

Promoting Internationalization of HEIs in Eastern Neighborhood Countries through Cultural and Structural Adaptations

BELARUSIAN STATE UNIVERSITY OF INFORMATICS AND RADIOELECTRONICS

ACTIVITY REPORT ON

Development of Policies and Procedures for Research and Scholarly Collaboration [DEV 2.2.5]

Embedding internationalization approaches into scholarly collaboration and research [EXP 3.2.1]

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Deliverable 2.2.5 Development of policies and procedures for research and scholarly collaboration Deliverable 3.2.1 Embedding internationalization approaches into scholarly collaboration and research

1. Activity report. General inform	nation		
1.1. Name of your organization:	Belarusian State University of Informatics and Radioelectronics	1.2. Partner no.	P 24
1.2. Person in charge of Activity report at your university:	Ms. Oksana Yatsino		
Role / job title:	Expert of International Relations Office		
1.3. Did you cooperate with one or more external organizations / faculties/bodies etc. for the implementation?	Yes		
1.4. Name/s of associated organization/faculties/body:	R&D DEPARTMENT Belarusian State University of Informatics and Radioelectronics		
1.5. Please briefly describe why you decided to cooperate with this organization/body for the preparation implementation of the in-house workshop: (100 words maximum)			preparation,
In 2011 Belarusian State University of Informatics and Radioelectronics was accredited as a scientific organization by the State Committee on Science and Technology and the National Academy of Sciences of Belarus. The Research and Development Department of Belarusian State University of Informatics and Radioelectronics (BSUIR R&D Dpt.) was created to organize, coordinate and manage scientific, technical and innovative activities of the University. Scientific research is conducted in close collaboration with other			
universities, scientific institutes of the National Academy of Sciences of the Republic of Belarus, Academies of Sciences of the CIS countries, research foundations, organizations, businesses, industry ministries and state bodies, also through coordinating topics of scientific research within the framework of science and technolog programmes, carrying out joint scientific research projects on the basis of package contracts.			

One of the priority directions of the period 2016-2017 is the expansion of international scientific and technological collaboration with foreign organizations in order to integrate into the world network of science and education and to jointly develop scientific and technological product. In 2015 the BSUIR Internationalization Strategy was designed. This strategy was included into the BSUIR Development Programme for the period of 2016-2020, which was adopted by the decision of the University Council (Minutes No. 4 as of 24.12.2015) and approved by the Rector's order No. 381 as of 31.12.2015.



ACHIEVEMENTS IN THE FIELD OF INTERNATIONALIZATION OF RESEARCH, 2014-2016		
Number of performed foreign contracts, export markets		
2014	2015	2016
39 foreign contracts	66 foreign contracts	69 foreign contracts
China, India, Russia, Great Britain, Taiwan, Italy, Germany, Sweden, Belgium, France, Venezuela, Poland, Armenia	China, India, Russia, Great Britain, Taiwan, Germany, Belgium, France, Venezuela, Poland, Armenia, Ukraine, Estonia, Slovakia	Croatia, Ukraine, Sweden, Estonia, India,
Outcomes	 a larger number of professors, doctoral, PhD and Master students, as well as first degree students involved in scientific research and wider participation in competitions of scientific projects carried out by national and foreign foundations and organizations; improved scientometric indicators of R&D activities via increased number of publications in top-ranking scientific journals with high impact factor. More in the BSUIR INTERNATIONALIZATION STRATEGY 	

	Participation of BSUIR in the implementation of state programmes at various levels, the Belarus-Russia Union		
State programmes, European Union programmes			
014	2015	2016	
10 topics (tasks, projects) within the amework of 21 programme	the framework of 21 programme	445 topics (tasks, projects) within the framework of 20 programmes	
2 programmes of the European Union (7th Framework Programme, TEMPUS IV); 2 programmes of the Russia-Belarus Union State (Compomat, Monitoring-SG); 6 state research and technical programmes; 2 target state programmes; 1 national programme for accelerated development of ICT services; 8 state research programmes.	 2 programmes of the European Union (7th Framework Programme, TEMPUS IV) 2 programmes of the Union State (Compomat, Monitoring-SG); 6 state research and technical programmes; 2 targeted state programmes; 1 sectoral programme of informatization of education for 2014-2015; 8 state research programmes. 	 2 programmes of the European Union (Horizon 2010 and Tempus); 3 programmes of the Russia-Belarus Union State ("Compomat", "Monitoring-SG", "Technology - SG"); 2 target state programmes; 6 state research and technical programmes; 7 state research programmes. 	

