
ABSTRACTS

TECHNICAL SCIENCES

Abramova L. N. Increasing of working capacity of the metallurgical equipment with hydraulics // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The constructive ways of increasing the accuracy of metallurgical equipment by reduction clearance in cylindrical directing slides and swings are considered. This is possible in automatic and manual mode after fabrication of the machine and in process of its usages, prolonging time of the working the machine with pinpoint accuracy. The manual mode is grounded on wedge mechanism, automatic mode is grounded on hydraulic mechanism. For little expense hydraulics regulators of the pressure are designed, providing regulation of the pressure in automatic mode. Using such regulator pressures vastly simplifies the design of the system, reduce the amount entering details and raises coefficient of efficiency.

Zhbankov I. G., Tagan L. V., Shkira A. V. Forging of conical rings // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The possibilities of method of forging conical ring by forging simple tool from the hollow profiled blanks are shown. Found factors that influence on deformation state in forming by rolling conical rings. Obtain the dependence of taper of ring from the relative thickness of initial billet flange. It is established that there is an area the size of collar, which rolled billet has the greatest taper. Obtained the field distributions of logarithmic strain over the cross section billet rolling profiled hollow billet. Established that at initially forging deformation of the billet under the thickening, which makes extension billet on the one side and as a consequence of receiving taper on the ring. Also found that the main deformation during rolling of a ring centered on the inside surface of the larger diameter.

Rohanov L. L., Rohanov M. L., Pitz V. Y., Granovsky A. Y. Research in the field of percussion stands // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

Analysis of investigations and devices in the field of impact machines is made. Necessity of investigating theme is defined. Comparing analysis of two main groups of devices – impact with decelerating principle and impact with accelerating principle – is fulfilled. Impact devices of world producers are described. Advantages and disadvantages of impact devices with decelerated and accelerated principles are defined. Hydro-elastic drive designed in MTO department of DSEA is described. Advantages of impact device of the basis of hydro-elastic drive comparing with others impact devices are determined. Conclusions concerning necessity of the problem are made, main directions of development in the field of impact devices in the basis of hydro-elastic drive are considered.

Kassov V. D., Satonin A. V., Berezshnaya E. V., Malugina S. V., Ivanik A. V. The sanitary-hygienic characteristics of powder tape deposition of mine equipment details // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The sanitary-hygienic conditions at powder tape deposition with components containing halogen and carbon are considered in the article. An analysis of composition and amount of fluorine containing separations that are created at deposition of composite alloys containing CF_4 in its compound has been shown, and on the base of obtained results of investigations it is shown that the presence of local aeration reduces concentration of harming substances at most possible rates. An influence of aerating velocity near the arc on chemical compound and hardness of deposited metal is investigated. It is established, that the chemical composition and the hardness of deposited metal practically doesn't depend from the change of velocity of the air on the arc level in investigated interval.

Kassov V. D., Satonin A. V., Berezshnaya E. V., Chepel Yu. A. Simulation restoration of parts of mining equipment cored // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The mathematical models, that describe alloying elements transition coefficients dependences on gas and slag creating components correlation, are obtained, using simplex-lattice planning. An optimal gas and slag system composition, that provides minimal sprinkling of electrode metal, high coefficient of alloying elements transition, reliable protection of molten metal from harming influence of air, are determined. It is established that rising of amount of gas and slag creating components in charge of powder wire as a whole reduces alloying components transition coefficients, that can be explained by increasing of general containing of oxalic of gas and slag phases.

Pavlenko V. N., Volkov I. V., Tkachenko V. V. The blade strengthening of aircraft engines with the method of vibro- polishing and high-energy electro pulse treatment // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The numerical evaluation of the influence of heat treatment, mechanical strengthening of the VT8 alloy samples with the method of vibro-reinforcement and high-energy electro pulse treatment on the strengthening rate has been done. The material strengthening rates under different conditions of high-energy electro pulse treatment are determined, what makes it possible to choose the most optimal combination of technological methods of the VT8 titanium alloy strengthening. The testing methods for the efficiency assessing of final activities in trimming and reinforcing are explained. The experimental data on the effect of the high-energy electro pulse strengthening on the fatigue characteristics of the compressor blades made from the VT-8 M alloy, which have been subjected to vibro-polishing, are received.

