**MODERN METHODS AND MEANS OF DIAGNOSTICS OF THE EQUIPMENT OF ENGINEERING SYSTEMS OF BUILDINGS AND STRUCTURES**

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An analysis of current trends in the operation of engineering equipment of buildings and structures. The methods of organization of maintenance and repair to ensure that the requirements of a modern regulatory framework for inspection and maintenance of buildings and structures. The information about the complete set of support services instrumentation and QUALIFICATIONS cation staff.

*Keywords:* engineering equipment, buildings and structures, repair, diagnostics, maintenance of the actual state, instrumental examination

**DISCLOSURE OF INFORMATION ON HYDROACOUSTIC CHANNEL IN WATER SUPPLY SYSTEMS**

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Consider the case of an acoustic wave inside a cylindrical water pipe. Adjust the time the dissemination of the acoustic pressure in the pipes radius of 210mm at a distance of 300m and 800m for different modes.

*Keywords:* acoustic wave, water, reflection, reverberation, mode.

**Directions of the perfection of the technology of the treatment of metallic materials by the pulsatory gas flows**

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An increase in the productivity of working by the pulsatory gas flow of metallic materials and articles due to the optimization of its regimes in this work is examined.

*Keywords:* pulsating gas flow, mechanical properties, heat treatment, structural steels.

**COMPREHENSIVE DIAGNOSIS OF INSULATION OF OIL-FILLED**

**EQUIPMENT OF THE SUBSTATION 750 kV "LENINGRADSKAYA"**

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The calculation results of a complete physico-chemical analysis and examination khromatograficheskogo insulation shunt reactor of outdoor switchgear 750 kV substation "Leningrad". Shows how to perform an initial diagnosis of the development of defects on the basis of chromatography-ical analysis.

*Keywords*: shunt reactor, equipment diagnostics, testing, insulation, breakdown voltage, acid number.

**IMPROVEMENT OF RESOURCE CONNECTIONS OF WELDED CONSTRUCTIONS TECHNOLOGY NODES TEKNICS OF RAILWAY TROOPS**

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This article describes the most common ways of sealing and relieve tension in the weld. Based on the analysis of the efficiency of the use of ultrasonic peening method.

*Keywords*: welds, superficial seal, residual stresses, ultrasonic impact treatment.

**RESEARCH OF EFFICIENCY OF FUNCTIONING OF THE HEAT PUMP**

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The parameters of the functioning of the heat pump AVH-12V1D for heat recovery facilities for heating auxiliary facilities.

*Keywords:* heating; heat pumps; refrigerant; energy efficiency; energy conservation; low-grade heat.

**Change SOME PROPERTIES OF CONSUMER at Freezing and clogging Bracken**

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This article touched on the storage of young shoots of bracken fern at freezing and clogging. Freezing is a suggested storage method

*Keywords:* bracken fern; young shoots; freezing; wetness;water activity; tannin; ascorbic acid; elasticity/

**MODELING OF HEAT SOFTWARE ENVIRONMENT ANSYS/FLUENT IN DIFFERENTIATED HEATING UNDERPASSES**

G.V.Lepesh, T.V.Potemkina, G.A.Sproge

*Sankt Petersburg State University of Economics* (*SPbGEU*),

191023, *St. Petersburg, Sadovaya*, 21.

A simulation of heat and mass transfer in the bulk of the ventilated underground and go to the entrance to the subway. As a research tool used software package AnsysWorkbench / Fluent. The study found that the use of differential heating allows to obtain uniform heating in the volume of the room in the winter at negative ambient temperature.

*Keywords:* geometrical model, boundary conditions, the differential heating, infra-red panels, air flow, temperature field.

**CALCULATION OF CHARACTERISTICS OF HEAT GAIN IN THE CHAMBER OF HOUSEHOLD REFRIGERATORS**

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This paper describes the approach to the description of the process of movement of cooled air from the chamber of the refrigerator, the basic assumptions needed to construct the mathematical model, the technique of obtaining mathematical dependencies for RAS couple of options flow of chilled air and heat leakage.

*Keywords*: heat gains mathematical model, refrigerator, speed of air movement.

**ANALYSIS OF INFLUENCE FACTORS ON PERFORMANCE  
TECHNICAL STATE OF DOMESTIC REFRIGERATION APPLIANCE**

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This article gives an analysis of the impact of operational factors that determine the characteristics of the theoretical cycle of a sealed unit and affecting the efficiency of use for household refrigeration appliance.

*Keywords:* household refrigerating appliance operation, the theoretical cycle, the sealed unit.

**THE TWO-TEMPERATURE MODEL OF HEAT CONDUCTION**

**PROCESS THROUGH ENCLOSING STRUCTURES OF BUILDINGS**

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*Saint-Petersburg State University of Economics* (*SPbGEU*), 191023*, St.Petersburg, street Sadovaya,* 21

The introduction of two temperatures in the description of the thermal conductivity mechanism is proposed. That allows to bring together computational and experimental thermal field in the case of non-stationary heat conduction.

