The MSc. program in Business Information Systems at UR is organized in three semesters and can be started in the winter as well as the summer term. The winter semester starts in October, the examination period covers February and March. The summer semester begins in April, the corresponding examination periods lasts from July to September. In the first two semesters, 60 credits have to be achieved. The final semester just contains the master thesis with a workload of 30 ECTS. In order to obtain the Master degree, regular students have to achieve 90 ECTS.

Due to the difference in credit points required for obtaining the Master degree (i.e. 120 credit points at ITMO vs. 90 credit points at UR), students enrolled in Rostock will have to study an additional semester with 30 credit points consisting of research work and practice. This semester will be the third semester, i.e. the master thesis.

Due to the slightly different study periods, the following exchange schedule is recommended. Students of UR shall stay at ITMO during the spring term. They can attend their exams of the preceding winter semester at UR until end of March and study at ITMO from May to July. With this schedule, they will be back at UR in August and can repeat missed or failed examinations. Students of ITMO shall stay at UR during the summer semester. If they pass all exams not later than end of August, they can continue the program at ITMO in the following autumn term.

The Parties agree to the mutual recognition of credits for the in-coming students from the university participating in the double degree Program. Credit points recognition shall be based on the internal rules and regulations of the universities as well as the documents proving the correspondence with the content, ECTS credit points and period of study, stated at Transcript of Records, provided by each university. The transcript is provided in two original copies. One copy is given to the student, and the second copy is transferred to the partner university.

ITMO agrees to provide a transcript no later than two weeks after the end of term.

UR agrees to provide a transcript no later than end of August for the summer term and end of February for the winter term.

ARTICLE II - APPLICATION AND ADMISSION

Admission procedure at each of the universities shall be held according to the procedure currently effective at the university and national legislation requirements.

Selection of applicants for the double degree Program is to be carried out on the basis of a personal application of a student by the commission of each partner university. For the University of Rostock, this commission will be the study program board which makes the decision based on a proposal of the coordinator for the double degree program.

After admission to the home university the copies of the students' papers are handed over to the host university within the predefined dates to approve of the potential students eligible for

studies at the host university. Application documents of a student shall be stored at the university where he/she has applied for the double degree Program. The other Party may be granted the access to the documents under the double degree Program.

ITMO and UR recognize the following application deadlines, application documents, quotas for the number of students and admission procedures and criteria.

Eligibility criteria shall be as follows:

(1) Bachelor degree in the area of Business Informatics or other relevant course of studies.

(2) Knowledge of English language of the advanced level (B2) in accordance with the Common European Framework of Reference (CEFR).

The selection shall be based on the quality of the application documents.

Application deadline at ITMO is 31.08. for the EU and non-EU students. If students want to qualify for a scholarship for tuition fees they have to apply until 15.07. Application deadline at the UR is 25.07.

Students will be enrolled in a university in the semester in which they are studying at this university.

Applicants who have passed through the selection shall be enrolled in the educational program on the basis of their personal applications and submission of this list of documents: UR students to be enrolled at ITMO:

- 1. Training assignment or recommendation from the partner university's coordinator of the double degree program;
- 2. Personal application form signed and printed OR online application via ITMO University enrollee system;
- 3. Copy of the national passport pages with the photo and full name with the notarized translation into Russian;
- 4. Original or notarized copy of a document certifying higher education (diploma) and its supplement granting the right to study on the master's programs (with notarized Russian translation);
- 5. Document certifying the level of the foreign language proficiency (English for joint educational programs carried out in English) or the results of entrance examination in the Russian language in case of implementing the Program in Russian;
- 6. Medical certificates (if required).

ITMO students to be enrolled at UR:

- 1. ITMO's Admission Board recommendation;
- 2. Completely filled in and signed application form via Rostock University enrollee system
- 3. Copy of the international passport pages with the photo and full name with the notarized translation into German or English;
- 4. Certificate (authenticated copy) that qualifies for university admission in the home country together with a German or English translation of the document
- 5. The Bachelor certificate in the national language and as German or English translation
- 6. Document certifying the level of the foreign language proficiency (English for joint educational programs carried out in English; German language in case of implementing the Program in German) or the results of entrance examination;

ARTICLE III – TUITION AT ITMO

Financial relations between the students and the ITMO shall be governed by the agreements between the students and the universities. All students enrolled in the double degree Program shall be informed of the tuition payment procedure.

Tuition fees may be covered by:

- 1. Personal scholarships;
- 2. Funds of third-party companies;
- 3. Extrabudgetary funds of the Faculty or University;
- 4. Personal funds of students.

Students are responsible for the following expenses:

- 1. travel expenses;
- 2. documents recognition fees;
- 3. medical insurance and accident insurance policy;
- 4. visa and residence permit expenditures;
- 5. living expenses;
- 6. relocation costs of spouses and dependants.

The universities shall render assistance to the students in finding suitable accommodation and support their academic, social and cultural integration.