Bobechko Y. O. Application of neural network's data smoothing for using in control systems for switched reluctance motors // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The article describes the problems of selecting the structure of artificial neural network for using in control systems for switched reluctance motors. It is proposed to apply the smoothing of the neural network's output data to simplify its structure. By computer simulations a comparative analysis of control systems for switched reluctance motors with and without smoothing of the neural network's data is carried out. It is shown that using of smoothing reduces the pulsation of the determined values, and this contributes greatly to the stability and smooth running of switched reluctance motors.

Gitis V. B., Gitis T. P. Perfection of procedure of preparation of teaching great numbers for neural networks // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

In the article the procedure of rough-down of information is examined for teaching of neuron networks. The necessity of rough-down of information for work of neuron networks is analyzed. Introduction to normalization procedure of coefficients of ponder ability of variable for an account features of the decided task is offered. It is shown, that the problem of normalization of ordinals of variables in part of their internal levels exists. The improved chart of normalization, allowing setting ponder ability both ordinal of variable on the whole and its separate levels, is offered to application. Reverse normalization formulas for interpretation of gravimetric coefficients of neurons are also brought.

Danchuk V. D., Oleynyk R. V., Taraban S. N. Networking method of the soiling field estimation in areas adjacent to the highways // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The problem of air quality in large cities, which is related to the operation of traffic road network of the city is being considered. Based on the identified correlation dependencies in the course of the kinetic characteristics of the transport flow and exhaust gas ingredients' concentration in the atmosphere, networking method of express-estimation for the air pollution in areas adjacent to the city highway network is proposed. Obtained results in the frameworks of this method are agreed with empirical observations. Thus, suggested method can find application for control and steering of operation transportation systems on ecological indicators.

Kovalevskyy S. V., Tulupov V. I., Yanyushkin A. S., Lobanov D. V. Study of the influence of electro-hardening regimes of lathe turning on the surface roughness of machine parts // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The method of multivariate studies on the effect of electro-reinforcing lathe turning on the surface roughness of specimens of steel 40XH is suggested. The developed technique allows a more accurate analysis of a large number of process parameters with a small number of experiments, which in turn reduces the time spent and the means to conduct full-scale of the experiment. Application of neural network modeling is more effective in combination with a fractional factorial experiment with a large number of variables to study their effect on the response function to process optimization. The stated objective of the work is done with sufficient accuracy.

Saunkin V. T., Onishchuk S. G. Research of error of treatment at the use of facilities of active control in the dynamic terms of treatment // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The questions of determination of error of treatment are examined on the automated equipment and by the use of facilities of active control. Influence of thermal deformation is studied on the error of treatment, graphic dependences over of influence of serve and speed of output of metal are brought on temperature deformation of details that it is suggested to use for the choice of the mode of treatment for minimization of temperature deformation of details at the mortise polishing. Methodology of estimate of casual and systematic errors is offered the treatments at the mortise polishing, related both to the errors of the used equipment, and errors of measuring of facilities of active control in the conditions of automated.

Medvedev V. V. Designing of technological processes in a flexible automated production on the basis of artificial intelligence // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

It is shown in the article, that the further development of a flexible automated production is impossible without the considerable increase in technological preparation efficiency. It is suggested to remove a man from technological processes development to the maximum introducing of the systems based on artificial intelligence. The issues the automated designing of technologies of mechanical processing of parts on the basis of artificial neuron networks are considered. The algorithm of construction of technological process with the minimum primary knowledge base is presented. The algorithm implies self-training based on the results of quality measuring of already machined parts.