those implemented in the framework of international agreements and projects 2014 2015 2016 59 students 62 students 22 Master students 22 Master students 24 PhD students 28 PhD students



Number of international Master and PhD students trained in BSUIR		
2014	2015	2016
44 Master students	47 Master students	46 Master students
29 PhD students	32 PhD students	37 PhD students

International information support of research activity		
2014	2015	2016
Open testing access to foreign information resources: • znanium.com • ProQuest Technology Collection • MORE Full collection • Credo Online Reference Service • Academic studies press «BiblioRossica» • Natural Publishing Group Journals • Press Reader	Open testing access to foreign information resources: • Publisher «ЛАНЬ» • SpringerLink • Dissertation&Theses A&I • Ebrary • Books24x7 • IMF eLibrary • Book.ru • Emerald Engineering • Znanium.com • Cambridge e-Journals • Nature.com	Open testing access to foreign information resources: • National digital resource «RUKONT» • ProQuest Dissertations & Theses A&I • Scopus • Biblioclub • Elgaronline • IPRbooks • Emerald Management e-Journals • Engineering e-Journal • Collection of the Royal Society of Chemistry journalsWiley Online Library
		Oxford BibliographiesOxford Handbooks Online

Subscription to international and national editions / number of submitted international and national magazines,		
newspapers		
2014	2015	2016
51 editions	36 editions	40 editions
584 journals	468 journals	396 journals
702 newspapers	672 newspapers	572 newspapers

International Exhibition Activity		
2014	2015	2016
25 International exhibitions	22 International exhibitions	19 International exhibitions
1 gold medal		2 gold medals
1 silver medal	2 gold medals	1 silver medal
1 certificate of measuring instruments	1 silver medal	2 certificates of measuring instruments
Quality Mark assignment	31 diplomas	Quality Mark assignment
25 diplomas		24 diplomas



Publishing abroad		
	Monographs published abroad	Number of BSUIR international conferences
	abroad	proceedings
2014	10	8
2015	2	11
2016	3	8

Publication ac	Publication activity on the international level Number of articles Number of conference reports published			
	published in international scientific journals	Number of articles published in editions indexed in Scopus and WoS	abroad	
2014	158	32	279	
2015	129	72	81	
2016	103	52	223	

International	International scientific conferences, meetings, seminars and other scientific events held in BSUIR		
	Number of international scientific events	Number of foreign participants	Number of reports submitted by foreign participants
2014	9 conferences 1 seminar	368	216
2015	11 conferences2 Olympiads1 seminar	922	238
2016	8 conferences 2 Olympiads Workshops 2 seminars	200	157

International scientific and technical conferences in which representatives of BSUIR took part		
	Number of conferences	Number of participants from BSUIR
2014	124	190
2015	106	101
2016	125	155

Number of cooperation agreements with foreign organizations	
2014	119
2015	129
2016	140



Academic Mobility / International Activities

Teachers, researchers and students were sent abroad for training, internship and research, lecturing, participation in conferences, seminars, Olympiads, exhibitions. In total 262 people (teachers and researchers), 75 students were sent abroad.

2014

BSUIR participated in the implementation of 61 scientific projects, 8 international projects and programmes in the sphere of education, including the projects of the 7th Framework Programme of the EU, TEMPUS, the Russia-Belarus Union State, Belarusian Republican Foundation for Fundamental Research (BRFFR), German Academic Exchange Service (DAAD), The International Association for the Exchange of Students for Technical Experience (IASTE), as well as academic exchange programmes within the framework of bilateral intergovernmental agreements in the sphere of education between the Republic of Belarus and China, Vietnam and Lithuania.

