BUILDING AND ARCHITECTURE

Bogdanova L.O.

PRINCIPLES AND METHODS OF ORGANIZATION OF URBAN ENVIRONMENT BY MEANS OF ARCHITECTURAL PLASTIC ARTS

Identified current trends in the use of historical and cultural heritage in the organization of the regional tourism recreation.

***Keywords**: objects of historical and cultural heritage, historic landscapes tourism development.*

Donchenko O. M, Pashchenko Z. N.

FEATURES ТРЕЩИНООБРАЗОВАНИЯ AND EXHAUSTION RESISTANCE OF THE LAYING FROM ARTIFICIAL STONES AT THE CENTRAL COMPRESSION

The differential approach is necessary for the description of the VAT of a laying in stages 3 and 4 to separate in common working branches-columns, but various, both on mechanical properties, and on working conditions for materials - to a stone and a solution which kind of work in a laying is absolutely inadequate. Separate, but still in common working branches-columns, it is possible to model resistance work of compound cores, accepting a friction and gearing of separate stones for elastic-plastic communications of shift, and a grid in the reinforced laying - for cross-section elastic plastic communications of a stretching that will allow to consider its valid resistance to a longitudinal bend.

***Keywords:** resistance, a longitudinal bend, a stone, a solution, branches-columns, a laying, shift.*

Pozdnyakova N. P.

PRINCIPLES AND METHODS OF ORGANIZATION OF URBAN ENVIRONMENT BY MEANS OF ARCHITECTURAL PLASTIC ARTS

The methods of use of architectural plastic arts in the historical formation of the urban environment are considered in the article.

***Keywords**: architectural plastic arts, urban environment, architectural image, architectural motif, level organization environment, composition.*

Sheichenko M.S., Karatsupa S.V., Yakovlev E.A., Shapovalov N.N., Bogusevich V.A., Shadskiy E.E.

CONCENTRATION AS A MEANS OF INCREASING EFFICIENCY MAN-MADE MATERIALS AS A COMPONENT OF COMPOSITE BINDERS

At present, there was a problem the deficit of natural raw materials for the production of building materials , due to fast growing pace of construction. In this regard, the urgent task of the construction industry - the reorientation of enterprises in the consumption of man-made materials . Most large-capacity products passing feedstock is the mining industry and in particular the wet magnetic separation of waste generated by ore dressing . In order to improve efficiency in the use of natural raw materials Kovdor deposit , as well as expanding the resource base of building materials have been studied composition and properties of the waste wet magnetic separation, and a comparison of the main indicators with other sands of man-made origin , which are currently used in the manufacture of building materials.

***Keywords**: composite binders , technogenic raw materials, waste of wet magnetic separation.*

Petrovskay T.E.

THE CHOICE OF PARAMETER OPTIMIZATION AND PERFORMANCE EVALUATION SYSTEM AT THE PRE-INVESTMENT PHASE OF THE PROJECT LIFE CYCLE

Discusses the basic concepts of the theory of planning of experiment in their application to a system which is project-oriented company. Pre-investment phase should be completed by a methodology that includes a sequence of four interrelated methods. This will give the opportunity to form a portfolio of projects and timely identify areas for immediate changes projects. The results of the assessment of the performance of project-based businesses are in the form of a rose risks.

***Keywords:** pre-investment phase, health, project, parameter optimization.*

Dudka E. N.

ROLE IN THE DEVELOPMENT OF CREATIVE COMPETITION ARCHITECTURAL THEORY AND PRACTICE

In the paper the methods of organization creative competitions, evaluating the results of their conduct are analyzed. Their place and role in the development of architectural theory and practice are revealed. The historical and cultural, social and ideological conditioning are identified.

***Keywords**: architectural contest, conceptuality, realist, generation of ideas, expert evaluation, contest program, form development.*

Bondarenko Ju. M.

