

TRANSPORT CORRIDOR

RUSSIA - KAZAKHSTAN - UZBEKISTAN - AFGHANISTAN - PAKISTAN

The director of the NGO «Research Informatization Center»

Ph.D., senior scientist Ibragimov U.N.

Dear ladies and gentlemen!

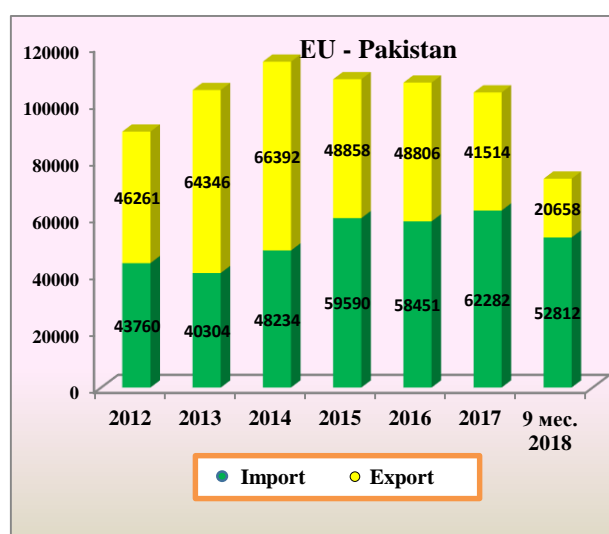
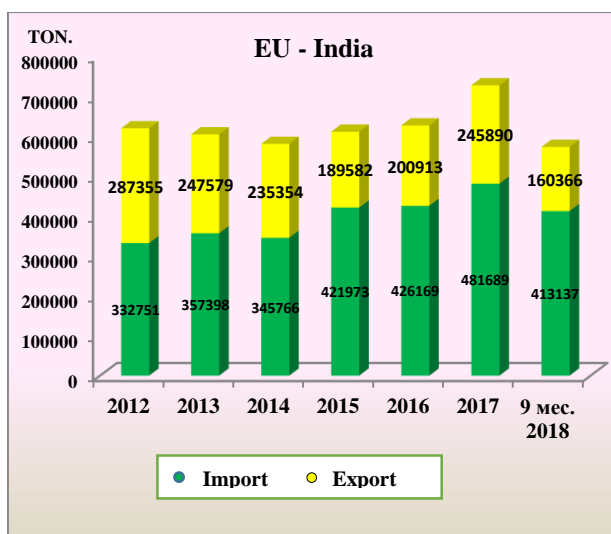
As you know, trade is one of the most accurate indicators of the cultural level of the people, the development of economic relations. Speaking on the example of the Eurasian continent, the Great Silk Road is a vivid example. Expansion of routes and development of the transcontinental route connecting The Mediterranean, the Caucasus, Central Asia, India and China played an important role in the multifaceted development of these countries.

The Great Silk Road connected four powerful regions - China, the Arabian Peninsula, Europe and the Indian Subcontinent, through Central Asia. Years, centuries, millennia, and the territory of the Great Silk Road became a crossroads of civilizations, where not only the art and culture of nations, but also world religions: Buddhism, Christianity and Islam converged and spread throughout the world. But most importantly, the Central Asian region has become the center of world markets, a place of attraction of intensive trade information exchange. That is why the territory of this ancient highway has always been the center of interests of the great powers, led by the desire to dominate it. Throughout the history of the great silk road for the right of ownership of this "gold mine" was a struggle. At different times there was a challenge of territories. Large-scale campaigns and wars were here such great empires as Alexander Macedon, Arab conquerors, Genghis Khan, Bayazid, Amir Temur and others.

