**BEST AVAILABLE AND TYPICAL TECHNOLOGY IN ENERGY EFFICIENT SYSTEMS LIFE OF BUILDINGS AND FACILITIES**

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The article describes the best available technologies in the life-support systems of buildings and structures, revealed their role in the modern world. Criteria of which are determined by the best available technology. Provides a list of energy efficiency measures.

Keywords: energy efficiency, the best available technology, life support systems.

**STUDY OF PERFORMANCE filter-drier elementS house hold refrigeration DEVICES**

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The article discusses the causes of clogging of the filter elements filter drier in the operation of household refrigeration appliances such as compression causes a reduction in their energy efficiency. Recommendations on the choice of filter elements filter drier and the adsorbent used in them in order to improve durability and reduce the energy consumption of household refrigerating appliance during operation.

*Keywords:* household refrigeration appliances, operating deposits, filter element, filter-drier, energy efficiency

**DIAGNOSTIC FEATURES OF MODERN MOTOR VEHICLES**

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Considered features of modern diagnostics of vehicles. Attention is paid to the diagnosis of motor vehicle using a motor-tester. A method for diagnosing the vehicle fuel-based test "Fuel Injector Balance." Shows the use of a diagnostic scanner to determine the parameters of fuel consumption and their comparison with normative.

*Keywords :* diagnosis, optimal mode , malfunction , defect, fixing on - deviations , diagnostic parameters , estimation of cost

**MONITORING ENERGY INDICATORS OF HOUSEHOLD REFRIGERATORS DURING OPERATION**

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The article describes a method for monitoring changes in energy intensity of the compression type. It is shown that the energy efficiency of household refrigerators in operation varies, so that there may be cases of the refrigerator with an increased power consumption. An algorithm for determining the specific energy consumption of the refrigerator deviations from the certified value during the operation, taking into account the ambient temperature. The substantiation and description of the algorithm to determine the technical condition of household refrigerators during operation.

*Keywords:* compression refrigerator, household refrigerator, energy monitoring, an algorithm for determining the energy efficiency, technical condition, power consumption during operation

**FEATURES OF TECHNICAL OPERATION AND SERVICE OF DISHWASHERS**

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In article questions of technical operation of dishwashers are considered. Recommendations for the interactive electronic technical managements service and the tekhnotorgovykh of the organizations for technical operation of dishwashers are developed.

*Keywords*: dishwasher, interactive electronic technical managements, rinsability, diagnostics.

**JUSTIFICATION AND DEVELOPMENT OF RATIONAL DESIGN OF THE EXCITATION WINDING ASYNCHRONOUS MOTOR-GENERATORS IN ORDER TO IMPROVE THEIR ENERGY EFFICIENCY AND OPERATIONAL RELIABILITY**

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The technique of determining the transient overvoltage conditions by the equation taking into account the dynamics of change of velocity saturation, the nominal parameters of the machine. Ra-bochaya model is implemented using a software package Matlab / Simulink. The comparative data for a particular section of the EMF, as well as the maximum value for the voltage-ny group selected windings excitation generator-motor asynchronized mode sudden phase short circuit obtained by modeling and analysis. Various structural performance of the field winding asynchronized generator-motor as a way to limit the dynamic surge. Analyzed ways to reduce surges during transients.

*Keywords:* generotor-engine, asynchronous machine, the rotor phase, modeling, short circuit

**LUSTERS PROVIDE INFORMATION SERVICES WITH ENERGY SAVING RECONFIGURATION**

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For information systems cluster architectures analyzed the possibility of increasing the efficiency of information services in real time through an adaptive energy-efficient reconfiguration of the system, accompanied by disconnecting nodes, redundant to ensure the required quality of services.

*Keywords:* energy efficiency, reliability, cluster, real time optimization, reconfiguration, optimization.

**THE ENERGY EFFICIENT WAY OF HEATING VENTILATED AREAS**

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G. V. Lepesh, T. V., Potemkina

Method of heating ventilated areas and spaces not as isolated from the environment using infrared heaters. Examines the characteristics of radiation. Introduces a system of boundary and initial conditions for the calculation of heating ventilated rooms by numerical methods.

*Keywords:* energy efficiency, infrared heat radiation sensed temperature.

**THE REDUCTION OF THE RESISTANCE FORCES DURING THE ROTATION OF THE WASHING DRUM DURING THE SPIN CYCLE**

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In this work we present a theoretical framework as well as the sequence of calculation of the residual strength, which is one of the factors determining the energy efficiency of the drum-type washing machine using autobalancing device with displaced fluid, given the formulas for calculating explaining the rationale and conclusion-dy.

*Keywords*: washing machine, energy efficiency, centrifugal spinning, dynamic loads, autobalancing device.