COMPOSITE MATERIAL BASED AN ALUMINUM MATRIX AND HIGH DISPERSION OF HEAVY METAL OXIDES - EFFECTIVE MATERIAL FOR FORMATION RADIATION PROTECTION BARRIERS OF ENGINEERING

Examined prospect of using modern radiation-protective composite materials for the formation of protective engineering barriers. The possibility of obtaining a new kind of constructional radiation shielding composite aluminum-based metal and filler in the form of fine heavy metal oxides.The combination of high performance and radiation-protective properties of such a material can be used in a supporting structure, operating at temperatures up to 550 ° C and a load external to 775 MPa. and also providing biological protection against γ-radiation in a wide range of 0,06-1,2 MeV energy absorbed dose to 10 MGy.

***Keywords:** composite material, radiation-protective material, engineering barrier, aluminum-matrix, filler.*

Kolesnikova L. I.

SAINT-TRINITY FRIARY: DISCOVERIES AND FINDINGS

The article considers the role of Saint-Trinity friary in social, cultural and material environment, in Belgorod. Using historical documents, photographs and visual examination of the remaining buildings analysis of the Cathedral Church of Saint-Trinity friary, development of its architectural and space composition in time and characteristic stylistic features; defined the place of the existing monastery in the modern urban space; considered significant architectural and technical achievement of XIX – beg. XX centuries - Ammosovskaya heating system of Cathedral.

***Keywords:** monastery, Saint-Trinity friary, «pneumatic» Ammosovskaya heating system, Cathedral, small cave of Saint Josephs of Belgorod, tomb of Bishop Nicodemus.*

Korovjanskiy D. A.

RISK-BASED APPROACH TO THE DETERMINATION OF CONSTRUCTION

This article analyzes the methodological approaches for the development of the project for construction. Identify areas of risk and actions to the construction site, which may affect the general contractor of the construction site. Proposed identification of risks to the contractor in different directions. Using the software package Microsoft Project algorithm determining the period of construction. Offered additional options for determining the period of the facility to refine and adjust the length of follow-construction of the object.

***Keywords:** construction, project, schedule, methodology, risk model, the criterion, value, period of construction, financing.*

Ali Al Karadi

ASSESSMENT METHODOLOGY DEFORMABILITY ROD CONCRETE FLEXURAL MEMBERS WITH THE INFLUENCE OF THE SHEAR FORCE.

There is now sufficient detail developed the so-called "elastic" methods of structural analysis, the use of the methods of structural mechanics of elastic systems in relation to the concrete structures is possible at relatively low levels of loading, when not yet cracked concrete cracks, and cracked concrete and tensioned reinforcement - do not show the inelastic deformation. At higher loading levels, the use of such methods generally lead to an underestimation of the bearing capacity and deformability of concrete structures. For any method of calculation, the importance of a physical model of the adopted section. Here is the view the way of physical nonlinearity of deformation of concrete and reinforcement.

***Keywords:** reinforced concrete, shear force, engineering methods, calculations, deformability, the elements.*

Paliukh B. V., Petropavlovskaya V. B.

APPLICATION OF METHODS OF ARTIFICIAL INTELLIGENCE FOR MANAGEMENT OF SYNTHESIS OF BUILDING COMPOSITES OF NEW GENERATION

Knowledge of geological processes is characterized by big extent of formalization and coherence in time. So for the solution of tasks of geonic possibly creation of intellectual systems. They are based on methods of control over knowledge. Management of knowledge is understood as set of processes which operate creation, distribution, processing and use of knowledge in complex object "the person – a material – habitat". Purpose of creation of a control system of knowledge – effective operation of the general resource of knowledge. The central link of information support of control systems of knowledge in area of geonic are the knowledge base (KB). The ontology of knowledge which defines has to be developed for each BZ and integrates all sources of knowledge. In this work use of information systems and program and technical products at creation and management of synthesis of a composite of new generation on the basis of monomineral raw materials is shown.

Keywords: *geonic, control of knowledge, ontology of knowledge, aggregates, control of synthesis.*

Danylov S. M.

THE ONTOLOGICAL BASIS OF VIRTUAL REALITY IN ARCHITECTURE

Developed methods of creating the preconditions for the application of virtual reality tools in architectural pedagogy and methods of use of means of virtual reality in the rehabilitation, psychology and psychotherapy, the development environment for the children Play therapy.

Keywords*: virtual, architecture, harmony.*

THE MECHANICAL EQUIPMENT AND MECHANICAL ENGINEERING

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Romanovich A. A.

