

Topic 2. International Scientific Cooperation

1. The Aims and Principles of International Scientific Cooperation

It is difficult to imagine the peaceful coexistence [kəʊɪg'zɪst(ə)ns] of nations without scientific and engineering cooperation among nations.

Scientific and technological cooperation between different countries has always rested on respect for sovereignty ['sɒvrɪntɪ], equality and mutual advantage. Universality, freedom and critical thinking are the main elements of the scientific process and connect all cultures.

There are the following principles of International Scientific Cooperation:

- respect for the diversity of cultures within societies;
- promotion of science as an important contributor to connecting diverse cultures;
- promoting peaceful coexistence in accord with the principles of freedom, autonomy and rationality;
- mutual cooperation, which shows that scientific and technological knowledges are important for the future welfare of humanity.

There are numerous international organizations and funds, for example:

- UNESCO (*United Nations Educational, Scientific and Cultural Organization*) [ju:'neskəʊ];
- WHO (*World Health Organization*);
- WMO (*World Meteorological Organization*);
- CERN (*European organization of nuclear research*) [sɜ:n];
- ISO (*International Organization for Standardization*);
- ICSTI (*International Centre for Scientific and Technical Information*) [ɪk'stɪ];
- JINR (*Joint Institute of Nuclear Research*) [dʒɪnr];
- IAEA (*International Atomic Energy Agency*) [aɪ'eə];
- IMF (*International Monetary Fund*);
- WTO (*World Trade Organization*).

The active information exchange at international meetings, scientific congresses and conferences, and professional and student exchange programmes facilitate close relations between scientists and accelerate the spread of new knowledge and advanced technologies improving the life of mankind.

2. Forms of international scientific cooperation

The main forms of international scientific cooperation are scientific events and conferences and different student exchange programs.

The exchange program is a reciprocal [rɪˈsɪprəkəl] travel program where the students get to travel abroad and be hosted by a partner institution. In return, they have to host the same institution at a later stage.

It is a highly recommended program for students because it gives them an opportunity to immerse themselves in local culture. As you live with your host family, you will get to experience their local lives, their customs.

In a student exchange program, a large number of universities partner with other institutions from various countries allowing students to study a part of their course at the institutions in another country. A large number of colleges are participating in letting their students explore diverse education and teaching them to solve problems at the global level. Costs of the program may vary by university and country. There are different types of student exchange programs:

Short-Term Exchange Programs: Such type of exchange programs usually last for a brief period of time ranging from a few weeks to 3 months. During this time, the students are to understand the culture and the study environment.

Long-Term Exchange Programs: Lasting relatively for a longer period of time around 3 months to a year, long-term exchange programs allow students to take part in collaborative research and other academic activities.

There are some pros and cons of student exchange programs:

Cost-Effectiveness: One of the main disadvantages is the high cost of studying, if the student doesn't have the scholarship, but some student exchange programs offer the study at a fraction of the cost.

Personal Development: Studying abroad in one of the best countries can certainly impact your individual growth and development. Getting an opportunity to work with learners and professors from different academic backgrounds can shape your personality as a scholar.

Building Network: Among other benefits of exchange programs is that you get to make new contacts which can help you in establishing a network in various countries around the world.

Global Learning: The multicultural environment filled with global learning offers you a chance to work anywhere in the world.

There are some tips for students if they want to become a foreign exchange student:

- Make Sure You Would Like to be a Foreign Exchange Student;
- Talk to Other Foreign Exchange Students;
- Identify your Choice of Country;
- Learn the Basics of the Language of your Choice Country.

3. Scientific cooperation of the Republic of Belarus

UNESCO

UNESCO contributes to promotion of knowledge, builds collaborative networks of scientists, conducts researches in the field of social, human and natural sciences, develops the standards for intellectual cooperation, ensures the implementation of the international conventions.

The participation of Belarusian scientists in UNESCO programmes and activities provides the possibility to get the expert assistance in the implementation of research projects. It increases the participation in the international scientific cooperation and helps to exchange of scientific information.

In the field of natural science Belarus is an active participant of the UNESCO programme "Man and Biosphere". The program has created a network of biosphere reserves around the world, covering all of the world's major ecosystems. They are to promote and to serve as an example of optimal relationship between man and nature. MAB National Committee has been established and successfully operates in Belarus. It coordinates the activity of the three Belarusian Biosphere Reserves:

- Berezinsky Biosphere Reserve;
- Belavezhskaya Pushcha;
- West Polesie Transboundary Biosphere Reserve;

There are other institutions that implement their activity under UNESCO:

- the International Geoscience Programme (IGCP);
- the Intergovernmental Oceanographic Commission (IOC);
- the International Hydrological Programme (IHP).

In the field of human and social sciences the Republic of Belarus takes an active part in UNESCO Bioethics Programme. Philosophy has a special place among the social sciences and humanities. This approach of UNESCO, caused by the unquestioned authority of philosophy in shaping critical thinking and pluralism.

HTP

During the last years the ICT (*Information and Communications Technology*) sector in Belarus receives strong governmental support and is one of the top-priority economic sectors to develop. Thus, by the special Law, issued in 2005 Belarus Hi-Tech Park was established with the main goal: to support software industry. HTP Belarus provides special business environment for IT business which is unprecedented for European countries.

Since 2015, Hi-Tech Park resident-companies are allowed to get involved in new science-intensive activities. Now, any company engaged in IT and related industries can apply for residency within the HTP.

First residents were registered in 2006. Currently more than 100 companies are registered as the residents of HTP. Among them are European and world leaders: EPAM Systems, Wargaming development center, IBA IT Park, Itransition, Viber Media. The half of Belarus HTP resident-companies are foreign companies. The export share in the total production volume is more than 80 percent.

According to the plan, the future HTP will embody the idea of a hi-tech city where people would comfortably work, live and rest – it will have the science & production area, the residential area, the business & education as well as the public & sport areas.

4. The current international cooperative projects of Belarusian State University of Informatics and Radioelectronics with other countries

The main modes of BSUIR international cooperation are defined by the BSUIR Strategic Plan on International Cooperation Development, and include:

- academic and scientific cooperation with foreign educational institutions and research centers;
- participation in various projects run by international funds and programs;
- expanding of academic mobility of students and University staff;
- execution of international contracts for development and delivery of R&D products;
- organization of various on-campus conferences, participation of university students and staff in international fairs, conferences, symposia and seminars.

The University has bilateral [bai'lætərəl] agreements for cooperation with 25 universities all over the world: Germany, Poland, China, France, Russia, Ukraine, Latvia and a many others.

University staff and students take part in various international programs and receive research grants from the French Society of Scientific Research Support and the German Research Foundation.

The University fulfills scientific research contracts, and scientific and technical-developments supply for companies from China, India, Germany, Poland, Italy, Russia, and Ukraine. University teaching staff, scientists, students and postgraduates travel abroad for education process and research, participating in conferences, workshops and exhibitions. The university presents its scientific and technical innovations both in Belarus and at international exhibitions in Germany, Egypt, China, India and other countries. BSUIR organizes international conferences in physics, chemistry, application of nanostructures, artificial intelligence, prospective display technologies, medical electronics and distance learning.

International seminars and conferences are held at the university on the regular basis. Undergraduate students from Syria, Lebanon, Pakistan, Nepal, Turkey, China, Jordan, Nigeria and India (and graduate students from Algeria and Poland) study on the contract basis at the university. During the past 35 years over 1,160 professors and students went abroad on exchange programs and over 235 of them went for scientific evaluation. The international-program experience gained as a result of cooperation is applied to the scientific evaluation, in the publication of monographs and textbooks for postdoctoral projects.