

Economic Sciences

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Knowledge Management in Research and Production Organization

Key words and phrases: intellectual capital; innovations; strategic competences; knowledge management.

page 5-7

Abstract: The article explores the problem of knowledge management of in research and production organization. The working model of knowledge management at the aviation mechanical engineering enterprise is analyzed. The formation of knowledge management system comprising three components: people, processes and technologies has been justified. The conclusion about the continuity of knowledge and the key competence for research and production organization has been drawn.

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Assessment of Current Level of Foreign Expansion of Russian Business

Key words and phrases: Evraz; foreign direct investment (FDI); foreign assets; Gazprom; LUKOIL; Mechel, mergers and acquisitions; Russian multinational enterprises (MNEs); RUSAL, Severstal; Systema; transnationality index; UNCTAD; VypelCom.

page 8-16

Abstract: The article focuses on Russian MNEs. The author analyzes their current state, comparing the situation in developed, developing countries and countries with transition economies. The author considers the amount of annual export of FDI and the volume of FDI stock abroad, analyzes mergers and acquisitions, determines the largest MNEs in Russia and examines their features. The author comes to the conclusion that the Russian multinationals are in embryonic stage in terms of their number and quality. Since they have started foreign activity relatively recently and over time they can evolve into more classic MNEs.

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Method of Analysis of Reproductive Labor Risks

Key words and phrases: reproductive labor risk; value of human resources; reproductive process subjects; reproductive process objects; reproductive process participants.

page 17-20

Abstract: The author proposes a method to analyze reproductive labor risks taken by all participants in the reproductive process at all stages of formation and development of human resources at the micro-, meso- and macro-levels.

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The Concept of Development of Integrated Business Innovations

Key words and phrases: integration; enterprise; innovation; integrated innovation; economic development.

page 21-24

Abstract: The paper summarizes theoretical bases of development of integration processes around the implementation of innovative projects. An important aspect of the authors' opinion is the study of innovations as a factor of development of integration processes and their results in development.

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Conceptual Aspects of the Term "Urban Agglomeration": Current Trends

Key words and phrases: urban agglomeration; paradigm of agglomeration formation; spatially localized system; current trends in agglomeration; agglomeration management.

page 25-34

Abstract: The paper analyzes the evolution of the term "urban agglomeration". The article provides definitions of various authors. The author considers a new approach to the formation and development of agglomerations and offers the author's definition of the term "urban agglomeration" considering the modern conditions.

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Power Strategy Development at Industrial Enterprise

Key words and phrases: energy saving; energy efficiency; energy strategy of enterprise; energy consumption.

page 35-38

Abstract: The paper deals with the development of energy strategy of the industrial enterprise. The author formulates the key objectives of the energy strategy for different groups of enterprises, participants of the market of electricity and power market. The tariff for energy transmission at the metallurgical enterprise has been justified.

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Information Support of Parametric Evaluation of Social Welfare Organization in the System of Indicative Management

Key words and phrases: indicative management; social welfare organization; parameter estimate.

page 39-42

Abstract: The paper describes a practical experience of selection and adaptation of existing information flows for the needs of indicative management. In particular, the authors consider the use of the results of non-departmental control over the quality of care to find ways of improving the implementation of standards of health care, its affordability and professional activities of medical personnel.

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Adapting Methods of Positioning of Construction Industry in Japan to Russian Conditions

Key words and phrases: construction industry; construction companies positioning; adaptation strategies positioning.

page 43-46

Abstract: Japanese construction industry introduces significant innovation, representing a striking example of the intensification of joint efforts of government and non-government structures in the area of research and development. Russian construction companies need to adopt the methods of positioning of construction industry and adapt the Japanese experience to Russian conditions.

Land Sciences

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Application of Pumping Tests for Preliminary Estimation of Aquifer Boundary Conditions

Key words and phrases: hydrogeology; calculation of resources; computational modeling; boundary conditions; pumping test; nodal analysis.

page 47-52

Abstract: Currently, computational modeling is one of the perspective methods of calculation of underground water resources over territories with a large number of water supply systems with alternating output. One of the conditions of applying modeling is the availability of reliable information about internal structure of hydrogeological division and features of its interaction with external medium, or the type of boundary conditions. Interpretation of pumping tests conducted on water supply systems located in close proximity to occurrence limits of hydrogeological divisions can provide information about boundary conditions. Herewith, good results are achieved in certain cases when conducting short-term pumping tests as the tested area of influence rapidly reaches occurrence limit.

Pedagogy and Psychology

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The Study of Self-Actualization as an Internal Motive for Professional Knowledge Acquisition by University Students

page 53-55

Key words and phrases: creativity; need for cognition; psychological conditions; self-actualization of an individual; educational and professional motivation.

Abstract: The paper describes the results of the study of the need for knowledge and creativity as a dominant component of internal motivation, i.e. self-actualization of students in professional knowledge acquisition.

