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**ABSTRACTS**

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**TECHNICAL SCIENCES**

**Altukhov A. V. The method of using interactive elements of in the control panel // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The widespread use content management system with standard template does not allow you to create attractive sites. The use of various modern technologies such as AJAX, JQuery, partially solve the problem of attractive interface. The analysis of the approaches to the integration of Flash-elements to the database and the programming language PHP. The method of replacing the standard interface CMS Joomla! Flash-elements. The possibilities of integrating Flash-animation and programming language PHP. Code fragment to the implementation of information output from PHP into Flash-element and the code in ActionScript.

**Burlaka V. V. Modular switchmode power supply with active power factor correction // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

A topology of inverter-type power supply with three-phase input and active power factor correction is presented. The supply has a modular structure that allows keeping limited functionality in case of failure of one or more modules. By using the direct conversion principle, the number of semiconductor elements in the power path is reduced, thus reducing energy losses in the converter. The presented power supply provides output galvanic isolation by means of high frequency pulse transformers. A variant of power supply with improved efficiency and minimized losses is also presented. The latter is achieved by using Reverse-Blocking IGBTs on primary side and using synchronous rectification with the power MOSFETs on the secondary side. The algorithm of PWM gate signals generation for achieving unity power factor is also presented.

**Vasilenko S. V., Krivonosov V. E. Resource management of the induction motor in unbalance supply // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Are the main causes of damage to the windings of asynchronous motors. Showing methods of thermal processes in engines. Are places that require additional research. A new method to control the life of isolation on high-speed characteristics of heating coils. An expression relating the coefficient of variation of the coefficient of voltage unbalance. The calculation of the superheat temperature of the windings in the presence of variations and unbalance supply voltage. Theoretical calculation and experimental study. The corresponding tables and graphs. A device that allows you to manage life windings of asynchronous motors on the rate of heating coils.

**Golovko A. N., Andreiev V. V., Tretyak A. Yu. Investigation of power parameters the extrusion process tubes of aluminum alloy system Al-Mg-Sc // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The use modern aluminum alloys Al-Mg-Sc in the domestic industry significantly hampered because of the large amounts of energy to manufacture products, or even to non-implementation of the deformation process. However, topical task mastering the production of a wide assortment of seamless pipes from these types of alloys by forming, such as using direct hot pressing. On the basis of this we have investigated the combined effect of deformation, temperature and velocity parameters of the direct hot extrusion pipes from alloy of Al-Mg-Sc in the power parameters, in particular by pressing. Defined by a regression equation to calculate the extrusion force of tube, adequacy of which is confirmed by experimental data. Based on the data obtained in the laboratory seamless pipes, which can be used in mechanical engineering as a substitute of steel counterparts.

**Dementiy L. V., Yusina A. L. Application of information technologies at educating of students of machine-building specialities on questions of labour protection // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The use of information educational technologies is important direction of improvement of educational process, upgrading of knowledge and forming of general cultural and professional competences there is. In the article the analysis of questions of the rational use of information technologies is conducted by forming of general cultural and professional competences [in the field of](#) labour protection by preparation of specialists of machine-building profile. The examples of the computer programs and teaching systems, which used in an educational process, are considered, the optimal mode of the use of these systems is defined at forming of competences [in the field of](#) labour protection. The base of test tasks is created for the supervisory programs. Created and the program is used on statistical treatment of testing results.

**Denschikov A. Y. Modeling of vibrating processes in drums at vibratory stress relief // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The author of the dynamic analysis was carried out for screening drum produced by JSC "Lisichanskiy Machine Building Plant" by CAE-package COSMOS / 2M. He allowed us to determine the natural frequencies and mode shapes of the drum, that their parameters is developed by exciter. Material selection of the most efficient options. Experimental studies in which the exciter to reinforce the efforts of up to 30 kN has been installed inside the drum and attached clamps. Residual stresses were measured before and after the vibratory stress relief device ION-4M at 22 points uniformly distributed on a design. The obtained values of residual stress confirmed the results obtained in theory, and led to the recommendation of vibratory stress relief technology in return for the introduction of heat treatment in order to reduce the residual stresses.