ARTICLE IV – FINAL EXAMINATION AND MASTER THESIS DEFENCE

State final examination and Master Thesis defense activities shall be carried out at joint sittings of the State Attestation Commission of ITMO and the Master thesis examination commission at UR. Joint sittings may be held in the mode of online conferences.

Dates of state final examination and Master Thesis defense activities shall be mutually agreed by the Parties at least 2 (two) months prior to the specified activities.

Writing of master's thesis shall be carried out in accordance with the national legislation requirements and local regulations of the universities. Each student is to have two supervisors, one from each university. The master thesis may be written in English.

ANNEX 2 CURRICULUM AND CATALOGUE OF MODULES

The structure of the double degree Program includes 4 semesters. In the first semester all students take 30 ECTS workload in their host universities. In the second semester students visiting partner universities and take courses for 30 ECTS. In the third semester, UR students may be engaged in research work and practice at the ITMO University, including in distant form and ITMO students have courses, research work and practice at their home university. In the fourth semester all students prepare and defend master thesis under joint supervising.

The following catalogue defines the sets of modules visiting students typically can choose from. ITMO and UR guarantee to accept ECTS points achieved for modules from these lists. The catalogue is split into two parts: The first part contains pairs of modules from UR and ITMO with equivalent content. Only one module of a pair can be selected. The second part contains

modules being offered exclusively from UR or ITMO and can be selected independent of remaining choices.

Education process of the double degree Program is to be carried out based on the individual curriculum approved by both universities, in accordance with their rules. Individual curriculum is based on the standard curriculum (Annex 3), approved by both universities. Some courses of UR students with a research focus may be recognized as a research work.

University of Rostock	Term	ITMO University	term
Models for Business Processes and	Summer (2)	Service-oriented Intelligence Systems	Spring (2)
Services			
Data Warehouse Techniques and	Summer (2)		
Business Intelligence			
Enterprise Modeling Applications	Summer (2)	Enterprise Architecture	Spring (2)
Research Methods of Business	Summer (2)	Logic and Methodology of Science	Autumn (1)
Information Systems	or Winter	Social Philosophy	Autumn (1)
	(1)		
Master Thesis in Business	Winter (3)	Master Thesis (18 ECTS)	Spring (4)
Information Systems (30 ECTS)	or Summer	Practice (6 ECTS)	
	(4)	Cross-Disciplinary Exam and Master	
		Thesis Defence (6 ECTS)	
Integrated Electronic Business	Winter (1)	Enterprise IT management	Autumn (1)
Knowledge Management and	Winter (1)	Knowledge Management	Autumn (1)
Representation			

Catalogue of equivalent modules

The module "Tourism Management" offered at ITMO University in spring (2) is equivalent to an elective course in business administration at University of Rostock.

Catalogue of individual modules from ITMO

Module	Term
Project Management (ENG)	Spring (2)
Requirements Engineering (ENG)	Spring (2)
Modern information theory (ENG)	Spring (2)
Digital signal processing (ENG)	Spring (2)
Genetic and evolutionary computation (ENG)	Spring (2)
Technologies and instruments of language	Spring (2)
processors development (ENG)	
Pattern Recognition (ENG)	Spring (2)
Mathematical methods of modeling of economic	Autumn (3)
systems (RUS)	
Legal regulation of creation and use of intellectual	Autumn (3)
property (RUS)	
Organization of Software Design and Engineering	Autumn (3)
(RUS)	
Agile Software Development (RUS)	Autumn (3)
Software Engineering Quality Management (RUS)	Autumn (3)
Evaluating of the software effectiveness (RUS)	Autumn (3)
Methods of implementation of information systems	Autumn (3)
(RUS)	

Catalogue of individual modules from UR

University of Rostock	Term
Modelling and Simulation with Applications to the	Winter (1)
Life Science (ENG)	
BioSystems Modelling and Simulation (SB II) (ENG)	Summer (2)
Scalable Computing (ENG)	Winter (1)
Parallel and distributed simulation (ENG)	Summer (2)
Computer Vision (ENG)	Winter (1)
Virtual Reality (ENG)	Summer (2)
Event-Driven Architectures (GER or ENG)	Winter (1)
Human Computer Interaction and Software	Winter (1)
Engineering Tools (GER or ENG)	
Current Topics in modeling and simulation (GER or	Winter (1)
ENG)	
Multi-agent Systems (GER or ENG)	Winter (1)
Video Processing and Coding (GER or ENG)	Winter (1)
Web 2.0 (GER or ENG)	Summer (2)
Requirements Engineering (GER or ENG)	Summer (2)
Distributed Algorithms (GER or ENG)	Summer (2)
Design (object-oriented software development with	Summer (2)
UML and interaction design) (GER or ENG)	
Advanced Communications (GER or ENG)	Summer (2)
Interaction (graphical user interfaces and interaction	Summer (2)
engineering) (GER or ENG)	

The following table translates the grading systems of UR and ITMO for single modules.