CALCULATION ADVANCED POWER CONSUMPTION MILLS FITTED WITH LEU

The paper deals with the intensification of the process of grinding material in a ball mill equipped with LEU. Analytical dependences calculate additional power consumption.

Keywords*: grinding line, ball mill, energy-exchange blade device.*

Voronov V. P., Semikopenko I. A., Vyalykh S.V., Zhukov A.A.

THE MATHEMATICAL DESCRIPTION OF FORMATION OF THE STOPPER IN THE TYPE DESINTEGRATOR-TYPE

In this article mathematical justification of emergence of a stopper in the field of rectilinear oncoming traffic of disperse streams in units of dezintegratorny type is given.

Keywords: *stopper, disintegrator, particle, stream, fluctuations.*

Bogdanov V.S., Khakhalev P.A.

DESIGN TECHNIQUE FOR ENERGY-CHANGING LININGS IN BALL DRUM MILLS

The great attention is paid to analyzing of functioning of a ball mill for cement grinding. There are different software types currently, allowing computer modeling of machine functioning. An engineer selects the rational geometric parameters of the product, determines the speed characteristics, etc. by analyzing the results of experiments.

This article describes analyzing of the ball mill functioning in dependence on different types of lining in EDEM Simulation software. The calculation results are analyzed in a graphic form, and a visual evaluation of the work load of the mill is also made.

Keywords*: designing, mill, cement, EDEM, simulation, energy, lining.*

ECONOMICS AND PLANT MANAGEMENT

Pogoreliy M.

REGRESSION ANALYSIS - RESEARCH METHOD OF GROWTH STRATEGY OF AGRICULTURAL ENTERPRISE BELGOROD

The author substantiates the need for regression analysis in the process of implementation of the growth strategy of agricultural enterprises of the Belgorod region. The author uses regression analysis as a method of scientific research. There is the conclusion concerning a certain linear dependence between the price of the futures contract SWOT - wheat and the level of unemployment in the United States during the study period, which allows you to correct the activity of Belgorod exporter.

Keywords: *agricultural enterprise, strategy of agricultural enterprises, regression, CBOT wheat, the price fluctuation, factors, unemployment, statistical table, a linear equation of simple regression, correlation coefficient.*

Lapayev D.N., Sosnina E.N. Mityakov E.S. Nikonov A.N.

DIAGNOSTICS OF ENERGY SECURITY OF RUSSIAN REGIONS (ON THE EXAMPLE OF VOLGA FEDERAL DISTRICT)

The technique of diagnostics of energy security of regions of Russia is stated. The technique can be used for an assessment of threats to safe functioning and a sustainable development of fuel and energy complex of regions. Six indicators which reflect natural resources available in the region, objects of production and distribution of fuel and energy resources, and also balance of consumption and energy production are used.

Keywords: *energy security, fuel and energy complex, procedure.*

Sergeeva S. A., Ladygin V. V.

CRITERIA OF ASSESSMENT OF THE SYSTEM EFFECTIVENESS OF MANAGEMENT FIXED ASSETS INDUSTRIAL ENTERPRISE

In connection with acceleration of process of replacement of living labor machines under influence of scientific and technical progress, as well as in connection with the large proportion in the total assets of the enterprise fixed assets with a high degree of deterioration, the theme of evaluation of the effectiveness of asset management is of particular relevance. This article defines the criteria that should assess the effectiveness of the control system of fixed assets of industrial enterprises. Concluded, that effectiveness of the system depends on the specific management decisions, which, in turn, are based on results of the complex analysis of fixed assets in the directions corresponding to the stages of their life cycle.

Key words: *fixed assets, efficiency, control system, industrial enterprise, complex analysis*

Somina I. V.

USE OF THE METHOD OF THE DYNAMIC NORMATIVE AT THE ASSESSMENT OF INNOVATIVE PROCESSES IN ECONOMY

Based on methodology of process approach, in article possibility of application of a method of the dynamic standard in relation to key stages of innovative process is proved. Methodical provisions according to processes of research activity, developmental works and commercialization of innovations are developed for economic systems macro - and mesolevel.

