Overview of the XIV International Conference on Transport Infrastructure: Territory Development and Sustainability (TITDS-XIV-2023)

Mirzo Sharipov1, Akbar Abrorov1,2, Yusuf Beshimov1, and Igor Kovalev3,4,5

1Bukhara Engineering-Technological Institute, Bukhara, Uzbekistan
2Termiz Institute of Engineering and Technology, Termiz, Uzbekistan
3Navoi State University of Mining and Technologies, Navoi, Uzbekistan
4Krasnoyarsk State Agrarian University, Krasnoyarsk, Russia
5Siberian Federal University, Krasnoyarsk, Russia

Abstract. The overview describes the main directions and results of the XIV International Conference on Transport Infrastructure: Territory Development and Sustainability (TITDS-XIV 2023) held in Bukhara, Uzbekistan on 26-28 October 2023. It gives the details about the participants and the proceedings.

These Proceedings contain selected peer-reviewed papers submitted and presented at TITDS-XIV-2023, the XIV International Conference on Transport Infrastructure: Territory Development and Sustainability, held in Bukhara Engineering-Technological Institute on 26-28 October 2023.

The Ulaanbaatar Railway (Mongolia), East China Jiaotong University (China), Seoul National University of Science and Technology (South Korea), West Media Express Ltd (Uzbekistan), Bukhara Engineering-Technological Institute, Termez Engineering-Technological Institute and Namangan Engineering-Technological Institute (Uzbekistan), K.R. Mangalam University (Gurugram, India), Belarussian State University of Transport (Gomel, Belarus), Admiral Makarov State University of Maritime and Inland Shipping (Saint-Petersburg, Russia), Siberian Transport University (Novosibirsk, Russia), Irkutsk scientific center of the Siberian Branch of the Russian Academy of Sciences (Irkutsk, Russia), East Siberian Railway (Russia) and Belarusian-Russian University (Mogilev, Belarus) are partner organizations and universities of the Conference.

TITDS Conference has been held on a regular basis since 2009 in Irkutsk. Since its foundation, the purpose of the Conference is to share the experience of leading experts in the application of innovative technologies, mathematical methods and information management systems in transport logistics, technosphere and environmental safety, traffic support systems, transport electric power industry design, construction and operation of railway tracks and artificial structures as well as in legal, historical, socio-cultural and psychological aspects of transport development.

The Program Committee and Editorial Board included prominent professors and scientists from the East China Jiaotong University Nanchang (Jiangxi Province, China), Seoul National University of Science and Technology (Seoul, South Korea), Belarussian
State University of Transport (Gomel, Republic of Belarus), Belarusian-Russian University, (Mogilev, Republic of Belarus), Russian Academy of Sciences, Admiral Makarov State University of Maritime and Inland Shipping (Saint-Petersburg, Russia), Siberian Transport University (Novosibirsk, Russia), Irkutsk Scientific Centre of the Siberian Branch of the Russian Academy of Sciences (Irkutsk, Russia), East Siberian Railway (Irkutsk, Russia), Ulaanbaatar Railway (Ulaanbaatar, Mongolia), Irkutsk State University of Railway Transport (Irkutsk, Russia), Omsk State Technical University (Omsk, Russia).

The event has offered a platform for bringing together students, postdocs, innovative academics and industrial experts to exchange their ideas in the field of transport infrastructure development for sustainable development of territories.

Although the schedule of the Conference was very tight, there were very vivid discussions among the participants. The program of the Conference consisted of keynote and plenary talks and numerous presentations.

The programme of the Conference included the following scientific directions: Transport logistics and cooperation of transport market participants; Technosphere and environmental safety; Railway transport and railway management systems; Information technologies and big data in transport; Design, construction and operation of railway tracks and artificial structures; Transport energy efficiency and power industry; Economics and management of transport; Natural-scientific foundations of modern technologies in transport; Legal, historical, socio-cultural and psychological aspects of transport development; Urgent problems of water/maritime transport in the region.

