

Ing. Vít Barborka

**Diagnostika a profylaktika trakčních transformátorů v síti SŽDC, s. o.  
Diagnostics and Prophylactics of Traction Transformers in the Grid  
of SŽDC, s. o. (Railway Infrastructure Administration, state organisation)**

Service life of traction transformers is mainly affected by durability of the transformer oil. The HV Testing Laboratory "DE-1" (Zkušebna DE-1) has performed diagnostics and prophylactics of oil on a long-term basis. Diagnostics is primarily focussed on thermo-oxidative oil ageing and wetting of the electrical insulation system known as "oil-paper". Based on the results of this diagnostics, the optimal maintenance of traction transformers in the grid of SŽDC, s. o. is performed in order to provide a long-term trouble-free operation.

JUDr. Helena Čumpelíková – Ing. Bedřich Pecka – Lubomír Blažek

**Hasičská záchranná služba Správy železniční dopravní cesty, státní organizace  
Fire Rescue Service of SŽDC, s.o. (Railway Infrastructure Administration,  
state organisation)**

The article deals especially with the basic mission of the Fire Rescue Service as a fire rescue brigade of the enterprise "SŽDC, s.o.". It briefly describes history of the brigade on the railway network, focusing especially on fire fighting technologies, including specific equipment which is currently available, as well as solution to extraordinary events in the specific railway environment.

prof. Ing. Václav Cempírek, Ph.D. - Ing. Eva Zákorová

**Kvalita osobní železniční přepravy a liberalizace přepravního trhu  
v České republice  
Quality of Passenger Railway Transport and Liberalisation of the Transport  
Market in the Czech Republic**

The paper deals, in its introductory part, with requirements for quality standards in passenger railway transport, it describes introduction of domestic trains of a higher quality, inclusion of modern vehicles in the second half of the 1990s. The other part of the article is focused on liberalisation of passenger transport in the EU and in the Czech Republic. The paper deals with public tendering in the field of passenger transport, while listing adverse impacts implying from liberalisation of long-distance passenger transport.

Ing. Jan Čihák

**Legislativní podmínky pro zavádění nových výrobků a technologií pro  
železniční dopravní cesty**  
**Legislative Conditions for Introduction of New Products and Technologies for  
Railway Infrastructures**

Legislation of both the European Union and the Czech Republic determines the rules for railway operation and also for placement on the market of products intended for railways. This area is classified in the so-called regulated sphere so that it can be possible to ensure appropriate protection of persons and property against possible consequences of extraordinary events caused by a failure of technology or of a human factor during operation of railways and railway transport. The article contains an overview of legislative documents valid for this area and the manner of application of the principles defined by them at the Railway Infrastructure Administration, state organisation, and is completed with references to similar systems at other European railway operators.

Ing. Markéta Brázdová, Ph.D.

**Lokace odbavovacího centra nákladní pokladny pro víkendový provoz**  
**Freight Office Check-in Centre Location for Weekend Operation**

The paper deals with the issues of freight office check-in centre location for weekend operation of the Czech Railways. The task comes under the category of location problems on graphs; the solving method is based on the graph centre determination. The problem criterion is minimisation of the function of consignment check-in weighted eccentricity.

Ing. Eva Pláničková

**Marketingová kampaň – Railjet. Nové zážitky z cest.**  
**Marketing Campaign – Railjet. New Travel Experiences.**

Siemens Viaggio Comfort, also known as Railjet, is a modern train unit which has markedly increased the quality of travelling on the railway line Prague – Brno – Vienna – Graz. Railjet does not represent conventional passenger transport only, but also a high standard of services onboard the train which makes travelling more pleasant. All this is offered under the product name “ČD railjet” which was placed on the market at the end of 2014 and was supported by the marketing campaign with the claim “New Travel Experiences”.

Ing. Kateřina Štěpánková

**Návrh optimalizace zpoplatnění dopravních cest v zájmu rebalance  
přepravních výkonů  
Proposal for Infrastructure Charging Optimisation in Order to Rebalance  
the Modal Split**

The subject matter of the paper, which is focused on optimisation of infrastructure charging in order to rebalance the modal split, consists of analyses of infrastructure charging in the Czech Republic and of a proposal for optimisation of the infrastructure charging based on the results of the analyses performed, which could introduce equal competition conditions in the interdisciplinary transport market.

Ing. Ivo Hruban, Ph.D. - Ing. Petr Nachtigall, Ph.D. - Ing. Ondřej Štěpán

**Přínosy zavedení ETCS z pohledu kapacity dráhy  
ETCS Implementation Benefits from the Viewpoint of the Infrastructure  
Capacity**

The article is focused on possible time savings achieved thanks to implementation of the ETCS. An intensive construction of the ETCS is being implemented on the Czech railway infrastructure network of SZDC. The article describes an analysis of impacts of the ETCS implementation on train journey times and on the infrastructure occupation time based on a timetable analysis. An emphasis is placed especially on possible increases or decreases of the railway infrastructure capacity.

Ing. Jaroslav Kotolan, CSc.

**Využití programu MISYS pro správu nemovitého majetku Českých drah  
Use of the MISYS Program for the České dráhy, a.s. Department of Real  
Estate Management**

The article describes the use of the MISYS geographic information system applications for the České dráhy, a.s. Department of Real Estate Management. A dedicated information system of Real Estate Management (ISNM) is operated in these applications. This information system makes it possible to solve all basic geodetic, geo-information, building and property tasks of ČD, a.s. The system is compatible with SŽDC's property applications and ČÚZK's data. It is a fundamental tool for the work of regional geodesists and an important source of information concerning property for the General Directorate staff and for Regional Real Estate Management workplaces.

Ing. Josef Schrötter

**Železniční přejezdy – krizová místa v dopravě**  
**Rail Grade Crossings – Critical Places in Traffic Operation**

The issue of road crossings with railway lines is a core theme affecting the history of railways up to now. The huge growth of automobile transport, the issues of using mobile phones while driving vehicles, higher speeds of trains and road vehicles are raising a question whether it would be appropriate to cancel grade railway crossings on international corridor railway lines and to replace them with overpasses and underpasses. The damage to road vehicles in comparison with prices of trains and human lives are incomparable. The content of the paper is focused on how to view safety on grade crossings and how drivers should behave on rail grade crossings.

prof. Ing. Vlastislav Mojžíš, CSc.

**Čest památce pana docenta Vonky**  
**In Honour of Senior Lecturer Vonka**

The necrology on Mr. Vonka, Senior Lecturer, aims to remind his fruitful life and to express thanks especially for his successful pedagogical work during education of many students and doctoral candidates in the field of railway transport.