



UniTrento ICM projects - Progress and kick-off meeting

Ufa State Aviation Technical University - UniTrento Cooperation development

Prof. Nafisa Yusupova Faculty of Computer science and Robotics Dean



Ufa, Russia October 14 - 15, 2020



Уфимский государственный авиационный технический университет

Ufa State Aviation Technical University

World From Space (Bashkortostan Republic World Placement) Bassacrom Coreas Bassacrom Coreas Corea

Number of students:

- USATU 13 035 (st.)
- Branch in Ishimbaj 434 (st.)
- Branch in Kumertau 456 (st.)

More than 1000 lecturers work at 66 chairs, among them about:

- about 180 Doctors of Sciences;
- about 600 PhDs;
- more than 80 corresponding members,
 members of the Russian Academy of Sciences and
 Bashkir Academy of Sciences, different sectoral,
 state and public academies in Russia and foreign countries.











INTERNATIONAL COOPERATION AND SCIENTIFIC PROJECTS





The University has agreements on mutual cooperation with:

- Los-Angeles center of material science (USA)
- Karlsruhe Institute of Technology (Germany)
- Meiji University (Japan)
- University of Trento (Italy)
- La Sapienza University of Rome (Italy)
- Universidade Nova de Lisboa (Portugal)
- Ruhr Universität Bochum (Germany)
- The International Institute for Applied Systems Analysis (IIASA), Austria

- Nanjing University of Aeronautics and Astronautics (China)
- Sheffield Hannam University (UK)
- Technical University of Dresden (Germany)
- Bonn-Rhein-Sieg University of Applied Science (Germany)
- HTWK Leipzig (Germany)
- University of Wroclaw (Poland)
- Technische Universität Wien (Austria)
- Wroclaw University of Technology (Poland)

International scientific-technical projects:

- "Aviacosmos"
- "Nanocristals"

Participants of the projects:

SATUU

Universities of Germany, USA, France, China









- ❖ International Workshop "Computer Science and Information Technologies"
 - 2000, 2001, 2003, 2005, 2007 Ufa, Yangantau, Assy, Krasnousolsk, Russia; 2002,2009 Patras, Crete, Greece; 2004 Budapest, Hungary; 2006, 2011 Karlsruhe, Garmisch-Partenkirchen, Germany;
 - 2008 Antalya, Turkey; 2010 Moscow Saint-Petersburg, Russia; 2012 Hamburg Norwegian Fjords;
 - 2013 Vienna-Budapest-Bratislava; 2014 Sheffield, England; 2015 Rome, Italy;
 - 2016 Prague-Kunovice, Czech Republic; 2017 Baden-Baden, Germany;
 - 2018 Varna, Bulgaria; 2019 Vienna, Austria
- "Engineering and Information Sciences: New Methods and Solutions for Emerging Technologies", 2010 - Karlsruhe, Germany
- International workshop "Innovation Information Technologies: Theory and Practice", 2010 - Dresden, Germany
- International Workshop for Young Scientists "Intelligent Technologies for Information Processing and Management", 2012 Ufa, Russia
- **❖** International Conference "Intelligent Technologies for Information Processing and Management (ITIPM)", 2014, 2015 − Ufa, Russia
- ❖ International workshop "Technologies of digital processing and data storage", 2015 Ufa, Russia
- * International Summer School "Neuroinformatics", 2012 Ufa, Russia
- International Conference "Information Technologies for Intelligent Decision Making Support" 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020 – Ufa, Russia
 - Traditionally, representatives of UniTrento were the participants of the conference: Prof. F. Casati, Prof. I. Trevisan, Dr. A. Molinari
- Italian-Russian seminar "Information and Innovation Technologies: Theory and Practice"
 May 09 16, 2012, Trento, Italy







The geography of the participants ITIDS2020

Ufa, Russia, October 6 – 9, 2020

Countries: Russia, Germany, Italy, Austria (4)

Cities of Russia: Ufa, Moscow, Stavropol, Khanty-Mansiysk, St. Petersburg, Vladivostok, Orenburg, Samara, Izhevsk, Tyumen, Astrakhan, Chelyabinsk, Surgut, Krasnoobsk, Voronezh, Sochi, Volgograd (17)