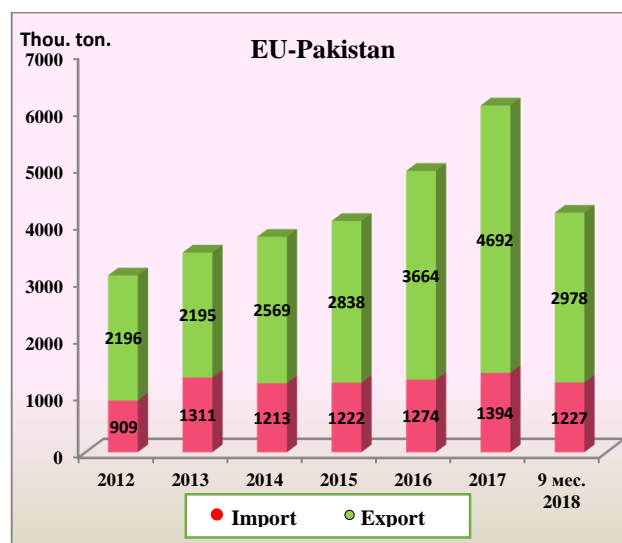
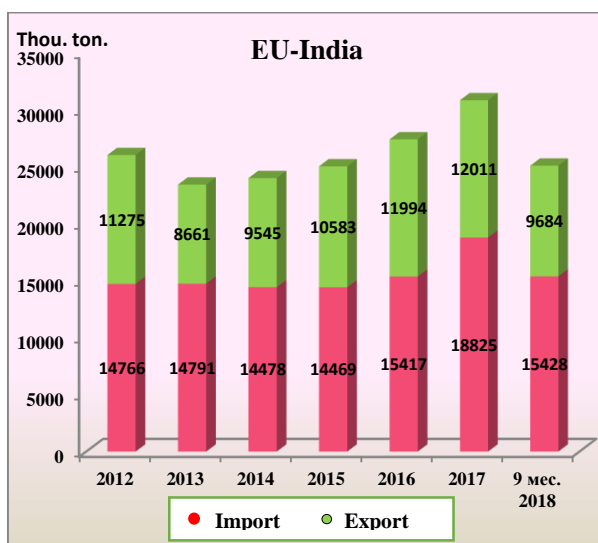
After the great geographical discoveries of Maritime movement dating back to the 15th century, Intercontinental land trade routes fell into disrepair. Since the water instead of horse-drawn type of transportation, transportation is relatively cheaper, it is faster and has the ability to transport significantly large volumes of cargo, where the role of traction is performed by the wind. This was a period of deterioration in the functioning of the Great Silk Road. At this time, strong regional powers began to form in Europe and, as we know from history, world trade markets subsequently moved to Europe.

Cargo transportation and transport communications play an important role in the development of the Eurasian economy. A competently built strategy of forming and developing international transport corridors ensures the economic development of not only individual regions, but also other countries connected by trans-regional communications. Statistics show that today one can observe a multifaceted development of relations between a number of countries, in particular, an increase in freight traffic.

Dynamics of export-import transportation by road from the European Union to India and Pakistan



Dynamics of export-import shipments by sea from the countries of the European Union to India and