Keywords: *innovation, process, innovative process, process "entrance", process "exit", resource ensuring process, indicator, normative row, method of the dynamic normative.*

Lobanova V .A., Trofimova N. V.

STRUCTURE FACTOR AND ITS IMPACT ON THE DYNAMICS OF MACROECONOMIC INDICATORS

The article analyzes and quantifies the impact of various structural factors on the dynamics of the gross value added. The proposed technique allows you to get a comprehensive quantitative assessment of the influence of changes in multi-level species proportions on the GRP dynamics. In addition, the method makes it possible to obtain an estimate of the GRP dynamics free of the impact of structure-concerned factors.

Keywords: *Structure of gross value added, index method, aggregate index.*

Malykhina I.O.

PERFORMANCE EVALUATION OF INNOVATIVE INFRASTRUCTURE HIGH SCHOOL

At present the problem of forming an effective innovation infrastructure in the scientific literature provides a great value. Summing up the views of many foreign and domestic scientists can conclude that a necessary condition for effective innovation development of the university is the availability of appropriate innovation infrastructure.

The value of the innovation infrastructure of higher education in the educational process in the current conditions of the economy is growing. It is important to note that the components of the innovation economy - new scientific knowledge, technology and highly skilled professionals have become objects of attention of state structures that define the economic development of the country. The emphasis on competitiveness and innovation efficiency the most important part of modern politics.

Keywords: *innovation infrastructure, innovation economy, effectiveness, innovation potential, innovation activity, innovation process.*

Doroshenko Y. A., Manin A. V.

TECHNOLOGIES AND CURRENT MODELS OF INVESTMENT DEVELOPMENT OF RUSSIA'S REGIONS AND CITIES

In recent decades, because of globalization, development of social, information technologies and some other reasons cities and regions of the world have received the brand new possibilities of economic and cultural development. Barcelona and Sydney, Vancouver and Helsinki, separate parts of Zurich and Strasburg, alone with spread row of provincial and little-known towns and regions, took advantages of new opportunities and obtained a high-capacity inflow of investments and tourists, increase of business and local communities' activity, new political weigh and cultural significance. As a result, at these territories, the quality of life increased, as much as integration degree of political, business, and cultural structures into national and international area, including investment.

In Russia new possibilities were being explored by each territory according to its opportunities, within the programs of Russia's regions innovational development. Nowadays, because of accumulated international and domestic experience, we can easily say, that the time has come to expand the limits by embracement of technological innovational activity by investment and social-cultural approaches to development and branding of territories.

Keywords*: innovation development, investment potential, investment-innovational activity, region, development technologies, development models.*

Usmanov D. I.

FORMS ANDMETHODSOF INSTITUTIONALCONTROLREGIONAL FOOD MARKETS

The article presents a detailed analysis of key forms and methods of institutional regulation of regional food markets. The authorfocuseson governmentand businessinstitutionsengaged inthe regulationof formaland informalcontraction.The heldclassification of basic and corrective methods to control the food market. On the basis of comparative analysis identified the main problem areas of the functional areas of government regulation of the food market. As a result of proposed measures to modernize existing forms and regulation of the food sector. Offered a clear pattern direction of government regulation, concretized scheme of institutional forms and methods of regulation of the food market and the conceptual model of the information and analytical methods of the state support of business entities food market.

Keywords: *institutional control, forms, methods, grouping of institutional factors, the scheme of institutional formsand methods, institutional change, food markets, information and analytical support,etc.*

CHEMICAL TECHNOLOGY ECOLOGY

Grin G. I., Lavrenko A. A., Panasenko V. V., Dejneka D. N., Dovbij T. A., Bondarenko L. N., Reznichenko A. M.

RESEARCH PROCESS NICKEL PLATING SYNTHETIC DIAMONDS

Based on the experimental studies show the usefulness of the nickel plating process artificial diamond in an alkaline medium using sodium hypophosphite. For continuous nickel coating at 100 % of its retention on the surface reached the optimum value hypophosphite ion, nickel ion. When using acidic and alkaline solutions nickel determined the optimal initial temperature of the process. The best performance in the study of the influence of nickel on the nickel plating process and the quality of coverage achieved by the addition of acetate ion.