Partners: Russian Foundation for Basic Research (RFBR), North-Caucasus Federal University, Ugra Research Institute of Information Technologies

Partners in the Republic of Bashkortostan: The Ministry RB for Informatization, Ltd «INTRO-GIS», OJSC Ufa Research and Production Enterprise «Molniya», OJSC Research and Production Enterprise «Poligon», Ltd «ITSK», Ltd «IT ENIGMA UFA»

| Proceedings Submitted Plenary reports Session reports | 133 10 123 |
|---|------------------|
| Accepted 1 vol. 2 vol. Rejected | 40 42 15 |
| Atlantis-Press (WoS) Submitted Accepted Rejected | 112 80 32 |





All reports: 133

All participants: 242



VIII All-Russian Scientific Conference "Information technologies of intelligent decision support" ITIDS'2020, Ufa, Russia, October 6 – 9, 2020

06.10.2020, 14:30 – 16:00 Plenary session 1 "Data processing technologies"

ABOUT DEVELOPMENT TRENDS IN THE INDUSTRY OF INFORMATION TECHNOLOGIES IN THE SUBJECTS OF THE RUSSIAN FEDERATION RELATED TO THE PERIOD OF EFFECT OF MEASURES TO COMBAT THE SPREAD OF NEW CORONAVIRUS INFECTION

Slepov D.S.

(Ministry of Digital Development of Public Administration of the Bashkortostan Republic)

RESEARCHES IN AI AT THE UNIVERSITY OF TRENTO

Massacci F.

(University of Trento, Italy, University of Trento, Italy)

ARTIFICIAL INTELLIGENCE IN SAP INTELLIGENT ENTERPRISE

Gonchar L.

(SAP company, Germany, SAP SE, Germany)

APPLICATION OF INTELLECTUAL ALGORITHMS FOR SOLVING PROBLEMS IN THE OIL INDUSTRY

Makoveev S.G.

(LLC "Gazpromneft-Digital Solutions")

INFORMATION TECHNOLOGIES AND THEIR USAGE IN SOCIAL MEDIA

Komendantova N.

(International Institute for Applied Systems Analysis, Laxenburg, Austria)

VULN4REAL: METHODOLOGY FOR COUNTING ACTUALLY VULNERABLE DEPENDENCIES

Pashchenko I.

(University of Trento, Italy, University of Trento, Italy)



Vuln4Real: A Methodology for Counting Actually Vulnerable Dependencies

IVAN PASHCHENKO¹, FABIO MASSACCI^{1,3}
HENRIK PLATE², SERENA ELISA PONTA², ANTONINO SABETTA²

¹UNIVERSITY OF TRENTO, ITALY

²SAP SECURITY RESEARCH, FRANCE

³VRIJE UNIVERSITEIT AMSTERDAM

Ufa - 2020





университет

OUR PARETNERS at the UniTrento





Prof. Italo Trevisan Department of Economics and Management



Nafisa Yusupova Prof. Dr. USATU



Prof. Fabio Casati Department of Engineering and Information Science



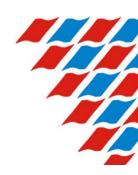
Prof. Fabio Massacci Department of Engineering and Information Science



Diana Bogdanova Dr. USATU



Andrea Molinary Department of Industrial Engineering





Scholarship holders from USATU at the University of Trento































SCHOLARSHIP STATISTICS

| 2009 | Diploma thesis | Ruslan Iskhakov | | |
|------|----------------|--------------------------|--|--|
| 2011 | PhD student | Roman Chirikov | | |
| | | Pavel Kucherbaev | | |
| | Diploma thesis | Svetlana Kovaleva | | |
| | Student | Aygul Nazmutdinova | | |
| | Researcher | Vitaly Kotelnikov | | |
| 2013 | Student | Ivan Pashtenko | | |
| | Researchers | Guzel Abrahmanova | | |
| | | Vadim Kotov | | |
| | | Diana Bogdanova | | |
| 2015 | Researchers | Anastasia Gorshechnikova | | |
| | | Ksenia Netsvetaeva | | |
| | | Elvina Gindullina | | |
| | | Maria Chumakova | | |
| 2016 | Researcher | Bulatova Elena | | |
| 2020 | Students | Ilnur Gilmetdinov | | |
| | | Margarita Mansurova | | |