Trade turnover between the two countries in 2017



Объём экспорта с ЕС в Пакистан 4733,5 тыс. тонн

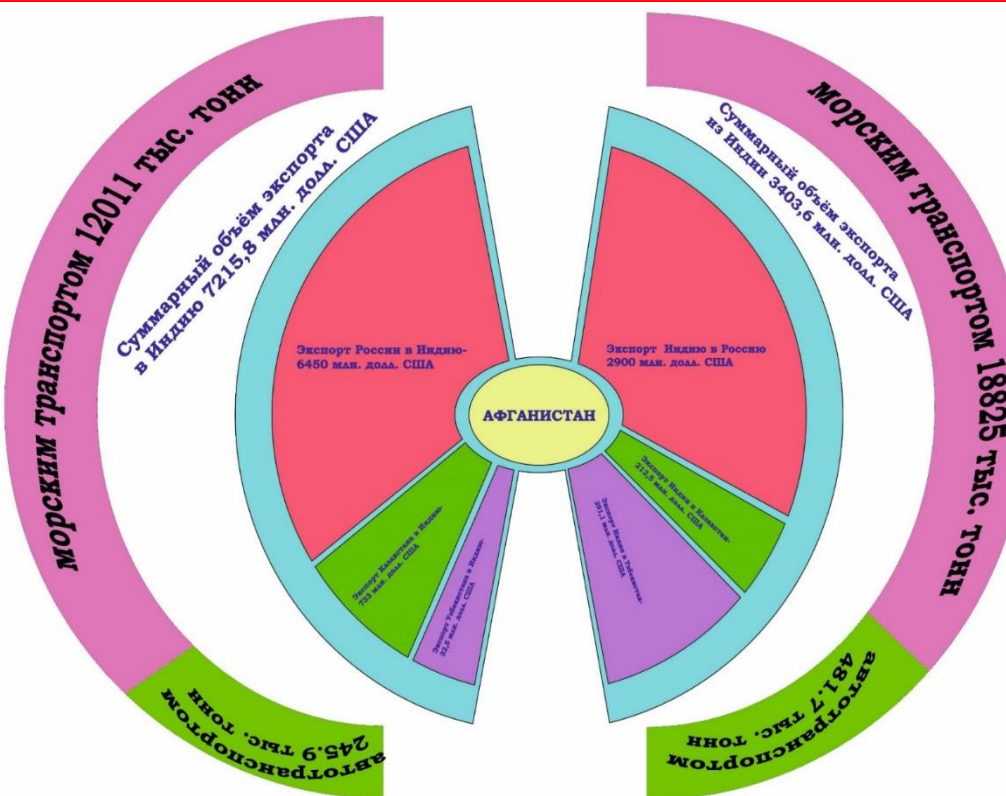


Объём экспорта с Пакистана в ЕС 1279,8 тыс. тонн

Trade turnover between the two countries in 2017



Объём экспорта с ЕС в Индию 12256,9 тыс. тонн

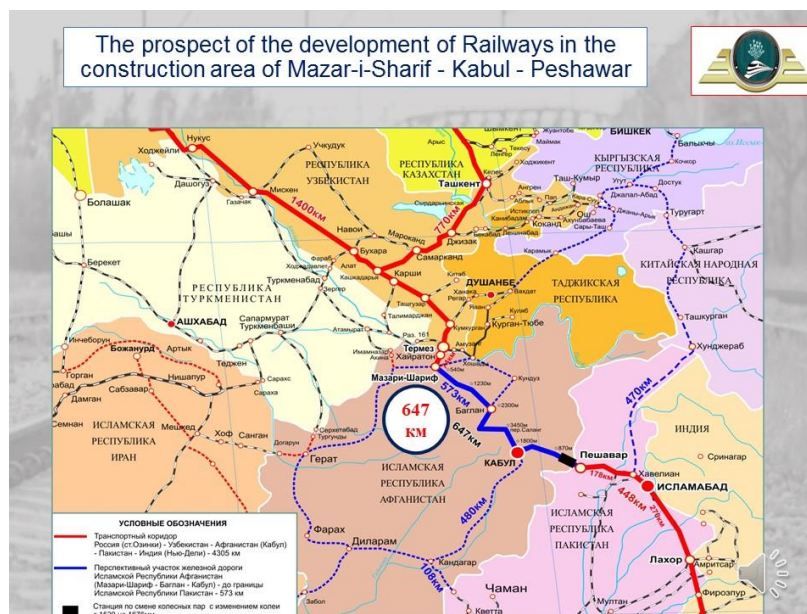


Объём экспорта с Индии в ЕС 19306,7 тыс. тонн

Currently, there are land routes from China to Europe with the participation of the railway infrastructures of Russia and Kazakhstan. However, there are no connecting roads with India and Pakistan, which hinders the intensity of the development of trade and economic relations between these countries. At the same time, it should be noted that for a long time the countries of South-East Asia are interested in entering Europe, and the EU countries to South-East Asia by the shortest land routes.

The determining factors of such interest are following:

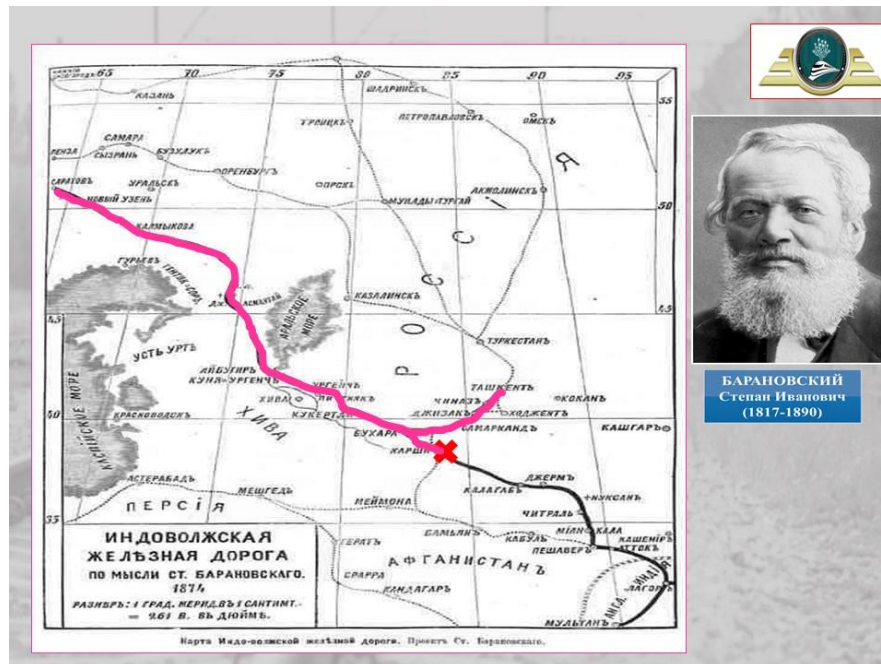
- exhaustion of the capacity of the Suez Canal;
- military operations of Saudi Arabia and a number of Persian Gulf countries for control of the Bab El-Mandeb Strait, through which ships enter the Suez Canal;
- congestion of the main world ports of Eurasia;
- dynamic development of the economies of Russia, Kazakhstan, Uzbekistan, Afghanistan and Pakistan. Thus, it can be noted that in the visible future, the need for solutions to the issue of finding other alternative land routes, which can deliver goods to Europe and in the opposite direction will be very important.



Solving the problem of the lack of railway connection between India and Pakistan with other countries could be the construction of the Mazar-i-Sharif-Khulm-Puli-Khumri-Doshi-Surabai-Jelalalabad-Torkham railway line (Pakistan) through the Afghan capital Kabul, which will become a transport corridor connecting the European Union, Russia, Uzbekistan,

Afghanistan, Pakistan, India and further to the states of Southeast Asia. It is noteworthy that in history there have been attempts to organize this route. For example, the project "Indo-Volga Railway", which is still in the early 1870s, the

Russian engineer Stepan Baranovsky advanced (1817-1890). He proposed to lay a railway line through Saratov on the river Volga to the outflow on the Indus River.



At that time, the construction of this line was complicated by the presence of some problems. Namely, the uncertainty of the geopolitical situation in Afghanistan, since Afghanistan was a "buffer zone". And, although history has shown that the project was not fully implemented, the question of the exit of the European route to Pakistan and India according to this scheme, again emphasizes its relevance.

Another favorable factor for the construction project is that along the proposed railway, it is planned to build high-voltage power lines Surkhan - Puli-Khumri - Doshi - Surabai - Djelalabad - Peshawar (Pakistan). And this means that there is the possibility of building an electrified railway with the positive sides arising from this.

