Tyurikov A.V.

In paper questions of development of the principles of
application of the neural fussy ANFIS type network
for classification the STM-images of nanoobjects are
considered. The fuzzy inference system with discrete
output variable is described, results of classification of
a noisy profilogram of a nanoparticle of copper are
given.

Keywords: the scanning tunnel microscope,
nanoobjects, neural fuzzy network, classification,
STM-profilogram.

Patrusheva T.V., Patrushev E.M., Nazdryuhin I.S.

The paper discussed functional converter of
measurement signals based on chaotic oscillator. The
purpose of this function is to detect periodic signals
under the background of strong noise.

The main element of the detector is a chaotic oscillator
operating near the boundary of the bifurcation
between a chaotic and periodic states. By type of
movement in the chaotic system should be judged on
the detected signal. The paper presents a version of
the detector, allowing to define this state. The
principle of its operation is based on counting the
number of turbulent bursts on interval of detection
time.

Keywords: measurements transducer, bifurcation,
intermittency, chaotic oscillator.

Voronov A.S., Kaligin N.N.

The article is about the development and validation of
a simulation model of a low-power laser diode with
integrated photodiode in NI MultiSim environment.

Keywords: simulation, laser diode, MultiSim.

Bagmet A.S., Zryumov E.A., Zryumov P.A.

The article describes the software development
process, which allows using high-speed video
cameras to make the control Polyharmonic vibration
parameters. At the core is developed by the effect of
leakage of the spectrum.

Keywords: Polyharmonic vibration control method,
spectral leakage, software, high-speed video camera.

Shelkovnikov E.Y., Kirillov I.A., Beda D.A.

In paper the algorithm of work of the program for
processing of results of modeling is given in an
ANSYS package. The program allows carrying out the
comparative analysis of the stress-strain state of
samples at various parameters of the studied
materials. Output information is displayed in the
form of a profilogram of values of coefficient of
change of tension of the sample.

Keywords: stress-starin state, finite element method,
three-dimensional modeling, filling material, hard
tissues of the tooth.

Padalko V.S., Zryumov E.A., Pronin S.P.

The article investigates the structure of the image of
the test object obtained by the vibration of the test
object with a frequency close to the frequency of
occurrence of stroboscopic effect. Found measurement
attribute for determining the vibration frequency.

Keywords: vibration, image structure, the test object
measurement attribute.

Koldin I.Y., Suchkova L.I.

The article is devoted to the development of software
for processing periodic monitoring data using the
geometric pattern. The software performs the

formation of simple and complex geometric patterns on the basis of measurement data obtained from the database, verification of compliance with the measurement data these patterns.

Keywords: Periodic data, the geometric pattern.

Voronov A.S., Tyufyakov A.S., Kaligin N.N.
THE SCIENTIFIC BASIS OF THE ALGORITHM OF

The article is devoted to exploring the scientific basis of the algorithm of tips generating for driver. Tips to help select the optimum driving style. Optimality means a minimum fuel consumption and less wear of the truck. The analysis is based on the characteristics of diesel engines for trucks.

Keywords: driving pattern, driving event recognition, driver style, driver assistance, driver safety.

Krasnoslabodtsev R.A., Tushev A.N.
RESEARCH OF THE EFFICIENCY TWO-
DIMENSIONAL FILTERING OF INPUT SIGNALS
BY NEURAL NETWORK FOR RECOGNITION OF

The article is devoted to the study of the effect of the conversion of two-dimensional input signals for neural network. The comparative analysis of the most significant conversion methods of filtering, such as Sobel and Canny operators is completed.

Keywords: neural network, recognition of graphical objects, transform input signals, Sobel operator, Canny operator.

Pervuhin B.S., Afonin V.S., Yushkova V.B.
THE STATE AND PROSPECTS OF DEVELOPMENT
OF THE MEANS METROLOGICAL ASSURANCE

Based on the analysis of the needs of the industry and current state of metrological provision of conductometric analyzers of liquid suggested path to improve their metrological support.

