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*S.N. Kirillov, D.S. Semin.* THE SIMULATION MODEL FOR A SPACE OBJECT OBSERVING IN VISIBLE AND INFRARED BANDS INFLUENCED BY INTERFERENCE FACTORS

Key words: simulation, a model of perturbed motion, the model of trajectory measurements, optical range-zone, infrared range.

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Key words: Segmentation; segmentation on watershed with marker usage; vice finding; thresholding; leather.

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Key words: orthogonal wavelet functions, weighted Sobolev space  $W_2^1$ , image digital processing.

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Key words: linear vector autoregression, spectrum vector modeling of time sequences, redefined Yule-Walker's equation.

The task of the medical diagnostic data spectral analysis is considered. Data are simultaneously received from three sensors: heart pulse, volume of the air into lungs and capillary current of blood. It is shown, that the application of redefined vector autoregressive model gives the possibility to detect pulse variation under conditions of short (5...10 seconds) experimental sample. In a problem of express medical personal diagnostics the method offered allows to reduce 1,5...4 times a relative error of heart pulse frequency estimation in comparison with usual vector regression of the same order  $p=2...4$ . The advantage is reached by taking into account linear prediction errors beyond the length  $p$  of a lag.....19

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Key words: objective methods of synthesised speech signal quality estimation, wideband speech signal, correlation coefficient.

In an article the necessity of objective synthesised speech signal quality estimation according to

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Key words: object tracking, coordinates measurement, difference algorithm based on template matching, object masking.

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Key words: operator state, cardiac pacemakers, electrocardiosignal, basic point, the nonlinear integral transformations, neural network.

The description of a new method and its possible implementation as a neural unit for determining the operator pacemaker in automated manufacturing based on the extraction of basic points on the TP-interval and the use of nonlinear integral transformations for the independent selection of teeth electrocardiosignal, allowing to determine deterioration of the operator of the real work, is presented. In neural unit two neural networks are used: single-layer, carrying out the selection of teeth electrocardiosignal, and two-layer, carrying out the identification of operator pacemaker species .....36

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Key words: spread code sequence, OQPSK, MSK, adaptive synthesis, industrial control systems.

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Key words: remote training, standard, specification, removed access, laboratory, research.

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Key words: reengineering, relational database, relation, attribute, the functional dependence.

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Key words: dynamic probabilistic loaded graph, spatially - temporary dynamic probabilistic loaded graph, casual process, casual column, mathematical modeling.

The results of a given article present further generalization entered by the author in the works [1], [2] concerning the concepts of dynamic probabilistic loaded graph and spatially - temporary dynamic probabilistic loaded graph. The concept of spatially non-stationary spatial - temporary dynamic probabilistic loaded graph is entered. Its properties are analyzed, the definitions of accompanying concepts are given .....58

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Key words: near-doubles, a method of "shingles", Jaccard similarity, lines similarity computation, computation completeness.

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Key words: a transport problem (task), algorithm, minimization, service, the procurement request, the supplier, the consumer.

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Key words: tristrion, impulse signals, induced current, convection current, ultrawideband signal

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Key words: auto-electron emission, hot-electrons, the temperature of hot electrons, thread-like crystals.

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Key words: system of planning, resources provision, design engineering organization

The system of resources provision planning is the key element of strategically oriented budget management in design engineering organizations, developing special purpose equipment. The article discusses problems and solution methods of resources provision planning to support ongoing operation of design engineering organizations. The article provides recently developed theoretical considerations and methodological tools that have been widely used in systems of resources provision planning in design engineering organizations.....97

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Key words: fractal analysis, R/S - analysis, trendsstability, long-term memory, depth of the forecast.

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Key words: regional competitiveness, model of regional competitiveness, competitiveness factors, statistical indicators

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Key words: long-term target programs, departmental target programs, area of effective

application, interaction of target programs.

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Key words: population correspondence, a matrix of correspondence, selective supervision parameters.

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Key words: Vector quantization, fast search, code book.

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