*Keywords*: thermal conductivity, two-temperature model, equation of heat conduction.

**IDENTIFICATION OF VEHICLES USING CEPSTRAL ANALYSIS**

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The paper proposes an algorithm cepstral processing spatio-temporal signals to identify vehicles for effective management and monitoring of traffic flows.

*Keywords:* digital signal processing, cepstrum, spectrum, identification of vehicle, traffic management

**DEVELOPMENT OF INFORMATION SUPPORT FOR THE FASHION INDUSTRY**

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Created a database of standard time for indivisible operation to manufacture the whole complex garments from a wide range of materials. This allows in automatic mode to make processing sequence, to count the cost of processing time, to form sets of equipment. Developed user manuals. Obtained the certificate of state registration.

*Keywords:*database, indivisible operations, cost, time, equipment, user manual.

**LOGISTICS ROADSIDE SERVICE**

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This article is devoted to the analysis of training and development of the logistics principles which in the conditions of natural fluctuations of growth and projected demand for services roadside service in accordance with the needs of socio-economic development of the country's transport system will be able to provide the citizens and businesses safe, affordable and predictable services of adequate quality at the right time and in the right place with minimal negative impact on the environment and human health.

*Keywords:* roadside service, logistic approach, organization of roadside service.

**PROMOTING INNOVATION AS A BASIS OF COMPETITIVE STRATEGY OF MEDICAL DEVICES**

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Increasing the share of innovative component in the mechanism of formation of competitive strategies for the development of medical equipment is the possibility of increasing the share of domestic products in the markets of medical devices, the possibility of solving the problem of import substitution of high-tech products, one of the possible options for the modernization of the Russian economy, as well as the factors increase the level of health care.

*Keyword:* The development strategy, medical instrumentation, Sustainable Development Strategy, innovation

**INCREASE THE COMPETITIVENESS OF BUSINESS ENTITY AT THE PRESENT STAGE OF ECONOMIC DEVELOPMENT**

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In the face of declining economic growth of the Russian economy, of economic sanctions become topical issues of improving the competitiveness of domestic enterprises in conjunction with the development of the regional innovation system. To investigate this issue and ensure the sustainable development of the classification of projects and introduced the concepts of new types of projects, such as combinations of known types, their features are installed. As an example, more detail-oriented investment and social innovation projects. The factors impeding the development of enterprises and territories of their location, identified factors affecting their competitiveness.

*Keywords:* economy, enterprise, region, innovation, factors of competitiveness.

**EFFECTIVE WORK IN ELECTRONIC SALES CHANNELS IN TERMS OF REVENUE MANAGEMENT ON THE EXAMPLE hotel "Oktyabrskaya"**

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The article deals with the promotion of hotel services with the help of revenue management. Here are the most common options in hotel rates. The algorithm works with overbooking. An example of the analysis of pricing policy "Oktyabrskaya" in the electronic sales channels in terms of Revenue management. It is concluded that the "soft" conditions of cancellation and prepayment bookings inept price positioning in the electronic sales channels, due to the late work with waived bookings leads to lower incomes.

*Keywords:* electronic sales channels, revenue management, overbooking, promotion, promotion, inn, hotel

**FORMS STRATEGIC PARTNERSHIP BETWEEN THE STATE AND BUSINESS IN REGIONAL HOUSING POLICY**

G. D. Drozdov, R.V Vasilenko

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The article focuses on the forms of strategic partnership of the state and business in regional housing policy in the Russian Federation.

*Keywords:* strategic partnership model, the balance between supply and demand, region, housing policy.

**MANAGEMENT SAFETY LEGISLATION**

G. D. Drozdov, A. S. Thurilin

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191023, *St. Petersburg, Sadovaya*, 21

The article considers questions of management of safety of vital functions of population of the Russian Federation in modern conditions.

*Keywords:* management, technological progress, environmental policy, environment, and safety.

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

А. L. Pastukhov

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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, innovation, education, intellectual capital, knowledge management.

**INSURANCE PROTECTION OF SMALL BUSINESSES**

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The article is devoted to the problems of formation of insurance relations in the sphere of small business. It emphasizes the need for government programs to support small businesses, including co-financing payments to insurance companies.

Keywords: small business, risks, insurance, informal employment rates, the patent system of taxation

**SOCIAL RISK ASSESSMENT IN THE COST EFFECTIVENESS CALCULATION OF PRESERVING SOCIAL INFRASTRUCTURE**

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This article deals with the preservation of the social infrastructure of the enterprises in the transition from a paternalistic model to the market to meet social needs of the hired personnel. The economic crisis is invited to assess the decisions taking into account social risks.

*Keywords:* social infrastructure, state paternalism, cost effectiveness, social risks, restrictionism, satisfaction of needs, personnel, social policy, social needs.