

Conference report

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Responsibilities of a transport university for the development and dissemination of advanced competencies in the fields of transport and transport education in the context of the expanding BRICS space

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Доклад

Задачи транспортного вуза по развитию и распространению передовых компетенций в области транспорта и транспортного образования в условиях расширения БРИКС

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I am happy to greet you once again on behalf of the staff of Russia's first transport university and on my own behalf. I wish you successful collaboration and productive work at the conference.

We, who have come together here, have a few very important things in common.

We are engaged in the transport sector or closely related to it. Someone more, someone less, we are all involved in training and certification of competencies of the workforce for the transport sector. Even if you are not directly involved in the educational process, you are still well aware of its importance and can assess

its outcomes in the field, which means the attainment level among specialists in educational institutions.

We understand that the world is rapidly changing and this change inevitably affects the relationships between governments in all areas, and transport is no exception. Managing the transportation system in every country — not only international, but also domestic arteries — is increasingly reliant on the legal framework, engineering solutions, standards, regulations, and technologies adopted internationally. This means that personal training requirements and management principles for survey and research activities

The Association was established in 2018

Representatives of technical and transport universities of Russia, Brazil, China, India and the Republic of South Africa have created the Association of Rectors of BRICS Transport Universities



Conference in St. Petersburg



2019

The Johannesburg Conference

in the modern transport industry in various countries become more and more converged.

All this makes academic, engineering and scholarly activities of educational institutions involved in training of workforce for the transport industry throughout the world similar in terms of the scope, challenges, and prospects.

The goals and objectives in creating conditions for the development of contacts in these areas formed the basis of the idea to establish the Association of Transport Universities of the BRICS Countries that the management of Emperor I St. Petersburg State Transport University (PGUPS) put forward six years ago.

The first, constituent conference took place at this very venue in St. Petersburg five years ago, in 2018, where representatives of technical and transport universities from Brazil, Russia, India, China and the Republic of South Africa established the Association of Rectors of Transport Universities of BRICS.

In 2019, the II Conference of the Association was held in Johannesburg, South Africa, where we adopted an action plan for the next three years and planned joint activities. In cooperation with our partners from India and China, we began to prepare activities for academic work within the Association.

However, due to the force majeure circumstances, the pandemic of a novel coronavirus, we were unable to come together in person, to hold conferences, exchange students and staff. Nevertheless, even under these circumstances, we were able to carry out remote online activities.

In 2002, our University together with the Training and Methodology Centre for Railway Transport has

carried out necessary preparations and obtained a formal registration as a mass media outlet for the international journal BRICS Transport.

For the first consecutive year, the journal has been published in English on a quarterly basis. To date, we have published six issues and these have been distributed on memory sticks to all of the Conference participants. In fact, the journal becomes the mass media outlet of our Association. We look forward to attract new authors and intend to make a special issue dedicated to this Conference with presentations and speeches of its speakers.

The five years that have lapsed after the establishment of the Association were not easy. The global political landscape has changed drastically. In the recent years, the countries of global South and the Russian Federation have encountered manifestations of neo-colonialism on the part of the United States and a number of EU countries. This has opened new opportunities to us all and had positive effects on the enhancement and expansion of partnerships within the BRICS countries in economic, scientific, academic and other spheres.

The expansion of BRICS to 10 members with the accession of the Arab Republic of Egypt, the Islamic Republic of Iran, the Kingdom of Saudi Arabia, the United Arab Emirates, and the Federal Democratic Republic of Ethiopia has significantly strengthened the collective positions of the countries opposing unfriendly powers.

In the BRICS countries, the activities in the area of transport, to which we are directly related, are among of the most important and relevant endeavours. This was particularly emphasized by the President of the

The international journal BRICS Transport was established in 2022

BRICS | ПГЭП



Russian Federation Vladimir Putin at the 15th BRICS summit in Johannesburg. He noted that the creation of new sustainable and safe transportation routes was an important priority in the interactions in the BRICS space.

At the Summit, Vladimir Putin has initiated the establishment of a standing committee for transport of the BRICS countries. It is designed to provide a compre-

hensive approach to addressing problems in the development of logistics and transport corridors and to promote joint initiatives for the development of transport and logistics infrastructures.