Academic mobility is organized within 27 bilateral agreements: 57 BSUIR students and staff were sent for training (practical trining, internship, skill improvement), scientific research, participation in international conferences and other events.

BSUIR accepted 74 foreign specialists for internships, lectures, discussing prospects for further cooperation and participation in international conferences held at the university.

Exchange studies for three groups of students of the L.N.Gumilyov Eurasian National University (ENU), Kazakhstan (21 people) was organized in BSUIR.

2015

The BSUIR staff and students took part in the implementation of the First Project within 7th EU Framework Programme (Nanomat-EPS), 3 projects of the EU TEMPUS programme (PICASA, FKTBUM, CERES), 2 projects of the Russia-Belarus Union State programmes (COMPOMAT, Monitoring-SG), 20 joint projects within the framework of the BRFFR, as well as academic exchange programmes (Erasmus +, DAAD, Horizont 2020, MOST, etc.) within the framework of agreements in the sphere of education.

2016

Within the framework of bilateral agreements, 5 BSUIR graduates were sent for Master training at the National Research Nuclear University "MEPhI", 37 students for practical training, 2 Master students and 14 professors for internships and further training in Latvia, Kazakhstan and Russia at the expense of the republican budget. 79 students, Master and PhD students from universities of Kazakhstan and Singapore were accepted for internship and semester training in BSUIR. 7 leading experts of foreign partner-universities were involved in the educational process of BSUIR hold both in Russian and English.

In 2016, BSUIR implemented 3 TEMPUS projects aimed at the development of higher education (PICASA, FKTBUM, CERes), as well as a scientific research project under the agreement No. 609508 within the EU project "IncoNet Eap". Grant applications on the Erasmus + KA2 programme were prepared. Also, BSUIR staff and students took part in the implementation of 5 projects of the Russia-Belarus Union State (Compomat, Tech-SG and Monitoring-SG), 20 joint projects within the framework of the BRFFR, as well as in academic exchange programmes were organized in the framework of Erasmus +, MOST, agreements in the sphere of education, etc.

Foreign delegations

2014-2016

More than 80 foreign delegations visited the R&D DEPARTMENT to discuss the prospects for cooperation in research field, current foreign contracts and to sign cooperation agreements. Countries: China, India, South Korea, Russia, Pakistan, Kyrgyzstan, Vietnam, USA, Israel. Bangladesh, Poland, Singapore, United Arab Emirates, Turkey, United Kingdom, Italy, Sweden, Germany, etc.



Popularization of science in the Internet

1. Since 2015 the website of research department of BSUIR <u>www.science.bsuir.by</u> has been launched. The portal provides information on directions of scientific research carried out at the University; research laboratories, group and centers CV are placed on website. Full <u>specification of the university's products for export is placed there too.</u>

The site contains a list of <u>international conferences</u> for 2017 held in BSUIR. And also the announcement of the main <u>international exhibition events</u>. News section is updated, feedback is organized.

2014-2016

- 2. The portal <u>cavitation.bsuir.by</u> has been launched. Currently the English version of the site is being finalized. The site was launched in the framework of a project implemented jointly by the "Ultrasonic Processes and Equipment" Research and Development Institute of the Belarusian State University of Information Technologies and University of Turin (Italy) (the project is being implemented within the framework of the programme "HORIZONT 2020", subprogramme "IncoNet Eap Twinning Grants").
- 3. The webpages of the research section of the BSUIR were created in:

Facebook - @naukabguir (https://www.facebook.com/naukabguir/)

Twitter - naukabguir (https://twitter.com/naukabguir)

Google+ - BSUIR SCIENCE (https://plus.google.com/u/0/110900288710982542408)

An interactive channel was launched on Youtube - BSUIR SCIENCE (https://www.youtube.com/channel/UCDalNAeutTervWfXrtFDNGA)

International recognition

2014-2016

October 25-28, 2016 elections for academicians, corresponding members and foreign members (academicians) of the Russian Academy of Sciences (RAS) were held.

