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Keywords: data compression, weather monitoring, weather prediction, temperature sensors, compression saving, data differencing.

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Keywords: explosion protection, multipoint electro-optical system, explosion source coordinates, method of gravity center.

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Keywords: temperature, pyrometer, spectrum, thermal control, neural network.

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Keywords: functions testing, data processing, testing program, images analysis, IMAQ Vision library, displays indications reading, LabVIEW environment.

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Keywords: a supernumerary situation, a behaviour pattern, the linguistic analysis, temporal dependences, search of legitimacies, fuzzy model.

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Keywords: a reference meter electricity meter, calibration, metrological characteristics, accuracy, errors.

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Keywords: gas detectors, calibration, verification, dynamic mode.

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Keywords: capacitor sensor, transient, instant values, a constant of time, quantization, an error.

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Keywords: cardiac system, wireless network, cardiac monitor, ergometer.

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Keywords: GSM-module, WISMO228, RF line.

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Keywords:. electrophysiological monitor, ECG, analog front end components, noise, measuring channel.

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Keywords: ultrasonic emitter, temperature, matching system, resonance frequency.

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Keywords: nondestructive testing, metal-polymer composite, defect, method of eddy currents.

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Keywords: cable, capacitance per unit length, the electrical conductivity of water.

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Keywords: frequency measurement, the method of coincidence, probabilistic model, the observational methodical error of discontinuity.

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Keywords: frequency measurement, the method of coincidence

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Keywords: pendulum deformer, automatic control system, analog-to-digital converter, microcontroller.

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Keywords: isolation of cable products, control, defects.

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Keywords: voltage RMS, ADC integral nonlinearity, measurement error, ADC dynamic parameters, polynomial approximation.

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Keywords: control, autodyne sensors, near-field microscope, active antenna.

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Keywords: optical measurement, unified product model, automation of inspection operation, three-dimensional modeling.

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Keywords: sensors, electric grids, high-voltage, modular platform.

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Keywords: anisotropy, open resonator, reflection coefficient, rock.

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Keywords: frequency, a harmonious signal, the instant values, the phase-shifting block, quantization, an error.

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Keywords: strength characteristics, stress-strain diagram, filling material, a piezoelectric transducer, strain gauge.

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Keywords: odontogenic cyst, kriocystèktomiâ, dontogenous sinuit, elektrotermometriya.

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Keywords: informatization of housing and communal services, administering organization of the housing and communal services, automated information system, municipalities, unified information re-source base of the municipal of the housing and communal services, web services.

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Keywords: a data base, frequency and a rank of words, computer science, the art text, cultural science, measuring of culture.

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Keywords: fiberglass rod, mechanical characteristics of polymeric composition materials, method of a longitudinal bend, information measuring system, optical method of measurement.

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Keywords: decision support systems, management, decision-making, the franchise, the franchisee, software.

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Keywords: service medical robot, habitat, properties of objects of the external world, paradigm of the object-oriented programming, recognition of images.

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Keywords: electrocardiography, medical system, telemedicine, data transferring, GPRS.

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Keywords: damage, informative resources, unfavorable events, model in spacestate, filter of Kalman.

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Keywords: zero-knowledge protocol, identification protocol, the binary challenger, oblivious transfer, randomizer, the information rate.

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Keywords: zero-knowledge protocol, identification protocol, the binary challenger, oblivious transfer, randomizer, the information rate.

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M.P.Baculina
Effective run-length encoding for facsimile network data transmission

In this paper the problem of effective run-length encoding for facsimile network data transmission is considered. As model the Markov source of an order n generating symbols with unknown conditional probabilities is considered. In difference from earlier known methods the proposed code construction allows to reach any redundancy with preservation of small memory size and small average time of coding and decoding.

Keywords: data compression, run-length coding, memory size, encoding rate.

V.G. Mironova
Classification of information systems for handling confidential information

One of the stages of the pre-project survey of information systems processing sensitive information is their classification. This paper proposes an original method for determining the classification criteria and the formation of a class of information systems for handling confidential information.

Keywords: confidential information, the information system, classification criteria, the class.

