

Biotechnology and Medicine

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Individual Typological Features of Autonomic Regulation in the Military in Stressful Situations

Key words and phrases: military men; mental and physical stress; extreme conditions.

page 7-9

Abstract: The paper shows the necessity of considering individual typological characteristics of autonomic regulation in the analysis of heart rate variability. The purpose of the work was to study the dynamics of mental and functional states of servicemen depending on individual typological features of autonomic regulation and correction of these conditions by prenosological methods.

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page 10-14

Virtual Craniometry as a New Method in Craniology

Key words and phrases: craniometry; perinasal sinuses; endoscopic rhinosurgery.

Abstract: The paper describes virtual craniometry, a new method of intravital evaluation of craniometric parameters. The comparison of traditional and virtual craniometry is performed in terms of studying ethmoid bone structures. The received results are described in the paper.

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Prospects of Using Proflavine Acetate, Water Disinfection against Coliphages under Natural Microbiocenosis of Surface Water Bodies

Key words and phrases: photoremediation; photosensitizer; indicators of viral contamination; coliphages; viruses; experimental ponds; methylene blue; proflavin acetate; zinc phthalocyanine.

page 15-18

Abstract: The problem of disinfection of water remains one of the most important in the system of protection of environment from biological contamination. The results of previous experiments have shown good prospects of using photosensitizers, namely, methylene blue for water disinfection in relation to coliphages.

Pedagogy and Psychology

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Some Aspects of Physical Education in Finland

Key words and phrases: monitoring; testing; physical activity; physical education; Finland.

page 19-22

Abstract: It is shown that the most important factors in determining the leading position of Finland by the level of physical activity include: an effective public policy in the development of physical culture, the methods used for monitoring and evaluation of physical capacity and status of students, creating a system of development of adaptive physical activity and the provision of appropriate monitoring.

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The Analysis of Conditions and Factors of Uniting Military Collectives

Key words and phrases: analysis; relationship; military collective; unit; unity; factors.

page 23-28

Abstract: The paper describes the results of the study that reflect the assessment of conditions and factors influencing the unity of the military collectives in the subdivision of the Interior Ministry of Russia. The authors describe features of relationships of servicemen in a group and highlight the major factors which have the most negative impact on interpersonal communication of servicemen in subdivision.

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Procedural Basis for the Formation of Ethnocultural Awareness of Primary School Pupils

Key words and phrases: primary school pupils; ethnocultural; knowledge; ethnocultural awareness; ethnocultural concepts; ethnocultural representations.

page 29-31

Abstract: The paper considers the formation of ethnocultural awareness of primary school pupils as the gradual formation of ethnocultural representations, ethnocultural concepts, ethnocultural knowledge.

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The Development of Regulatory Universal Learning Skills in Younger Schoolchildren

Key words and phrases: learning skills; regulatory universal learning activities.

page 32-34

Abstract: The paper is devoted to the development of regulatory universal learning activities in primary schoolchildren. A gradual transition to self-management and self-regulation in learning activities provides the basis for further professional education and self-improvement.

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TI-View Screen Technology for Primary Mathematical Education

Key words and phrases: Mathematics; mathematical education; technology of mathematical education; TI-ViewScreen; handheld.

page 35-41

Abstract: For the first time in the Russian scientific literature this paper considers TI-View Screen Technology for Math teaching with the help of “handhelds” - electronic devices, and some experience of its application in the Russian Secondary School and College of Secondary Professional Education.

E.M. Orlova

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The Value of V.M. Bekhterev's Ideas for Music Psychology and Pedagogy

Key words and phrases: personality; music; music psychology and pedagogy; musicality; development; child.

page 42-46

Abstract: We consider the views of V.M. Bekhterev's on the value of music in the education of an individual. It is shown that the theoretical ideas and practical activities of the scientist and his school help to understand many topical problems in the field of music psychology and pedagogy at the present stage. The article presents little-known archival materials which characterize the activity of the scientist in the field of research into the influence of music on people and development of questions of musical and creative activity.