Keywords: conductivity meter, standard, methodical error, the impedance of the electrodes, conductive constant.

Shelkovnikova Yu. N.
RESEARCH OF METROLOGICAL
CHARACTERISTICS OF THE VISCOMETER FOR
DETERMINATION OF RHEOLOGICAL

Paper is devoted to a research of metrological characteristics of the offered viscometer for determination of rheological parameters of drilling fluids. Dependences of errors of determination of viscosity and a yield point of drilling fluid in the offered viscometer from changes of design and operational data are given. It is shown that small errors of the precision viscometer are reliably provided with high precision of modern tools at production of capillaries, and also the measuring instruments used for finding of operational parameters.

Keywords: drilling fluid, viscometer, capillary tube, viscosity, fluidity limit, error.

Ivchenko S.P., Suchkova L.I.
DEVELOPMENT OF SOFTWARE TOOLS FOR
DATA ANALYSIS USING TEMPORAL

The article is devoted to the development of algorithms and implementation of methods intended for patterns identification in the group of time series using a special type of grammar, as well as the development of means of formalizing the results of analysis.

Keywords: data analysis, grammar, expert system.

Gulyaev P.V.
THE INTEGRATION POSITIONING TOOLS FOR

The article is devoted to methods of sample displacement calculation by inertial piezodrive in positioning system of scanning probe microscope. It is shown, that integration results of sample displacement calculation, received by means of software and sensors, allows to increase reliability of calculation.

Keyword: scanning probe microscope, image analysis, dispersity control, positioning system, piezodrive.

Gopachenko J.O., Yakynin A.G
ALGORITHM OF SOFTWARE COMPLEX'S MODUL
FOR MODELING QUEUING SYSTEM ELECTRICAL

This article is discussed the algorithm to calculate the performance indicators queuing system of electric charging stations. On the basis of these indicators are analyzed feasibility of placing electric charging station for given characteristics.

Keywords: queuing system, electrical charging stations, performance indicators.

Matuschenko Yu.Ya., Sedalischev V.N., Sergeeva Ya.S.
SENSITIVITY ANALYSIS OF SEMICONDUCTOR THERMOCONVERTERS

The article contains results the analysis of the temperature sensitivity diode in different variants of the formation of sensor output signal. A variant of construction of the temperature sensor was examined based on the use of a series resistor at the output as a voltage signal when the voltage stabilization of the diode allows to provide the high sensitivity of the measurement process, the primary conversion.

Keywords: Semiconductor temperature sensors, modeling, Mathcad; MicroCap.

Lysak I.A., Lysak G.V.
CALCULATION OF THE VELOCITY FIELD OF THE EJECTING DEVICE FOR SPRAYING OF VISCOUS LIQUIDS

The article is devoted to the calculation of an airflow velocity using finite-element method in the ejecting spray device at different values of the critical section area of its annular convergent nozzle.

Keywords: gas-dynamic calculation, ejecting spraying device, airflow velocity field, viscous liquids spraying.

AFONIN V.S., SELIVANOVA A.S., TROPIN R.V.
ANALYSIS OF MEASURING CHANNEL MODES WITH A CAPACITIVE TRANSDUCER FOR DETERMINING THE ELECTRICAL PROPERTIES OF THE BULK MATERIAL

The article is devoted to the calculation modes of measuring channel with the EP. Proposed addition to the EP scheme of substitution of the controlled substance defined sensitivity of the circuit to the individual process parameters.

Keywords: dielcometric method, a capacitive transducer (EP), the bulk material, the electrical equivalent circuit.

GOLDSTEIN A.E., KISELEV E.K.
MEASURE THE INSIDE DIAMETER CARRIER PIPE OF EDDY CURRENT PROBES

The method proposed earlier eddy current inspection of the internal diameter conductive pipes and offers its improvement. The existing eddy current transducer design algorithm for converting its signal, structural control scheme are considered.