Melnikov A. Y., Antonova E. V. Designing the system to work with industry educational standards // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The structure and the contents of the educational standards of industry on the example of the bachelor «Computer Science» are considered. The tasks of the work automation with the educational standards are formulated. The model on the modeling language UML developed of information system is developed. The system requirements as a use-case diagram and the structure of the system as a class diagram are presented, the data tables to represent the educational and skill characteristics (OKH) and educational and vocational training program (OPP) are described. The first version of the software implementation of the developed model is described. The on-screen forms of application work while processing common tasks, the list of disciplines and of informative modules are presented.

Polschikov K. A., Zdorenko Y. N., Sokol G. V. Method of unclear neuron prognostication of packet losses at the computer network overload // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The article the decision of scientific task, consisting of development prognostication method of packet losses at the computer network overload is devoted. A method is based on a construction and application of unclear neuron network for extrapolation of packets amount which will be throw-away a router during the nearest time domain. The parameters of belonging functions are grounded for entrance sizes, choice of unclear conclusion algorithm, algorithm of teaching and amount of unclear neuron teaching cycles. The example of creation and tuning of unclear neuron network is offered. Realization of the method offered in the article allows providing sufficient exactness of packet losses prognostication at the computer network overload.

Popov S. V., Shkuro K. A. Hybrid neuron-like unit – a new neural network building block type // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The problem of specialization increasing the artificial neural network architectures due to transition from the level types of neurons selection to the level of types of individual synapses selection is considered. To this end, a new building block – a hybrid neuron-like unit has been introduced. The network architecture based on these units can be chosen, it's based on a priori information about the system properties being is modeled, or using evolutionary methods. The proposed approach has been tested by solving the problem of forecasting glaze load on overhead power lines, thus improving the prediction accuracy and reduce the number of adjustable parameters in the model and increase its resistance to various kinds of perturbations. Thus confirmed the performance and prospects of the proposed class models.

Shchekin V. P., Shchekina O. V. Autoregressive structures with regularization // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The theoretical generals of determination of frequency spectrums of the developed neural-networks autoregressive structures which are used as emulators of the dynamic state of control objects are resulted. The results of the conducted analysis allowed to define basic properties of frequency descriptions which are the continuous functions of frequency: periodicity of frequency function of ARMABIS-structure is exposed; the bars of delay and key-in of ARMABIS-structure do not change in the process of adaptation; the effect of quantum at times of ARMABIS-structure is related to the loss of information.

Vasilyeva L. V., Khoroshailo V. V. Mathematical analysis of the objective functions for multi-objective optimization processing at medium lathes // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The theoretical analysis of objective functions is conducted for multicriteria optimization of process of treatment on middle lathes. Researches were conducted in the real range of the managing variables used for calculations. In the studies meet the requirements of a systematic approach to identify the full range of criteria ensuring the effectiveness of machining at medium lathes. It is shown that within the given constraints there is at least the following criteria: cost, productivity, consumption of hard metal, the consumption of the toolkit. Consequently, there are optimal for these criteria variables. The obtained results allow to define a set of optimality criteria for multi-objective optimization process machining.

Dyachun A. Y., Dinya V. I., Biluk S. G., Dzyura V. A. Experimental researches of process of milling of driving asterisk of pipe conveyer // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The results of experimental researches at milling of driving asterisk of tube conveyer have been proposed. The cutting force during milling an end of milling cutter by the method of tensometry depending on the size of serve of milling cutter on a tooth, cutting depths, widths of cutting and material of purveyances has been detrmind. The results of experimental researches are presented as equalizations of regressions and regressive dependences and surfaces of response. Recommendations are given in relation to contracting effort of cutting by the change of dependent parameters at the coefficients of regression.

Ivchenko T. G. Using of the geometric programming method for determining of optimum cutting conditions at turning // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

With the rsing of the geometric programming method, optimum cutting conditions to ensure minimum cost of processing at given technical limitations determined. Different possible technical limitations at the clean and draft sharpening and boring are investigational. On the basis of the developed technique regularities of changes in the optimal values of feed and cutting speed on the roughness of the machined surfaces and radii at the top of the blade tools are installed during finishing and fine turning. The reach extreme of objective function is grounded at the optimum of cutting mode.