The only Belarusian scientist, head of the laboratory "Integrated Micro- and Nanosystems" of BSUIR, academician of the National Academy of Sciences of Belarus Vladimir Labunov was elected as a foreign member of the RAS for the section of nanotechnologies and information technologies, specialized in microelectronics and hardware components .

International seminars / webinars

October 4, 2016

October 12, 2016

2 seminars "EU Framework Programme for Research and Innovation" HORIZON 2020".

Event managers: BSUIR (Belarus); Belarusian Institute of System Analysis and Information Support for Scientific and Technical Sphere (BELISA, Belarus)

June 22, 2016

Seminar "Cavitation in Cell Suspensions and Biological Tissues"

2014-2016

Event managers: BSUIR, University of Turin (Italy)

The seminar was held within the framework of the project "Measurement of Ultrasonic Biological Non-thermal Exposures with the Aim of Practical Realization of Sonic and Dynamic Therapy". The project is implemented within the framework of the programme "HORIZONT 2020", the subprogramme "IncoNet Eap Twinning Grants".

June 13, 2016

International scientific seminar "Novel Materials for Energy Storage and Conversion".

Event managers: BSUIR (Belarus); Royal Institute of Technology (Stockholm, Sweden).

May 11, 2016



A webinar dedicated to the discussion of the problems of designing and manufacturing of semiconductor devices and integrated circuits with nano sized elements .

Event managers: BSUIR (Belarus); Visvesvaraya National Institute of Technology (Nagpur, India).

March 31, 2016 Goada

Seminar "Development of Radioelectronic RF and microwave devices in the CAD software Keysight EEsof".

Organizers: BSUIR (Belarus); Keysight Technologies (Russian representative office).

November 11-12, 2015

International scientific-practical conference "Problems of Remote Monitoring of Man-made Objects". Event managers: BSUIR (Belarus); Representatives of the Lithuanian Railway (Lithuania).

Advertising activity

2014-2016

The catalogue of export products of BSUIR was developed and published in Russian and English.

A series of videos about the products of BSUIR (in the sphere of robotics) was developed in English.

Promotional materials (leaflets, booklets) on the main export products of BSUIR in English, Arabic and Chinese were developed.

Related documents

- The Rector's order № 197 dated 09.11.2016 on creation of working group to include the BSUIR scientific journal "Doklady BGUIR" and BSUIR international conference proceedings into science and bibliographic databases.
- The Rector's order No. 95 dated 23.03.2015 on establishing of the <u>ECDL Foundation</u>.
 <u>Authorized Testing Center</u> opened on the basis of the BSUIR Institute of Information Technologies.
- INTERNATIONALIZATION strategy of Belarusian State University of Informatics and Radioelectronics (BSUIR), which was included into the BSUIR Development Programme for 2016-2020 and adopted by the University Council (Minutes No. 4 as of 24.12.2015) and approved by the Rector's order No. 381 as of 31.12.2015.
- Regulation on stimulating of the BSUIR staff publication activity adopted by the University Council (Minutes No. 7 as of 25.03.2016).
 - This regulation determines the procedure and conditions for stimulating the publication activity of the BSUIR staff aimed at increasing scientific level of publications, their number in indexed national and foreign publications in order to ensure the steady raising and improvement of the University's positioning in the global university rankings.
- Regulation on the creation of the Council of Young Researchers. The main objectives of the Council are:
 - to assist in the development of an LLE system for BSUIR teachers and researchers, as well as in the formation of the university's workforce;
 - to develop research and innovative and teaching activities in the University via active involvement of undergraduate, Master and PhD students in research and development projects;
 - to assist in providing access of young scientists to the latest equipment and material and technical base of the university;
 - to assist in MA and PhD research projects preparation and their further defence;
 - to assist in improving young scientists' life and working conditions.

2014-2016