TITDS-XIII was organized in a hybrid format with both physical and virtual participation. The participants who could not come to the Conference presented on-site presentations which are available on the web-site of the Conference and took part in the online session with reports which had been prepared and sent to the Organizing Committee beforehand. The online section was held in Zoom which let all the participants to watch the reports and ask questions online as well as to write them in the chat format. The speakers answered the questions online (Fig. 1).

Fig. 1. Scientific sessions.
The overall technical quality of the conference was good, the platform let to add up to 500 participants simultaneously. The participants could watch the reports, write questions and communicate. The moderator could change the roles so that the speaker could answer questions and make comments.

All participants were invited to present their papers in this Volume and all submitted manuscripts went through the independent peer review process. We are very grateful to all reviewers for their time and highly professional comments. We deeply believe that their reviews gave opportunity to improve the scientific quality of the presented papers which may be useful for academic, scientific and industrial partners.

More than 250 reports from Uzbekistan, Vietnam, China, USA, Belarus and Republic of Kazakhstan were submitted to the Organizing Committee of the Conferences TITDS-XIV. About 100 reports were selected for inclusion into this Volume after the review process. All the papers were subjected to rigorous peer-review by conference committee members and international reviewers. The papers were selected based on their quality and relevance to the Conference directions. The proceedings present to the readers the recent advances in the following sections:

- Transport Systems for the Sustainable Development of Territories;
- Engineering, Transport Energy Efficiency and Power Industry;
- Technosphere and Environmental Safety;
- Information Technologies, Transportation Science and Technology Synergy;
- Transportation Operations and Logistics Dynamics;
- Transport Economics, Management, and Sociocultural Perspectives.

We hope that the papers included into the Volume will be useful for scientists and engineers all over the world.

We express our gratitude to all partner universities for the organization of the Conference and preparation of the papers for this Volume. TITDS-XIV 2023 Conference Committee highly appreciate the contribution of sponsors: Bukhara Engineering-Technological Institute and Innovation scientific consulting center (Bukhara, Uzbekistan). On behalf of the conference committee and organizers, we would like to thank all the authors who contributed to this Volume as well as to the reviewers, speakers and all the conference participants for their support to TITDS-XIV 2023.
International Programme Committee

SADOKAT SIDDIKOVA
Bukhara Engineering Technological Institute, Bukhara, Uzbekistan

ODILJON MAMATKARIMOV
Namangan Engineering Technological Institute, Namangan, Uzbekistan

MIRZO SHARIPOV
Bukhara Engineering Technological Institute, Bukhara, Uzbekistan

IGOR KOVALEV
Siberian Federal University, Krasnoyarsk, Russia

ANDREY KHOMENKO
Irkutsk State University of Railway Transport, Irkutsk, Russia

SERGEY BARYSHNIKOV
Admiral Makarov State University of Maritime and Inland Shipping, Saint-Petersburg, Russia

ALEXEY MANAKOV
Rector of Siberian Transport University, Novosibirsk, Russia

AKBAR ABROROV
Bukhara Engineering Technological Institute, Bukhara, Uzbekistan

YUFENG LUO
East China Jiaotong University, Nanchang, Jiangxi Province, China

LEE DONG HOON
Seoul National University of Science and Technology, Seoul, South Korea

YURY KULAZHENKO
Belarussian State University of Transport, Gomel, Republic of Belarus

MIKHAIL LUSTENKOV
Belarusian-Russian University, Mogilev, Republic of Belarus

IGOR BYCHKOV
Irkutsk scientific center The Siberian Branch of the Russian Academy of Sciences, Irkutsk, Russia

VADIM VLADIMIROV
East Siberian Railway, Irkutsk, Russia

DAMDINSUREN JIGJIDNYAMAA
Ulaanbaatar Railway, Ulaanbaatar, Mongolia

Konstantin Zaitsev
Government of the Irkutsk Region, Irkutsk, Russia