

## ABSTRACTS

Control of technological parameters of fabric by adaptive ultrasonic device / V. Zdorenko, S. Barylko // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 7—11: fig. 1. Refs.: 5 titles.

Methods of the non-contact control of technological parameters of fabric are examined. The expediency of use of non-contact ultrasonic method of the control is proved. Scheme of structure of device that can be used to control technological parameters of fabric is examined in the paper.

Automation of passages of cascade of storage pools of the river South Bug / E. Kryzhanovskiy, T. Podludnenko // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 12—16: fig. 6. Refs.: 3 titles.

Technology of automation of calculation of passages of cascade of storage pools of the river South Bug got further development by formalization of algorithm of determination of passages and its programmatic realization with the use of modern technologies of databases. Functionality of the developed theoretical vehicle and software is shown on the example of calculation of passages of cascade of storage pools of the river South Bug for providing of ecological passages in a district of the village Oleksandrivka.

Geostatistical analysis of contamination of subsoil waters from data of supervisions of quality of well water of the region / Yu. Semchuk, A. Yashchuk // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 17—21: fig. 4. Refs.: 6 titles.

In the article the actual task of dimensional analysis of contamination of subsoil waters is considered from data of supervision of quality of well water. Methodology of geostatistical analysis of these data of monitoring with the use of GIS- of package of "ArcGIS"(THE USA) is offers and tested on the example of the town Vinnytsya.

Problems of strategic management of middle and large enterprises in Ukraine / Yu. Mokina, O. Kavunenko // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 22—27: fig. 2. Tables 2. Refs.: 7 titles.

The article focuses on the analysis of key problems of strategic management of middle and large domestic enterprises and outlines methodological strategic management mistakes. We suggest a linking interplay scheme of enterprise resource potential, its market strategy and durable competitive advantages.

Investment climate in Ukraine and activities of international financial institutions for its improvement / Yu. Moroz // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 28—34: fig. 2. Refs.: 9 titles.

The main points that characterize the investment climate in Ukraine are analyzed. Attention is focused on the dependence of the investments in the economy on the state of the investment climate. Activities of IFIs in this area are considered in the paper.

On the question of relationship between state and market in accelerating economic growth / T. Burdeniuk, V. Svirskiy // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 35—38: fig. 1. Tables 2. Refs.: 11 titles.

The article proves that increasing the share of public spending in GDP as by increasing the tax burden or public debt would not promote the accelerating of economic growth in Ukraine.

Thermodynamics efficiency of heat pump charts of heat supply / M. Bezrodnyi, N. Prytula // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 39—45: fig. 7. Refs.: 14 titles.

The fundamental chart of the heat pump system of heating with the use of warmth of such natural sources of energy as atmospheric air, water and soil is analyzed in the paper. Methodology of determina-

tion of optimal degree of cooling of environment in the vaporizer of heat-pump in the low temperature systems of heating with the use of different energy sources is developed in the paper. Support of optimal degree of cooling of environment will provide the minimum specific expenses of external energy on the heat pump system of heating on the whole.

To the question of current control of a series of aluminium cell / G. Shcherban // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 46—50: fig. 7. Refs.: 30 titles.

Results of theoretical research of the current control of a series of aluminium cell for the purpose of depreciation of the equipment of a check point control of technological parameters of aluminum cell and minimization of influence of anode effects on check point rectifiers are presented in the paper. We discuss the emerging technologies of current control series with intelligent control systems of technological options to improve the management process.

Computer model of automatic control system over the power transformers with intellectual regulator / S. Levytskyi, K. Kolmachov // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 51—56: fig. 6. Tables 4. Refs.: 7 titles.

There has been developed the computer model of control system by transformers with an intellectual regulator, different from well-known the account of resource of tap-changers transformers and variant delay on realization of switching that allows to prospect on firmness closed control system and to perfect the base of knowledge of unclear mathematical model of determination of the state of tap-changers.

The basic concepts and definitions of the theory of management by system of electrical safety and the risk analysis of electro installations / E. Bondarenko // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 57—62: refs.: 27 titles.

Stages of development of the theory and electro security practice are considered. Utility of methodology of risk for management of an electro security is noted. Taking into account modern knowledge conceptually-terminological ordering in the field of risk and an electro security is spent, the most fundamental concepts for the subsequent development of the theory of management by power safety system are defined.

Design of the frequency-guided asynchronous drive of trolleybus / L. Karpliuk, B. Panchenko, O. Nechai, T. Dzioba // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 63—66: fig. 5. Refs.: 6 titles.

The model of control system of drive of electric trains has been analysed in the paper. The conclusions have been drawn from the results of the research. The result may be applied during the designing of electric drives.

