

Operation Research and Decision Making

Development of a quantitative model of evaluation of maturity level of processes of software projects

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The developed model allows for quantitative assess the maturity level of processes of software projects and to identify priority areas for the development of software project processes. The model was tested on 10 companies. Spent in the company survey allowed us to estimate the level of maturity, to collect data on deviations in time and the cost of the project and build the equation of dependence of deviation from the measured level of maturity. This equation can be used by companies to predict the variation of key indicators of the project when changing the maturity of software processes.

Keywords: quantitative model, maturity level, software projects, development of a quantitative model

Polygraph method in psychological research of human emotions

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The structure and characteristics of human emotional maturity have been studied. It was worked out a program (based on software "Sheriff 7" of polygraph "Barrier-14") for testing a peculiar personal characteristic of juveniles - deceitfulness. Earlier developed diagnostic methods were applied to measure the emotional maturity of a person. The correlation between the emotional maturity of juveniles and their deceitfulness was established using a polygraph method. It was revealed that the low level of emotional maturity corresponds to the weak abilities of juveniles to lie. A research of ethical and social values of contemporary juveniles was undertaken to determine the areas in which the deceitfulness is most pronounced.

Keywords: emotional maturity, hide deceitfulness, polygraphs «Barrier-14» («Sheriff 7» software)

Multi-criteria decision-making model based on the level of doubt for information and training system

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The urgency of developing information and training system based on multicriteria decision-making model is due to both scientific purposes better understanding of the information processes of learning and practical objectives to create more effective information and training systems, the implementation of which contributes to the quality of distance learning. The transition to this technology involves the use of new teaching methods, approaches, principles of organization of the learning process, including on the basis of information and training systems. Therefore, in this paper concerns the problem-oriented learning management based on multicriteria decision-making model that takes into account the level of doubt the user. The proposed method of measuring the level of doubt the user gives a clearer and more "transparent situational picture" for a more objective decision-making. Also, the method makes it possible to reduce the probability of guessing the correct answer, which increases the objectivity of knowledge in diagnostic systems for process control training on remote technology.

Keywords: multicriteria, distance learning, doubt

Hot spot and development trend of domestic information science

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Fundamental approach to literature metrology were introduced in this paper to make a statistical analysis on the thesis of library and information science during the period of the 11th Five-Year Plan of China with academic focus on CNKI, CSSCI collections, citation frequency, productive authors and authorities. With academic defects and deficiencies summarized from the statistical study, this paper aimed at making recommendations and references for the disciplinary development planning of library and information science, faculty construction and talent cultivation, as well as relative researching concerns.

Keywords: bibliometric studies, library information science, disciplinary development, statistical analysis

Comparison of measured by results of the test system used e-learning in Konstantin Preslavsky University of Shumen through practical tasks

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In the work are discussed, analysed and compared acquired ratings from students trained in Shumen University used alongside the traditional way of teaching and platform implemented at the university e-learning. Compared the results obtained by assessing the practical task with those achieved in the electronic ultimate test.

Keywords: practical use of systems for e-learning, analysis of the results in the evaluation of practical tasks and solve computer test

Mobile technologies and electronic governance

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This paper looks at some of the problems of electronic governance in the Republic of Bulgaria. It also provides a summary of the advantages and disadvantages of providing e-services in the e-health sector. An optimized algorithm is then drawn up, upon which a model with vein code biometric identification for web-based systems is applied in the process of providing e-services in the healthcare sector. This model provides a much higher level of authenticity in data processing in comparison with the traditional customer service procedure. A comparative analysis is built upon the various criteria of mobile websites and applications, where the choice of mobile application analysis is well-founded. The major stages of mobile application development are traced and a preliminary research on their precision and convenience is carried out.

Keywords: e-Government, e-services, biometric identification, mobile applications

Mobile sites as a part of the digital model of modern daily newspapers

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Changes in the sphere of conventional printed publications have been acquiring global dimensions. Is there any future for the printed newspapers? Problems of the daily newspapers transition from paper to digital bearers are discussed in the present paper. A model of the future digital newspaper is presented here. The mobile sites of Bulgarian newspapers and magazines are viewed in the paper. The advantages of the mobile platforms through smart phone access are presented here. The sites have been viewed in the aspect of the necessity of "New digital model of the modern newspaper." An analysis of their utility in the point of view of readers and news publishers has been made.

Keywords: Digital model, mobile sites, news, newspapers, magazines

Implementation of a course in "artificial intelligence and expert systems" on top of a distance-learning platform

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In the current paper, presented is an implementation of a distance-learning course on the subject of "Artificial Intelligence and Expert Systems" for students pursuing bachelor's degree in the field of "Informatics and Information Technologies". The distance-learning platform used by the university is based on Moodle. The teaching materials are in the form of lectures, promoting discussions. For verification of the knowledge gained by the students, tests and analysis of the results are performed.

Keywords: distance learning platform, distance learning, course, test, discipline

Nature, meanings, and elements of the marketing strategy

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A review was made, considering the views of 10 leading foreign and Bulgarian authors regarding the nature and elements of the marketing strategy. Based on the different approaches, the meaning of the marketing strategy and its efficient application, a new vision is represented regarding the nature of the marketing strategy, methods for consistency, and combination of elements, and their content.

Keywords: marketing strategy, elements of the marketing strategy