It is important that already now the creation of the North — South international transport corridor in fact continues the initiatives of Russia. Shipping of goods along this route from the centre of St. Petersburg to

The XV BRICS Summit was held in Johannesburg

BRICS | ПГЭП



The combined rail freight turnover of the BRICS countries accounts for almost two thirds of the global freight turnover



President of the Russian Federation Vladimir Putin:
An important priority of BRICS cooperation is the creation of new sustainable and safe transport corridors

the Gulf countries will be 10 days faster than via the Suez Canal.

The transport and logistics connectivity of the BRICS economies is important — this was discussed at the St. Petersburg International Economic Forum which has closed just recently. Today, the total railway freight turnover of the BRICS countries accounts for about two-thirds of the global amount. Evidently, the further expansion of turnover of goods between the BRICS countries will directly depend on effective operation of transport lines.

Today, foreign ministers of the BRICS countries are meeting in Nizhny Novgorod. In addition to the ten participating countries, the meeting chaired by Russian foreign minister Sergey Lavrov will be attended by BRICS-friendly nations. This is the first meeting of foreign ministers after the expansion of BRICS in 2023. At the forthcoming meetings, the ministers will discuss the topical issues of the international agenda.

In the context of all these challenges, our countries have a desperate need for highly skilled engineers and technical personnel who can create state-of-the-art export-oriented products. In this connection, the Association should become an effective tool for the implementation of these important objectives, contribute to the progress of our countries by training high-skilled professionals in line with international development trends and demands of the labour market.

It is obvious that you cannot train such talents if you rely on outdated courses and approaches. One of the most promising models of education in Russia is Advanced Engineering School. Russia currently has

50 engineering schools operating in almost all of its regions. By 2030, about 100 of them will be created using the facilities of the country's leading universities. These schools are designed to train highly skilled personnel for high-tech and knowledge-intensive sectors of the economy with the view to create innovative solutions and products.

Therefore, training at an Advanced Engineering School should be radically different from the customary formats of teaching.

The Advanced Engineering School at the St. Petersburg State Transport University, which we call "ISKRA" (an abbreviation of the Russian words for integrated systems of complex distributed architecture), has won a solid victory in a competition and at the end of last year, it received a grant and became part of the federal education program. We, in collaboration with our industrial partners and scholarly organizations, have begun to train a new breed of engineers, establish new laboratories and educational programs, and deploy smart safety systems for operating domain-based control in rail transport. The University is ready to scale up all these projects, in particular, to the BRICS space.

We are interested in collaboration with various design and research organizations and transport and logistics companies. An agreement to carry out activities to improve the efficiency of interactions between market participants and the quality of railway services was made by our University and the project office of the Council of Railway Operators Market at the St. Petersburg International Economic Forum on June 6.

Advanced Engineering School of PG

BRICS | ПГТУ



The purpose of the organization of the Advanced Engineering School is to create a new generation of safe intelligent control systems for rail transport. Control systems will be created on the basis of the university's partnerships with high-tech enterprises. Advanced training of highly qualified engineering personnel is provided



Improving the technology of rail transport operation



Product testing, organization of production and operation throughout the entire life cycle



Advanced training of engineering personnel



Transfer of new technologies to production. Replication of new engineering solutions



All of the above is directly related to determining the vector and program for further efforts of the Association, and also defines the circle of participants who need to be involved in its work.

I propose to include the intention to draft a Strategic Plan for the development of advanced educational models for transportation universities based on the experience of Advanced Engineering Schools in Russia in the resolution of this Conference. To this end, we need to develop mechanisms for the promotion of mobility of scholars, organize topical workshops, draw up rel-

evant training courses, scale up and replicate the best practices, and carry out joint research within our Association.

The St. Petersburg State Transport University is open to share our practical experience and pave the way for other transport universities. I am sure that our countries can benefit from the consistent integration of the educational space and the development of intellectual and creative capabilities of our people, and what is important, all this will contribute to the achievement of our technological sovereignty.

Bionotes

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