Keywords: mathematical model, the amplitude-phase conversion, eddy current probes, eddy current testing system.

Umbetov S.V., Pronin S.P.
RESEARCH OF DEPENDENCE OF THICKNESS OF CORROSION OF METAL ON SPECTRAL COMPONENTS OF THE REFLECTED LIGHT

The result of a research of dependence of change of color histograms on thickness of corrosion of a surface of metal is reflected in article. As key parameter the histogram median line is used. It is set that this parameter is capable to provide monitoring of thickness of corrosion according to the color histogram in the small range.

Keywords: corrosion, color histogram, digital image, defect, monitor.

Padalko V.S., Zryumov E.A., Pronin S.P.
RESEARCH OF THE EFFECT OF ROUGHNESS SURFACE OF ORGANIC GLASS ON THE LIGHT SCATTERING

The article is devoted to the study of the effect of roughness surface of organic glass on the light scattering. The study was conducted with the use of organic glass plates of different thickness and with different surface roughness. Four different experiments were carried out. Qualitative and quantitative characteristics of light scattering are produced.

Keywords: dynamic test object, optical control, light scattering.

Prokopov D.A., Dontsov A.A., Lagutin A.A.
MAPPING OF AGRICULTURAL LANDS OVER THE ALTAI REGION TERRITORY USING OLI/LANDSAT-8 DATA

The article is devoted to the investigation of the ability of the mapping of agricultural lands using the data of the OLI radiometer aboard Landsat-8 satellite and the eCognition Essentials software system.

Keywords: Mapping, segmentation, eCognition Essentials, agricultural lands, Altay region, OLI/Landsat-8.

Horokhordin A.Yu., Abanin V.A.
TECHNIQUE OF FORMATION OF USER APPLICATIONS OF THE INFORMATION SYSTEM OF TESTING LABORATORY INDUSTRIAL ENTERPRISE

Basic provisions of a technique and the principles of formation of user interfaces of an information system of testing laboratory of the Biysk plant of fibreglasses are considered.

Keywords: information system, testing laboratory, database, quality of production, user's interface.

Dorozhkin M.V., Korotkih V.M.
ENHANCE THE ACCURACY OF THERMAL PHYSICAL PARAMETERS IN AN EXOTHERMIC REACTION WITH VARIABLE EMISSIVITY 90

The article is devoted to improving the accuracy of temperature measurements of luminance pyrometer. The ways of increasing the accuracy of exothermic reactions, as well as a method for determining the coefficient of emissivity at all stages of the thermal process.

Keywords: temperature measurement, emissivity factor of capacity.

Part 2
VIRTUAL AND INTELLIGENT SYSTEMS OF INFORMATION PROCESSING IN ECOLOGY, BIOLOGY AND MEDICINE

Dontsov A.A., Sutorikhin I.A.
GEOINFORMATION SYSTEM FOR MEASURING OF LAKE SURFACE AREA 93

A data processing software is developed to measure surface area for different types of lakes using information from Landsat-8 and Sentinel-2 satellites. To demonstrate realization of the suggested algorithm, we measured surface areas of such lakes like Krasilovskoye, Bolshoye Yarovoye, and Kuchukskoye in Altai Krai, as well as Lake Teletskoye in Altai Republic. We also estimated errors in surface area measurements that are acquired during data processing.

Keywords: Remote Earth Sensing, GIS, lake, Landsat-8, Sentinel-2. Spectral Angle Mapper.

Sutorikhin I.A., Frolenkov I.M.
CHANGES OF THE CHLOROPHYLL CONCANTRATION AND SPECTRAL TRANSPARENCY OF THE WATER AREA AT DIFFERENT DEPTHS OF THE LAKE TELETSKOE 2015-2016 96

The paper presents the result of field measurement of the spectral index of water transparency, chlorophyll concentration, values of light attenuation at different depths were calculated. The expedition took place in July 20015-2016. Water samples were selected with the help of deep-sea sampler on board the ship-lab. The measurements were carried out in the range of 400-800 nm on a spectrophotometer PE-5400UF. The results obtained showed the range of variation of the index of the spectral attenuation of light at different depths in the studied years.