PART VII. BRIEF POSTS

A.O. Shumskaya
Identification features of text messages in the establishment of the author

The article presents the main approaches to the establishment of authorship, it is highlighted the role while identifying features of the text. In the text are the basic properties of the identifying features of the texts used in attribution

Keywords: text, authorship, identifying feature, attribution.

A.Y. Iskhakov
NFC markers disadvantages in authentication process

The article presents research the applicability of the high-frequency wireless communication technology of short-range transport (Near Field Communication - NFC) as authentication information. The research is conducted in connection with the development of two-factor authentication system using a software token that is stored in the mobile communication device.

Keywords: NFC; authentication, identification, marker, token.

S.Sakharov
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The article deals with the problem of increasing the effectiveness of support for small and medium businesses, through the development and implementation of integrated solutions in the form of an Internet portal. Information system is presented in the article has already been partially implemented and is being tested.

Keywords: information system, portal, small and medium business, state of the economy.

N.G. Kudryavtsev, D.V. Kudin, E.O. Uchaikin, A.U. Gvozdarev
Design of hardware and software for measurement vertical atmospheric electric currents

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Keywords: data logger, measuring experiment, atmospheric currents.

V.A. Terekhov
The comparative characteristic of principles of measurement of concentration of carbonic gas in capnography

In article the review of all principles of measurement of concentration of carbonic gas is considered: masses - spectrometry, the Raman spectroscopy, the infrared photoacoustic analysis, the ultrasonic high-speed analysis, the ultrasonic absorption analysis, the infrared optical analysis. The main characteristics of each principle and as their merits and demerits are described are stated.

Keywords: masses–spectrometry, capnography, Raman spectroscopy, infrared photoacoustic analysis, ultrasonic high-speed analysis, infrared optical analysis.

S.A. Panphilov, A.S. Savanin
Analysis of the impact of reliability and stability of the metrological characteristics of measuring instruments for interval of verification

In article influence of metrological reliability and stability of measuring instruments on their operational properties is considered. Justification of need of development of mathematical models for determination of numerical values of metrological reliability and stability of measuring instruments is given.

Keywords: measuring instrument, reliability, stability, interval of verification.

V.V. Kirienko
Review of qualified RTOS for embedded systems used in the development of modern diagnostic equipment

The article deals with the basic requirements for an RTOS, which are used in the creation of diagnostic equip-ment. Selects the commercial and certified RTOS suitable for making medical equipment.

Keywords: embedded systems, diagnostic equipment, medical, RTOS.

M.A. Lomakin
Bases of constructing the system of stabilization of the on-board platform in the conditions of pitching

In article basics of creation of system of stabilization of an onboard platform and as methods of definition of a deviation of a platform from azimuthal and horizontal situation are covered.

Keywords: stabilization, onboard platform, azimuthal and horizontal orientation.

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The list and the contents of the sections of testing software for quality assessment of ecological expert examinations 284

The list and the contents of the sections for quality assessments of eco-logical expert examinations are considered in the article. Testing software for assessment of ecological expert examinations is suggested..

Keywords: ecology, ecological expert examinations, testing software.

D.N. Novikov, A.Y. Suranov

Opto-electronic meter of profile parameters fiberplastic rods based on multielement photodetectors 286

Designed and manufactured prototype opto-electronic device for measuring the diameter of extended objects. Made its calibration

Keywords: optoelectronic measurement, measurement of the diameter, calibration, the line target, multielement photosensors

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Ecological expert examination: the assessment of experts' competence 288

The list and the contents of the sections for the assessment of experts' competence in the field of ecological expert examinations are considered in the article.

Keywords: ecology, ecological expert examinations, the assessment of experts' competence.

Y.M. Pahomenkov

An algorithm of circuit synthesis of the low-frequency active filter 289

The article discusses an algorithm of circuit synthesis low-pass filter with the minimum static coefficient of transmission error. We sharpen the formula for the calculation of the nominal values of resistors and capacitors belonging standard parametric series. The realization of the considered algorithm in the program MathCad

Keywords: analog filters, synthesis, optimization, approximation, modeling