***Keywords**: diamond nickel hypophosphite, sodium hypophosphite ion, nickel ion, coating retention nickel.*

Bessmertniy V.S., Lesovik V. S., Bondarenko N. I. Krotova O. V., Gashchenko E.O.

ENERGY SAVING TECHNOLOGY OF RECEIVING STEKLOMETALLICHESKIKH OF COMPOSITE MICROBALLS METHOD OF THE PLASMA DUSTING

In article features of receiving balls from glass the technical appointment, received by a method of plasma dispersion are considered. The main operational indicators balls from glass technical appointment are investigated.

***Keywords:** balls from glass technical appointment, chemical properties, plasma dispersion.*

Kuzenko Y. N., Lebedenko Y. P., Mihailova E. N., Panasenko V. A.

CLEAN SOLID SODIUM CHLORIDE IN LOW-WASTE TECHNOLOGIES SODA

The advantages of the cyclic mode of production of soda ash in front of a classic way Solvay can not be achieved without effective solution to cleaning impurities from the solid sodium chloride, without resorting to its dissolution. The paper presents the solution of this problem on the example of halite waste potassium chloride halurgical way.

***Keywords:** solid sodium chloride, technology, removal of impurities, the production of soda.*

Ryschenko I. M., Belogur I. S., Savenkov A. S., Vetsner Y. I.

TECHNOLOGY NPSA - FERTILIZERS FROM THE DEPLETED PHOSPHORITES

In the article problems are briefly expounded the use of the impoverished phosphates raw material in the production of mineral fertilizers. The conducted experiments show possibility of receipt from phosphates raw material of Novo-Amvrosievskogo of mine of complex fertilizers with positive technological indexes. Substantive provisions are expounded on optimization of technological process.

***Keywords:** Depleted phosphorite, nitric acid, extraction kinetics, ammoniation, technology, fertilizers, waste, sludge.*

Semerikov I. S., Gavriluk M. N.

INTERACTION OF HORNBLENDE, GRANIT AND FELSIT AS FUSIBLE ROCKS OF AVERAGE URAL MOUNTAINS WITH A LIME ION OF SOLID PHASE

The mineralogical and molecular structure of rocks is calculated. Autoclaved processing of rock with lime gives high durability 10,05–15,09 MPa. Structures of rocks with a lime have shown the big durability than similar structures with sand. At interaction of rocks with a lime following connections are found out $C_2SH(A)$ and C_3AH_6. Be proved that hornblende, granit and felsit can are used as active mineral additive by manufacture of dry building mixes.

***Keywords**: hornblendite, granodiorite, felsite, lime, active mineral supplement.*

ECOLOGY

Kalitina E. G., Chelnokov G. A., Bragin I. V., Charitonova N. A.
MICROBIOLOGICAL COMPOSITION OF THERMAL WATERS PRIMORYE
For the first time studied the microbiological composition of the thermal waters of Primorye. Studies have shown that micro-organisms are widespread in the thermal waters of Primorye and play a key role in the geochemical cycles of elements. The underground water organisms were predominant development cycle of nitrogen and carbon (denitrifiers, oligotrophic) in surface waters dominated by bacteria cycles of carbon and nitrogen (saprophytes, oligotrophic, heterotrophic nitrifying). As part of the thermal waters ecological community attended both aerobic and anaerobic forms of saprophytes, the content of the forms of anaerobic bacteria was several times higher, which is likely due to the low oxygen content in the thermal waters of Primorye. In contrast, in the surface waters (b. Chistovodnoye) compared with the underground (thermal water) form predominant aerobic saprophytes. The isolated microorganism cultures are of practical interest as active remediatory environment.
***Keywords**: microorganisms, functional groups, thermal waters, saprophytes, oligotrophs, carbon cycle, remediatory.*

Sapronova J. A., Gomes M. J.
AVALIATION OF PROPERTIES OF CLAY OF ANGOLAN TERRITORY IN CATETE REGION
In this work we are going to analyse the reagent`s properties of clay from Catete(Angolan region). The result of the investigation depended of the pH of the residual water, clay`s quantity and the stirring period. In conclusion the result present high effectiveness's level of the clay`s using for water purification
***Keywords:** waste water purification, natural clay, reagent properties.*

