Marie Skřivanová

Elektrická informační zařízení pro cestující
Electronic information facilities for passengers

This paper gives an overview of the electronic acoustical and visual passenger information systems used by the Czech Railways. These devices facilitate passengers' orientation as they provide automatically information about train connections in real time according to the operational situation at the railway station.

Martin Veselý

Data zahraničních železnic v elektronickém jízdním řádu ČD
International railway data in the Czech Railways' electronic timetable

This paper deals with international train data in the Czech Railways' electronic timetable, the first international data exchange between the Czech Railways, the Slovak Railways, the Deutsche Bundesbahn, the Austrian Railways, and the Polish Railways, and exchanging databases with TLC GmbH (the Deutsche Bahn Gruppe). The project UIC MERITS represents the establishment of a pan-European data warehouse for the timetables of European railways, in operation since the time graph 2001/2002.

Ing. Jiří Koryčan – Ing. František Rabčan

Vývoj informačního systému přepravních tržeb z pohledu konstruktérů
Development of the transport revenue information system from the design engineers' perspective

The ISPT architecture proposed and described here coordinates 16 subprojects. It is the Czech Railways' most extensive information system together with the complementary SAP/R3. It has been implemented almost completely. It remains to activate the IS KPT or at least the key accounting module. It should be fully functional in the middle of 2001. Over one million primary documents are entered into the system in daily batches to process the revenues from almost 2,500 places. The system is going to be further developed to serve 3,500 users. The design engineers from the Czech Railways – the DATIS Division – demonstrate their ability to implement extensive systems using state-of-the-art information technologies.

Ing. Miloslav Jakeš

Možnosti aplikace NATURAL OP (osobní přepravy)
The potential of the application NATURAL OP (Passenger Transport)

The application NATURAL OP belongs to the application layer of the Czech Railways' Executive Information System. The paper deals with the method, the sources and the criteria according to which the application analyses the data from one of the main activities of the Czech Railways – passenger transport. In conclusion it suggests the direction which the further development of the application might take.

Ing. Josef Zbořil

Využití bainitické oceli v srdcovkách výhybek
The use of bainitic steel in crossing frogs

Extensive laboratory tests and operational checks have proved the high resistance of the suggested material Lo8CrNiMo with bainitic structure for crossing frog castings to wear and contact stress. These qualities guarantee long-term stability of the proposed trajectory of the crossing frog in terms of the profile and the mutual height position of the wing-shaped rail and the tip.

Ing. Pavel Janoušek – Ing. František Karfík

Setrvačníkový brzdový stav ČD
The Czech Railways' flywheel brake test facility

The friction elements of the brakes used in rail carriages must be certificated if they are to be used in international carriages within the framework of UIC. The condition for such certification is having undergone tests on a flywheel brake facility according to the approved programs as laid down in the UIC directives. The flywheel brake facility being a test device, it must meet the prescribed conditions and must be in itself recognized for tests with international validity. The technical design and the parameters of the Czech Railways' flywheel brake facility meet the current international regulations and are designed to test friction materials with a view to their international certification.

Ing. Ctirad Novotný – Ing. Vilém Bodlák

Ověření jízdní bezpečnosti a jízdních vlastností vozů ř. Zaes 30, Zas 30 s podvozky UIC 30
Testing the conductive and driving qualities of Zaes 30 and Zas 30 carriages with UIC 30 undercarriages

The introduction to the paper specifies the technical parameters for carriages of the model range Zaes 30 and Zas 30. The undercarriage UIC 30 is characterized and compared with other undercarriages of a similar construction. This is followed by an evaluation of the technical parameters of the test track for these wagons and an overview of the test results. The conclusion contains an assessment of the results and suggests further procedure for the maintenance of the carriages.

Dr. Ing. Jaroslav Smutný – doc. Ing. Luboš Pazdera, CSc.

Laboratorní měření a analýza dynamicko-akustických parametrů železničních kol bez tlumičů a s tlumiči typu Schrey & Veith
Laboratory tests and analyses of dynamic and acoustical parameters of rail wheels with and without Schrey & Veith shock absorbers

This paper describes the tests and analyses of the dynamic and acoustical parameters of rail wheels (double wheels) ORE (920 mm without shock absorbers and with radial absorbers by Schrey & Veith. A method of measuring the response to mechanical impact was applied to compare and test the rail wheels. To test the effectiveness of acoustical absorbers, a comprehensive methodology was developed, comprising both well-tried procedures and procedures incorporating modern trends in the field of the test technology and processing the test data.

Ing. Vlastimil Polach, Ph.D. – Ing. Pavel Houda

Graficko-technologická nadstavba zabezpečovacího zařízení
Graphical and technological superstructure of safety equipment

Thanks to direct interconnection between systems that secure or monitor the movements of means of transport on the transport route, as carriers of primary information about the movements of the transport element, on the one hand, and information system controlling the transport processes open to the railway passengers, on the other hand, the graphical and technological superstructure of the safety equipment is controlled by a modern source of information for effective control of the logistic chains in every area of social life. The passenger and the transport carrier thus have permanent access to information about the transport processes that take place.

Ing. Jiří Krupica

Otázky EMC při napájení zabezpečovacích zařízení a rozvodů železničních stanic ČD
EMC issues with respect to power supply for signalling equipment and railway stations

This paper deals with a new conception for power supply to the safety equipment employed by the Czech Railways. The Czech Railways use to this end universal power supplies (UPS). The primary supply is a traction line for both systems, i.e. 3 kV DC and 25 kV, 50 Hz. Power can be also supplied from the existing lines 6 kV, 50 Hz. Another source of power can be the Czech Railways' own LV line or a local LV grid leading directly from the power suppliers. The paper points out the problems caused by the feedback of the UPS on the supply grid. Another part of the paper treats the issue of power supply for railway stations from 3 kV DC traction power supplies.