**Enikeev A. F., Subbotin, O. V., Yarovoj R. O. Information technology to improve the effectiveness of the diamond grinding // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

In order to improve the process of diamond grinding proposed three-level computer system to form a coordinate-wise impact on the machine actuators. Its structure is built using a hierarchical manner, methods of direct digital control, feedback control on the status and indirect control of the amplitude of the surface microroughness detail by measuring the instantaneous speed of the signal range. With the help of the discrete Laplace transform the models of the system hardware under the action of random noise and delays. Synthesize the necessary hardware DSP. Modeling established compliance systems largest error, speed and quality of working out the conversion of the input.

**Zabolotniy K. S., Zhupiev A. L., Rutkovskiy M. A. Develop a method for calculating the radial load when winding and unwinding rope on the drum // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Developed a method for calculating the radial load during winding and unwinding rope on the drum hoist, which allows to determine the radial pressure wound coils with the influence side shell and reinforcements, as well as provisions of winding and unwinding cables. The method consists in a recurrent process of solving systems of equations corresponding to the sequence of coiling of each turn derived from a mathematical model of winding the rope on the drum shaft hoisting machines, putting in a series of rings with the strain compatibility equations, the terms of the elastic deformation of the rings, the equilibrium equations. Compared to the known, the method allows to take into account the effect of the stiffness characteristics drum construction on strain rope relief.

**Levinskaya I. M., Yasunik S. N., Zuev A. S. The intensification of machining fluidized abrasive layer // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The exacerbation of fluidized medium machining abrasive means business events to improve methods aimed at improving the quality of the surface layer and an increase in the metallosoma with minimal processing time. All existing methods of process intensification machining abrasive fluidized medium can be divided into several groups. One of them includes traditional ways of intensifying the process by increasing the speed of rotation of detail there, increasing the diameter of the abrasive particles, etc. The paper analyzes the methods related to the group, which basis are mechanical and hydrodynamic effects on fluidized environment surrounded -mental workpiece to break down the boundary layer of air produced near the surface, increasing the traffic of the abrasive particles, the particles of air saturated formations in contact with the workpiece. It is shown that the methods of treatment by the way of intensification of hydromechanical effects on the work surface are perspective.

**Martynov A. P., Csepel A. L. The deviation compensation as a method of increasing the assemblability of large machines // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

An analysis of the relationship of technical requirements for the accuracy of geometrical parameters of some sub-assemblies and their size. The possibilities of solving the problem of large collection of machines based on the analysis of the kinematic and dimensional relationships using self-aligning mechanism, with a relatively non-rigid manufacturing tolerances of parts and propose some design mechanisms such error is compensated links. With current regulations is a variation of the approach to the valuation of geometric surface parameters stepped shaft gear, allowing the assembly of products to ensure the achievement of the collection with the best kind of interchangeability.

**Marchuk V. I., Tkachuk A. A. Consolidation of surface plastic deformation as a means of improving the corrosion resistance // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The article describes the observed regularities improve corrosion resistance in processing strengthening technology. Based on the theoretical aspects of the process to make appropriate recommendations on the appointment of technological regimes. Obtaining a favorable association properties of the surface layer mainly provides for the regulation of force smoothing (contact pressure). Found the predominant influence of the power setting of the spindle speed and traverse. Conducted a series of experimental studies confirmed adequately developed theoretical dependence. The influence of technological factors on the ultimate corrosion resistance and corrosion during the formation of plaque.

**Paranchuk J. S., Macygin A. B. The arcs lengths system regulation modes of an electric arc furnace with a neuro // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

In this article the authors substantiate reasonability of improvement of the arc power regulation system using the neuro-network control principles, propose the structure of the arc furnace electric mode control system with a NN Predictive Controller and execute its design. A digital model of electric mode control system with a neuro-controller for the EAF-200 type has been created. The results of computer simulation of electric mode of a steelmaking arc furnace with a neuro-network control system have also been obtained. The derived results of the research have demonstrated improvement of arcs lengths control dynamics under the use of a neuro-controller as compared to the performance of a serial arc power controller adjustment as well as occasional disturbances according to the arc's length.

**Penchuk V. A., Datsenko V. M., Zhmykhova T. V. Effective technology for the treatment of solid waste at source // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Disposal and recycling of municipal solid waste - the most important socio-economic problem. In this paper the morphological composition of municipal solid waste in public spaces (universities, hospitals, recreation centers, children's health Institutions, sports buildings and structures, etc.). The influence of compression and sequence selection fraction of municipal solid waste at the time of sorting. The processing of the experimental data, the regression coefficients were found and compiled the model estimates of the time it takes to sort solid waste. Described the proposed technology of solid waste at source in order to reduce the cost of collecting, sorting and delivery of solid waste.

