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**OPTIMIZATION OF OIL DEHYDRATION PROCESS USING FUZZY
LOGIC FRAME**

The article describes the problems of modern oil dehydration process. The black-box model of the process was developed. The input, output, and perturbing system parameters, as well as general equation of the oil dehydration process and equation of quality identification with fuzzy logic frame were identified.

Key words: *fuzzy logic, fuzzy relation, process optimization, oil dehydration.*

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**PROJECT RISK EVALUATION OF EQUIPMENT FAILURE
BASED ON FUZZY SET THEORY**

The article describes the risk assessment algorithm development of equipment failure on the basis of fuzzy set theory and illustrates algorithm options when re-equipping the production. The approach enables to improve the management of such projects due to optimal composition of manufacturing equipment based on a quantitative risk assessment of its failure.

Key words: *risk of equipment failure, project of production re-equipment, risk zone, optimum volume of investment.*

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ENVIRONMENTAL INNOVATIONS IN SUSTAINABLE DEVELOPMENT SYSTEM

The article studies the content of environmental innovation in the concept of sustainable development. Foreign experience in the development of environmental innovation is analyzed. Ways of solving social environmental and economic issues with a view to prevent global economic and environmental threats are suggested.

Key words: *sustainable ecological-and-economic development, ecological- and-economic problems, environmental innovation.*

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ON EMPIRICAL ANALYSIS OF OIL PRODUCTION PERFORMANCE DETERMINANTS AND RUSSIAN OIL COMPANIES' CAPITAL OUTLAYS

The article suggests the results of oil production performance and capital outlay growth rate determinants' analysis, based on the Russian oil companies microeconomic data. Regression analysis was applied to estimate the effect of financial leverage, lag value of revenue growth, age and size of the company on oil production volumes and companies' capital outlay. Probit estimates of relative productivity were obtained in terms of oil production performance and investments in comparison with industry average indicators. Panel data for 200 companies with highest annual revenue, which according to All-Russia Classifier of Types of Economic Activities belong to the «Extraction of Crude Oil and Associated Gas» (11.10.11) over the period 2002–2009 was sampled.

Key words: *companies' investments, oil companies, regression analysis, Probit model, panel data.*

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KEY CHALLENGES AND TENDENCIES OF TOURIST AND RECREATION ACTIVITY EFFICIENCY IMPROVEMENT OF ORENBURG REGION TOURIST FIRMS (ON THE EXAMPLE OF LIDIA TOUR LLC.)

The article considers legal and regulatory framework and state of tourist activity in the Russian Federation. It identifies main reasons that cause challenges in this area and gives recommendations how to eliminate them. The author analyzes the sociological survey data, data of roundtable talks and researches in the area of tourism, supplementing them with own conclusions.

On the basis of comprehensive research of factors that influence the tourist activity efficiency, deep knowledge of the subject, author's practical experience, and analysis of «Lidia-Tour» activity – one of the Orenburg market leaders the recommendations on recreation activity efficiency improvement are given.

Key words: *tourism, Orenburg region, efficiency, recreation activity.*

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ON EVOLUTION OF THEORETICAL CONCEPTS IN INFORMATION ECONOMY

The article suggests the author's analysis of theoretical concepts for information economy. The concept «national economy» and its structure were considered. The definitions of «information economy», «network economy», «creative economy» were compared.

Key words: *information economy, network economy, creative economy.*

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BUSINESS COST MANAGEMENT PECULIARITIES DURING STRUCTURAL TRANSFORMATIONS

Nowadays the combined use of EVA and BSC techniques for business cost management is considered economic. These techniques enable to develop the efficient management system. The article substantiates the idea that the application of the techniques under conditions of restructuring has its peculiarities.

Key words: *company value, cost management, balanced scorecard, economic value added.*

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ON ECONOMIC STATUS OF MECHANICAL ENGINEERING IN RUSSIA

Changes in key economic indicators characterizing the development of the Russian mechanical engineering during 2006–2010 were analyzed. Predictive data for the period till 2013 were suggested. The official statistics given by the Federal State Statistics Service was used.

Key words: *indicators of mechanical engineering economic condition, volume of the shipped goods, branch structure, capacities of mechanical engineering, investment into fixed capital, financial result, profitability, import and export of mechanical engineering products.*

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ON ESTABLISHMENT AND DEVELOPMENT OF CONGLOMERATE HOLDING COMPANIES

The article focuses on the establishment and development of conglomerate holdings. The specific aspects of this type of integration and management goals are considered.

Key words: *holding, conglomerate, integration, diversification.*

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LABOR PRODUCTIVITY GROWTH AS FACTOR OF COMPETITIVENESS RECOVERY OF DOMESTIC PETROCHEMICAL COMPLEX

The article considers the matters of labour productivity growth in the domestic industry on the example of a petrochemical complex.