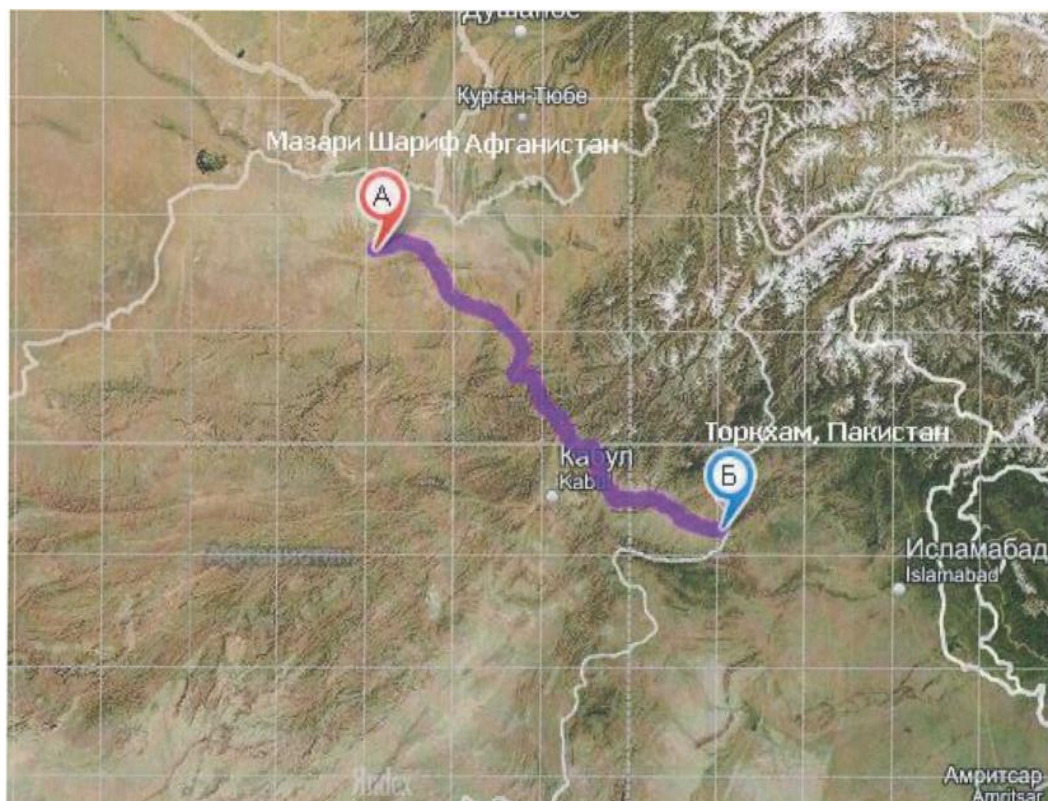
The advantages of electrification:

- electric traction is the only mode of transport that has the ability to generate and return electricity to the network during regenerative braking. Regenerative braking improves driving safety in mountain areas, helps reduce brake equipment wear;
- increasing the throughput and carrying capacity of Railways;
- increase in labor productivity not only in the locomotive industry, but also in other services, which will reduce the cost of transportation by 30-40%;
- quick recoupment of capital costs for electrification (3-4 years);
- improving the sustainability of Railways, especially in areas with severe climatic conditions. The total amount of damage, accompanied by visits of electric locomotives for unscheduled repairs, 2-2.5 times less than diesel locomotives;
- improvement of working conditions, as well as social and living conditions of railway workers;
- reduction of fuel and energy consumption, as there is a shortage of diesel fuel in Afghanistan;
- electrified Railways increase the load of power systems (especially at night), create conditions for the interconnection of individual power systems. At the same time, there is no need to build intermediate power plants;
- when electric traction significantly reduces environmental pollution. This is the most environmentally friendly form of transport.

The total length of the planned railway track is 573 km, the main part of which runs along the existing A-76 road. Since the proposed railway will run in the North-East of Afghanistan through the territory of the Hindu Kush mountain system (the maximum height of which is 5090 m above sea level), the construction of tunnels can not be avoided. In total, it is planned to build 7 tunnels on the railway line, the total length of which will be 59 km and 100 meters. The longest of them is about 30 km.

At the same time, before the construction of the railway line, you can use the existing international highway. The establishment of logistics centres at Mazar-i-Sharif station (Afghanistan) and Peshawar station (Pakistan) for intermodal transport (rail and road) will attract interest in the transport of goods in this direction.

Road " Mazar-i-Sharif (Afghanistan) - Torkham (Pakistan border)"



Traffic forecast between India, Pakistan and European countries by type of traffic

	Years					Total growth
	2016	2018	2020	2022	2025	
	Base	Forecast, Millon.ton				
Total Trade	31272,32	34150,16	37292,82	40724,7	46473,64	62,3
Sea transport, millon.ton	30616,67	33562,27	36791,26	40330,92	46289,03	72,9
Road transport, millon.ton	728,12	762	797,45	834,56	893.48	28,4
In terms of TEU	128,5	139,2	150,9	163,6	184,1	61,5
Hypothetical redistribution of a part of a cargo traffic on a route, Mazar-I-Sharif - Peshawar 3%, thousand tons	3855,5	4177	4526,7	4907	5522,4	61,6

The CASAREM energy project implemented in Central Asia – the regional energy market Central Asia – South Asia-will be important to note. The Memorandum of understanding was signed on 28 October 2006 in Dushanbe. Participants-Afghanistan, Kyrgyzstan, Pakistan, Tajikistan and the World Bank.