**Polschikov K. A., Liubchenko E. N., Odarushchenko O. N. Models of requests service for real-time flows transmission in a telecommunication network // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

In the article the analysis of technologies, which are applied in telecommunication networks for service of requests for the transmission of streams of the real time, is presented. It is suggested to use buffering of requests for real-time flows transmission for the increase of telecommunication channel utilization. Simulation models for quantitative estimation of the channel utilization of telecommunication network are proposed. Modeling results show that application of buffering the requests for real-time flows transmission makes it possible to improve the channel utilization coefficient.

**Potap O. E., Egorov A. P., Kuzmenko M. Y. Adjustment modelling of rolled stock tension on continuous casting section mill // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Regulation of rolled stock tension is one of the most important and problematic tasks of modern automation of continuous sections rolling mills, from the solution of which depends largely on the quality of the finished rolled products. The mathematical model allows to estimate the influence of main technological disturbances in the level of tension – temperature and cross the geometrical sizes of the slab length. By means of modelling the present paper investigates adjustment of rolled stock tension in the area between stands on continuous casting mill. The performance of the proposed algorithm for bar tension regulation with changes in anchor currents of mill drives is proved.

**Razzhivin A. V. Mathematical modelling of thermal parameters of the regenerative period of fusion of metal in an electric arc furnace // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Operating parameters of a temperature mode of the regenerative period of fusion of metal in arc steel-smelting furnaces and technological complexes "Furnace-ladle" are investigated. Is spent the mathematical description and the analytical decision of the differential equations of a regional problem of non-stationary heat exchange on the basis of the integralno-differential equations of heat conductivity. The received analytical decision allows to investigate temperature change of temperature of slag depending on capacity size on an electric arch, weights and heat conductivity of slag in the furnace. As a result of theoretical research of process of heat exchange in the closed space of the furnace surfaces of change of temperature of slag on length of a ladle are constructed at arc heating.

**Roganov M. L., Roganov L. L., Granovsky A. Y. Stand with a vertical rising edge // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The new construction of the shock table that provides extension of technological and operational capabilities at the expense of the regulation of the magnitude, form and time of action of a impact momentum and allows to receive the impulses with almost vertical rising edge, elevates efficiency of hydroelastic motion, has been developed. As a result of the theoretical studies of load-carrying capacity of the hydraulic claw at a constant pressure in its cavity it has been determined that require force for movement of the clamped plunger, changes from cycle to cycle, that connects with possibility of change of a magnitude of a friction force in retaining means. The task of the further researches is their stabilization. Tests have been conducted at the model of the similar shock table and on the whole confirm intensity of rising edge growth of the accelerations.

**Rozov Y. G. Finite element model of forming of internal surface of barrel of polygonal profile by dragging in a smooth conical matrix with limitation of flow of metal on length // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

During designing and making of barrels of small-arms by the methods of plastic deformation, the special attention is paid to forming of internal surface of barrel. One of progressive methods of receipt of internal profile of barrel is dragging through the smooth conical matrix of barrel blank on the profile mandrel with the limitation of flow of metal in axial direction. The finite element model of process of forming of bore of barrel is presented, that allows to estimate influence of limitation of flow of metal in the axial sending to forming of profile in the different working corners of matrix. The results of the conducted analysis allowed to produce practical recommendations which can be useful at designing of the considered processes.

**Tarasov A. F., Sagayda P. I., Bogdan M. P., Krascko Z. A. Development of content disciplines for the specialty "Information technology design" based on the ontological approach // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Fragment of detailed ontological model of educational activities, including concepts, attributes and their values was designed on the base of analysis of the information structure of educational bachelors and master's degrees standards. On this basis, the content for Master degree courses "Information technology of design" (ITD) was executed. A fragment of intensional (instances and links between them) ontology "Teaching Masters in ITD" was considered, which is the basic entities of the content course "Fundamentals of Computational Intelligence" cycle training masters ITD: content modules and discipline themes (sections), formed skills and support competence within the discipline.