INFORMATION TECHNOLOGY

Pint E. M., Romanenko I. I., Elichev K. A.
RESULTS OF INVESTIGATION OF READING STRUCTURE
System of perception of printed information for function of reading structure is created. The rational method of recognition by the computer of printed characters of different fonts and, as consequence, the program for the computer, realizing this method is developed. Results investigation of reading structure is gived.
***Keywords**: program, directions, matrix, printed character, contour.*

Soloviev A. S.
EFFECT OF THE CONFIGURATION FOR FRAGMENTS SNOW OF AVALANCHES
VORONEZH INSTITUTE OF STATE FIRE SERVICE OF EMERCOM OF RUSSIA
The imitating computer model of a descent of an avalanche is offered at the different sizes of fragments of snow. It is shown that with increase in the size of snow fragments striking action of an avalanche decreases. Character of a descent of snow weight and time of the greatest blow of an avalanche practically does not depend on the size of fragments.
***Keywords**: snow, avalanche, kinetic energy, snow weight.*

Vlasov A. P., Bobkov S. P.
ON THE PROBLEM OF OPTIMIZATION METHODS IN THE AIS CHEMICAL COMPANY
In our country and abroad since the mid-60s of the twentieth century began to form typical design solutions, which later received the generic name of MRP / ERP-system. With the growth of computing power and the search for new and more effective methods of management in a competitive environment since the mid 90s based systems MRPII / ERP systems appear class APS (Advanced Planning/Scheduling), which declared the use of economic-mathematical methods for solving problems of planning.
However, on the market a system not using optimization techniques. In this paper we determine the reasons for this discrepancy, as well as provide specific suggestions.

***Keywords**: MRP / ERP-system, linear programming, language UML, language x + +, Microsoft Dynamics AX 2009, the marketer.*

Alexeev S. G., Pishchalnikov A. V., Barbin N. M., Kalach A.V., Kalach E.V., Plaksitsky A.B.
THE COMPARATIVE ANALYSIS OF METHODS OF DEFINITION OF SPECIFICSAFE VOLUMES OF COMPARTMENTSWITHFLAMMABLE LIQUIDS

Specific safety volumes of compartments for objects with flammable liquids are calculated for the territory of Voronezh and the Voronezh region. Comparative analysis of Russian and American approaches of the forecast of specific safety volumes of premises is made.
***Keywords:** compartment, over pressure, flammable liquid, safety, calculation*

Kadirov A. A., Kadirova A. A.
STRUCTURIZATION AND GRAPH MODELLING OF LOGICAL-DYNAMIC CONTROL SYSTEMS

Hybrid character of mathematical models of the logical-dynamic systems (LDS) causes occurrence of the difficulties in solving the problems of the description and research of these systems. The structural method of modeling is based on natural decomposing of LDS into a number of structural conditions: change of one subsystem another happens when performing certain logical conditions (predicates) concerning system coordinates. Application of the topological method for modeling the interaction of structural elements allows write down models of all elements in one universal form of writing.
***Keywords:** topological method of modeling, logical-dynamic system, finite state machine, structural condition, logical-dynamic graph.*

Shlyundt S. A., Pilyugina N. N.,
FEATURES OF CONSTRUCTION OF ALGORITHM OF GRAPHIC RESTORATION OF SPATIAL DISTRIBUTION OF OBJECTS OF PROTECTION IN RESERVED TERRITORIES BY RESULTS OF MONITORING

In article the role of geoinformation systems in optimization of work of especially protected natural territories is shown. If the information on objects is absent, the offered algorithm graphically to restore their site allows.
***Keywords:** algorithm, the geoinformation systems (GIS), especially protected natural territories, utility, program.*

TRANSPORT AND POWER

Venzel E. S., Glushkova D. B., Shukin A. V.
RESEARCH OF WEAR OF KNIFES OF WORKING BODY OF EARTH-MOVING VEHICLES WITH THE PLASMA ION THE COVERING

