doc. Ing. Radovan Doleček, Ph.D. – Ing. Jaromír Hrubý

Aktuální možnosti určování spotřeby elektrické energie vlaků v osobní a nákladní dopravě (Current possibilities of metering of electric energy consumption of trains in passenger and freight transport)

The paper deals with methodology of metering of consumption of electric energy for different categories of trains using electric traction. This methodology covers all real possibilities of metering of electric energy consumption, i.e. traction locomotives or electric units with metering sets or without them. The aim of this paper is to provide a brief and well-arranged view of this complex issue. The current methodology based on the method of averaged specific consumptions of electric energy does not correspond to current requirements and possibilities. The metering of electric energy consumption for a particular train which uses metering sets is one of the preconditions for market liberation and compliance with the requirements set out by the European Commission.

Ing. Petr Červinka

Elektronický nákladní list u ČD Cargo a využití centrály ORFEUS (Electronic consignment note at CD Cargo and use of the ORFEUS central system)

The article summarises information on data exchange of consignment and wagon notes between railway undertakings and on introduction of electronic consignment notes, both generally at a European level and from the viewpoint of CD Cargo. Besides this, it describes the role of the ORFEUS central system of the RAILDATA organisation and informs on CD Cargo's connection to this system.

prof. Ing. Václav Cempírek, Ph.D.

Otevření trhu vnitrostátních služeb v přepravě cestujících po železnici (Opening of the market for domestic passenger transport services by rail)

The article presents a solution for service facilities which should be available to all carriers operating in the open market for domestic passenger transport services by rail.

doc. Dr. Ing. Roman Štěrba

Poplatky za obnovitelné zdroje energie znevýhodňují ekologickou elektrickou trakci na přepravním trhu (Charges for renewable energy resources place the environment-friendly electric traction at a competitive disadvantage on the transport market)

The article reviews the goals and tools of both transport and energy policies and opens a discussion about how to improve competitiveness of the environment-friendly electric traction in transport by means of compensation for charges paid by operators in virtue of renewable energy resources.

Ing. Pavel Purkart, DiS – Ing. Tomáš Javořík

Posílení významu železnice v dopravní obsluze regionu Rokycanska (Increase of railway importance for transport services in the Rokycany region)

The article shows results of the master's thesis entitled “Increasing of Railways Importance for Transport Service in the Rokycany Region”, which was successfully defended at the Faculty of Transportation Sciences of the Czech Technical University in Prague in June 2016. The master's thesis offers a complex view of the possibility of solution of transport services in the Rokycany region. The master's thesis clearly identifies the worst weaknesses of transport services of the region and at the same time it suggests a complex system of public transport services in the area, which would bring a significant increase of importance of railway transport in the region.

Jaromír Pivoňka, DiS – Ing. Emil Filip

Použití technologie frézování kolejnic u DB (Use of the rail milling technology at DB)

The article informs about the history and use of the rail milling technology at the German infrastructure manager “Deutsche Bahn” (hereinafter referred to as “DB”). The paper also reflects the experience acquired during milling works at DB from the viewpoint of their implementing firm - multinational grouping STRABAG SE.

prof. Ing. Václav Cempírek, Ph.D. – doc. Ing. Jaromír Široký, Ph.D. – doc. Ing. Jaroslav Matuška, Ph.D.

Registr osvědčení strojvedoucích (Register of train driving licences)

The electronic database of train driving licences must include the data which is based on the “train driving licence”. Every railway undertaking and infrastructure manager is obliged to conduct a register of all issued, updated, renewed, revised, suspended and cancelled licences, licences notified as lost, stolen or destroyed and licences whose validity expired, or ensure conducting of such a register. The electronic register includes the data concerning every train driving licence, which is prescribed in point 4 of Annex I, and the data concerning periodic checks, as provided for in Article 16 of Directive 2007/59/EC. The register of train driving licences must be regularly updated.

Ing. Ladislav Kovář – Ing. Josef Koukal

Využití dat z diagnostiky jedoucích vozidel (Utilisation of data acquired from diagnostic systems of moving vehicles)

The article describes development and implementation of a complete system of detection of technical defects on moving railway vehicles and provides a list of individual types of defects, such as heating of an axle box and drive incorrectness. The main part deals with establishment of the Control System of Vehicle Diagnostics, which provides interconnection of the technical system with traffic management operating systems and transmission of the information acquired to related systems.

doc. Ing. Dušan Teichmann, Ph.D.

Výpočetní poznámka k problematice stanovení kapacity mezistaničního úseku (Computational Note on the Issues of Capacity Calculation of Open Line Sections)

The presented paper is focused on practical capacity calculation of a one-direction operated railway line track based on the method of addition of extra trains. Stochastic conditions are assumed for operation on an open line section; time gaps which are suitable for addition of extra trains are considered to be governed by a Gamma distribution. The introductory chapters of the paper provide for a brief summary of the methods which can be used for railway track capacity calculation, and a theoretical principle of the method of addition of extra trains is described there at a detailed level. This is followed by an application of the described method on the above mentioned operational conditions and by a specific model example on which the use of the procedure proposed is practically demonstrated. The appendix to the paper includes derivation of the formula for calculation of the number of extra trains in the cases in which the lengths of the time gaps suitable for addition of extra trains are governed by an exponential probability distribution.

Ing. Ivo Malina

Čest památce pana inženýra Pilmanna (In Honour of Mr. Pilmann)