**Shavolkin A. A. Active the rectifier of a current for converters of frequency on the basis of the independent inverter of a current // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Opportunities of improvement of parameters of the active rectifier of a current for the converter of frequency on the basis of the independent inverter of a current are considered. It is shown, that at use of pulse-width modulation application of a method of a space vector of a current is effective. It allows reducing quantity of switching of switches at the fixed frequency of modulation. Results of modeling confirm that harmonious structure of the current consumed from a main of an alternating current, at a level of standards is achieved at frequencies of switching of switches up to 2 kHz at rather small values of inductance and capacity of filters. At use of a proportional-integral controller the system of control of an output current of the active rectifier of a current has high enough speed at various resistance of loading.

**Shvets S. V. Computer modeling of process of cutting at turning // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The technique according to which operation designing turning, maintenance of firmness of the tool and parameters of a roughness of the processed surface is reached without joint tests of processed and tool materials is offered. Transition creation is reduced to achievement on the screen of necessary values of firmness of the tool and parameters of a roughness of a surface at the expense of change and the control of parameters of a mode of cutting and the basic characteristics of process turning. Thus the database of processed materials includes parameters of dependences of pressure from the deformations received at standard tests for durability, and also factors and exponents in expression for calculation of temperature of cutting. The database of tool materials consists of strength at compression, critical temperatures and limiting numbers of cycles of used materials.

**Shuliar I. O., Borushchak L. O., Panchuk V. G. Technology and machinery for acquiring reinforced casts by centrifugal casting with variable axis of the mold // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

In this article the method and equipment for centrifugal casting and receiving composite materials were presented. The complexity of the process of reinforcing casts grainy hard alloys was shown. Design of machine for centrifugal casting and casting reinforcement with variable axis mold was developed. Application of the developed machine with variable axis and the proposed process centrifugal reinforcement can expand the technological capabilities of centrifugal casting method combined with reinforcement castings managed by software control virtually all process parameters and thus receive high quality hollow or solid casting with desired physical and mechanical properties.

## ECONOMIC SCIENCES

**Bobrov Y. A. The coordination of investment activities for energy security state // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The model of the target investment activities coordination in large-scale economic system to ensure energy security is suggested in the article. Energy security of our country is necessary to implement a number of investment projects such as the modernization of the energy complex (reconstruction of the coal industry, oil refineries, all types of power plants, oil transportation and transmission systems), energy efficiency and reducing energy intensity of the economy in general (equipment and production facilities modernization, installation of energy saving industrial equipment, energy-saving technologies at the municipal sector and in homes). The priority of these projects should be

defined by strategy with possible use of economic-mathematical models. The main stages of the coordination through rational choice and implementation of large-scale investment projects are presented. Stages are logically interrelated and mathematical model allows to consider various criteria.

**Boiko K. K., Paderin I. D. Innovative development of the enterprises of the industrial region // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

A key condition of the innovative development of regions is an effective innovation system. In order to study the innovative potential of the Dnipropetrovsk region, it was analyzed and compared the regional indicators with indicators of the country. The reasons of the slow innovation development in the region were explored, including the dependence of the innovative development of enterprises of Dnipropetrovsk region of the funding sources. It was analyzed the amount of innovation expenditures and the direction of their investments. The necessity of technological innovation was based. These results suggest that the Dnipropetrovsk region has all the potential to accelerate economic growth in the region and to implement the strategic program of innovation development.

**Bulev I. P., Bryukhovetskaya N. E. Modern paradigm of industrial policy and implementation in Ukraine // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The modern paradigm of industrial policy of the developed countries, which is based on the matrix structure, combining the "vertical" and "horizontal" industrial policy. At selected enterprises investigated the feasibility of a modern industrial policy in Ukraine. The need of stepper is justified almost in the country and in the regions in changing paradigm industrial policy development, transition Ukraine and uh regions on modern matrix type of industrial policy. The measures on development of enterprises are developed. Realization of these measures will allow to raise the level produced in Ukraine to orders of modern magistrate market, secure competitiveness in the near term, influence positively on the development of industry and economy in general.

**Yeletskih S. J. The criteria for identification of enterprise life cycle stages in the context of anti-crisis management // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The existing interpretations of the term "enterprise life cycle", their distinguishing features, advantages and disadvantages, are analyzed. For different stages of the enterprise development, the factors defining enterprise management are explored. The principles of synergetic approach towards the analysis of life cycle phases are determined. The approach for determination of life cycle stages and phases is grounded, based on the following criteria: the quantity of sold produce, the profits-expenses ratio, the set of the enterprise efficiency indicators, performance characteristics, the level of development and competition in particular market niche, the enterprise competitiveness and power to withstand destabilizing influences of market competitors, the organizational structures development level, the type of anti-crisis strategy used, etc.

