

Biological Sciences

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Growth of Scotch Pine (*Pinus Silvestris L.*) in Conditions of Southern Primorye

Key words and phrases: Scotch pine; introduction; planting; growth; growing conditions; natural regeneration.

Abstract: Scotch pine (*Silvestris L.*) grows in the Primorye Territory only in the form of artificial plantations. The prospects for this type of cultivation in the region are discussed by many foresters. Our studies contribute some clarity to this issue. Growth and development of artificial pine plantations differs little from that of natural origin. The magnitude of growth and habitual features depend on the conditions of growth and phytocentric environment. Natural regeneration of Scotch pine in conditions of Primorye Territory is possible provided a favorable phytocoenotic environment.

page 7-9

Biotechnology and Medicine

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Age Peculiarities of Life Quality in Elderly and Senile Women with Landing Syndrome

Key words and phrases: life quality; falls; elderly and senile women.

Abstract: Using the SF-36 questionnaire, comparative assessment of the life quality (LQ) age peculiarities was carried out in women 65–89 years old who two or more falls during the year (landing syndrome). Decrease in the physical component of LQ was found in women 75–89 years old, compared with 65–74-year-old women with landing syndrome. At the same time age differences of psychological LQ component were not identified. The results obtained indicate that the development of the landing syndrome has a significant impact on the physical component of LQ primarily in women at senile age, but this syndrome has a more negative impact on the LQ psychological component of elderly women than women at senile age.

page 10-14

Pedagogy and Psychology

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National Youth Policy in Modern Russia: Trends and Controversy

Key words and phrases: targeted programs; integrated programs; youth policy; monitoring; social partnership.

Abstract: This paper was prepared on the project “Scientific and methodological support of target and integrated programs for children in the federal bodies of executive power and the subjects of the Russian Federation”.

page 15-20

T.V. Kazakova, O.B. Lobanova, E.V. Sokolova, T.V. Lugovskaya

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Features of Psychological Defense of Students of Humanities and Technical Universities

Key words and phrases: psychological defense mechanisms; psychological protection; overcoming behavior; strategy overcomes behavior; students.

Abstract: The article considers the manifestation of psychological defense of university students of different professional orientation. The features of the psychological protection mechanisms and coping behavior strategies in humanitarian and technical universities were empirically proved.

page 21-23

S.A. Makogonov, E.I. Fedak

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Theoretical Bases and Structural Elements for the Development of Corporate and Pedagogical Culture of Military School Staff

Key words and phrases: educational process; department staff; faculty; formation; culture; corporate and pedagogical culture; military educational institution.

page 24-29

Abstract: Through the in-depth analysis of the phenomenon of organizational culture the paper reviewed theoretical bases and structure of the process of developing corporate and pedagogical culture of military staff of higher educational institutions.

A.K. Sviridov

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Structural and Semantic Organization of Personal Consciousness

Key words and phrases: value; unit of analysis of consciousness; personal meaning; image; image of the world; psychosemantics; consciousness; semantic structures of consciousness.

page 30-33

Abstract: The paper analyzes psychological theories, disclosing the problem of the content of consciousness and its units. Values and meanings are considered as some of these units. The properties of these units are referred to the impossibility of observation, simplicity, integrity, amodality, the possibility of manifestation in different sensory environments. Substantiation of the criteria for the unit of analysis led to the conclusion that the meaning is this unit.

Professional Training

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Socio-Technical Competence of Agricultural Engineers

Key words and phrases: agricultural production; agro-engineering activities; technical competence; social competence; socio-technical competence.

page 34-37

Abstract: Based on substantive and procedural components of the socio-technical competence of experts the concept of socio-technical competence of agricultural engineers has been introduced; using identification principle the socio-technical competence structure, reflecting the specificity and particularity agro-engineering activities has been identified.

L.V. Dolgopolova

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Lecturers' Training for Interactive Teaching

Key words and phrases: interactive learning at University; research and didactic support of teachers; training methods; training; support functions.

page 38-40

Abstract: The article presents the most effective ways of training teachers to work in the interactive space formed in accordance with the requirements of the state educational standard of higher professional education. The features of the training course for teachers "Technology of creation and conducting training sessions" are described in brief. Directions and functions of research and didactic support to university lecturers are specified.