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Specialist Training in Socio-Cultural Services and Tourism on the Basis of Competence Approach

Key words and phrases: competences; competence approach; education; specialist in socio-cultural services and tourism.

page 47-50

Abstract: The paper focuses on the urgency of reforming the modern educational process; features of training future specialists in socio-cultural services and tourism at the present stage based on the competence approach have been defined. The list of subjects that expert in socio-cultural services and tourism interacts with has been developed; also, competences for successful implementation of professional activities in modern conditions have been described.

E.V. Firsova

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Method for Determining the Level of Readiness of University Students to Study Discrete Mathematics through Distance Learning Technologies

Key words and phrases: input control; discrete mathematics; distance education technologies; distance learning system ‘ ‘Prometheus’ ’ ; testing.

page 51-54

Abstract: The paper studies the problem of reducing the level of pre-university mathematical knowledge in students. Due to the fact that students come to university from high schools of different types and have varying levels of mathematical training it is necessary to conduct input control of students' mathematical knowledge with the help of distance learning technologies,

such as distance learning system ‘ ‘Prometheus’ ’ .

Professional Training

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Theoretical Fundamentals of Developing Value Attitude to Art in Students of University of Culture

Key words and phrases: attitude; value; value attitude; value attitude to art.

Abstract: The paper explains the relevance of the declared theme, its degree of scrutiny in science; the author studied the problems of developing value attitude to art in students of university of culture, described the concept of ‘ ‘value’ ’ , ‘ ‘attitude’ ’ , ‘ ‘value attitude’ ’ from the standpoint of philosophy, psychology and pedagogy. The author characterized the concept of ‘ ‘value attitude to art in students of university of culture’ ’ , developed the basic methods of forming value attitude to art in regional universities of culture. Under the concept of «value attitude to art in students of university of culture» the author understands students’ education at the university of culture, characterized by significant positive attitude to art and, which is developed in the process of artistic activity and in the perception of works of art, their evaluation and creating their own artistic products, that they will bring to the listeners and viewers, and thus will develop the value attitude to art.

page 55-63

E.V. Sutormina

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The Role of Self-Study in Developing Foreign Language Skills of Future University Workers

Key words and phrases: self-study; professional knowledge and skills; forms of organization of independent work; educational activity; foreign language.

Abstract: The paper deals with the independent work of students studying a foreign language in the process of learning activities at university. The author analyzed the role of independent work in the process of training future specialists with foreign language skills.

page 64-66

History, Philosophy and Sociology

E.F. Moroz

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Problems of the Modern Russian Education under Globalization

of State Fire Service of the Ministry, Zheleznogorsk

Key words and phrases: crisis of education; culture; society; value; education.

Abstract: The paper discusses the problem of the role of modern education in the context of globalization. It is noted that both Russia and world civilization are experiencing global, radical and painful transformation in many fundamental values. These changes are reflected in the understanding of the goals, objectives and character of the education. The author comes to the conclusion that education is the main universal channel of the historical transmission of cultural values nowadays.

page 67-70

M.A. Simonova

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Orthodox Clergy in the USSR: Legal Status and Priorities in the 1960–1990s

Key words and phrases: Russian Orthodox Church; Orthodox clergy; church reform; anti-religious campaign; religious organizations.

Abstract: This paper examines the main trends and forms of the clergy in the 1960–1990s. The author characterized the major changes in the legal status of the Orthodox clergy, determining the scope, scale and priorities of its activities. The key issues and trends in legislation in the context of socio-political processes were examined. The analysis enabled to determine the priorities of the Orthodox clergy in the USSR in the period under review.

page 71-76

Engineering

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To the Question of Improving Rotary Hedge Trimmer Parts

Key words and phrases: trees; shrubs; brush cutter blade; rotary hedge trimmer; impact theory.

page 77-79

Abstract: Having applied the impact theory to the analysis of the cutting element of rotary hedge trimmer operation, we justified the solution, in which each of the blades of the hedge trimmer comprises a cutting element and the shank, while the axis of the fixing unit of the rotor blade is at the junction of the shank and a working element of the trimmer.

Electronics, Measuring Equipment, Radiotechnics and Communication

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Institute of Petroleum Geology and Geophysics Siberian Department Russian Academy of Sciences, Novosibirsk

page 80-82

Innovative Nanotechnologies to Increase the Efficiency of Management of Petroleum Fields

Key words and phrases: energy management; nanoheterostructures; oil and gas production.