The CASAREM project includes projects for the construction of HPS in Tajikistan and Kyrgyzstan and the transmission of electricity to Pakistan and Afghanistan. CASA-1000 is a key project in the project CASAREM.

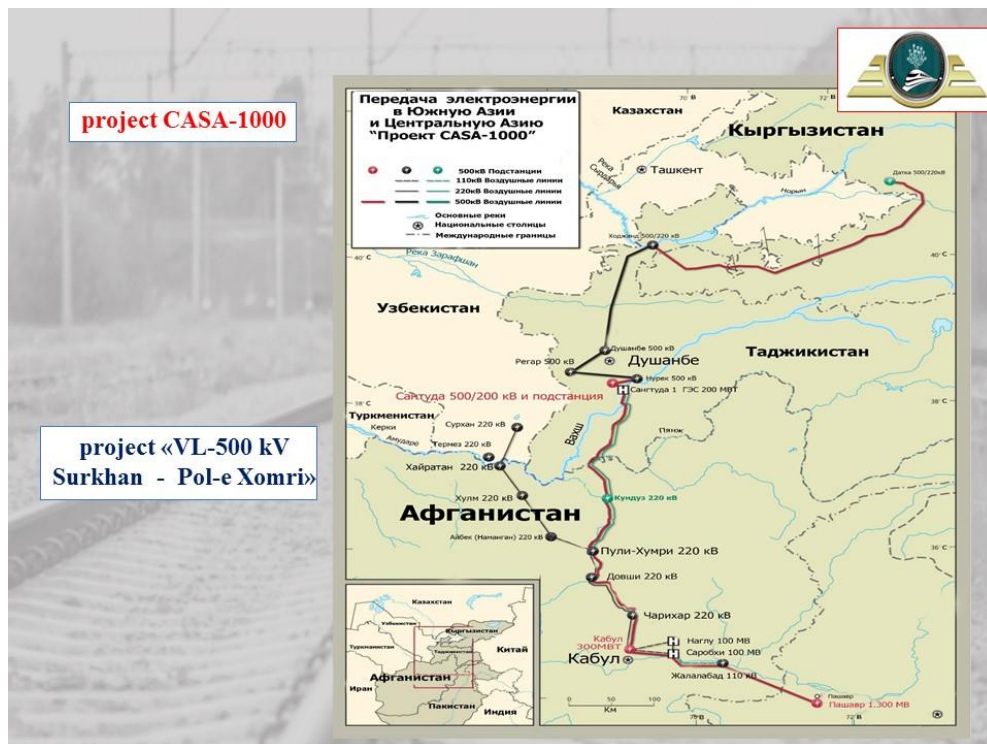
The cost of this project will be about 1,170 billion US dollars.

The CASA project is funded by seven sources: the world Bank; the European Investment Bank; the Afghanistan reconstruction Trust Fund; the Islamic Development Bank; the US Government; the UK Department for international development; and the European Bank for reconstruction and development.

Today, Uzbekistan and Afghanistan are also implementing the “VL-500 kW Surkhan - Puli-Khumri” energy project, the main objectives of which are to ensure uninterrupted power supply to Afghanistan, develop the industrial industry and improve the standard of living of the population.

Technical support for the power system of Afghanistan will be provided by Uzbekenergo. It is planned to create technical conditions for connecting the power system of Afghanistan to the power system of Uzbekistan and Central Asia. According to the project, the total length will be 260 km, including 45 km across the territories of the Republic of Uzbekistan and 215 km across Afghanistan. The implementation period is 2018-2020. Estimated cost - 150 million US dollars. All construction, installation and commissioning works will be carried out by the contracting organizations of Uzbekistan.

It should be noted that these two projects are connected in the province of Afghanistan Pul-i-Khumri.



CONCLUSIONS

Firstly, to establish the "International Transport - Logistics Association SCO", which will include all countries participating in the transportation process of the corridor in question, as well as on the platform of the association to form the "Single interactive portal of transport and logistics services", accessible through a global network;

Secondly, to organize road transport of goods on the existing roads from Kashgar (China) to Andijan (Uzbekistan) and Torkham (Pakistan) to Mazar-i-Sharif (Afghanistan), with the charging of tariffs as for railway transportation. This will allow the cargo owners to reorient to transport goods in these areas;

Third, on the basis of scientific technical institutions, it is necessary to develop the designs of universal wagons with sliding wheel pairs, adapted to operation on railways of different track.