Key words: *competitiveness, productivity, petrochemical complex.*

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ON ANALYSIS OF GOVERNMENT CONTROL OVER CATTLE BREEDING PRODUCTS COST

The article considers the necessity of the government regulation of the cattle breeding production cost. To achieve branch sustainable development in modern conditions is impossible without government support of the regional agricultural producers .

Key words: *meat cattle breeding, state support, prime cost, industry program.*

O. N. Levina

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ORGANIZATIONAL AND PEDAGOGICAL CONDITIONS OF MIDDLE SCHOOL STUDENTS' INTELLECTUAL SELF-DEVELOPMENT

The article describes the students' intellectual self-development process and suggests an operational definition for the term «intellectual self-development». Term criteria were identified. The organizational and pedagogical conditions that enable to form a positive motivation in students for developing research and intellectual skills as well as building deep knowledge about the essence of intellectual development were researched.

Key words: *intellectual self-development, intellectual activity, criteria of intellectual self-development, educational activity, organizational and pedagogical conditions, academic motivation.*

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**CULTURAL-ANTHROPOLOGICAL IDEA TO MODERNIZE
CONTEMPORARY ADDITIONAL PROFESSIONAL TEACHER'S
TRAINING**

The author highlights the issues of contemporary additional professional teacher's training modernization. The article suggests cultural and anthropological idea to substantiate the ways of solving the modernization issues.

Key words: *man in culture and education, cultural and anthropological idea of education modernization; system centrism; anthropocentrism.*

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**NETWORK INFRASTRUCTURE MANAGEMENT SYSTEM BASED ON
SOFTWARE CONFIGURABLE NETWORK**

Wireless network IEEE 802.11 is currently gaining acceptance. But even new amendments into Standard do not address the challenges of network infrastructure adaptive management. The article suggests the conception of unified network infrastructure management based on software configurable network irrespective of a media type.

Key words: *software configurable network, wireless network.*

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EXPERIMENTAL STUDIES OF SOFTWARE CONFIGURABLE NETWORK SEGMENT CAPACITY

The article suggests the results of packet processing delay measurement without the entry in the table of the switchboard OpenFlow. The packet losses when processing in OpenFlow NOX controller on an experimental segment of the software configurable network (SCN) were measured as well.

Key words: *NOX controller, software configurable networks, OpenFlow protocol, OpenFlow switchboard, packet delay and loss, network operating system (SOS).*

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SOFTWARE CONFIGURABLE NETWORK CAPACITY MEASUREMENT IN DATA CENTERS

Software-configurable networks are gaining nowadays popularity in data centres as well as in knots of Internet traffic transmission. The newness of this network type makes the matter of its capacity open. The article describes the methods of capacity parameters measurement beyond a producer`s control.

Key words: *software configurable network, distributed computing.*

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LUTHERAN RELIGIOUS GROUPS IN POST-WAR ORENBURG REGION (1945–1991)

The article considers the activity of the Lutheran religious groups in the Orenburg region in the post-war period (1945–1991). Forms of their activities, membership dynamics, spiritual leaders were studied. The evolution of the relationship with the atheistic Soviet state from persecution to permission of the limited registration in the 1970s – 1980s was analyzed.

Key words: *Lutherans, Germans, Orenburg region, post-war period.*

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HAJJ PERFORMED BY MUSLIM PILGRIMS OF ORENBURG REGION DURING POST-WAR PERIOD

The article suggests data on hajj and applications on pilgrimage filed by Muslims of the Orenburg region over the period 1944–1990. The striving to rapprochement with the Muslim states of the Middle East and desire to show democratic character of the Soviet system stimulated pilgrimage resumption in the post-war period. Literate heads of the regional Muslim religious organizations, who had proved loyalty to the Soviet system were granted pilgrimage permission.

Key words: *hajj, pilgrimage, Muslims, Islam, Mecca.*

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**RUSSIAN ORTHODOX CHURCH ACTIVITY ON SUPPORTING
1891–1892 CROP FAILURE VICTIMS IN ORENBURG GOVERNORATE**

The article describes the Russian Orthodox Church activity during the famine of 1891 in the Orenburg region. The author considers different areas of supporting starving people: collection and donation distribution, bread distribution, opening of canteens, aid to indigent priests.

Key words: *famine, crop failure, Orenburg region, Russian Orthodox Church, charity.*

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**BALNEOPELOTHERAPY OF CHILDREN WITH
CONNECTIVE-TISSUE DISPLASIA**

To identify the efficiency of balneopelotherapy the clinical and immunological research of children and teenagers between the ages of 4-17 with connective-tissue dysplasia was done. A combined treatment with the lake Tuzluchnoe sulphide silt mud applications and highly mineralized chloride sodium water has a beneficial influence on the main clinical symptoms of the disease and improves immune system indicators.

Key words: *balneopelotherapy, connective-tissue displasia, children.*
