ABSTRACTS OF PH.D. THESES

Selected abstracts of Ph.D. theses submitted at Moscow State University of Railway Engineering

Averyanova, O. A. Substantiation of methods of economic evaluation of rail transportation safety in the quality management system. Abstract of Ph.D. (Economics) thesis. Moscow, 2016, 24 p.

The study provides a new approach to economic evaluation of traffic safety from the standpoint of quality management; the mutual influence of a level of traffic safety, and other indicators of the quality of transport services is revealed; the methodological approach to assessing the impact of security growth as prevented damage is tested; a method of economic evaluation of traffic safety on the basis of quality improvement is developed.

Dang Viet Phuc. Improving the quality of electric power in the system of metro traction power supply through the introduction of a 12-pulse rectifier. Abstract of Ph.D. (Eng.) thesis. Moscow, 2016, 24 p.

The author proposed criteria to determine the feasibility of increasing the quality of electricity (QE) and traction power supply system (TPSS) of metro. The confirmation of the growth rates of QE was received when using a 12-pulse converter unit in the simulation and experimental research on the lines of the Moscow Metro. A simulation model of TPSS and the program of statistical processing of theoretical and experimental data were developed for obtaining QE indicators from the spectrum of the harmonic components of traction current, taking into account the typical techniques requirements.

Dubinin, V. G. Technology of construction of columnar bridge piers in the permafrost. Abstract of Ph.D. (Eng.) thesis. Moscow, 2016, 24 p.

The formula of dependence of time of warming up a head well for installation of the bridge supports on the heating temperature, the thickness of the heated layer and soil moisture is suggested. The dependence on the outside temperature, the nature of overlapping of two processes in time: heating borehole walls and sinking columns of hollow tubes is set. The dependences of deformations on load when testing metal pipes – in the course of preliminary testing and in the process of loading with operational load, patterns of thawing permafrost soils and reverse freezing in the case of filling the cavity of pipes with concrete are revealed.

Podkopaev, M. Yu Economic evaluation of management solutions to improve the competitiveness of a transport company. Abstract of Ph.D. (Economics) thesis. Moscow, 2016, 24 p.

The main objective of the thesis was to develop methodological tools for the economic assessment of the functioning of a transport company in the process of management decision-making to improve its competitiveness. The system of indicators of financial efficiency of a transport companies as a measure of a criterion of strategic competitiveness and its factors, representing the local targets of functional subsystems conduct is developed. The possibilities of the use of «integrated indicators of competitiveness» in the management and economic valuation of the company are studied. The significance of a methodical approach to development of an administrative decision based on a comprehensive assessment of options of a set of measures to increase competitiveness, based on the characteristics of an actual situation and the results of their implementation, including in the long term is determined.

Podlesnikov, Ya. D. Methods to improve the dynamic properties of cars for transportation of dangerous goods. Abstract of Ph.D. (Economics) thesis. Moscow, 2016, 24 p.

The scientific novelty of the research is to develop a simplified mathematical model with variable structure for a rapid analysis of various emergency situations or to determine the effect of some of the parameters of a car and a track on dynamic processes. With this, the most important dynamic parameters of cars, transporting dangerous goods are defined, the accuracy of a simplified method of researching stability of a car on derailment is verified, the analysis of the structure of running parts of freight cars and circuits of body's bearing body on the bogie is made.

Valeev, N. A. Cost management in the locomotive complex of a railway company. Abstract of Ph.D. (Economics) thesis. Moscow, 2016, 24 p.

To estimate the cost savings reserves of the locomotive sector and development of administrative decisions the technique of assessing the impact of the quality of the use of freight locomotives fleet on operating costs with the use of the enlarged flow rates for locomotive-day is suggested. The author proposes a new indicator to assess the effectiveness – coefficient of efficient use of freight locomotives, as well as the modification of the «standard» method, on the basis of which a technique of optimization of the locomotive fleet and financial costs of the complex is created. A criterion of optimizing the costs and conditions of use of invested capital ratio of the subject of business activity is determined. ●