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Key words: antinoise coding, data transmission systems, data storage systems, non-binary codes, Reed-Solomon codes, Hamming codes, non-binary multithreshold decoder, concatenated codes.

The paper deals with efficiency of non-binary multithreshold decoders (q MTD) for self-orthogonal codes over q -ary symmetrical channels. New concatenated code consisting of q MTD and modified Hamming code is suggested. The offered concatenated code is shown to decrease symbol error rate on three and more decimal orders in the field of q MTD effective work.....7

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Key words: satellite network, interactive access, capacity, dynamic reservation, stochastic programming.

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Key words: multi-criterial synthesis, sidelobe level, autocorrelation function (ACF), lower pseudorange estimation bound in the field of white noise, root mean square bandwidth, correlation losses, optimization parameter.

Multi-criterial signal synthesis algorithm for GNSS including several quality indexes is offered. Obtained signals are shown to have better accuracy positioning (more 5...15 dB-Hz) and lower sidelobe ACF level (less 21.6 %) while correlation losses are negligible (lower 1 dB) in comparison with existing signals of GNSS. The synthesis permits to obtain signals more appropriate for specific frequency system resources22

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Key words: neural network converters, frequency, time interval, code, perceptrons, neural network training algorithms.

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Key words: Ontology, ontological approach, intellectual capital, information-intellectual resources, confinement-modelling.

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Key words: photosensors, contact phenomena, nanostructured disordered semiconductors, modified time-of-flight technique.

The paper is devoted to contact phenomena investigation in photosensors and photovoltaic cells based on nanostructured disordered semiconductors. The Stebler-Wronski effect causes not only deterioration of semiconductor transport properties, but also redistribution of contact electric field and decay of photogenerated carrier collection. Thus, device degradation is determined not only by photoinduced defect initiation, but also by influence of these defects on contact phenomena in nanostructured disordered semiconductors.....58

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Key words: deep level transient spectroscopy, deep level, quantum well, quantum dot, capture cross section, relaxation current.

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Key words: Lamb waves, Comsol Multiphysics, langasite, LGS, modeling, wave profile, natural unidirectivity.

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Key words: decision support information system, competence approach, competence model, ontological approach, specialist profile.

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Key words: efficiency, program complex, search of the visual information, decision-making, quality of software, experimental modeling, testing of productivity, statistical methods of the analysis.

The approach to estimation of information system program complexes (PC) efficiency, based on search of the visual information in a database (DB) at decision-making (DM) depending on observable zone of the responsibility or as a result of its monitoring is offered. The analysis of regulations concerning software quality characteristics choice, their evaluation and experimental modeling during basic PC elements performance testing is carried out 103

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Key words: management, identification, diagnostics, geometrical method, modeling, nonlinear systems.

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