Kindenko N. I. Classification of methods of magnetic treatment of toolpieces // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The given article deals with the research of the problems connected with increasing of service properties tools made of high-speed steels by means of magneto-pulse machining which is the combination of electromagnetic and thermodynamic means of unbalanced structure material control. The analysis of existent methods of magnetic treatment is conducted, from one side, as methods of increasing of firmness of toolpiece by imposition on the zone of cutting of magnetic-field and on the other hand, affecting of magnetic-field material, which an instrument is made from. It is set that the methods which most stably promotes firmness and quality of instrument, related to treatment of material of instrument in permanent, variable and impulsive the magnetic fields. It is shown, that efficiency of method of magnetic treatment depends on a number of the factors, related both to the terms of affecting instrument by the magnetic field and to the terms which this instrument is exploited in.

Klymenko G. P., Vasilchenko Ja. V., Andronov O. Yu. Increasing of the efficiency of exploitation of cutting tools for heavy lathes // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

Mathematics models for evaluation of tool life has been developed. The method of calculation of the summary tool life was worked out. It gives the possibility to decrease the quantity of using cutting tools for heave lathes. On the basis of semi-markov processes analysis for the scheme of not loaded duplication with restoration the mathematical model of modular cutter reliability for heavy lathe is developed. The expedient reliability level on the criterion of the resulted expenses is expected. It is proved with the performance tests the improving of the modular cutter reliability for heavy machine-tool magnetic-charge processing.

Novikov O. A., Rovenskaja O. G., Obuhov A. N. Spectral analysis of periodic impulse // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

This work considers solving and study of dynamics equations in the automatic control systems. Proposed method of construction spectral characteristic of periodic signal based on expansion in trigonometric series. Advantages of the arithmetic use Fourier sums in spectral analysis of periodic disturbing impulse of the automatic controlled system in comparison with the conventional representation of function as ordinary sum of Fourier series. In some cases the process has been accompanied by disturbances, repeated at regular intervals. Such case has been always the case when a regulated environment is consumed regularly in equal portions. The proposed method can be used in the fields of physics and engineering, where there are periodic processes.

Pankratov A. I. Assessment adaptation automatic control insulation resistance by parametric automodulation to the variation of network capacity // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The structure of the automatic control the input resistance of electrical circuits using parametric auto-modulation has been discussed. The accuracy of the automatic insulation resistance control electrical networks using parametric modulation. The values of changes in the relative error insulation monitor depending on changes in network capacity, which confirmed the adaptive insulation resistance control to variations in its capacitive component at zero frequency auto-modulation. Installed insulation monitor adaptability to the variations of the capacitive component, high-precision control will significantly improve the reliability in the tripping of electrical networks, will improve the level of electrical safety and protection against fires and explosions in mines, hazardous gas and powder.

Marilov N. G., Sheremet A. I. Determination of the strength of magnetized ferromagnetic powder materials // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The scheme of electric and magnetic circuits for measuring the magnetic stream and the research of the characteristics of durability of powder ferromagnetic materials in a magnetised condition is offered. The technique and the basic dependences for the installation of the graduation on a magnetic stream is presented. The exponential and polynomial regression the analyze of the received experimental dependences of mechanical strength of magnetised powder from magnetic induction are made, it is revealed which of 2 the types of the analysis describes the received dependences more precisely.

Nikiforov A. P., Smirnova M. A. Development of method of teaching of disciplines, related to the intellectual systems of protection and automatics of electric power systems // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

A method for improving the effectiveness study of subjects relating to the protection and automatics of electric power systems is proposed. The improvement of method of teaching consists in reductions of the operation time of the variety variants of work of the relay protection systems and automatics of the protection and management objects due to application of structural-informative method. Structural-information method permits to describe a large total of complex semantic situations at work of relay protection circuits using a small set of primary symbols and grammar rules.