Key wards: the concentration of chlorophyll, spectral light attenuation, spectrophotometer, environmental monitoring, Lake Teletskoe.

Sutorikhin I.A., Sinelnikov A.A., Kurakov S.A., Elchaninova O.A.
DATABASE OF THE AUTONOMOUS MEASURING COMPLEXES INSTALLED IN THE MOUNTAIN CATCHMENT 102

The article is devoted to hydrological monitoring in mountain catchment and description of the database coming from the Autonomous measuring complexes are located in different parts of the catchment.

Keywords: monitoring, database, mountain catchment.

Sutorikhin I.A., Bukaty V.I., Ekkerdt K.Yu., Litvikh M.E.
SIZE AND CONCENTRATION OF SUSPENDED MATTER IN LAKES' WATER OF ALTAI KRAI ... 105

The paper deals with the influence of suspended particles in different-type lakes of Altai Krai for 2014-2016. The data on the size of polydisperse suspension particles and their distribution were presented. The assessment of light scattering coefficient and its contribution to the total spectral attenuation was made.

Keywords: suspended matter, total light attenuation, pure water, yellow substance.

Sutorikhin I.A., Bukaty V.I., Frolenkov O.M., Frolenkov I.M.
EFFECT OF WATER ON SUSPENDED DIUMAL VARIATION OF THE SPECTRAL TRANSPARENCY OF THE WATER LAKE 108

The paper presents the results of measurements of the daily dynamics and hydrooptical characteristics of hydrothermal water to the lake Krasilovsky (Altai Krai), conducted in the period 18.07.2016 -19.07.2016. consider the influence of physical, chemical, and biotic factors on the spectral water transparency.

Keywords: water clarity, light attenuation, lakes, phytoplankton, water mist.

Frolova M.S., Frolov S.V.
OBJECT-ORIENTED DECOMPOSITION
OF INFORMATION MODELS OF MEDICAL

The article gives an explanation of the concept of information modeling, and information model. Built BMI information model based on the method of object-oriented decomposition, which is a hierarchical system related classes. On the basis of feasibility analysis identified BMI group, where mistakes when choosing BMI can lead to significant financial losses and health care facilities in the region.

Keywords: health care setting, medical technology, information model, object-oriented decomposition.

Zryumov E.A., Zryumov P.A., Zryumova A.G., Grebenshchikov Yu.V., Nemykin V.V., Gokk P.E., Klimenko R.K.
DEVELOPMENT OF A REMOTE MODULE
"HEMOSTASIS SYSTEM: STRUCTURE, FUNCTIONS
AND METHODOLOGY OF THE RESEARCH"
TO IMPROVE THE SKILLS OF DOCTORS
IN THE FIELD OF RISK MANAGEMENT

The article describes the stages of development of remote module "System of hemostasis: structure, function, research methodology" used for training doctors in the field of risk management of thrombosis and pregnancy pathologies associated with disorders of hemostasis.

Keywords: remote module, e-learning, hemostasis system.

Frolova M.S., Frolova T.A.
DEVELOPMENT OF INFORMATION MODEL
OF MEDICAL DEVICE ON THE EXAMPLE

The article describes approaches to building information models of medical devices and information model based medical device: in vitro - the example of a biochemical analyzer.

Keywords: health care setting, medical technology, information model, biochemical analyzer.

Nadvotskaya V.V., Kochanov P.A.
DEVELOPMENT OF SOFTWARE AND
HARDWARE SYSTEMS FOR RECEIVING AND

PROCESSING WITH ENDOSCOPIC IMAGES OF

The article is devoted to the development of hardware and software for medical imaging and video recording with the endoscopic device for the equipment of medical institutions.