**DEPENDENCE OF ENERGY EFFICIENCY COMPRESSION REFRIGERATOR FROM HIS WAY COOL CONDENSER**

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This article provides information about the method of energy efficiency compression refrigerator due to the intensification of the process of cooling the refrigerant in the condenser. This article considers the appropriateness of the use of the principle of evaporative cooling in small refrigerators. In article describes the method of evaporative cooling surface condenser with meltwater.

*Keywords:* compression refrigerator, the energy efficiency of the cooling condenser, evaporative cooling method

**A MATHEMATICAL MODEL OF THE RECOVERY OF DOMESTIC AND FOREIGN TECHNICS -BASED LOGISTICS SERVICE "ASSISTANCE"**

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This article is devoted to problems of modeling the recovery of domestic and foreign technology-based logistics service "assistance" for the effective operation of the service enterprises assistance in the conditions of continuity of the transportation process and modern transport infrastructure of Russia.

*Keywords:* Mathematical modeling, recovery techniques, effective service enterprises assistance, transport infrastructure, logistics service assistance.

**CALCULATING METHODS FOR THE PROJECTED PAYBACK OF ENERGY-SAVING MEASURES FOR BUILDINGS INSULATION**

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The example of payback calculation of additional warming of external walls of buildings by a mineral-cotton heater taking into account the growth of thermal energy tariffs for the multiroom panel building in climatic conditions of St. Petersburg is given

*Keywords:* energy efficiency; thermal insulation; renovation of facades; payback; energy saving

**EFFICIENT HEATING OF THE ROOM AS THE OPTIMAL CONTROL PROBLEM**

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The article is based on the Pontryagin maximum principle, we examine the principles of optimal heating of the premises. In the article the method of calculation of optimal control of transition when nethope premises. All mathematical models are illustrated by examples.

*Keywords*: good governance, energy efficiency, optimal control problem, cost-efficient space heating

**POSSIBLE WAYS OF IMPROVING THE ENERGY EFFICIENCY OF THE ENTERPRISES OF HOTEL BUSINESS**

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The article deals with the introduction of energy efficient equipment in the hotel. We consider resource-saving technologies applied directly to the hotel. The measures to improve energy efficiency hotels.

*Keywords:* hotels, resource-saving technologies, energy efficiency, innovation*.*

**ENERGY EFFICIENCY OF WATER SUPPLY AND OUT WATER-WAY NETWORKS OF CITY**

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Methods of definition of requirement for electrical energy of systems of water removal are stated. Directions of pinch of efficiency of their operation are given.

Increase problems of power efficiency of water supply and out water-way systems of region are considered. Features of water consumption in the Kaliningrad region are resulted.

*Keywords*: pump installations, water supply, water removal, energy efficiency

**PUBLIC-PRIVATE PARTNERSHIP IN THE SPHERE OF INNOVATIONS AS THE FACTOR OF DEVELOPMENT OF LABOUR CAPACITY OF THE TERRITORY**

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Public-private partnership in the sphere of innovations is the really operating mechanism promoting development of the innovative sphere and labor capacity of the territory

*Keywords:* innovations, labor potential, public-private partnership.

**ECOLOGICAL ASPECTS OF THE SUSTAINABLE DEVELOPMENT IN ACTIVITY OF TRADE ENTERPRISES**

O. E. Pirogova

The article deals with the problem of integrating ecological aspects of sustainable development in the activities of commercial enterprises. Emphasis is placed on the analysis of the implementation of the principles of ecological self recoverability and dynamic adaptability of trading enterprises .

*Keywords:* Trading enterprise , sustainable development , corporate social responsibility , environmental responsibility , dynamic adaptability .

**The estimation of energy efficiency of investment projects on the basis of Bayesian Intelligent Technologies**

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Energy efficiency policy can only be effective if it is a part of overall industrial policy. Energy efficiency must become the largest energy resource.The complex model for energy efficiency of invesment projects estimation has suggested in this paper. The components of complex model are defined. The formulas for financial characteristics of energy efficiency are given for conditions of a priory uncertainty.

*Keywords:* energy efficiency, estimation, Bayesian intelligent technologies.

**THE MEASUREMENTS OF energy efficirncy characteristics ON THE BASIS OF BAyESian INTELLigent TECHNOLOGIES**

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The possibilities of application of the methodology of cognitive measurement for the estimation of energy efficiency characteristics has suggested. The examples of cognitive measurement technologies for energy objects are developed.

*Keywords:* Energy efficiency, measurement, Bayesian intelligent technologies.

**THE ANALYSIS OF THE REGIONAL PROGRAM OF ENERGY SAVING IN THE LENINGRAD REGION**

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In article the purposes, tasks and target indicators state the program of the Leningrad region "Ensuring steady functioning and development of municipal and engineering infrastructure and increase of energy efficiency in the Leningrad region" are analysed, implementation of this program is considered and recommendations about the matters are made.

*Keywords*: State program, Leningrad region, target indicators, energy saving, increase of power efficiency.