Structure and descriptions of laboratory stand for the estimation of power potential of wind streams / V. Bazalytskyi, B. Mokin, O. Mokin, V. Goreniuk // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 67—70: fig. 5. Tables 1. Refs.: 4 titles.

A laboratory stand is developed for the quantitative estimation of power potential of the wind streams created by train during motion. Advantages of the suggested stand are the cheapness and simplicity of construction — due to simplicity of construction and easy increase of measuring channels, the constructed stand can be used for the wide range of technical tasks.

Economic aspects of application of asynchronized generators on CHP plant / M. Segeda, V. Oleksin, A. Oleksin // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 71—75: fig. 1. Refs.: 7 titles.

Mathematical model of choice of optimal variant of tension adjusting on tires of CHP plant in the conditions of existence in the modes grid with surpluses of reactive-power is developed in the paper.

Model of the botnet / O. Savenko, S. Lysenko, A. Kryshchuk // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 76—81: fig. 4. Refs.: 7 titles.

The generalized model of functioning of the botnet is offered in the paper. The model of bot that functions within the limits of the botnet is suggested. The acquired models take into account the life cycle of the botnet and her properties appearing in the process of functioning and allow carrying out the search of new bots on the certain computer systems.

Generating artificial structures diagnosing of digital devices / S. Perevoznikov, L. Krupelnytskyi, V. Ozeranskyi // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 82—88: fig. 10. Refs.: 3 titles.

This paper analyzes the features of formation of generating artificial structures by introducing into the scheme of a digital device (DD) temporal relationships between the internal nodes. The conditions for the restructuring scheme of the DD, which are adapted to the organization of the testing process are defined. The technique of forming feedback generator that does not require special test items is developed in the paper.

Design of technological processes in Trace Mode SCADA-system / O. Kovaliuk // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 89—91: fig. 3. Tables 1. Refs.: 8 titles.

The algorithm of simulation of technological process using SCADA-system Trace Mode has been suggested. The proposed approach has been implemented by the example of the technological process of polyethylene manufacture.

Parallel organization of calculating by Adam's method for Cauchy problem solution / S. Levytska, A. Kardash, A. Dudykevych // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 92—95: refs.: 3 titles.

A possibility of difference Adam's method parallelizing for the first order ordinary differential equation is described. A systolic structure regarded as similar calculating medium has been constructed.

Dynamic change of coefficients of socialization and personalization of method of swarm of parts at the decision of task about the partition of economic load / Yu. Benderuk, M. Granik, V. Mesiura // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 96—98: tables 1. Refs.: 2 titles.

Advantages of application of method of swarm of parts are analyzed at the decision of the task about the partition of economic load. The method of dynamic change of coefficients of personalization and socialization of method of swarm of parts that provides the best results by comparison to the classic method of swarm of parts, is suggested in the paper.

The authentication method of subjects (objects) of interaction based on recurrent sequences / Yu. Yaremchuk // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 99—104: fig. 1. Refs.: 7 titles.

A method of authentication of subjects (objects) of interaction, based on the mathematical apparatus of recurrent sequences is suggested in the paper. The analysis has shown that, in general, the method has about the same level of cryptographic reliability and computational complexity as the known analogues do, but, under certain conditions, the method provides a significant speed increase as regards the authentication procedure, as well as the increase of reliability of the whole authentication process. There is also a possibility for converting the authentication methods, based on the sequence, into digital signature methods.

Dynamics of oscillatory processes in the environment of damp disperse materials in case of their vibro-blowing dehydration / I. Sevostianov // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 105—108: fig. 2. Refs.: 7 titles.

The laws of course of processes vibro-blowing dehydration of damp disperse materials are considered in this article. The equations for definition of the main dynamic parameters of fluctuations in the environment of a processed material at its dehydration are brought.

Capacity negasensor with a frequency output / M. Filyniuk, O. Lazarev, D. Bondariuk // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 109—112: fig. 6. Refs.: 6 titles.

The scheme of a capacity negasensor with a frequency output on RC generator has been investigated. It has been demonstrated that the availability of a negative capacity of C-negatron leads to increase of a sensor sensitiveness by 2...5 times, and the availability of a negative active resistance provides a regime of a generator, which simplifies circuit implementation. The matrix of capacitive negasensors, that has expanded functional abilities, has been worked out.

System of mentoring: management of corporate knowledge and skills / V. Prytula, Z. Levchenko // Вісник Вінницького політехнічного інституту. — 2013. — № 3. — P. 113—118: fig. 2. Tables 1. Refs.: 8 titles.

The article presents a historical overview of the formation mentoring, researches in this area are analysed. The authors have substantiated the role of mentoring as a system for management of corporate knowledge and skills in the process of adaptation, communication, education and training, on this basis, a model of the phased implementation of a mentoring program in the company has been theoretically developed and proposed.