Keywords: endoscope, media, TV tuner, image processing.

Zryumov E.A., Zryumov P.A., Kadirov R.V.
DEVELOPMENT AND RESEARCH APPLICATIONS
FOR HEART RATE MEASUREMENTS BASED

The article is devoted to the development of software with the camera of a smartphone to measure heart rate.

Keywords: smartphone, video camera, heart rate.

Pronin S.P., Barysheva N.N., Gugkov P.A., Divisilova V.N.
CHANGES IN MEMBRANE POTENTIAL OF

The article is devoted to the study of changes of the membrane potential of wheat grains with simultaneous mechanical and electrical effects. It was established experimentally that the simultaneous influence of two factors in grains with a low germination rate significantly changes action potential, while grains with a high germination there is a significant change in the resting potential.

Keywords: membrane potential, resting potential, action potential, wheat, mechanical impact, electric impact.

Раздел 3
VIRTUAL AND INTELLIGENT SECURITY SYSTEMS

Budovskih I.A., Zaginaylov Y.N.
BUILDING EXPERT SYSTEMS THREAT
ASSESSMENT SAFETY WHEN PERSONAL DATA

The article is devoted to the development of the algorithm of the expert system to assess threats, without the danger of personal data in the information system based on Bayesian approach.

Keywords: expert system, assessment of security threats, personal data, in-formational system.

Rebro I.V., Sharlaev E.V.
BUILDING A NETWORK INTRUSION DETECTION SYSTEM BASED ON ARTIFICIAL IMMUNE SYSTEMS AND NEURAL NETWORKS

The article is devoted to the study of methods and algorithms for the joint operation of artificial immune systems and neural networks for network intrusion detection in computer area networks.

Keywords: network security, intrusion detection, artificial immune system, neural networks.

Malinin P.V., Polyakov V.V.
VOICE RECOGNITION UNDER EXTERNAL NOISE

The article considers the approach to speaker identification based on the use of projection methods for multidimensional data analysis. As informative features for mathematical processing of voice recordings used chalk-frequency cepstral coefficients. The influence of external acoustic noise on the identification result. The effectiveness of the proposed approach in the word high level of external noise.

Keywords: speaker recognition, acoustic noise, mel-frequency cepstrum coefficients, a mathematical model, principal component analysis.

Kachesova L U., Tushev A.N.
THE USE POSSIBILITY OF TEMPORAL LOGIC IN INTELLECTUAL SYSTEM OF SUPPORT OF MAKING DECISION ON MANAGEMENT OF TECHNOGENIC RISKS OF ELECTRIC SETTING

In the article the necessity of the use of temporal logic for description of causality between factors of risks at the design of risks of electric settings.

Keywords: temporal logic, intellectual system of support of making decision, electric setting.

Demenko A.M., Sharlaev E.V.
THE CHOICE OF AN ALGORITHM OF DEFINITION OF ENTRY OF A POINT INTO THE GIVEN CONTOUR WITH A BINDING TO GEOGRAPHICAL COORDINATES

Methods of definition of entry of a point into the given contour, geographical coordinates and adaptations for use in data of methods are considered.

Keywords: methods of entry of a point into a contour, beam method, method trace of a beam, geographical coordinates.

Nadvotskaya V.V., Kochanov P.A., Kadirov R.V.
BUILDING A COMMON INFORMATION SPACE COMPANIES

The article is devoted to the formation of a single information space within an enterprise via integration bus based on a client-service architecture, development and transformation schemes handlers loading and unloading of information systems.

Keywords: Scale information system, enterprise service bus, medical information system, laboratory tests.

Yurchenkova I.V., Tushev A.N.
APPLICATION OF NEURAL NETWORKS WITH FUZZY LOGIC TO ANALYZE THE ACCIDENTS OF INDUSTRIAL PLANS

This article analyzes the electrical emergencies using a neural network with fuzzy logic.

Keywords: electrical plant, risk factor, neural network with fuzzy logic.

