

Resolution of the 2-nd International Scientific and Practical Conference «Energy-optimal technologies, logistics and safety on transport»

Venue: Lviv, Hotel “Ramada-Lviv”

Date: 19-20 September 2019

Conference co-organizers were:

- Dnipro National University of Railway Transport named after academician V. Lazarian;
- Faculty of Transport of the Warsaw University of Technology;
- Railway Institute (Warsaw);
- Non-Governmental organization “Linia102.Ua”;
- Western Center of the Ukrainian Branch of the «International Center for Scientific Culture - World Laboratory» (Lviv).

The conference took place under the patronage of the Reform Support Team of the Ministry of Infrastructure of Ukraine, Lviv Regional State Administration and JSC «Ukrainian Railway».

General partner of the conference was TÜV Rheinland Poland – the leading certification body acting on the market of certification and research in Poland.

Main partners of the conference included:

- Amadeus Marine company;
- PJSC «Kyiv-Dniprovsk Inter-Branch Enterprise of Industrial Railway Transport»;
- Petrosoft.pl Information Technology sp. z o.o.;
- Warsaw School of Applied Linguistics;

Partners of the conference included: TABOR Dębica Sp. z o.o., «Nikolaev Locomotive Repair Plant Ltd» , Lviv Locomotive Repair Plant, SPA «Dniprotechtrans», Consortium «Transmagistral», PA «GabionyZahid Ukraina», «Technoekotreiding Ltd», travel company «Karpaty Travel», PE «Business Security Center».

The following participants were involved in the work of International Scientific and Practical Conference «Energy-optimal technologies, logistics and safety on transport»:

- delegation of Lviv Regional State Administration headed by the First Vice-Chairman Vasyl Lozynskyi;
- delegation of Lviv City Council headed by the Deputy Director of the Department of Housing and Infrastructure Andrii Bilyi;
- delegation of the Ministry of Infrastructure of Ukraine;
- delegation of JSC «Ukrainian Railway»;
- delegation of ADIF company – the operator of railway infrastructure of Spain;
- Mr. John Orrison, infrastructure advisor, U.S. Treasury;
- Prof. Dr. Andrea Guiricin, CEO, TRA consulting.

The scientific committee of the conference received altogether 79 scientific works, 75 of which, on the basis of the results of an independent anonymous peer review by two reviewers, are recommended for publication in the scholarly edition Matec Web of Conference and 4 scientific works are recommended for publication in the Conference digest. Additionally, 9 abstracts were published in the Conference digest.

The results of the research in the following scientific directions were presented at the conference:

- energy-optimized technologies, energy efficiency and energy management on transport;
- ecology of rolling stock and objects of transport infrastructure;
- interoperability, safety and certification on transport;
- modern technologies of organization of international transportations and logistics;
- transport design;
- interaction of railways and industrial enterprises.

During the work of the conference 89 reports were heard. Scientific achievements in the work of the conference were covered by the representatives of the following scientific organizations and educational establishments:

from Belarus:

- Belarusian State University of Transport;

from Spain:

- ADIF company ;

from Italy:

- TRA consulting;

from the Republic of Poland:

- Warsaw University of Technology;
- Railway Institute;
- Rail Vehicles Institute „TABOR”;
- Poznan University of Technology;
- WSB University in Gdansk;
- University of Economics in Katowice;

from the Russian federation:

- Ural State University of Railway Transport;

from the Slovak Republic:

- University of Žilina;

from the USA:

- U.S. Treasury;
- Geo Lab Drilling;
- Self-employed scientists.

from Ukraine:

- Dnipro National University of Railway Transport named after academician V. Lazarian;
- State Enterprise “State Road Transport Research Institute” ;
- Oles Honchar Dnipro National University;
- Institute of Geotechnical Mechanics named by N. Poljakov of National Academy of Sciences of Ukraine;
- Lviv State University of Life Safety;
- Lviv Research Institute of Forensic Science;
- National Aviation University;
- National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”;
- National Technical University «Kharkiv Polytechnic Institute»;
- National Transport University;
- Lviv Polytechnic National University;
- Odessa National Maritime University
- Pryazovskyi State Technical University;
- Prydniprovsk State Academy of Civil Engineering and Architecture;
- Volodymyr Dahl East Ukrainian National University;
- Ukrainian State University of Railway Transport;
- Kharkiv National Automobile and Road University;
- Kharkiv Petro Vasylenko National Technical University of Agriculture;

from the Federal Republic of Germany:

- Technical University of Dresden;
- AEBt Applied Railway Technology;

from the Czech Republic:

- Leo Express Global a.s.;
- “SID International” company.

