**ENHANCING THE ROLE OF THE INNOVATION TECHNOLOGY CENTRES IN MODERN CONDITIONS THE IMPLEMENTATION OF APPLIED LEARNING**

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The article substantiates the need for activization of innovative activity of technological centres (ITC), created as structural subdivisions in universities of the Russian Federation for the period of the introduction of educational programs in applied learning. ITC's role as organizer of practices on its own technological basis and available on the basis of license agreements, contracts, agreements on the management of intelligence and social property, scientific-technical and industrial cooperation, etc. industry.

*Key words:* applied learning, innovation technology centre, laboratories, practices, coworking, real sector of economy

**COMPREHENSIVE DIAGNOSTICS AND MAINTENANCE OF ENGINEERING SYSTEMS AND EQUIPMENT BUILDINGS AND STRUCTURES**

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The analysis of the current trends in the diagnosis and service of engineering systems of buildings and structures as a complex technical system, operation of which is characterized is characterized by a large number of output parameters. A rationale for individual approach to organization of works on technical maintenance of engineering systems, their technical condition. The article considers the ways of organization of diagnostics and maintenance.

*Keywords:* Engineering equipment, buildings and facilities, repair, diagnostics, maintenance up to date, tool inspection, maintenance on technical condition

**The effect of duration of impulse gas processing on mechanical properties of metal products and the level of residual stresses**

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This paper examines the optimal duration of effects of pulsating gas flow and the impact of his speed at increasing the level of mechanical properties and residual stresses

*Keywords:* pulsating gas flow, mechanical properties, structural steels, residual stresses.

**APPLICATION OF CAD/CAE TECHNOLOGIES FOR RESEARCH OF OPERABILITY OF THE ELASTIC OBTURATOR IN CONDITIONS OF SHOCK LOADING BY THE HIGH PRESSURE**

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It was shown the comparative estimation of Mei-Gruneisen and Mooney-Rivlin models usage adequacy by obturating devices stress-strain state researching in case of high speed pulse loading. Calculations are carried out in Lagrangian explicit coordinates by Ansys program with Autodyn solver use .

*Keywords:* the obturating devices, gasdynamic pulse devices, hyper elastic materials, dynamics of loading, plastic deformation, the equation of a condition of Mi-Gryunaizena, Mooney-Rivlin's model, the intense deformed state.

, ворсовый материал.

**COMPOSITE FIBROUS MATERIALS PILE STRUCTURES ARE MADE BY WINDING**

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The way of production of composite fibrous materials of pile structure by a winding method is described. The main characteristics of these materials on the basis of various fibers, and also a calculation method of determination of effective heat conductivity are provided. Possible scopes of such materials are considered.

*Keywords:* heat shield, thermal insulation material, pile material.

**SLIDE BEARINGS MADE OF POLIMER COMPOSITE FIBER MATERIALS**

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A method of manufacturing a plain bearing made of composite fiber material and techniques for the introduction of PTFE in the sliding layer structure. The characteristics of the obtained bearings and the expected impact of their use.

*Keywords:* slide bearings, composite material, the coefficient of friction.

**RESEARCH OF HYDRODYNAMIC AND GAS-DYNAMIC PROCESSES IN MACHINES AND AGGREGATES DOMESTIC PURPOSES**

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The article presents a study of gas dynamic processes using package Flow Simulation software SolidWorks 2016.

*Keywords:* calculations, gas dynamics, SolidWorks, Flow Simulation, the motor-compressor, a jet pump.

**FORMATION OF CONSUMER AND OPERATIONAL PROPERTIES OF ROADS**

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This article is devoted to substantiation of consumer and operational properties of roads in the context of continuity of the transportation process and modern transport infrastructure in Russia.

*Keywords:* consumer properties of roads, performance characteristics, speed, bandwidth.

**INCREASE OF ENERGY EFFICIENCY OF THE BOILER ROOM BY UTILIZATION**

**OF THERMAL LOSSES**

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Possibilities of increase of energy efficiency of a boiler room at utilization of thermal losses with use of thermal pumps are investigated

*Keywords:* heat supply; thermal pumps; energy efficiency; energy saving; low-potential warm.

**INTEGRATED APPROACH IN OPTIMIZATION OF PROCESSES OF SEA TRANSPORT LOGISTICS**

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In this article is examined of the complex process of container shipping since the organization of the work at the port of loading, etc., sea cargo transport, and finally work on handover of cargo containers. Proposed economic-mathematical algorithm to minimize the costs of complex, based on correlation and regression methods and mathematical models of stochastic games.

*Keywords:* risk, optimization, correlation, stochastic model, shipping

**MANIFESTATION OF DISINTEGRATION PROCESSES IN THE INDUSTRY: FORMS, TYPES, THE INFLUENCING FACTORS**

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Processes of disintegration in the industry are considered, forms of manifestation of disintegration processes in the industry are systematized, the key reasons of disintegration and factors influencing her are established, classification of types of disintegration manifestations is offered. The directions of increase of effective management of not integrated industrial enterprises are given.

*Keywords:*disintegration, industry, strategy.

**THE KNOWLEDGE MANAGEMENT AS SYSTEM OF FORMATION OF THE HUMAN CAPITAL**

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The possibility of improving the theory of the knowledge management as bases of formation of the human capital. The article are presented conceptual aspects of the knowledge management.

*Keywords:* management, education, intellectual capital, knowledge management.

**PROBLEMS OF URBAN HOUSING IN ST.PETERSBURG**

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In the article the problems of the municipal housing are examined in the conditions of crisis of the world economic system.

*Keywords:* municipal housing, crisis, Government of Russian Federation.

**BAYESIAN TECHNOLOGIES OF DEVELOPMENT AND DECISION-MAKING IN MANAGEMENT OF THE ENTERPRISES (ORGANIZATIONS)**

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One of possible approaches to development of systems of support of adoption of administrative decisions in the conditions of uncertainty on the basis of the Bayesian intellectual technologies (BIT) is presented. Examples of its tool application in various areas of economic activity are given.

*Keywords:* system; Bayesian intellectual technologies; monitoring of a state; ecological objects; assessment of activity of the enterprises.

**CONCEPTUAL ASPECTS OF EDUCATION MANAGEMENT AS BUSINESS PROCESS**

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The article is devoted to topical issues of development of the system of educational services. The article are presented aspects of the management of education.

*Keywords:* improvement, higher education, knowledge management, modelling.