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Major Trends of Formation and Development of Professional Responsibility of Dog Handlers of Internal Troops

page 56-61

Key words and phrases: dog handlers; professional responsibility; emergence and development.

Abstract: This paper discusses the steps and the major trends of formation and development of professional responsibility of dog handlers in Internal Troops.

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Recoverability Indicators of Knowledge, Skills and Abilities

Key words and phrases: recoverability; durability; reliability; workable condition of an element; laboriousness.

page 62-65

Abstract: The paper studies recoverability of knowledge, skills and abilities as one of the components of the theory of durability. The quality of the education process is thoroughly linked to reliability, durability and life cycle of knowledge, skills and abilities. By qualitative assessment of recoverability components, it is possible to control the process of specialists' training.

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Some Features of Metrorhythm as the Basis of a Set of Means of Expressive Accompaniment

Key words and phrases: origin of metrorhythm; formulas of metrorhythm; spondence formula; characteristic rhythms; spondence of metrorhythm; rhythmic and harmonic basis.

page 66-69

Abstract: The article reveals some features of formation of metrorhythm as the basis of a set of means of expressive accompaniment. The consideration of this issue makes it possible to clearly see the value of rhythmic framework of a piece of music and its complicated constituting elements, directly included in metro-rhythmical structure.

History, Philosophy and Sociology

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Self-Promotion and Level of Communists' Social Mobility in Vladimir Province in the 1920s

Key words and phrases: social mobility; self-promotion; party nomenclature; All-Union Communist Party of Bolsheviks; Soviet society.

page 70-72

Abstract: The article deals with the role of self-promotion in social mobility of provincial communists in the 1920s. The use of primary data of 1927 All-Union Party Census allowed gaining more detailed picture of communists' social mobility and making a conclusion that self-promotion wasn't the main factor of their mobility.

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Interaction between Government and Church in the 1940–60s:

Major Activities and Achievements of the Board for the Russian Orthodox Church

Key words and phrases: public policy, the Russian Orthodox Church, the Local Council, the anti religious campaign, religious organizations.

page 73-78

Abstract: This paper examines the main trends and forms of cooperation between the government and the church in the 1940s-60s. The author characterized the main stages of church-government relations in Russia. The key issues and trends in the process of changing

the legislation in the context of socio-political processes have been examined. The analysis allowed identifying key areas and specific activities of the Council for the Russian Orthodox Church and its role in the development of churchgovernment relations in the period under review.

Mathematical Methods and Models

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page 79-81

Prospects of Application of Laser Parametrical Method of Measurement of Seismoacoustic Vibrations for Oil and Gas Fields Exploration

Key words and phrases: oil and gas fields; seismic exploration; lasers; parametrical resonances.

Abstract: To increase the efficiency of seismic exploration of oil and gas fields it is offered to use laser-parametrical method of measurement of seismoacoustic vibrations.

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Solution of Algebraic Equations of High Order on Graphics Accelerators and Versatile Hybrid Multiprocessor Systems

Key words and phrases: algebraic equations; CPU; hybrid computing system; universal accelerator.

page 82-86

Abstract: This article describes the principle of collaboration of graphics accelerator and universal processor in hybrid computing systems for solving algebraic equations of high order on the example of the test program implementing multiple cryptographic transformations of data. The author addresses the issue of selecting an optimal configuration (ratio) in the construction of hybrid computing systems based on general purpose processors and graphics.

Management, Computer Engineering and Information Science

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Information and Communication Technologies in Forestry. Problems and System Solutions

Key words and phrases: automation; Geoportal ' 'Forests of Russia' ' ; Geographic Information System (GIS); information and communication technology (ICT); forestry; software and analytical complex ' 'Forest Watch' ' .

page 87-95

Abstract: One of the major systemic problems in the forestry sector is the lack of relevance and reliability of data on forests, their quantitative and qualitative characteristics. This problem is difficult for the industry, improve profitability and investment attractiveness of the whole forest complex as a whole, the development of leasing relations in forestry. The analysis of existing and emerging automated information systems, revealed their shortcomings. Suggested by the authors of software and analytical complex ' 'Forest Watch' ' solves the problem of obtaining primary data by means of remote sensing, processing software, adapted to the needs of the industry, and forming a model of forest development, built in the GIS environment.

Legal Science

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Selecting an Object of Examination by Field Officers of Penal Enforcement System as a Prerequisite of its Effectiveness

Key words and phrases: penal enforcement system; convicts; detained; investigative work;

page 96-98

objects of examination; investigative units.

Abstract: The paper contains the definition of such concepts as ‘ ‘examination’ ’ , ‘ ‘object of examination’ ’ in the context of countering prison crime. The author focuses on the description of various objects of examination as investigative work under penal enforcement system. The potential informational value of each object of examination has been revealed.