Ilnur Gilmetdinov



Margarita Mansurova





PHD DEFENSE



Уфимский государственный авиационный технический университет



PhD defense by Ivan Pashchenko, 2019

Academic Supervisor Prof. Fabio Massacci



USATU-UniTrento Double degree PhD program PhD defense by Roman Chirikov, 2014

COOPERATION AGREEMENT

K Marx Str. 12

Hereinafter called «USATU»

WHEREAS the common goal is to strengthen the existing cooperative links between the two

USATU and UNITN HEREBY AGREE TO THE FOLLOWING

Article 2 (Activities)
The objectives indicated in art. 1 will be achieved by means of the exchange depicture indicated for educational and research purposes.
The change decircular and postgodiate students to study at the partne engage in cultiborative heaching projects, and to folder dissertation project, and concurage the development of funded competitive research projects and, where possible, graduate students, to describe a sand, where possible, graduate students, and exchange staff publication (tooles) and article offprints as well as worked as the contractive of the purpose of the publication (tooles) and article offprints as well as worked as the publication (tooles) and article offprints are well as the publication (tooles) and article offprints are the publication (tooles) and article offprints are the publication (tooles) and article off tooles are the publication (tooles) and the publication (tooles) and the publication (tooles) are the publication (tooles) are the publication (tooles) and the publication (tooles) are the publication exchange sam pureluant (coors, and active or minister as were as workin imitate institutional developments of bi-nationally supervised doctoral the de these) starting with arrangements to facilitate the joint scientific are supervision of a doctoral thesis. Specific agreement for each candi concluded according to the modalities specified in the attached form.

Article 3 (Financial matters)
The present Agreement implies no financial engagement from either party.
Both parties agree that the financial arrangements necessary to implement this be negotiated for each specific activity and will depend upon the availability of fu

Article 4 (Duration of the screement)

This agreement having received the approval of the proper administrative auth effective for three (3) years starting on the date of the last signature. It may be extended by mutual written agreement of the parties involved and cc by either one of the two parties with a written norification six months in

