

Dominik Adamski, Krzysztof Ortel, Juliusz Furman: **Studies of Selected Parameters of Electromagnetic Fields Generated by Diesel-Electric Locomotives**

The widespread use of counter clear track reporting systems by various railway managements has highlighted the problem of the resistance of these devices to disturbances generated by rolling stock. Equipping rail vehicles with electrical and electronic devices featuring extensive structures is another aspect related to this topic. The experience of many railway managements shows that modern vehicles can cause disturbances in the operation of axle counters. For this reason, standardization work at European level, aiming to harmonize and simplify the procedures related to the authorization of individual types of rolling stock for operation on the European rail network, has been ongoing for many years. The study results presented in the article show the need to perform measurements for both electric and diesel tractions, due to the similar nature of emissions and measured levels. Impact measurement of magnetic fields emitted by traction vehicles is an important component of the electromagnetic compatibility tests of rolling stock moving on rail tracks equipped with train detection devices.

Keywords: electromagnetic compatibility, axle counters, rolling stock

Marta Koperska-Kośmicka: **Historical Railway Stations on Former Prussian Eastern Railway Lines. Example of Toruń and Ilawa**

At present, nearly 600 railway stations serve passengers in Poland. Many of them are historical and are in poor condition due to long-term negligence. However, we have been witness to a change in this situation over the last few years. PKP S.A. is attempting to undertake actions aimed at protecting elements of cultural and sentimental value related to railways. By presenting two examples of the revival of historical railway stations which used to belong to one management, the article attempts to give an insight into the adaptation of historical sites connected with ongoing functional, technological and civilization changes, yet assuming respect for tradition.

Keywords: railway stations, historical sites, revival

Magdalena Kycko, Wiesław Zabłocki: **Risks in Investment Processes Covering Railway Traffic Control Systems**

A significant factor related to investment processes, particularly with reference to railway traffic control systems, is risk. Taking any investment-related decision entails a risk. For this reason, it is necessary to assess the gravity of risk related to the investment process. The article presents selected risks in investment processes which encompass the development of railway traffic control systems. The survey results which show risks at various stages of the investment process are discussed. Additionally, actions aimed at eliminating such risks are suggested.

Keywords: risk, control command subsystem, investment process

Krzysztof Polak, Jarosław Korzeb: Measurement of the Noise Originating From Class 2 High Speed Rail Vehicles

Due to the dynamic development of railway transport, it is necessary to supervise its impact on people and the surrounding environment. Noise is the main subject of this work, as it is the main railway transport factor that causes annoyance for the environment. Regarding increased speed railways, works are currently being conducted to find the dominant sources of negative acoustic effects. Determining the motives that cause rising of the noise sources, indexing them as well as creating an acoustic effects model for such trains should contribute to the efficient design of the means dedicated for minimizing acoustic effects. The authors have reviewed publications concerning the currently-utilized methods, described a noise assessment approach, and proposed a way to conduct field tests on real objects. A location was chosen, required permissions were obtained, sophisticated measuring equipment was collected, and pilot experimental tests were performed, with the results being described in this work.

Keywords: railway noise, increased speed railways, environmental impact

Janusz Poliński, Krzysztof Ochociński: Methodology for the Development of a Disability Strategy at Passenger Stations

In the last decade, considerable funds have been dedicated to the modernization of passenger stations in order to adapt them to the needs of all travelers. Thanks to the adoption of universal design principles, as well as technical specifications for interoperability connected with the accessibility of rail transport for the disabled, many facilities are now equipped with fully-accessible infrastructural elements used by travelers. Despite this, stations do not adopt any access strategies along with traffic rules, which is required by the applicable EU law and domestic regulations. The article refers to a method of collecting data required for the elaboration of such documentation for every passenger station, which has been developed by the Railway Research Institute. It also evokes a bill on the provision of accessibility to persons with special needs, adopted by the Council of Ministers in June 2019. Previous efforts of railways aimed at improving the availability of this branch of transport correspond to the requirements arising from this act.

Keywords: rail transport, the disabled, accessibility, obstacle-free route

Łukasz Wolniewicz: Reviewing the Decision Criteria for Developing the Work Schedule of Train Attendant Teams

Developing work schedules for train attendant teams and engine drivers is now a challenge for rail carriers. It is essential that the work time of employees during shifts is used in the best possible way. This paper discusses the decision criteria which limit the planning of train teams' work. This is hindered primarily by rolling stock circulations, technical time, changes of trains handled by one carrier, timetable and the reduced number of links outside rush hours, as well as delays in the railway network. Depending on the type of transport, the problem may be regional or domestic. The work has been based on analysis of Koleje Dolnośląskie's data.

Keywords: railway, timetable, schedule, conductor teams