L.A. Karnaugh, Yu.P. Vetrov

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The Problem of Selection and Design of the Content and Methods Teaching at University

Key words and phrases: readiness for using professional competences; group training methods; knowledge; content selection; selection of teaching methods; content of professional training.

page 41-44

Abstract: The paper proposes a theoretical foundation to solve methodological problems of selection of the learning content, appropriate methods, tools and techniques in the framework of the competent approach to training at university. A classification of methods of training is proposed. Recommendations for selection of forms and methods of developing knowledge components of professional training are given.

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page 45-47

Didactic Bases of Culture-based Approach to Training Students

Key words and phrases: didactic conditions; knowledge components; culture-based approach; organizational forms of learning; designing educational environment; academic discipline; curriculum.

Abstract: The paper describes didactic bases of culture-based approach for professional training at university through design of educational environment in accordance with the basic didactic concepts of holistic educational process and its connection with content, procedure and organization components, regulating culture-based focus of university education.

Architecture and Construction

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Method to Estimate the Influence of Town-Planning Decisions on Road Traffic Characteristics Change

Key words and phrases: traffic management; transport demand; traffic matrix.

Abstract: Currently, due to the impact of town-planning decisions on the road traffic characteristics the need for their evaluation is required for timely planning and assessment of traffic management. general methodical questions for estimation research are considered in the article.

page 48-51

History, Philosophy and Sociology

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Samara State Medical University, Samara

Space-Time Diagnostics of the City

Key words and phrases: city; space; time; chronotope; chronotype; diagnostics.

Abstract: The article focuses on the approach to the diagnostics of the city as a socio-cultural phenomenon through identification and analysis of dominant meanings of space and time in the urban environment.

page 52-55

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Rituals and Habits: Subjective Grounds of Intellectuals' participation in Civil Self-Organization

Key words and phrases: intellectuals; grassroots self-organization; social movements; habits; interactive rituals; emotional energy.

Abstract: The article is devoted to the problem of intellectuals' participation in grassroots civil self-organization practices. The author gives the analysis of interaction situation as ritual interaction. The article represents the estimation of the intellectuals' influence on the formation of habits of civic movements' participants – complexes of frames, symbols, identities and behavioral attitudes.

page 56-59

V.R. Matveeva

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History of City Passenger Transport in Bashkiria of the Soviet Period in Modern Historiography

Key words and phrases: Bashkiria; city transport; historiography; passenger transport.

Abstract: This work represents a review on historiographic aspect of the history of city transport development in the cities of Bashkiria. Classification and analysis of the works on the history of transport system of Bashkiria are offered. The paper is of interest to a wide range of readers.

page 60-65

O.D. Fedorov

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US Public Diplomacy in Russia in the Late 20th Century

Key words and phrases: US public diplomacy; US-Russian relations; B. Clinton's administration.

Abstract: The article discusses the evolution of the US Public Diplomacy in Russia during the Clinton administration (1993–2001). It studies the major public diplomacy programs during that period. The author analyzes the transition to the concept of “smart power” in US public diplomacy.

page 66-68

Philology

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Lexical, Grammatical and Structural Transformations as Occurrence of Variation

Key words and phrases: variation; variant; invariant; dichotomy; level.

Abstract: The article is dedicated to the study of variation, which frequently occurs in the Azerbaijani and English languages. Variation is analyzed on all linguistic levels, especially in idiomatic aspect. A number of views on this problem are put forward by scholars. The article also outlines the notions variance and invariance; both of them are explained by specific examples presented in Azerbaijani and English. The examples have been taken from the works of the well-known Azerbaijani and English writers as well as dictionaries.

page 69-72

L.G. Kurbanova

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Intonation as a Means of Expressing Speech Intention

Key words and phrases: psycholinguistics; intonation; prosody; communication; sentence.

Abstract: The article deals with intonation as a means to express speech intention. Particular attention is paid to the link between intonation and meaning of the sentence, which is one of the most important factors of communication. In an article pragmatic function of intonation refers to the ability to implement its communicative intentions according to the sociolinguistic context.

page 73-76

Engineering

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High-Tech Production of Fixtures for Nuclear, Thermal Power, Oil and Gas Industries

Key words and phrases: fittings, nuclear energy; wedge gate valves; oil and gas; thermal power; gate valves.

Abstract: We examine the current state and some results of the development of high-tech production of slide and wedge stamped valves for nuclear power, thermal power, oil and gas industries using nanostructured protective coating.

page 77-80

Mathematical Methods and Models

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Construction of Solution Space for Linear Functional Differential Equations

Key words and phrases: space of solutions; boundary value problem; Green's operator.