Part 4
VIRTUAL AND INTELLIGENT SYSTEMS OF INFORMATION PROCESSING IN EDUCATIONAL PROCESS

Pyatkovsky O.I., Smykova N.V.
APPLICATION OF EXPERT ESTIMATES FOR CERTAIN LINKS OF LABOR FUNCTIONS OF PROFESSIONAL STANDARDS AND DISCIPLINES OF THE CURRICULUM

The article is devoted to the development of methods for determining the correspondences between the work functions of professional standards and curriculum subjects using the method of expert estimations.

Keywords: professional standard, professional competence.

Kotlubovskaya T .V., Klukina M. V.
DEVELOPMENT OF MULTIMEDIA-APPLICATIONS ON DISCIPLINE "ANALOG MEASURING DEVICES" FOR THE CORRESPONDENCE COURSE OF STUDENTS OF

The article is devoted development of multimedia-applications on discipline "Analog measuring devices".

Keywords: multimedia-applications, presentations, computer technologies, analog measuring devices.

The article is devoted to creation of electronic educational and methodological complex for training of students on discipline "Informational technologies in educational process" specialty "Instrument making". The results of the survey of students on the theme "Quality education materials." Showing the findings of the survey.

Keywords: electronic training complex, independent learning, distance learning.

The article is devoted to development of the electronic hypertext textbook on discipline "Analog measuring devices".

Keywords: electronic hypertext textbook, analog measuring devices.

Part 5
VIRTUAL AND INTELLIGENT SYSTEM IN STUDENT WORKS

The method of high studied the relationship micropyrometer temperature combustion front of self-propagating high-temperature synthesis (SHS) with an initial temperature of the charge in Ni3-Al system.

Keywords: high-speed camera, temperature, SHS, burning hearth.

The article describes the automated simulation program for the collection of statistical Information on the example of a simulation model of the Duffing-Holmes oscillator performed in MATLAB Simulink.

Keywords: MATLAB, Simulink, model, simulation, detection of weak signals, noise, chaos generator, Duffing-Holmes oscillator.

This article proves the feasibility of using CAE models for research of processes of heat distribution in a dynamic thermoregulation systems. Produced construction CAE models instantaneous water heater and the analysis of the results.

Keywords: CAE-model, dynamic thermoregulation systems, of heat distribution processes.

The article is devoted to the development of the methodology and analysis of the results of calibration ACS712 current sensors. It is shown that the rms error in the calibration range of 2.5 A to less than a few milliamperes. These values are significantly less than the value given in the specification of the sensor.

Keywords: calibration, current sensor, inaccuracy.

This article is devoted to the review of methods and devices of extended products diameter control, optical methods of extended products diameter control are surveyed.

Keywords: cable, measurement, diameter, optical method.

Dorozhkin M.V., Pervuhin B.C.
RATIONALE FOR SELECTION OF PARAMETERS SUPPLY CAMERA EC-BAKING BREAD 194

This article analyzes the characteristics of the supply voltage EC-furnace through electro-conductivity examines the impact of the frequency of the supply voltage on the power EC-furnace as a whole.

Keywords: Baking bread, electric heat bread dough, energy savings.

Sopin V.A., Tuyrkin V.S., Yushkova V.B.
METHOD OF MEASUREMENT OF CONDUCTIVITY OF LIQUIDS USING THE TRANSIENT PROCESS 197

The article is devoted to developing a method of measuring conductivity of fluids using transition. Exploration of the transition process allowed us to determine the parameters of the transducer, to continue to exclude them from the measurement result.

Keywords: conductometry, the transition process, the transducer, the impedance of the electrodes, the transient conductivity of pulse duration.

Lapin S.A., Polyakov V.V.
SOFTWARE AS A MEANS OF COMMITTING COMPUTER CRIME 201

The article devoted to the analysis software, which is used in computer crimes. Consider a group of software tools used at different stages of criminal activity and in various methods of illegal remote access to the workstation. malware This classification helps to improve the effectiveness of prevention and prevention of computer crime.

