Multiple criteria mechanisms supporting clinical decisions making in the model of the repository based on the patterns

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In this paper opportunities of usage diagnostics conclusion mechanisms based on patterns defined in multi criteria patient's medical data space were introduced. Such mechanisms might be used in medical resolve's supporting procedures in decision nodes of clinical pathways. The essence of the presented concept is to determine the set of diagnoses of which there are no higher probable ones when observed disease symptoms and risk factors.

Keywords: clinical decision support system, clinical pathways, clinical patterns, multicriteria optimization, Pareto set

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The model of an information module for decision support determining the initial medical diagnosis

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The main result of the work is a model of an information module for decision support in determining the initial medical diagnosis. This module is based on medical data, symptoms of disease and risk factors that generate a set of diseases from which there is no more probable (Pareto set). In addition, allows a ranking of diseases due to the distance from the so-called ideal point in the space of diseases included in the repository.

Keywords: initial medical diagnosis, symptoms of disease, risk factors, multicriteria optimization, Pareto set, the ideal point

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An AHP method to ERP system selection

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An enterprise resource planning (ERP) is an enterprise-wide application software package that integrates all necessary business functions into a single system with a common database. In order to implement an ERP project successfully in an organization, it is necessary to select a suitable ERP system. This paper presents a model, which is based on AHP – the multi-hierarchical method to analysis of decision problems.

Keywords: AHP, ERP, optimization

Test methods for selected value-added services in wide area networks

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In this paper selected value-added services used in wide area networks are characterized, as well as there are also discussed methods for formal description of the selected value-added services to their testing and quality evaluation. Additionally there are presented examples of numerical indicators for content delivery systems and techniques of network traffic classification, which might be used at the stage of testing selected value-added services.

Keywords: value-added services, wide area networks, CDN, PBM

The fine-coarse network model for simulating crowd behavior

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The paper covers topics concerning the creation of models and simulators of crowd behavior and their usage in decision support systems. Models and crowd behavior simulators were originally created to understand the phenomena occurring in a real crowd. Due to the complexity of observed processes constructed models only chosen aspects are usually described, while others are being generalized or skipped. Creating a model requires making a choice between descriptions which are constant or discret, deterministic or random, and micro- or macroscopic. The paper introduces a developed model of crowd movement and behavior allowing a simulation of the movement of large masses of crowd in a city agglomeration environment. In model the representation of environment uses a combination of two approaches: coarse network model and fine network model simultaneously. Using a self-made simulator the author conducted experiments showing advantages and effectiveness of implemented model.

Keywords: crowd model, pedestrian behavior, pedestrian movement

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The problem of eliminating false alarms in computer systems for the protection of peripheral

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The article examines the problem of protection of surface objects via a computer security system peripheral control security barricades set up in the form of integrated in its take-detectors. Examines the problem of false alarms in this type of protection systems, which are random and continuous and variable over time. Described in a formal way through a process of stochastic behavior of the barricade at the impact of random factors, and it is formulated and solves the task of determining the sensitivity of the detectors tightening to minimize the formation of false alarms.

Keywords: computer security system, false alarm

Requirements Engineering in Agile Software Development

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Agile Software Development approaches have become increasingly popular during the last few years. Agile practises have been developed with the aim to deliver software faster and to ensure that the software meets changing needs of customers. We can find out that there are a lot of practices and approaches which are created and developed in context of traditional Requirements Engineering and which are used by Agile methods with a good result. The goal of this article is to show how the Requirements Engineering technics are used by Agile methods and how this methods can be improved by them.

Keywords: Agile, Requirements Engineering, Software Engineering