Abstract: To increase the efficiency of oil and gas production, it is offered to use energy management systems combined with innovative nanotechnologies.

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Non-Destructive testing for Quality Control and Basic Informative Environment Settings for Half-Products and Finished Goods from Granite Rocks in the Unstressed State

Key words and phrases: nondestructive testing; ultrasound; acoustic methods; parameters of elastic medium; granite; quality control.

page 83-86

Abstract: This paper focuses on the problems of quality control of half-products and finished goods from granite rocks; the authors justify the relevance of the given topic and indicated the need for solutions to this problem expressed by major market players. The paper provided a brief rationale for the selection of acoustic NDT method, described its principle and advantages in controlling rocks. The paper contains recommendations on the type of waves, the main informative parameters of the control object. Also, attention is paid to the use of these methods for isotropic and anisotropic rock groups.

E.A. Zuenko, L.I. Likhareva, L.A. Tugarinova, A.A. Shulunova

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Laser Rangefinder for Tracking and Detection of Oncoming Objects in Automatic Vehicle Control

Key words and phrases: automated data processing; automatic vehicle control; genetic algorithm; hereditary link; lidar; laser rangefinder; oncoming objects; openCV - image processing library; single lidar signal; object motion trajectory; traffic simulator.

page 87-90

Abstract: To create a fully autonomous vehicle control systems data from optical cameras, lidar, GLONASS satellite navigation system, are used both individually and in their combinations. This work considers the creation of an effective tool of signal processing for the detection of oncoming objects and analyzing their characteristics. Further the produced data can be combined with those from other systems to obtain optimum results.

Management, Computer Engineering and Information Science

N.G. Makagonov, M.A. Makagonova

page 91-94

Perm National Research Polytechnic University, Perm

Computer Optimization of Observing Systems

Key words and phrases: Matlab functions; video stream; server; computer; graphical interface.

Abstract: A system for observation of objects of varying importance is developed. The computer attached to the observed territory detects a moving object, which is framed to focus the operator's attention and measure the relative size of the moving object. The data are transmitted from the computer to the server, which offers the possibility of on-screen dialog.

Economic Sciences

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Wage Level in the Chechen Republic

Key words and phrases: economic activities; income; wages; cost of living; the region's standard of living.

page 95-99

Abstract: The paper discusses the reasons for cross-sectoral and regional wage differentiation, analyses the level of wages as a whole in Russian economy and one of its regions, the Chechen Republic.

Yu.F. Kolesnikova

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Method of Multi-Criteria Selection of Elements of Optimum Economic Clusters "Special Economic Zones" under Incomplete Initial Information and Uncertainty of the Control Object Condition

Key words and phrases: multi-criteria method selection; performance criteria; hierarchy of decisionmaking problems.

page 100-102

Abstract: The paper offers a method for selecting the optimal composition of elements of economic cluster 'special economic zones' (SEZ) in the face of uncertainty based on the use of binary relations and the relative importance of scale given a number of performance criteria.

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Typology of Regions in Strategic Development Management

Key words and phrases: classification of regions; evaluation criteria; management of regional development.

page 103-109

Abstract: The article presents the author's grouping and the analysis of classification of regions; a conclusion on the possibility of their use in the management of strategic development was made. We classified CFD regions based on the criteria indicator, reflecting current trends of innovative development with regard to the environmental component.

Legal Regulation

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Legal Regulation of Preparing Pledged Property for Sale in Bankruptcy Proceedings

Key words and phrases: bankruptcy; pledged property; bankruptcy proceedings; sale of pledged property.

page 110-113

Abstract: The paper explores the problems of conducting preparatory work to sell pledged property through bankruptcy proceedings; the author analyzes the current legislation on insolvency (bankruptcy) and practices of arbitration courts, including establishment of an order and terms of sale of pledged property, quoting the initial price of the pledged property.

Political Science

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page 114-116

Islam and Globalization: Russian Islam in Early 21st Century

Key words and phrases: globalization; Islam; Islamic; revival; Russian Islam.

Abstract: The problem of Islamic revival and liberation from the stereotypes and prejudices made activities of Islamic education centers relevant. This article makes an attempt to study the trends of Russian Islam in the context of globalization.