ременно учитывающее геометрическую и физическую нелинейности, а также помогающее выявить потерю устойчивости как вследствие геометрической нелинейности, так и формирования пластического механизма. Примеры расчета пространственных ферм позволили установить, что максимальная нагрузка, при которой происходит приспособляемость, существенно выше нагрузки, когда конструкция теряет свои упругие свойства.

Черезов Г. А. Разработка и исследование тестового метода диагностирования аппаратуры тональных рельсовых цепей /Автореф. дис… канд. техн. наук. – М., 2014. – 23 с.

Диссертация предлагает методику, позволяющую определить уровень диагностирования приемником тональных рельсовых цепей (ТРЦ) за счет вычисления коэффициента глубины поиска дефекта. Получены зависимости параметров откликов сигналов с выходов контрольных точек приемника от того или иного вида неисправности. Разработаны тестовый метод оценки состояния аппаратуры ТРЦ, алгоритм диагностирования и порядка его программно-аппаратной реализации. Стенд, созданный для такого рода задач, применяется в учебном процессе в Самарском государственном университете путей сообщения. ●

SELECTED ABSTRACTS OF PH.D. THESES SUBMITTED AT MOSCOW STATE UNIVERSITY OF RAILWAY ENGINEERING

Mai Doc Minh. Computation of tunnels regarding their resistance to seismic impact. Abstract of Ph.D. (Tech) thesis. Moscow, 2014, 24 p.

The researcher suggested simplified method of determining of forces in tunnel lining, caused by seismic impact typical for engineering and geological conditions of the city of Hanoi. The author developed technique to calculate equivalent rigidity of precast lining when there are the waves going along the axles of tunnels, as well as to calculate internal forces in lining at the crossings of zones of fracture. The researcher suggests techniques to solve problems, taking into account interrelations of tunnel lining and ground massif with bilinear features. He substantiates ways to reduce seismic impact on structures in the areas of high risk. The results of the research can be used for designing and construction of city metro in Hanoi.

Dolgacheva, I. N. Management of economic risks in the sphere of container transportation. Abstract of Ph.D. (Econ) thesis. Moscow, 2014, 24 p.

The thesis contains analysis of problems within the system of economic security of container transportation company. The researcher substantiates similarity of notions of economic security and of risk management regarding holding company of Russian Railways and its business entities. She analyzes risk factors of macro and micro environment influencing activities of container operating companies. The author suggests dealing with economic risk as with primary managed object, puts forward a variant of classification and chart of risk management for container operating companies, hierarchy of distribution of functions and responsibility between actors of the process. Monitoring held by the researcher permits to proceed with a ranking of economic risks for container operating companies, as well as to give recommendations concerning differentiation of the groups of customers by their paying capacity taking into account integral risk ratio.

Ovchinnikova, E. A. Development of algorithms of clusterization and recommendations regarding modernization of railway station complexes of city transport systems. Abstract of Ph.D. (Tech) thesis. Moscow, 2014, 24 p.

System analysis of dynamics of development of station facilities and of Russian and foreign practices permitted to engineer conceptual basics of organization, technical and technological modernization of existing station complexes, as well as algorithms of their clusterization. In particular, the researcher differentiated kernels of clusters, substantiated necessity to revise existing classes of rail stations and to integrate them into city environment.

Heidari, A. Direct elastic-plastic computation of steel spatial trusses› limit load and adaptation taking into account large displacement. Abstract of Ph.D. (Tech) thesis. Moscow, 2014, 24 p.

The author argues that theorems of adaptation of structures are based in the law of linear superposition and therefore can't be used in case of geometrical nonlinearity. The researcher substantiates transition from optimization approach to elastic-plastic analysis towards direct method of calculation of steel trusses with large displacement. The work demonstrates efficacy of the method and its applicability. The author received common dimensionless decision of the task of limit equilibrium and adaptation of two-aisle girder, which is not subject to the influence of numerical errors. The researcher has developed a Java application which focuses on objects, considers both physical and geometrical nonlinearity and helps to reveal stability loss, caused by geometrical nonlinearity either by formation of a plastic mechanism. Examples of calculation of spatial trusses allowed to determine that maximum load when adaptation is still possible is considerably higher than the load when structure loses its elastic features.

Cherezov, G. A. Development and study of test method of trouble-shooting of equipment of voice-frequency rail circuits. Abstract of Ph.D. (Tech) thesis. Moscow, 2014, 23 p.

The thesis suggests methods to determine level of correct diagnosing by receiver of VF-rail circuits by calculating coefficient of the depth of searching for a default. The researcher got dependencies of parameters of response of signals from exits of control points of receiver on a kind of a default. He developed test method of assessment of conditions of equipment, algorithm of troubleshooting, procedure of its hard- and software implementation. Test bench created to this end is used for educational courses in Samara state university of railway engineering.