The assessment of a resource of knifes of working body of the earth-moving vehicles. It is offered to increase wear resistance of knifes of working body to apply an ion-plasma covering. Laboratory installation is developed for an assessment of influence of various factors on process of wear of knifes of working body. By results of the carried-out tests schedules of linear dependence of wear of a knife with an ion-plasma covering are received. Expected characteristics of wear of knifes of working body of earth-moving vehicles in the conditions of real operation are given.
***Keywords:** earth-moving machinery, cutting element, the working body, wear, ion-plasma coating, resource exploitation.*

Schevchenko A. N., Grekov E. L., Filimonov S. I.
DREDGE'S FILTER-COMPENSATING DEVICE OPERATING METHOD RESEARCH

Carrying out research of filter-compensating device operating using summary current and summary reactive power of all electric drives, sustaining minimal midcycle current and maximal midcycle cosφ. The imitational energy model was developed. Filter-compensating device setpoint switching levels choosing methodics proposed.
***Keywords**: dredge's electric drive, filter-compensating device, thiristor converter - drive*

Stotskiy V. V., Nesterov A. M.
TESTING OF OUTDOOR LIGHTINGFACILITIES
Testing energy efficient outdoor lighting technology has been carried out in connection with numerous offers of the above equipment suppliers for use in the networks of outdoor lighting (OL) on the balance sheet of the branch of JSC "IDGC of Center" - "Belgorodenergo", new, energy-efficient technologies (in particular, LED and induction). These technologies (on the application vendors) can reduce branch costs for transport and electricity consumption for the economic needs of the branch.
***Keywords**: energy saving, LED lighting, induction lighting fixtures, lamps with high pressure sodium lamps HPS.*

PROBLEMS OF HIGHER EDUCATION

Sadomova N. I.
STUDENT'S VISUAL THINKING DEVELOPMENT BY MEANS OF SKETCHING AT INITIAL PERIOD OF STUDYING THE FINE ARTS
In the article it is considered the problem of student's visual thinking development by means of sketching at initial period of studying the fine arts on the basis of whole representation.
Along the same lines much attention is paid to development of whole perception, intensification of inside-subject and inter-subject connections; establishment of close linking between theoretical knowledge and practical skills; realization of individual approach to student's visual thinking development according to their level of development.
***Keywords:** visual thinking, sketching, representation, whole perception, visual memory, inside-subject connections, inter-subject connections.*

Samosenkova T.V., Tolmacheva E.V.
WEB QUEST TECHNOLOGY AS A MEANS OF ACTIVIZATION FOREIGN ECONOMISTS-MANAGERS STUDENTS` COGNITIVE ACTIVITY
In this article the questions connected with training technologies, directed on activization foreign economists-managers students` cognitive activity are considered. It is given an example of realization of web quest technology in the course of foreign students training.
***Keywords**: Activization of informative activity, web quest technology*

Mkrtychev O. V.
ABOUT SOME PROBLEMS AND OPPORTUNITIES OF MODERNIZATION IN TEACHING THE DISCIPLINE « THE THEORY OF MECHANISMS AND MACHINES »
Development of the theory of mechanisms and machines for last years with a new level of development of computer technologies enables to improve some traditional aspects of teaching TMM in the higher school. In given article the author considers and compares among themselves approaches of various authors-experts on TMM to tasks of structural synthesis on an example of groups of Assur and the problems connected with classification of flat lever mechanisms with rotary pairs across Assur-Артоболевскому.
***Keywords**: the theory of mechanisms and machines, structural synthesis of mechanisms, groups of Assur*

Koreneva E. N., Chernyavskaya N. E., Kireeva N. V.
THE HIGHER SCHOOL TASKS IN THE FORMATION OF SPECIALIST'S MORAL QUALITIES
The article deals with an important problem of formation of students' moral qualities. The necessity of the moral content of the educational space in the higher school and the leading role of the modern tutor in the development of the future specialist's moral personality are under consideration. The authors offer their view in the formation of the moral foundations of the individual in the eternal educational space of the higher school, which is based on the obligatory participation of all the individuals of education in this process.
***Keywords**: spiritual and moral education, individuals of education, educational space, value, moral orientation.*

Igantova I. B., Andreeva S. M., Malysheva N. A.