Keywords: software, computer crime, computer information.

Popov A. A.
INSTALLATION FOR MONITORING AND EVALUATION OF THE REFLECTING SURFACE COEFFICIENT OF INFRARED 205

The article discusses the installation of a model for monitoring and evaluation of the coefficient of the reflecting surface in the infrared range. This setting can help to solve many economic and scientific environmental monitoring tasks.

Keywords: infrared radiation, remote sensing, monitoring.

Kotlubovskaya T.V., Kotlubovsky I.A., Lelechenko I.V.
THE PROJECT OF EXPRESS QUALITY CONTROL OF THE CONCRETE BRICK IN THE PRODUCTION PROCESS 208

The article is devoted to development the express train - techniques of quality control of a concrete brick.

Keywords: humidity of a concrete brick raw, electric resistance, express quality control.

Borodina K.A., Sorokina S.A.
SYSTEM CONTROL THE THERMOPHYSICAL PARAMETERS OF HIGH-SPEED PROCESSES 212

The described system of control the thermophysical parameters of high-speed processes. Determined the components for this system, and a data conversion method.

Keywords: Data processing, ImageJ, system control, SHS.

Suchkova L.I., Yakovenko R.A.
OVERVIEW METHODS QUEUING MESSAGES TO SOLVE SIMULATION PROBLEMS FUNCTIONING OF THE DISTRIBUTED SYSTEMS OF COLLECTION AND PROCESSING OF LARGE DATA 215

The article is devoted to the study of suitable models for the organization of the queue of applications in matters of simulation operation of distributed systems for collecting and processing bigdata.

Keywords: queuing system simulation, big data, message queue, the application.

Kudryashov O.I.
CREATION OF THE DEVICE FOR THE MEASUREMENT OF THE RELATION FALLING AND REFLECTED FROM THE SPREADING SURFACE OF FLOWS OF OPTICAL RADIATION IN THE VISIBLE RANGE 219

In article development of the device for the organization of remote sensing on the site of the spreading surface in the visible range is described. The model of the device capable to calculate a range of the relations falling and reflected from the spreading surface of streams of optical radiation is offered.

CONTENTS & ABSTRACTS & KEYWORDS

Keywords: remote sensing, radiation, range.

Kotlubovskaya T.V., Rusin I.N.
DEVELOPMENT OF INFORMATION AND
MEASURING SYSTEM FOR DEFINITION OF
DEFORMATION OF THE SURFACE OF BRIDGE

The article is devoted to development of information
and measuring system for definition of deformation
of a surface of bridge constructions.

Keywords: strain gages, information and measuring
system, microcontroller, monitoring.

Ernst M.E., Sherbakov M.S., Sharlaev E.W.
PLACE OF INTELLIGENT VIDEO SURVEILLANCE
SYSTEM IN TECHNICAL SYSTEMS

The article is devoted to the study functions of
intelligent video surveillance system in the context of
the formation of an integrated security system and
their relations with their separate sub-systems of
technical protection systems.

Keywords: Video analytics, intelligent video
surveillance system, system of technological
protection.

Mezdrin V.A.
FEATURES OF PROGRAMMING SISTEM-NA-

The article discusses Osnovnye programming features
of the controller CC2650 of Texas Instruments.
Describes the features of the program code of the
controller, as well as the creation of various devices
based on this controller, for example a soil
penetrometer.

Keywords: Controller, Bluetooth, penetrometer,
SensorTag.

Nadvotskaya V.V., Kadirov R.V., Kochanov P.A.
DETERMINE THE EXPECTED POWER

The article is devoted to the development of electricity
distribution algorithm of autonomous power supply
system on the basis of a combination of various
renewable energy sources.

Keywords: Stand-alone power system, wind power
plant, the solar photovoltaic installation, the average
annual electricity generation.