The presented analysis was prepared in accordance with and within the framework of state grants of Uzbekistan:

- the research of the ways of passing transit trains through the territory of Uzbekistan, ensuring the growth of the use of the transit potential of the republic's railway;
- concept of development of the railway infrastructure of the Republic of Uzbekistan as a transport bridge between Europe and Asia;
- improvement of ways of passing transit trains, ensuring an increase in the utilization rate of the transit potential of the railway of Uzbekistan.

BIBLIOGRAPHY

Статьи в сборниках научных трудов Международных республиканских конференций

У.Н. Ибрагимов, Ш.М. Бекмуратов Железнодорожные перевозки туристов: проблемы и пути их решения //Сборник докладов и тезисов международной туристической конференции Туризм и образование: пути их взаимодействия// – Ташкент – 2013 г. с. 176-178.

Расулов М.Х., Ибрагимов У.Н., Рахимов Р.В. Проблемы повышения конкурентоспособности отечественных железнодорожных коридоров // Научные труды республиканской научно-технической конференции с участием зарубежных ученых «Ресурсосберегающие технологии на железнодорожном транспорте». – Т.: ТашИИТ, 2013. – С.14-16.

U. Ibragimov, Transit potential of sjsrc "o'zbekiston temir yo'llari", //Tashkent Internation Innovation Forum// Tashkent-2015. – P.174-180.

Статьи в сборниках научных трудов международных конференций в странах дальнего зарубежья

1. M. Rasulov, U. Ibragimov, M. Mirakhmedov, A. Rizaev, Central Asian transport corridors and prospects of Uzbekistan's further integration to the global transport network //7th International Symposium for Transportation Universities in Europe and Asia// Dalian Jiaotong University, China-2014. - P.25-30.

2. U. Ibragimov, Integration problems of railway of Uzbekistan with world transport network //Transport problems – 2014// Poland, Katowice – 2014.

3. M. Rasulov, U. Ibragimov, Sh. Amanov, Alternative transport corridor Europe – Southeast Asia involving infrastrucue SJSRC "Uzbekistan railways", // Транспортный мост Европа – Азия – 2014// Грузия, Тбилиси – 2014. Стр. 191 – 200.

4. M. Rasulov, U. Ibragimov, A. Rizaev, Kh. Turdiev, The combined transportation as a background for establishment of a new railway corridor China – Kyrgyzstan – Uzbekistan //8th International Symposium for Transportation Universities in Europe and Asia// Nanjing Institute of Railway Technology, China-2015. - P.127-133.

Статьи в отечественных сборниках научных трудов

1. Ибрагимов У.Н. Мультимодальные перевозки – один из этапов стабильного развития транзитного железнодорожного коридора Китай-порты Персидского залива // Сборник материалов научно-технической конференции с участием зарубежных ученых «Транспортная логистика, мультимодальные перевозки». – Ташкент: ТашИИТ, 2011. – с.53-54.

Статьи в научных журналах

1. Ибрагимов У.Н. //Железная дорога Узбекистана в экономическом поясе шелкового пути//Научный журнал «ВЕСТНИК ТашИИТа» № 4, Ташкент-2014 г

2. М.Х. Расулов к.т.н., доцент, У.Н. Ибрагимов к.т.н., с.н.с., М.А. Ходжимухамедова к.т.н., доцент//Современное состояние транзитного потенциала ГАЖК «Узбекистон темир йуллари», проблемы и пути их решения//Научный журнал «ВЕСТНИК ТашИИТа» № 3/4, Ташкент-2013 г. с. 75-78.

3. Ибрагимов У.Н., Абдуалибеков А.Т., Дадабоева З.С.// Пути повышения транзитного потенциала железных дорог Узбекистана//Электронный научно-практический журнал «Экономика и менеджмент инновационных технологий»//Москва-2017 г. <http://ekonomika.snauka.ru/2017/10/15349>

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