UNIVERSITY

20 APR. 2012





USATU-UniTrento DOUBLE DEGREE MASTER PROGRAM



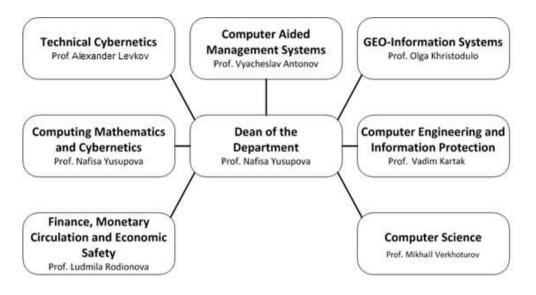
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|--|---|---|------------------------|--------|--|---|---|--|--|---|---|---|--------|------|--------|
| | | | | | | | UNITN stud | dy programs | | USA | ATU Information S | ecurity program | | | |
| | | | | | | | ComputerScience | Security&Privacy | | | | | | | |
| Course Name UNITN | | Category | CFU | Year | Semestr | | | | 1 | Course Name USATU | | Category | CFU | Year | Semest |
| | `` |) | 107 | *** | Vn X | 7 | N | on-IT courses | 77 | 2/ | | 7 | *** | χ., | |
| 145518 – ICT Innovation – and Development | Product Design | INF/01 | 6 | 1 | 2 | | | X | | Control Technology business and business activities | communications | SECS-P/10 | 2 | 1 | 1 |
| 145455 - ICT Innovation | | INF/01 | 9 | 1 | 2 | | | X | | Theoretical foundations of n | nanagement | SECS-P/08 | 4 | 1 | 2 |
| 145761 - Innovation and B | usiness in ICT | SECS-P/10 | 6 | 1 | 1 | | X | | | Philosophy | | M-FIL/02 | 3 | 1 | 1 |
| 145936 - Innovation and E Basic | ntrepreneurship | SECS-P/10 | 6 | 1 | 1 | | | X | 2 | Psychology and pedagogy | | M-PSI/04 | 2 | 1 | 2 |
| 145288 - Business Develop Laboratory | oment | SECS-P/08 | 9 | 1 | 2 | 54 | | X | | Game theory and operations research | | MAT/09 | 4 | 1 | 2 |
| 145623 - Innovation and E Studies in ICT | ntrepreneurship | INF/01 | 6 | 2 | 1 | | | х | | | | | | | |
| 145459 - Participatory De | sign | ING-INF/05 | 6 | 1 | 1 | | 13 | Х | (| | | | | 1 | |
| 145323 - Privacy and Intel Rights | lectual Property | ING-INF/05 | 6 | 1 or 2 | 1 | | Х | х | | | | | | | |
| | | | 80 | | * | | | | | | | | | - | |
| | | | | | | | Digital signal | processing, electron | ics, etc. | | | | | | |
| 145614 - Multimedia Data | Security | ING-INF/03 | 6 | 1 or 2 | 1 | | X | X | | Biometric security systems | | ING-INF/05 | 4 | 1 | 1 |
| 143233 - Language Once | | | Экземпляр УГА | r2 | 1 | | Control over Reporting or | living in the dormitories | | Methods of digital image pro | 5.3.Fulfilment of obligations is ceased from the moment of sending notific in p. 5.2. until getting answer. | | | n 1 | 1 |
| | | ENT ON DOUBLE DEGREE PROGRAM SITY OF TRENTO AND UFA STATE AVIATION TECHNICAL UNIVERSITY | | | 2 24 | | 3.4. Each student bears expenses for living, meal and other personal expenses. 4. Procedure of amendment and termination of the Agreement 4.1. Conditions of the given agreement may be amended upon mutual agreement of the | | | Computer systems and spec | 5.4.If the fact of violation by the Pa notification has not been received, the agreement unilaterally, having initiative of which Agreement wa | performance on. Party, upo | n 1 | 1 | |
| 145447 – Advanced com architectures | vanced com Federal State Budgetary Educational Institution of Higher Education «Ufa State Aviation Technical University» (Interinstite named as USATU), represented by Restor Professor Wildow Education and University of Technical University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University of Technical University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University of Technical University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education and University (Interinstite named as USATU), represented by Restor Professor Wildow Education (Interinstite named as USATU), represented | | | | occurred in the result of Agreement termination. 6. Other conditions 6.1. Parties agree that in case of getting results of intellectual activity d | | | | | | | | | | |
| | as follows: | L. Subject of the agreement | | | | | 4.3. The given agn | rement may be terminated upon mutual ag | reement of the Parties or | | | tting results of intellectual activity du it was creator of result of intellectual | | | |
| 1.1. The subject of the given agreement is realization of Dusble Degree Program and development of cooperation and exchange program between students and academic starff of the faculty of information engineering and informatics in UniTrems and Faculty of information and proteins in USATU. 1.2. The aim of the given agreement is development of education, realization of cooperation arrangement of stackenic staff. 1.3. USATU and UniTrems, with intent to choose participants for Dusble Degree Program organize billstard committee, task and members or which are determined by additional agreement of the Parties. 1.4. Meeting of bilattened committee are that does a year via conference-call or video-conference. Decisions are made unanimously. | | | 1 | • | otherwise on the grounds, foreseen by the legislation of the Russian Federation. 4.4. The given agreement does not impose financial obligations on the Parties. 4.5. The given agreement stays in force for 5 years from the moment of signing. 4.6. On a unitateral basis, each university can bring the agreement to an early termination upon condition that the sortinication will be seen too less than two months before assumed date of termination. 4.7. Early termination of the agreement does not lead to exclusion of students from the realized program. 4.8. The given agreement is written in English in 4 copies. | | | | University of Trento University degli Studi of Trento PIVA-CF 00340520220 Let. 390 641 28111 Interesciparamin.i Interescipa | | | | | | |
| 2. Realization of double degree progr 2.1. Realization of double degree progr 2.1. Requirements for enrollment, scademic program, case calcular, payment for studies, financial tupport as well graduation thesis and dissertation are defrosed by signing the Parties. 3. Rights and obligations of the students, participation of the students, participation of the students, participation of the students, participation of the students participation of the students have equivalent to the students have equivalent to the students of the students | | emic plan and acas the way of subm separate agreeme g in the program the rules, being al access to all fac as the use of comp esponsibilities of | in the illities uters, | | | and affiliated persos money or other val aiming at getting ur Also Parties, their agreement do not solicitation or an commercial solicitation (legal allowance or be violated, the person of the con- traction of the con- | S.Anti-corruption clause nee of cludies upon the Agreemelt, Parties, as do not psy, do not suggest to pay and uses to any person in order to influence that preferences or with other unfair aims. staff, repersentative, and affiliated person carried to the control of the control of the term of commercial threbey, commercial tion, giving or taking brine, modification to the control of the control of the staff person to the control of the staff person the control of the staff person to the control of the | do not permit to pay out heir actions or decisions one in the course of the sian legislation as bribe al bribery, mediation in bribery, abuse of power, thas been violated or may to another Party. In the ide materials, proving or y occur. | | Date: 2012/19 Universes of Trapa Rector Professor Paolo Collini Chairman of Information engineer informatic department Professor Paolo Giorgini | Settlement account 450 810 85000 2000000 Branch bank in republic of B BIC 048073001 Date: USATT: Rector Profession Fisch | Kridqi | Ł | | |