Nadvotskaya V.V., Yushkova V.B., Sopin V.A.
THE DEVELOPMENT OF INFORMATION-
MEASURING SYSTEM FOR MEASURING

The article is devoted to the development of
information-measuring system for measuring the
torque output from the information on the Bluetooth
wireless-connection to the device with the Android
operating system.

Keywords: Torque measurement, strain gauges, non-
contact transmission of the measuring signal.

Dorozhkin M.V., Korotkih V.M.
MEASUREMENTS OF THE TEMPERATURE
PROFILE IN THE EXOTHERMIC REACTION

This article analyzes the applicability of temperature
measurement methods in the field of SHS. Briefly
discusses some methods of measurement, and
particularly their use in the measurement of the
temperature of interaction between the components of
a condensed medium in the combustion wave front
SHS.

Keywords: temperature measurement, self-
propagating high-temperature synthesis.

Nadvotskaya V.V., Kochanov P.A., Kadirov R.V.
PROBLEMS OF INTERACTION OF DIFFERENT

The article is devoted to solving the problems of
interaction of information systems through
integration bus. The paper discusses the features of
data exchange of medical and laboratory systems of
the enterprise, potential software solutions, data
exchange formats and data transmission protocols
used during the work.

Keywords: Medical information system, laboratory
diagnostics, Integration bus.

Osokin Yu.A, German E.V.
INFRARED MONITORING HIDDEN THERMAL

Article is devoted to a study of distribution and
dynamics of temperature processes in the hidden
spaces of composition elements.

Keywords: instruments, electronic circuits, infrared,
temperature, heating.

Svetozarov E.S.
HARDWARE-SOFTWARE COMPLEX FOR
MONITORING HEALTH GROUPS OF PEOPLE IN
SPORTS 247

The article deals with the model of hardware and
software, designed to monitor the overall physical
condition of the group of people involved in sports.
Tracking is done by monitoring the heart rate and
body temperature, and each engaged in further
processing of the data on the PC. The development is
designed for use in sports and health.

Keywords: software and hardware, health, sports,
computer, heart rate monitor.

Kotlubovskaya T.V. Golosov A.V.
DEVELOPMENT OF THE SYSTEM OF THE
AUTOMATED WATERING AND SUPERFICIAL
MOISTENING OF ORNAMENTAL EXOTIC
HOUSEPLANTS 250

The article is devoted to development of the system of
the automated watering and superficial moistening of
ornamental exotic houseplants.

Keywords: humidity control, exotic houseplants,
system of the automated watering.

KRYLOV D.K.
DEVELOPMENT OF INFORMATION SYSTEM
PROCESS AUTOMATION HEALTH ON THE
NTERPRISE 254

In article need of automation of processes of labor
protection at the enterprise is considered. The solution
and the tool for its implementation is proposed.

Keywords: Labor protection, Platform 1C: Enterprise,
Information system.

Osokin Yu.A, Kochetkov I.N., Cheremisin A.V.
TEMPERATURE LATENT HEATING
IN AND DRYINING RAW MATERIAI 257

Latent heat is energy released or absorbed, by a body
or a system during of processt emperature heating
and drying raw material.

Keywords: latent heat is energy, temperature,
heating, drying raw materiail.

Nadvotskaya V.V., I.S. Shundeev
SECURITY SYSTEMS DESIGN FEATURES WITH
REGARD TO ZOOM 260

This article analyzes the security systems at the design
stage, the issues of accounting scaling security
systems, select the devices for the general functioning
and topology links.

Keywords: Security systems, security and fire system,
scaling, communication lines.

Nadvotskaya V.V., Kadirov R.V., Kochanov P.A.
PROBLEMS AUTONOMOUS POWER SUPPLY
FROM RENEWABLE ENERGY SOURCES 263

The article is devoted to the development and use of
autonomous power systems based on a combination
of various renewable energy sources.

Keywords: Autonomous power supply system,
photovoltaic cells, wind power installations, controls
module.