**Zarevchatska T. V. Status and prospects of investment small business in Ukraine // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Tendencies of development of investment activity of small business in Ukraine are investigated, prospects of investment processes in small businesses are revealed. Noted that small firms are more active on the implementation of investment compared with the large and medium businesses. The analysis of the role of small business in the domestic investment process is made, by rating evaluation it's revealed the most developed regions in the investment perspective and scope of management, limited to the most promising segment of small businesses to apply the measures of state stimulation of investment and external investment.

**Ivanova E. V. Organizational support for the mechanism of state regulation of economic development of the region's industry // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

A major focus of government industrial policy is the solution to the problem and the formation of the new provisions regarding the logistics of the mechanism of state regulation of economic development of the region's industry. The structure of the system of state regulation of regional development and the stages of organizational maintenance of the monitoring and coordination of industrial development. A list of indicators that are relevant to the evaluation of the effectiveness and implementation of the Strategy for economic and social development of the Donetsk region. In order to ensure the adequacy of state influence on the development of the industry proved the feasibility of establishing the Department for monitoring and coordinating the development of industry and suggests its main objectives.

**Isanshina G. Y. Innovative and investment aspects of development of the industrial enterprises of Ukraine // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The current state of competitiveness of national economy, components of innovative infrastructure are investigated. Scientific problems of creation of complex system of registration and analytical ensuring innovative development of the industrial enterprises are generalized. Application of special subaccounts for maintaining the accounting of direct and all-production innovative costs, the income of realization of innovative production is offered. Features of the accounting of different types of innovations are considered. For the purpose of increase of an informtiveness of management accounting it is recommended to capitalize expenses on researches and development.

**Kasyanova N. V., Kunin I. L. Assessments goodwill enterprises // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The article considers the methodological approaches to the valuation of goodwill SMEs. The purpose of the study is to analyze the existing assessment methods and development of enterprise reputation authoring methodology for determining goodwill enterprises with consideration into consideration quantitative and qualitative elements of goodwill. Selection methods due disadvantages use only quantitative methods - method of excess profits. Application of qualitative methods, including the method of peer reviews, also has some limitations when assessing the reputation of the industry. Thus, for the evaluation of business re-putatsiyi enterprise symbiosis is appropriate qualitative and quantitative methods.

**Klets L. E. Subjects of micro-entrepreneurship in maintenance of the development of territorial systems // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Features and directions of the state support and entrepreneurial development in Ukraine are considered. The basic indicators characterizing the development of small business are analysed. The questions of a substantiation of a role of subjects of small business in maintenance of development of territorial systems are solved. The factors negatively influencing on creation of a favorable entrepreneurial environment are revealed, and promising directions of realization of the state support of the subjects of small business on creation of favorable conditions of development of the sector of small business are defined.

**Kolesov S. V. The study of current approaches with respect to evaluation of innovative projects at the enterprise // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

In this paper, the research of the most common methods of evaluating innovative projects that have already found their application in domestic practice. The identified major problems in the organization and selection and implementation of innovative projects in the machine-building enterprises and developed a scheme for evaluating innovative projects in terms of increased competitiveness, including by allowing parallel implement projects aimed at strengthening price competitiveness. It is proved that for the effective operation of innovative block information and innovative mechanism, it must be based not only on adequate and sufficient information both scientific and market-based, but also realized the following projects that enhance the competitiveness of enterprises.

**Kofonova A. I. The improvement of the methods for the analysis of the engineering enterprises' investment activity // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

In the article the existing approaches to the of the industrial enterprises' investment activity's analysis are analyzed. Also the major shortcomings are revealed in order to further improvement of the investment activity evaluating investment's mechanism of the enterprises. In the article the set of indicators for the objective and overall assessment to identify the financing structure and dynamics of changes in investment funds was done. In the article the main areas of the critical analysis of the enterprises' investment activity are identified in terms of measuring the extent of internal and external investments financing of accounted for the impact of the investments financing structure on the generated investment income. There was estimated the main ways of the companies' investment experience analyzing.