Abstract: In the work a method for selecting an equivalent norm of the space of solutions for linear functional differential equations is proposed. Concerning this norm, the Green's operator of a model boundary value problem will have a minimum norm. The results can be applied to study some classes of the functional and differential equations.

page 81-84

D.B. Vladimirova, A.A. Buriev

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Elimination of Noise in Signals of Optical Gyroscopes and Accelerometers Using Wavelet Analysis Methods

Key words and phrases: Wavelet; Matlab.

Abstract: The authors studied wavelet transformation of signals of gyroscopes and accelerometers with different settings of trash holding using a mathematical package Matlab.

page 85-90

A.R. Davydov, M.A. Garbuzenko

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Analysis of Effectiveness of Control of Optical Fibers Extraction Options Based on its Simulation Model

Key words and phrases: simulation mode; optical fiber; analysis; effectiveness of control options.

Abstract: The paper investigates two algorithms of process control of optical fibers extraction based on a simulation model. Using a simulation model of optical fiber extraction control, two approaches to the control process were used.

page 91-94

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Scientific Centre of Russian Academy of Sciences, Nalchik

Construction of Operators of Differentiation and Integration k-valued Functions in the Study of Logical Systems

Key words and phrases: differentiation; integration; k-valued logic; logical system; completeness; addition modulo k; multiplication modulo k.

page 95-98

Abstract: The paper proposed a method for constructing operators of differentiation and integration of k-valued logic functions. The properties arising from the construction of these operators were examined. A theorem on the completeness of the integral representation of functions, enabling to produce all sorts of functions of the studied system of k-valued logic functions was proved.

I.P. Neporozhnev

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On the Classification of Full 6-Arcs in Finite Projective Planes

Key words and phrases: projective plane; point types and the types of direct full 6-arc in a finite projective plane; secant; improper elements.

page 99-102

Abstract: In this paper we consider all possible types of points and types of direct full 6-arc planes of order $0 \leq n \leq 14$. Lists all types of complete 6-arc in a finite projective plane of order $8 = n$ are given.

I.N. Politov, M.A. Sevodin

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On the Influence of Inter-Regional Trade on the Character of Production Costs

Key words and phrases: regional trade; costs function; price equalization.

Abstract: The paper studies the trade between regions of the same country. It is hypothesized that it is advisable to split the trading participants into groups on the basis of production factor pricing. Modeling of trade between the regions is held by the classical model of international trade theory, separately for countries from one group and for those from different groups. This approach is implemented through the study of properties of functions, costs in the production of goods. The example dividing regions into groups is given.

page 103-106

G.A. Pushkarev, E.Yu. Vorobyova

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On a Two-Point Boundary Value Problem for Functional Differential Equations

Key words and phrases: boundary-value problem; method of monotone operators; functional differential equation.

page 107-112

Abstract: In the work the criteria of existence of a solution of boundary value problem $\ddot{x}(t) = f(t, x_h(t))$, $x(a) = x(b) = 0$, where $h(t)$ – the deviation of the argument. Based on the method of monotone operators formulated the theorem, which takes into account the nature of the nonlinear function f and the conditions on h have been produced.

G.A. Pushkarev, E.Yu. Vorobyova

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On the Existence of Solutions of Boundary Value Problems for Nonlinear Functional Differential Equations

Key words and phrases: bounded linear operator; functional-differential equation; boundary value problem; method of monotone operators.

Abstract: An attribute of existence of the solution of a nonlinear boundary value problem $(\Delta x)(t) = f\left(t, \int_a^b x(s) d_s R_0(t, s)\right)$, $t \in [a, b]$, $x(a) = \alpha$, $x(b) = \beta$, $x(a) = \alpha$, $x(b) = \beta$ in assumptions: operator $\Delta: W^2 \rightarrow L$ defined by equality $(\Delta x)(t) = x''(t) + \int_a^b x(s) d_s R_1(t, s)$; functions $R_1: [a, b] \times [a, b] \rightarrow R^1$ and $R_0: [a, b] \times [a, b] \rightarrow R^1$ are measurable in the square $[a, b] \times [a, b]$; full of variations $\int_a^b R_1(t, s)$ and $\int_a^b R_0(t, s)$ being integrated in absolute value on $[a, b]$; $R_0(t, s)$ not decreasing s in almost all $t \in [a, b]$; function $f: [a, b] \times R^1 \rightarrow R^1$ satisfies the conditions of the Caratheodory spaces: $f(t, u)$ measurable in t at all u and is continuous u for almost all $t \in [a, b]$.