DEPARTMENT OF COMPUTER SCIENCE AND ROBOTICS



Уфимский государственный авиационный технический университет





| Number of employees | |
|------------------------|---------------------------------------|
| Total at the faculty | 370 (professorial teaching staff 289) |
| | 40 Doctor of Science |
| | 182 Candidate of Science |
| Average age of workers | 44 years |

| Number of students | |
|---------------------------------|----------|
| Full-time department | 3287 |
| Extramural department | 774 |
| Total number of students | 4061 |
| Average age of workers | 44 years |
| Number of master student | 491 |
| Number of post-graduate student | 55 |



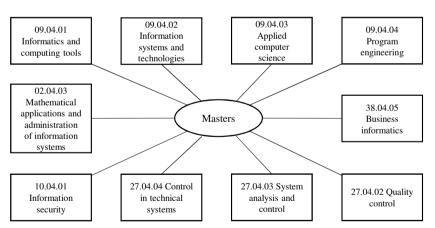


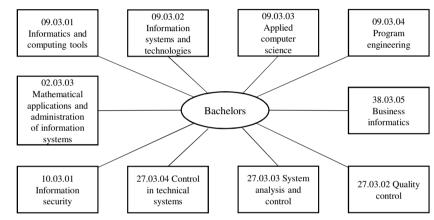
Уфимский государственный авиационный технический университет

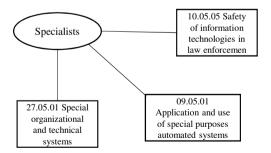
EDUCATIONAL PROGRAMS AT THE DEPARTMENT















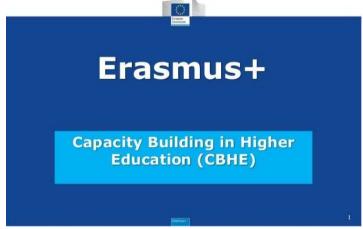
FUTURE



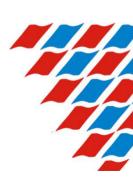
Development of cooperation in the future:

- Implement a double degree master's program in «Information Security» and «Software Engineering»
- Improve the curriculum for the master's degree in Capacity building in the field of Higher Education program
- Carry out research within the Jean Monnet program
- Expand relationships for research in business informatics and economics











Thanks for attention!