**Milyavskii M. Yu. The use of elements of organizational and economic mechanism of corporate control in the practice of engineering corporations // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The characteristic of mathematical and heuristic methods for determining the effectiveness of the mechanism of corporate control. Disadvantages of these methods are determined in the course of their use in predicting the potential effects of the introduction of elements of the mechanism of corporate control in activity. Methodical approach to determine the impact of the current organizational and economic mechanism of corporate control in the investment attractiveness and efficiency of operations engineering corporations. The volume of receipt of investment resources of machine-building corporation is expected as a result of creation of the corporate checking system for help of methods of prognostication.

**Mykhaylychenko N. N. State support for small businesses as a necessary condition for sustainable development of the national economy // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The article analyzes the problems that hinder the development of small business in Ukraine, both exogenous and endogenous nature. Research devoted to developing complex perspective of state support measures aimed at solving the problems of small businesses, based on analysis of endogenous and exogenous factors that affect small entities in order to ensure sustainable development of the national economy. Based on the analysis of foreign experience, the author notes that measures to support small businesses should include not only protection from the adverse effects of the general economic environment, but also complex technical support small business management.

**Nikita A. Yu. The stability of the banking sector in Ukraine and the mechanism of its software // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Banking stability means continuing the bank's ability to meet its obligations and ensure profitability at the level required for the normal functioning of competing rental environment. To create the necessary conditions for a stable banking ctivities directed system of economic standards of banking regulation that implemented NBU and is mandatory

for all commercial banks. The most important economic norms that characterize the financial stability of the bank and its ability to perform most of the other ratios are capital ratios, including minimal-lyny share capital, regulatory capital adequacy (solvency) and core capital adequacy ratio (capital adequacy).

**Olkhovskaya O. L. Settings fuzzy model of the financial condition of the insurance company // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The algorithm of tuning of unclear model of estimation of the financial state of insurance company is presented. Optimization of model takes place with the use of gradient approach. Optimization of model takes place with the use of gradient approach. Finding of model optimum is carried out after the method of search of the maximal diminishing of error on all variables of this model. Does essence of tuning consist in the selection of such scales governed  $\omega$  and parameters of  $b$  and  $c$  from the functions of belonging of every term for all entrance variables, and initial variable, which minimize divergence between the results of unclear approximation and real conduct of research object – to the insurance company. Tuning on existent statistical material gives possibility to optimize parameters models which allow functionally to bind entrance variables (performance of insurance company indicators) to the value of resultant a variable (one of classes: financially stable insurers or potential bankrupts). It allows substantially to promote exactness of recreation of initial index and, accordingly, efficiency of classification.

**Pankov V. A., Telnova A. V. Development definition "management finance enterprises" and "financial management" // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

In article are presented main notions of financial management and management finance in functioning the domestic researchers in given area. The main approaches will analysed to understanding definition, are revealed their generalising signs. The offered determination of management finance as process of the influence upon financial relations for the reason change them in accordance with priority directions of activity of the enterprise, including by means of using of financial management. In turn, essence of financial management is offered understand as complex practical influence upon group workman financial services for the reason development and realization of the management decisions, directed on the most favourable shaping, distribution and use financial resource enterprises.

**Petrenko Y. V. Perfection of methodology of settling of the discounted payback period // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Existed approaches to the evaluation of payback period indicator are analyzed. It is proven that the generally accepted method of determination of the discounted payback period contains contradicting to each other of assumption and on the whole, though is the simplest, but gives an approximate result only. The first the more exact and methodologically faithful three another ways of settling of the discounted payback period are offered, in particular with the use of integration. On the basis of solving the conditional example it is shown that the usage of new methodology is connected with more complicated evaluations and can demand using information technologies but enables receipt of more exact information at the ground of acceptance of investment decisions of subject of economy.

**Reshetnyak T. V. Model of prognosis of change stability of the financial state of machine-building enterprise // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The method of application of model of prognostication of change stability of the financial state of enterprise is considered. The review of methods of estimation of the financial state of enterprises is executed. Found out the lacks of the noted methods. The example of application of model of prognostication of change stability of the financial being is resulted in the example of machine-building enterprise. Critical time during which an enterprise can lose the financial stability is expected. Measures which improve the financial state of enterprise are offered.