UR (numerical	German names of	Russian names of grades	ITMO (numerical
grades)	grades		grades)
1,0-1,3	Sehr gut	Отлично	5
1,7 – 2,3	Gut	Хорошо	4
2,7 – 3,3	Befriedigend	Удовлетворительно	4
3,7-4,0	Ausreichend	Достаточно	3
4,3-5,0	Ungenügend	Недостаточно	2

ST. PETERSBURG NATIONAL RESEARCH UNIVERSITY of INFORMATION TECHNOLOGIES, MECHANICS & OPTICS (ITMO University)

THE UNIVERSITY of ROSTOCK

STANDARD CURRICULUM of JOINT EDUCATIONAL PROGRAM MASTER LEVEL EDUCATION in Business Informatics (ITMO University) Business Information Systems (University of Rostock) Master Program Speciality: "Business Information Systems"

Full time education, length - 2 years

Degree - Master of Science

Course Title	Workload	Semester	Form of Control	University
Worldview Module	6			
Research Methods of Business Information Systems (6 ECTS) (ENG) Logic and Methodology of Science (3 ECTS) (RUS) & Social Philosophy (3 ECTS) (RUS)	6	1	Exam	University of Rostock ITMO University
General Professional Module	18			
Enterprise Modelling Applications (ENG) Enterprise Architecture (ENG)	6	2	Exam	University of Rostock ITMO University
Integrated Electronic Business (GER) Enterprise IT management (RUS)	6	1	Exam	University of Rostock ITMO University
Knowledge Management and Representation (GER) Knowledge Management (RUS)	6	1	Exam	University of Rostock ITMO University
Special Professional Module	18			
Data Warehouse Techniques and Business Intelligence (6 ECTS) (ENG) & Models for Business Processes and Services (6 ECTS) (ENG)	12	2	Exam	University of Rostock
Service-oriented Intelligent Systems (12 ECTS) (ENG)				ITMO University
Distributed Algorithms (ENG) BioSystems Modelling and Simulation (ENG)	6	2	Exam	University of Rostock

Complementray Topics in the Area Information				
Systems, Information Technology, Model & Algorithms, Smart Compuring (GER)				
Web 2.0 (ENG)				
Project Management (ENG)				ITMO University
Requirements Engineering (ENG) Modern information theory (ENG)				Oniversity
Digital signal processing (ENG)				
Technologies and instruments of language processors development (ENG)				
Pattern Recognition (ENG)				
Genetic and evolutionary computation (ENG)				
Elective Courses	18			
Tax Management (12 ECTS) (GER)	10	1, 2	Exam	University of
Human Resource Management (12 ECTS) (GER)	(6+6)	1, 2		Rostock
Banking (12 ECTS) (GER)		1,2		
Business Administration of Tourism (6 ECTS) (GER)		2		
Business Administration of Tourism (0 ECTS) (OEK)		2		
Business Administration for Service Industries: Work and Organisation (6 ECTS) (GER)		2		
Business Administration for Service Industries: Tax and Finance (6 ECTS) (GER)		1		
Business Administration for Service Industries: Accounting and Management (6 ECTS) (GER)		2		
Tourism Management (6 ECTS) (ENG)		2		ITMO
Mathematical methods of modeling of economic systems (6 ECTS) (RUS)		3		University
Legal regulation of creation and use of intellectual property (6 ECTS) (RUS)				
Object Oriented Software Engineering (6 ECTS) (GER)	6 (3+3)	1, 3	Pass	University of Rostock
Advanced Communications, Protocols and Services (6 ECTS) (GER)				
Scalable Computing (6 ECTS) (ENG)				
Human Computer Interaction and Software				
Engineering Tools (6 ECTS) (GER or ENG)				
Organization of Software Design and Engineering		3		ITMO
(3 ECTS) (RUS)				University
Agile Software Development (3 ECTS) (RUS)				
Software Engineering Quality Management (3 ECTS) (RUS)				
Evaluating of the software effectiveness (3 ECTS) (RUS)				
Methods of implementation of information systems (3 ECTS) (RUS)				
Research Work, Practice	30			
	••	1	1	1

Practice	6	3	Pass	University of
	(6)	(Rostock),		Rostock,
	Rostock,	1, 3		ITMO
	(2+4)	(ITMO)		University
	ITMO			
Research Work	24	3 (Rostock),	Pass	
	(24)	1, 3		
	Rostock,	(ITMO)		
	(10+14)			
	ITMO			
Master Thesis and related modules	30			
Master Thesis in Business Information Systems	30	4		University of
				Rostock
Practice	6	4		ITMO
Master Thesis	18	4		University
Cross-Disciplinary Exam and Master Thesis Defence	6	4		

Note:

The educational program is implemented in the form of network education.

The place of realisation of educational activities is the location of the organization that provides education, regardless of location.

Agreed:

Supervisor of Master Program (ITMO University)

Supervisor of Master Program (Rostock University)

Dean of the Faculty IT&P (ITMO University)

Chairman of Education (ITMO University)

Aleksandr V. Smirnov Kurt Sandkuhl Vladimir G. Parfenov

Aleksandr A. Shekhonin