Tkachenko A. A., Shulga A. A., Polupan I. I., Besh A. N. Development of method and algorithm for diagnosis breaks and interturn shorts in the stator windings of induction motors // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The method of diagnosing stator windings of induction motors based on control phase shift between the currents of phase stator windings is proposed. Article also describes the principle of abnormal operation detection device. The principles of construction and components of the system diagnostics were developed. In the paper were described the requirements and measures to ensure the accuracy of the system taking into account the value of the minimum deviation of the diagnostic parameter. The flow chart of faults detection in stator windings process was shown in the article.

Fedorov M. M., Grudachev A. Ya., Tkachenko A. A. Dynamics of electromechanical processes of electric mine car dumpers // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The work is devoted to methods of calculation and assessment of current overload in induction motors electric mine dumpers in the working cycle with variable moments of inertia and resistance. A technique which allows to evaluate the performance of dynamic processes of electric mine dumpers by mathematical modeling in MatLab Simulink. The proposed method for analyzing the dynamics of electromechanical processes of electric mine car dumpers to judge the magnitude and duration of the current overload taking place in the cycle. The calculation is made for mine dumpers of production association «Donetskugol», the results are confirmed experimentally.

Fedorov M. M., Dennik V. F., Tkachenko A. O. Peculiarities of calculation and analysis of branched electrical circuits, including delta and star connection of nonlinear resistive elements // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The method of calculating the electrical circuits with nonlinear elements by forming a current-voltage characteristics of arrays in coordinate points. Proposed algorithm was used for calculating the current-voltage characteristics of the branches of the stars and shoulders of a triangle of nonlinear elements, and the resulting characteristics. Resulting array is formed by an analytic expression-voltage characteristics, which are defined by contour currents scheme active three-point.

Cherednyk J. N., Kvashnin V. O., Buhancov R. V., Mahnjuk D. V. Development and research of the voltage pulse width modulation for asynchronous machine control // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The features of construction of transformers are considered on principle of latitudinal-impulsive modulation with the use of microprocessor control and with the use of the metal-oxide-semiconductor field-effect transistors. Results of the voltage pulse width modulation development involving control and power modules are represent. Electrical principle scheme of the voltage pulse width modulation on base controller ATtiny 2313 and driver IR2130 with organization required protection is demonstrated. The description of the power module and control card is resulted, advantages of the given control system are specified. The diagrams of the voltage pulse width modulation are demonstrated.

Chubyk R. V., Luzhetsky V. S. Electromechanics model of device is for adaptive vibroabrasive treatment of details // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The structural electromechanics model of vibromachine is developed for adaptive vibroabrasive treatment of details. The offered device is able to provide minimum energy expenses on the vibrooccasion of vibroabrasive machine due to providing and maintenance of the permanent resonance mode of operations of working chamber. When operating in the minimum energy design solution for device vibroabrasive treatment of details allows you to control the energy of vibration of the field to ensure a stable pre-set values of the specific vibrational field of the container, which allows for a variable (different) mass loading of the working chamber to receive details of a given technological effect with minimum energy consumption.

ECONOMIC SCIENCES

Baydukova I. M. The place of investment policy in the system of criteria that affect the financial position of the enterprise // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

It can be argued that the methodology for the analysis of financial condition of the company is developed in Ukraine at a sufficient level. The article discusses the concept of investment policies the criteria for assessing its effectiveness are set out and its place in the overall system of the factors determining the financial position of the company is defined. It is established that development of investment policy requires certain costs, stability of activity, the possibility of predicting the behavior of government, different types of markets, partners and competitors. Inadequate investment policy could become one of the factors that provoke worsening financial situation of the enterprise. The key to successful investing is a stable legal framework and «transparency» fiscal, monetary, foreign exchange, taxation policies.