E.V. Shmatova

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Method of Representation of k-valued Functions in the Form of Pseudo-Polynomials

Key words and phrases: k-valued logic; construction of logic function; pseudo addition; pseudo multiplication.

Abstract: This article discusses the construction operations of the k-valued logic for the case when input and output data is known to the intellectual system, but elements of the functioning of the system are unknown. This is typical for a learning sample in the case of neural networks. As basic elements k-valued functions and pseudo-addition and pseudo-multiplication are assumed, the combination of which gives the possibility of obtaining the output data at each given set of input data.

page 118-120

Electronics, Measuring Equipment, Radiotechnics and Communication

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Transition from Existing Networks to ALL-IP Platform

Key words and phrases: next generation networks; transition from traditional platforms to IP platforms; broadband access; ATM technology.

page 121-127

Abstract: The paper describes the existing traditional platforms (DIV/PSTN, ATM, SDH) and analyzes the possible transitions to an All-IP platform

Management, Computer Engineering and Information Science

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The Study of Algorithms and Programming Based on the Interaction of KuMir Language and LEGO MINDSTORMS Robot

page 128-130

Key words and phrases: algorithmization and programming; robotics; KuMir language.

Abstract: The article focuses on the organization of the educational process on the basics of

algorithms and programming based on the interaction of KuMir language and LEGO MINDSTORMS robot.

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Augmented Reality as a Tool of Teaching Computer Science in School

Key words and phrases: Augmented Reality; teaching tool; computer science.

Abstract: The article focuses on teaching computer science technology using Augmented Reality technology.

page 131-134

Quality Control

T.T. Taygibova

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Systematic Approach to Quality Management of Medical Services

Key words and phrases: quality of management; technique; development; strategy; management; services; efficiency.

Abstract: This article discusses the basic problems of quality management of medical services using methodical approach. The specific techniques that create and improve the quality of management were analyzed. The basic problem of taking and implementing management decisions to improve the quality of medical services was explored. Recommendations and management practices to improve the quality of medical services were given.

page 135-137

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Genesis of the Concept “Quality” in Domestic Science

Key words and phrases: quality; standardization of products; elements of interoperability; standardization of production processes; consumer quality; Russian school of quality.

Abstract: The paper explored the genesis of historical concept of “quality” in domestic science. The main historical stages of the formation of quality as a separate scientific discipline were studied. The authors focused on the following historical periods: ancient times, Peter the Great times, XVIII and XIX centuries, the Soviet era, modern times. The work is the result of studies of the historical process of the concept of quality and its methods. The historical research into quality was conducted by the authors in 2013, based on historical documents and manuals. The paper described the historical development of economic science of quality in domestic science, highlighted all the historical stages in the formation of quality control. This material is used in the teaching disciplines “Design practicum”, “Standardization of software products”. The study of the historical process of quality allowed the authors to identify the relationship of product quality and economic benefits.

page 138-144

Economic Sciences

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Innovative System of Holding Company

Key words and phrases: innovative holding company; information communication; knowledge flows; network integration.

Abstract: The author introduced the concept of «innovation system of industrial holding» allowed to specify the content of innovation development of holding companies. The paper shows the mechanism of innovation management system of industrial holding company. A network model of information communications of innovation system of industrial holding company is described.

page 145-149

R.V. Fedorenko

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Problems of Modern Outsourcing and their Solutions

page 150-153

Key words and phrases: outsourcing; core competences; competitiveness; controllable outsourcing.

Abstract: The article describes the various reasons for the use of outsourcing. The paper contains the basic results of outsourcing implementation. Possible problems arising in the process of outsourcing are analyzed. The conclusions about the appropriateness of controllable outsourcing have been made.

Legal Science

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On the Invalidation of Wills with Lack of Legal Capacity in Russian and Belarusian Civil Law

Key words and phrases: inheritance; will, testamentary capacity; invalidity of will.

Abstract: The article examines the legal nature of testamentary capacity of citizens of the Russian Federation and the Republic of Belarus. On the basis of the civil law positions, doctrinal ideas, notary and judicial practice the author formulates a number of proposals on improvement of legal regulation of inheritance by will for the prevention of invalidity of wills with lack of legal capacity.

page 154-158

Materials for discussion

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The Concept of “Image” and the Psychological Aspects

Keywords and phrases: image; concept image; psychological aspect of the image; psychological effects of image; image making.

Abstract: The concept of the image and the psychological aspect of the image. Explains the basic elements of the image of the company and their psychological effects of image. The article can be useful for specialists working in the field of management, future managers in PR and all who wish to be successful in different industries.

page 159-161