PSYCHOLINGUISTIC BASICS TRAINING FOREIGN LANGUAGE SPEECH ACTIVITY OF FOREIGN STUDENTS-PHILOLOGISTS

The article deals with the speech activity as complex and important cognitive process of foreign language information, including sending and receiving of data, methods of verbalization of the emerging concept in the acts of speech production, as well as to extract meaning from the incoming speech process.

Keywords: *speech activity, cognitive processes, mentality.*

SCIENCES AND HUMANITIES

Pronkin V. I.

A NEW LOOK AT HISTORY OF BELGOROD AND BELGOROD REGIJN IN THE ASPECT OF V.V. RYABIKOVS THEORY

The author investigates the history of the city of Belgorod and Belgorod region, using a methodology which was proposed by the historian V.V. Ryabikova. According to the ancient custom of the Slavs to give names to the peoples and the geographical features (rivers, cities, etc.) from their labor activities, he discovered that they had a natural and industrial zones - Ords. 7520 years ago (from Co-Creation of the World) all Hordes joined to the to the Federation of the Slavs - Great sparingly. On the basis of it, we offer a new reading of the history of the city of Belgorod and Belgorod region, of the names of its rivers, cities, peoples who inhabited this places in antiquity.

Keywords: *history, the Slavs, the Great sparingly, Horde, calendar, sklotes, drawing dies, the ox, the Thief, sklaviny, brands, Sarskly, Vorskla, T-Rock.*

Kadrik K. A., Mkrtychev O. V.

TO KINEMATICS AND DYNAMICS OF POWER INTERACTION WITH SYSTEM OF PLANE-PARALLEL OR CONCENTRIC MEDIUMS

In article some sides of power interaction with system of plane-parallel and concentric mediums (on an example of light radiation within the limits of geometrical optics) are examined. The received mathematical model is described by recurrent equations of type of Paskal's triangle and gives simple and evident algorithm of definition of time fluctuations of energy at such interaction, introduced by geometry of connected elements.

Keywords: *plane-parallel mediums, concentric mediums, the recurrent equations*

Aleshkevich S. S.

ONOMASIOLOGICAL ASPECT IN THE PROCESS OF PHRASEOLOGISATION

Contemporary phraseology determines metaphor as the basic mental activity, as a means of cognition, structuring and explanation of the outer world. People not only express their thoughts by metaphors but conceive by means of metaphors. The present article exemines the problem of nomination in the process of new phraseological units formation in its onomaseological and cognitive aspects.

Keywords*: onomasiology, cognitivistics, invariant, contexst, recipient, empirical, conceptualiation, experience, definition, metaphorisation, concept, polysemantics, nomination.*

Poddubnaja L. V.

CREATING HYPERTEXT REALITY MODERN INFORMATION TOOLS

We investigate hypertext reality created by modern information tools and based on the transformation of languages, codes, logical connections.

Keywords: world view, virtual images, language, symbolic reality, social communication, text, hypertext

Shipitsina G. M.

ABOUT FRAZEOLOGIZATSII COPYRIGHT COMMENTS

The article deals with proper linguistic and non-linguistic mechanisms of transformation-lication statements in set phrases, similar phraseology. Named the communicative function of the use of such statements in modern speech.

Keywords*: author sayings phraseological combinations, proverbs and sayings, value and meaning, pragmatics, the mentality of Russians.*

Pronkin A. V.

PHENOMENON OF BRODNIKS AND BURTASES IN THE HISTORICAL CONTEXT OF MATTRIAL AND IN THE LIGHT OF V.V. RYABIKOVS THEORY

The author considers the phenomena of Brodnikov and Burtases as professional communities, but not the people, as it is believed by science of history. The research is carrying on in aspect of methodology that was proposed by the historian VV Ryabikov. On the base of it is the custom of the Slavs to give the names to people, rivers, cities according to their types of activity. VV Ryabikov noted production-economic zones of the Slavs - the Hordes, which were united in the Union of Slavs - Great sparingly - 7520 years ago. There Brodniks piloted ships along rivers by drawing them, but Burtases conveyed them on the brods throughout the Great sparingly.

Keywords: *Brodnik, Burtases, Slavs, chronology, the Horde, the Great sparingly, in-lok, an ox, a trade road, the river, the Turks and Bulgarians.*