Varava L. M., Rtyshchev S. A., Dobrovolskij V. V. Increased labor organization manager metallurgical enterprise // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The main principles and essence of the work organization are investigated, features are studied and methodological bases of the scientific organization of manager's work are considered. The primary goals of the work organization system improvement on the industrial enterprise are determined. The results of calculation and assessment of the constructed pair dependences between a level of the manager's work organization and the selected meaningful factors are analyzed. The economic-mathematical model of dependence of the manager's work organization level of the metallurgical enterprise foreign economic relations department by the most meaningful factors is developed.

Vinnikov V. A. Peculiarities of diagnostics of economic enterprises in the current economic conditions // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

Nowadays one of the pressing issue remains timely and qualitative analysis of the enterprises' economic activity. Proposed by the author the scheme of diagnosis of the enterprise gives the opportunity to identify existing problems and weaknesses in the enterprise and also allows to adapt the functioning of the entity to a change of endogenous and exogenous influences. In result it creates the preconditions for reaching a new level of development. Besides, the author delimited two groups of parameters within which the external (method s SWOT, PESTLE) and internal environment (assessment of the financial condition, capacity, effectiveness of the management structure) of the operation of a business entity are analyzed.

Volodchenko V. V., Chernenko I. N. The Informative systems as instrument of logistic system efficiency increase // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

In the article the bases of application of the informative systems in logistic are considered. On the basis of study of works of native and foreign authors the problems of informative logistic management forming are selected, and also the research of the informative providing in the process of management of material streams at the domestic and regional markets is conducted. Tightening of the requirements for the competitive operation of the quality of the underlying processes of enterprises of all forms of property, complexity of life and market conditions and a significant number of them; contradictory factors influencing the process of enterprise management are shown; the increasing importance of data communications and information management as an organizational element of trade and procurement and production logistics is defined.

Godyna N. F., Momot A. I., Maradudina O. V. Using the methods of constructing the value chain and Work Flow chart for the optimization of the company // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

In order to optimize the business process «Expert examination of lifting machinery» LLC «Laboratory of nondestructive testing and technical diagnostics», improving quality and reducing costs to conduct a model business processes, which can be represented as a set of patterns and relationships between them. We consider two methods of structuring of the company. The first method is based on constructing a chain of value creation. The second method is

based on process models in the format Work Flow (workflow). Obtained results showing the feasibility of sharing techniques, «constructing chains of value creation», and Work Flow.

Grigorenko O. V., Kovalevsky S. V. Theoretical bases of reconfigurable manufacturing systems creation // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The review of the reconfigurable manufacturing systems is presented. Theoretical and methodological approaches on formations reconfigurable manufactures are offered. Technical operating parameters are considered such, as reliability, exactness, which is set at changing of arrangement, when a structure and arrangement are formed in the sequence of multilevel exposure. The main advantages of reconfigurable manufacturing systems which are shown in possibility of full flexibility with high efficiency and necessity of the further working out of the general struck-rounds are shown. Reconfiguration is considered, as key possibility of the future in mechanical engineering.

Parfyonova I. N. Designing an expert system mesh planning of equipment in the steel plant engineering company // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The article discusses the need for network planning in the equipment in the steelmaking shop engineering company. Guided by the basic functions of the controller unit and feature steel production, with the help of diagrams that describe the primary users of the business process, define the functional requirements of an expert system, and describes the relationship and the temporal sequence of messages that exist in the domain-expert system was designed by network planning operation of the equipment that will provide greater stability of the process and will reduce the time to plan the work of metallurgical equipment in department engineering company.

Reshetnyak T. V., Zagrebely S. L. Application of neuron networks for drafting of prognosis of the financial state of enterprise // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The method of application of neural networks to assess the financial condition of the company. A review of methods of constructing neural networks for solving various economic problems and make decisions. The characteristic quality of the constructed neural network models of various types. Choose the best model to predict the financial condition of the company. The analysis of the quality of the model layered perceptron. The classification of new cases based on neural network model. Using this model allows us not only to assess the financial condition of the enterprise, but also to predict the level depending on the values of financial indicators.