During the conference, the first Vice-Chairman of the Lviv Regional State Administration Vasyl Lozynskiy noted that it is extremely important for the country to have partners who are ready to work together to develop transport infrastructure. Further important issues include the provision of the scientific personnel of the branch which is successfully implemented by Dnipro National University of Railway Transport named after academician V. Lazarian, the issues of passenger transportation safety, their efficiency and speed. He also expressed the hope that the conference will become a powerful communication platform for discussing urgent issues of the transport industry and developing important contacts.

Deputy Executive Director of the regional branch office «Lviv Railway» for rolling stock and logistics Ihor Batiushyn: “The topic of this conference is directly related to the main tasks that are solved by our regional branch office and other regional branch offices of JSC «Ukrainian Railway». The tasks are to guarantee the necessary level of traffic safety, the speed of transportation of passengers and cargo, saving energy, creating a model of effective investigation of transport cases. The reports presented at the conference have many positive points regarding improving the investigation of transport events and avoiding them in the future. Such conferences are useful because experts have the opportunity to exchange information, obtain data on studies conducted not only in our country, but also in the EU countries and the USA, which creates the preconditions for achieving positive dynamics in transport.

Project manager of the railway sector reform of the Reforms Support Team Larisa Nazarenko outlined the main innovations of the draft law “On the railway transport of Ukraine” (registration number 1196-1), paying attention to the new tariff system, administration bodies and passenger transportations. Participants of the conference paid special attention to the discussion of implementation of Regulation No. 1370/2007 of the European Parliament and Council from 23 October, 2007 on the provision of services of passenger transportation by railway and road transport which is implemented by the draft law.

The draft law 1196-1 is the result of long-term work of European and Ukrainian experts. The rail industry needs immediate reform and the draft law should be the impetus that will create a solid legal framework for development.

It concerns such a pressing issue for the country as financing, including preferential transportation. Exactly due to the introduction of a new model of compensation for the provision of socially important transportation services on the basis of contract, the organization and financing of services for socially important passenger transportation by rail will be streamlined, in particular the quality of transportation will be controlled, the level of service and mobility of citizens will be raised, the break-even level of this transportation will be achieved. This in turn will contribute to further economic and social development of Ukraine, as well as fulfillment of international obligations of Ukraine.

Colleagues from the EU countries and from the USA shared their experience in implementing the latest and most energy-efficient technologies on transport, as well as product certification. The need to establish and maintain close links between organizations and institutions providing scientific support for transport projects is declared.

Railway infrastructure advisor of the Office of technical support of the US Department of the Treasury John Orrison presented the safety management system of the USA railways. Senior Advisor to the Transportation Industry of the World Bank Professor Andrea Guiricin presented the benefits of using intelligent transportation systems on the railways of the world, the experience of implementing high-speed rail by a private carrier, and the positive dynamics of market liberalization.

The conference participants provided recommendations on improving the level of transport safety through the use of intelligent systems of diagnostics of the technical state of transport infrastructure and information-measuring and diagnostic systems, raised pressing issues of environmental safety on transport, proposed new resource-saving technologies for implementation in the transport industry.

By results of the reports and discussions of the conference participants, the following conclusions and recommendations were obtained:

1. To recommend for print by topic in the electronic edition MATEC WEB of Conference the scientific articles which were reported by the conference participants and received two positive reviews if there is a signed agreement on publication. Also to submit for publication an article about the conference and its Decisions.
2. Due to the small number of works submitted in the scientific direction "Interaction of railways and industrial enterprises" and tendencies of development of railway transport of Europe, to combine the scientific directions "Interaction of railways and industrial enterprises" and "Modern technologies of the organization of international transportations and logistics" under one direction with the title "Modern technologies of transportation and logistics."
3. To recommend the scientific units of the conference organizers to develop areas of cooperation on the topic of the conference.
4. To recommend all participants of the conference to continue scientific and technical research in the field of transport infrastructure, international transportations, logistics, certification, transport design, increase of safety on transport taking into account world tendencies and needs of development of the transport industry.
5. To disseminate information about the conference and its digest to the relevant ministries of the EU countries.
6. To hold the next International Scientific and Practical Conference «Energy-optimal technologies, logistics and safety on transport» in October 2020 and to consider organizing it at Faculty of Transport of the Warsaw University of Technology and (or) Railway Institute.

Co-chairmans of the conference:

Rector of the Dnipro National University of Railway Transport named after academician V. Lazarian

prof. dr hab.
Oleksandr Pshinko

Dean of the Faculty of Transport of the Warsaw University of Technology

prof. dr hab. inż.
Marianna Jacyna

Director of the Railway Institute

dr. inż.
Andrzej Żurkowski

20 September, 2019
Lviv, Ukraine