**Saveleva V. S. The psychological requirements of modern organizations to the management // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Based on analysis of characteristics of today's organizations, we are defined the psychological qualities of leaders who contribute to organizational change and improve the effectiveness of organizations in an increasingly competitive environment. Organizational factors such as the flexibility of the necessary qualities of heads of: emotional stability, flexibility, and propensity for foresight. Commitment to individuals – the ability of interpersonal communication. The overwhelming use of co-Mundi – managerial ability of managers. Internal competitiveness planning, delegation. The desire for diversification - focused, B stemnost thinking analyticity. Formation of certain qualities to consider in the psychological preparation of future leaders.

**Serdiuk E. N. Problems of perfection of the system of account of ordinary activity of industrial enterprises // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The problems of organization and methodologies of account of ordinary activity of industrial enterprises, conditioned disparities between the Ukrainian and international standards of record-keeping and between a tax and book-keeping legislation are exposed. This situation leads to the validity of potential investors in the industry about the

reliability of the data presented in the financial statements. It is proved, that the adoption of the Tax Code allowed a few to bring order tax accounting income, expenses and profits for accounting. But not completely. With the purpose of growth of investment attractiveness of industrial enterprises and simplification of conduct of financial and tax account expedience of introduction of the International standards of financial account and complete approaching of the Ukrainian tax legislation is grounded in part of taxation arrived to the requirements of financial account.

**Strielnikov R. N. Analysis of on-farm control of capital investments in enterprises of industrial groups // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

This article analyzes the main features of the organization of farm monitoring of investment projects at industrial group. Based on the analysis of the economic literature is given a global ranking of farm control, capital investments are grouped by work (expenses), systematic sources of information to monitor the costs of construction contracts undertaken on investment projects. Also in this paper we define the tasks and the reliability of the control algorithm of formation, distribution and display correctly in the accounting of overhead costs for capital investments, develop steps to control costs on construction contracts. The article concludes with recommendations for the improvement of on-farm control of capital investment in enterprises and industrial group and to draw general conclusions on the analysis made.

**Strelnikova M. S. Value of analysis of external economic operations in prognostication of efficiency of activity of industrial enterprises // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The complex going is presented near the choice of indexes of efficiency of foreign economic activity of enterprise. Grounds over of necessity of all-round analysis of efficiency of foreign economic activity are brought for the long-term functioning of enterprise at the foreign market. Basic receptions by means of that the basic tasks of analysis of operations are arrived at are presented. It is shown that the separate simple economic and statistical methods of analysis give the most effective result of calculations. Grounds are presented, that efficiency is the function of correct conjuncture-price politics of enterprise in foreign economic activity.

**Fomichenko I. P., Loboda D. O. Conceptual foundations of innovative marketing strategies // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The basic strategy of innovative marketing. The necessity of improving the system of innovative marketing, design and implementation of effective marketing systems for the company. Identified the development of innovative enterprises, which will: conduct market research; quickly and professionally respond to changing market conditions and the needs of the target for the enterprise segment of users, to develop a program to implement innovation. Proved that the work of the marketing service will allow the company to manage their money and work correctly. The necessity of improving the system of innovative marketing, design and implementation of effective marketing systems for the company.

**Chernenko I. N. The concept of controlling in logistics systems // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

The paper presents the theoretical basis for determining the controlling concept in logistics systems. A review of theoretical studies of domestic and foreign authors. The theoretical justification for the use of the concept of controlling in logistics systems, and practical recommendations in this area. With the problem of the definition of logistics costs. Level of logistics costs characterizes the economic position of the company, its level of competitiveness. Reduction of logistics costs, increase on this basis, the profit level increases the financial capacity of the enterprise. The methods of calculating the economic indicators of the place of education of logistics costs. Calculations are performed in order to minimize possible losses and maximize profits. Finally, the conclusion of enhancing the role of value management in all phases of the enterprise.

**Shubnay E. V., Sukova N. V. Theoretical aspects of motivation of labour of staff // Scientific Herald of the DSEA. – 2012. – № 2 (10E).**

Attention is in-process accented on the effective system of motivation of personnel as on one of main factors providing successful development of organization. The basic scientific going is exposed near determination of essence of concepts " reason" and " stimulus". It is set that a main connecting link between a necessity and stimulus is reason. Transformation of looks is studied to essence of motivation. The evolution of theory of motivation is considered. The organizationally-administrative, economic and socially-psychological methods of motivation are described. The role of imperious motivation is certain in the process of management. The necessity of the complex use of different methods of motivation is reasonable. Motivational theories are generalized. The row of rules of realization of effective motivation of workers is set forth.