Dorovskikh A. P. Economic progress: the needs of society and the individual services in higher education // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The are theoretical and methodological basis for the formation of priorities in the needs of higher education services from the perspective of the dialectical relation of objective and subjective. Higher education is seen as the main leading factor for social and economic progress of society, which should ensure the formation of man and citizen, aimed at improving society. The most important value and a core capital of modern society is the person capable of finding and developing new knowledge and acceptance of non-standard solutions. The role of higher education at the present stage of development of Ukraine is determined by the objectives of its transition to democracy and the rule of law, market economy.

Eliseeva O. K. The evaluation of economic systems' development based on indicative and cognitive methods // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The problems of evaluation of economic systems' development are examined in the article. The model of evaluation of the regional economic systems' development is developed on the basis of indicative and cognitive methods. The use of the developed model allowed to define intercommunication of different analytical indexes in relation to development of separate socio-economic spheres of SES. Reasons due to which this level has not enough high value require interferences from the side of organs of power and local self-government for stabilizing of certain indexes and development of measures on a management such sulphurs.

Ivanova E. V. Institutional framework for regional management mechanism // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The main characteristics of the institutional environment and institutional framework of the mechanism of regional management are considered. Investigated the concept of «institution» and identified its major components. The influence of institutions on economic systems and the development of criteria for the development of the ideal institutional environment are analyzed. A form of influence of the institutional environment in the process of socio-economic development is revealed. Areas of the development of effective regional governance institutions in Ukraine are developed. The transition to sustainable development of Ukraine as a whole is only possible if sustainable development of all its regions is ensured.

Kasianenko V. O. Modern state and prospects of development of Ukraine's innovation potential // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The article explores the current state of innovation potential of Ukraine. The level of Ukraine's innovative potential is determined on the basis of analysis of common quantitative parameters that characterize the scientific and scientific-technical activity in Ukraine. Possible directions for its future usage are outlined. Development of innovative activity as an inalienable component part of country reformation economy is pointed out. Insufficient attention to development of scientific and technical sphere results structural deformation of economy and prevailing low of technological productions. They are little receptive to scientific achievements and can not provide the increase of economy's competitiveness.

Kofonova A. I. The research of the investments financing sources at the machine-building enterprises // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

Existing investments sources at the machine-building enterprises in Ukraine, there are estimated their advantages and lacks are analyzed in the article. The dynamics of total investments amount into fixed actives and capital investments, the investment activity's crediting of the enterprises in Ukraine by banks and the depositary organizations except National bank of Ukraine are considered. The structure and dynamics of urgent credits is analyzed. Changes at the investments credit's terms are analyzed. The perfection directions of the crediting process for the purposes of the investments financing are defined. The directions of the investment crediting improvement of the machine-building enterprises are proposed.

Poddubnaya L. V. Participation of Ukrainian non-banking financial institutions in investment process // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

Participation of non-banking financial institutions in the investment process in Ukraine is observed. On the basis of analysis of growth indicators of non-banking financial institutions' assets and analysis of their share in the GDP there has been defined their role as institutional investors. The structure of placement of investment funds, insurance companies' and non-government pension funds' assets has been analyzed. The main financial instruments chosen by non-banking financial institutions for providing their investment activity have been defined. The major factors of increasing importance of non-banking financial institutions in the investment process in Ukraine have also been identified.

Radyeva M. M. Simulation evaluation of institutional level of the development corporations // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The method of evaluation of institutional level of the development of corporation is offered. A multiplicative model evaluation of institutional development corporation as an analytical tool support and improve management decisions under election of the areas of corporate sector of economy is developed. A multiplicative model is based on the indexes of system of economic and statistical monitoring and expert estimations which in number represent computer-integrated description of the economic, social and institutional measurings of the development of corporation as one complex index.

