ABSTRACT&REFERENCES

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MODEL DEVELOPMENT OF THE SOUTH REGIONAL ARCHITECTURE ART UNIVERSITY ORGANIZATION

p. 6–11

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The model of south regional architecture art university organization is considered from the standpoint of structuring an environment in which creative professions learning takes place. The model of the structure of information and recreation zone and the basic principles of its formation, which correspond to the requirements for educational institutions: information availability, mobile adaptation, availability of all functional areas. The basic principles of the formation of educational institution are: flexibility, versatility, energy efficiency
Keywords: *structuring the learning environment, information and recreational space, information ability, mobile adaptation, versatility, energy efficiency*

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QUALITY IMPROVEMENT OF MILITARY CLINICAL NUTRITION IN HOSPITAL AND FIELD CONDITIONS

p. 12–15

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The current state of military clinical nutrition is analyzed in the article. The basic components that affect the nutrition level of military in military hospitals are proved. Recommendations for improving the quality of military clinical nutrition in hospital and field conditions are proposed in the article based on the analysis of requirements for rational nutrition and current state of military clinical nutrition in the Armed Forces of Ukraine
Keywords: *clinical nutrition, military, diet, treatment, hospital conditions, field conditions, quality*

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PECULIARITES OF YIELD CAPACITY FORMATION AND QUALITY ANALYSIS OF FALSE FLAX SEEDS DEPENDIND ON FERTILIZERS AND MEANS OF PLANT PROTECTION

p. 16–18

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The results of studies of the intensification of false flax cultivation technology due to the application of herbicide Butizan 400, insec-

ticide Fastak, fertilizers $N_{120}P_{60}K_{120}$, fungicide Caramba and Piktor, fertilizers Intermag oil and Intermag Bor, leaf application of $MgSO_4$ are given in the article. It is established that the application of plant protection products and fertilizers provided the yield increase from 0.78 t/ha to 3.04 t/ha on the control or to 2.26 t/ha. Oil content in seeds increased from 42.6 % to 47.0 %

***Keywords**: false flax, intensification of technology, fertilizers, herbicides, fungicides, insecticides, yield capacity, quality*

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FORECASTING ACCURACY ESTIMATION FOR FRICTION COEFFICIENTS OF MANY-COMPONENT COMPOSITE MATERIALS

p. 19–22

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Methods of forecasting of friction coefficients for many-component composite materials are developed. Calculated and experimental volumes of tribotechnical characteristics of carbon-aluminum, metal-ceramic and bronze-fluoroplastic composite materials are presented. Maximal error of calculated and experimental values of friction coefficients is defined. It is 12 %

***Keywords:** composite material, forecasting, friction coefficient, tribotechnical characteristics, pressure, porosity, sliding speed*

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STRENGTH ANALYSIS OF SPIRAL PIPE WITH EQUALINCREASED SURFACE WITH REGARD TO INTERNAL FLOW

p. 23–28

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Strength analysis of brass spiral pipe with equalincreased surface at the internal air flow by means of CFD modeling is carried out. The aim is to determine the optimal geometric characteristics of spiral pipes that will be used to generate the heat exchanger. CFD modeling data verification is carried out using a comparison with the test object known from the literature
Keywords: *heat transfer, spiral pipe, equalincreased surface, forced convection, strength, three roller rolling technology*

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ANALYSIS OF THE IMPACT OF PACKAGING ON FOOD QUALITY

p. 28–36

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The article deals with specific features of storage of food products, the impact of destructive factors in the deterioration of their customer value and appearance. The role of the main types of modern packaging and their functions in maintaining and even in improve a number of objective and subjective quality indicators of food products and enhancement of their use is considered
Keywords: *packaging with modified gas environment, active packaging, smart packaging, packaging functions, food quality*

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ANALYSIS OF «BIG DATA» TECHNOLOGIES ON THE BASIS OF DISCRETE PROBABILITY INFORMATION MEASURE

p. 36–41

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The article deals with the information system approach to the analysis of types of «Big Data» processing technologies from the point of determining the discrete probability information measure in the study of objects of the real physical world. The basic disadvantages of «Big Data» modern processing technologies are outlined. The structure of self-organization of «Big Data» information system is outlined. The structure of types of «Big Data» processing technologies is outlined from the position of discrete probability information measure

Keywords: *measure, «Big Data» technology, information system approach, discrete probability information*

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RISK ASSESSMENT OF DELAYED DAMAGE DIAGNOSTICS OF TECHNICAL CONDITION OF BUILDING STRUCTURES

p. 42–45

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This article covers issues associated with the construction of risk assessment of delayed damage diagnostics of technical condition of building structures. Using the apparatus of fuzzy sets, mathematical models and methods of revealing of damage condition of building structures are de-

veloped. All this gives the possibility of creation and experimental study of the operation of the system for diagnostics of technical condition of construction designs of buildings

Keywords: *mathematical models of risk assessment, survey and assessment, technical condition, category, building constructions*

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Theoretical analysis of the radiating system for TREATMENT OF ovarIAN DISEASES OF THE COWS

p. 45–48

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Conducted in this article theoretical studies are focused on calculation of the geometry parameters and directional diagram of the radiating system for millimeter wavelength range for intrauterine treatment of ovarian diseases of cattle. Theoretical studies have shown that radiating system for intrauterine treatment of ovarian diseases of the cows can be created based on the hollow dielectric waveguide system coordinated with pyramidal horn radiator and the dielectric lens at the output of waveguide

Keywords: *ovarian diseases of the animals, electromagnetic treatment, radiating system, pyramidal horn-waveguide system*

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SELECTION AND CALCULATION OF OPTIMUM HYDRAULIC SCHEME OF HELIOCOLLECTOR WITH THE VACUUMIZED TUBULAR HEAT RECEIVERS

p. 48–52

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On the basis of the executed calculations the optimum hydraulic scheme of a heliocollector with the vacuumized tubular heat receivers based on the concentrator of solar radiation like D-foklin, which will provide uniform distribution of the heat carrier on all pipe lattice with the smallest hydraulic resistance, is determined. The performed research allows to ensure reliable functioning of the concentrating heliocollector with the maximum thermotechnical efficiency within the temperature range of 100–200 °C
Keywords: *hydraulic scheme, heliocollector, absorber, heat carrier, tubular heat receivers, resistance, expense, flow, calculation*

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THE ANALYSIS OF GRAVITY MODEL ON EXAMPLE OF COSMOLOGICAL EXPANSION

p. 53–63

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The gravity model, as a flow of 3-dimensional flat space in the matter, is proposed and checked with cosmological observations of the Universe expansion – for the compliance with Hubble's law. This principle laid the foundation for a self-sufficient cosmological model of the Universe that does not require the use of such terms as "dark matter" and "dark energy," responsible for the accelerated space expansion in modern physics
Keywords: *space flow, space density, space potential, the red shift, vortex gravitation*

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STRUCTURAL AND SEMANTIC ASPECT OF RESEARCH OF LEXICAL-SEMANTIC GROUP «PHYSICAL CONDITION OF THE PERSON» IN THE WORKS OF PETRO MOHYLA

p. 64–67

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The article is devoted to analysis of lexical units that describe concepts related to human life, its birth, existence and death, and words that point to physical health, strength and well-being. The structure of the lexical-semantic group "Physical condition of the person" is studied and two microgroups with dominant units Life and Strength are analyzed. The comparative analysis of the usage of these lexemes in the works of Petro Mohyla and in the modern Ukrainian language is done
Keywords: *Petro Mohyla, abstract vocabulary, lexical-semantic group, microgroups, seme, semantics*

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