Savelieva V. S. About conceptual methods to administrative labour // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The perspectives in the conceptual approaches to managerial work have been reviewed – integral control; rationale for the proposed approach in the modern post-industrial society has been offered. According to the theoretical analysis, all the approaches to management fall into three broad categories: approaches that focus on external objective systems, flow models and quality control; approaches that focus on the motivation of individuals, and approaches that emphasize the importance of corporate culture and values. It is important that the leader of integrated management will use these tools for maximum results by coordinated and integrated efforts and won't accept less.

Samsonov M. I. Supervisory development in regulation of banks in Ukraine // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The relationship between «banking supervision» and «banking regulation» is investigated in the article. There is also a description of necessity of government control for monitoring of banking institutions. The author investigated the basic scientific and methodological approaches to the classification of banking supervision. The tools of bank supervision formalized. They are used in functioning domestic banking institutions. Contemporary problems of implementing the liquidation supervision have been reviewed. Priorities for reforming the supervision of banking institutions in Ukraine have been determined. The author's conception to current problems of supervision in the Ukraine has been offered. Besides, the competitor gave recommendations about improvement of monitoring of banking system in Ukraine.

Tytarenko A. K., Onishchenko V. V. Complex model of rating calculation of banks of Ukraine by the level of their reliability // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The article explores current approaches to assessing the reliability of commercial banks of Ukraine. It is substantiated that one of the most effective ways to improve the process under study is to build a comprehensive methodology for assessing bank's rating by means of integration of CAMEL system and the Bayesian approach. The effectiveness of the present model as an example of I group Ukrainian commercial banks on financial statements of the NBU for the period 2009–2011 have been demonstrated. By means of constructing the ex-post forecast it is determined that the adequacy of the model is 95 %. The expected result from the introduction of the proposed approach by the National Bank of Ukraine has been described.

Fomichenko I. P., Barkova S. A. Strategic management of human potential // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

Expedience of the use of strategic approach in a management potential of enterprise has been considered and graunded. The sequence of forming and development of skilled potential is obvious as a result of strategic management of an enterprise. The research of approaches of strategic management of a personnel allows to draw to the conclusion that strategic management of the personnel of domestic enterprises are on the stage of the development. It is caused by the fact that leaders and owners of domestic enterprises have not fully realized the determining role of personnel in achievement of strategic aims and efficiency of development of enterprise. The general chart of coverage of enterprise necessities is offered in skilled potential. The role of personnel marketing is determaned in a strategic personnel management on enterprise.

Chernenko I. N. The Informative systems as instrument of efficiency increase in logistic systems // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The article focuses on the operation of the logistics processes of enterprises of all forms of property affecting the process of enterprise management. The increasing importance of logistic management as a component of the success of modern enterprises has been defined. The theoretical basis for defining of optimization of the material flows has been given. By studying the works of domestic and foreign authors the problem of optimizing the material flow has been highlighted and inventory efficiency factors of logistics system, consumption resource measurement and ways to optimize them have been defined. Solutions to determine the efficiency of material flows have been offered.

Shashko V. A., Kovalenko G. A. The study of industrial infrastructure of the industrial enterprise means a functional approach // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

The possibility and advisability of using of the functional approach, as a general scientific one, in the study of the production infrastructure of an industrial enterprise, which has a significant impact on its effectiveness are considered. The choice of a rational organization of the production infrastructure that is one of the major management challenges in a modern industrial enterprise is given. Actualization of problems of the rational production organization is based on understanding of the importance of an organization as a capital-intensive factor of enterprise development and necessity of increase of his competitiveness in a dynamic environment.

Shubnaya E. V. Asymmetry of regional structure of labor resources allocation Ukraine // Scientific Herald of the DSEA. – 2011. – № 2 (8E).

Intercommunication between the territorial structure of economy and spatial placing of population is considered. The basic stages of evolution setting apart population process are specified. The analyses of spatial asymmetry labour resources placing is conducted. Classification of basic factors and indexes of regional spatial asymmetry of placing and functioning of labour resources of Ukraine is carried out. The first group includes indicators of spatial asymmetry that characterize the processes of natural reproduction, the second group – indicators of spatial asymmetry that that characterize of labour force regions.