

**Section 2**  
**INNOVATION INFORMATION TECHNOLOGIES IN SCIENCE**

Anop M., Mikhailichuk V. APPLICATION OF PARTICLE SWARM OPTIMIZATION ALGORITHM FOR PARAMETRIC RELIABILITY OPTIMIZATION PROBLEM.....	3
Viter A.V. TERRESTRIAL BIOTIC CARBON SEQUESTRATION: THE EXPERT SYSTEM FOR THE TECHNIFICATION OF THIS PROCESS .....	7
Dianov V.N., Luminarskaya E.S. INTEGRATED APPROACH FOR THE DIAGNOSTICS OF LATENT DEFECTS IN MODERN EQUIPMENT .....	14
Istratov A.Yu., Fedin N. A. TO THE PROBLEM OF THE HANDWRITING CHARACTERS RECOGNITION .....	18
Kurakina N. I. GEOINFORMATION TECHNOLOGIES IN COMPLEX MONITORING OF WATER AREAS.....	24
Mekhanov V.B., Domnin A.L. MODELING IN CPNTOOLS BITRATE MEASUREMENT ALGORITHMS IN THE PACKET-SWITCHED NETWORKS .....	26
Ivanov V.K, Palyukh B.V., Sotnikov A.N. INTELLIGENT SUBJECT SEARCH SUPPORT IN SCIENCE AND EDUCATION .....	34
Starostin I.E., Khalyutina O.S. MATHEMATICAL MODELING OF THE HEMISPHERICAL RESONATOR GYROSCOPE .....	41
Sudorgin S.A. NUMERICAL SIMULATION OF THE ELECTRICAL TRANSPORT PROPERTIES OF SEMICONDUCTING ZIGZAG CARBON NANOTUBES .....	50
Sekashev V.A., Avdeuk O.A. ALGEBRAIC DESCRIPTION SENSOR FOR MEASUREMENTS OF LARGE MASSES	52

Sekashev V.A., Avdeuk O.A. DEVELOPMENT OF AN ALGORITHM FOR AUTOMATIC LAYOUT AT THE LOCATION OF FRAGMENTS OF SCHEMATICS.....	55
Parpula S. A., Girich V. S., Zayarniy V. P. THE MODELING OF SHEET SYMMETRIC ANTENNA WITH A LINEAR EXTENDING APERTURE FOR THE ARRAY.....	59
Parpula S. A., Girich V. S., Zayarniy V. P. EXPERIMENTAL STUDY OF SHEET SYMMETRIC ANTENNA WITH LINEAR EXPENDING APERTURE FOR ARRAYS .....	62
Parpula S. A., Girich V. S., Zayarniy V. P. DISK ALL-ROUND LOOKING ANTENNA BASED ON LINEAR EXPANDING SLOT LINES.....	65
Egunov V.A., Abed O.A. MOBILE ROBOT CONTROL BY VOICE COMMANDS.....	67
Ivo Lazar .....	69
PARAMETER MEASURING OF CONSTELLATION DIAGRAMS IN PARTICULAR DVB-T SIGNALS.....	69
Egunov V.A., Al-Saadi H.A. “SMART HOUSE” CONTROL USING WIRELESS COMMUNICATION CHANNEL.....	79
Novokshchonov A.A., Nasonov A.A., Egunov V.A. BLOCK IMPLEMENTATION OF ALGORITHMS FOR SOLVING SPARSE SYSTEMS OF LINEAR EQUATIONS WITH THE HIGH-PERFORMANCE COMPUTING TOOLS	81
Egunov V.A., Artyukh S.V. FPGA AS COPROCESSORS IN SOLVING PROBLEMS OF LINEAR ALGEBRA .....	84
Nasonov A.A., Novokshchonov A.A., Zavyalov D.V. OPTIMIZATION OF BLOCK REALIZATION OF ALGORITHMS OF LINEAR ALGEBRA USING SIMD-INSTRUCTIONS OF THE PROCESSOR ON THE EXAMPLE OF INTEL® MIC SIMD.....	86
Bondarev A., Ingemansson A., Krainev D. MATHEMATICAL MODEL AND pc PROGRAM FOR THE CALCULATION OF THE MACHINED FINISHED SURFACE ROUGHNESS IN TURNING THE STAINLESS STEELS WITH ADVANCE PLASTIC DEFORMATION .....	89

Avdeuk O.A., Krokhalev A. V., Prikhodkova I. V., Prikhodkov K. V., Shumskij S.N. MODELING OF FORMATION AND GROWTH OF FLAME KERNEL IN SPARK IGNITION ENGINES (SIE) .....	97
Balakina E.V., Borodin A.K., Zotov N.M. $\varphi$ - s – DIAGRAM MODELLING TECHNIQUES FOR TIRES .....	101
Savkin A.N., Sedov A.A., Andronik A.V. COMPARISON OF CUMULATIVE DAMAGE FATIGUE LIFE MODELS UNDER AUTOMOBILE SERVICE LOADING BY THE EXAMPLE OF MEDIUM CARBON STEEL AISI 5140 .....	107
Savkin A.N., Sedov A.A., Andronik A.V. ON THE STEEL DAMAGE SIMULATION UNDER VARIABLE AMPLITUDE LOADING BY THE POWER, ENERGY AND STRAIN FAILURE CRITERIONS.....	112
Savkin A.N., Gorobcov A.S., Andronik A.V., Sukhanov M.A. FATIGUE ANALYSIS OF THE AUTOMOBILE SUSPENSION ARM UNDER VARIABLE AMPLITUDE LOADING .....	121
Matlin M.M., Shandybina I.M., Lebskiy S.L., Polezhaev D.V. RESEARCH WORK SLIPCLUTCH IN A VIRTUAL ENVIRONMENT.....	126
Stolyarchuk A. S., Korobov A. V., Vdovenko A. V., Gorunov A. I. EVALUATION OF CYCLIC DAMAGE OF STRUCTURAL MATERIALS ON THE BASIS OF THE INTERACTIONS OF LOCAL DAMAGES .....	129
Itkis E.M., Kuzmin V.N., Fedyanov E.A. THE SIMULATION OF HCCI ENGINE PERFORMANCE BY THE SINGLE-ZONE NUMERICAL MODEL COMPLETED BY PHYSICALLY REASONABLE ADJUSTING FUNCTIONS .....	133
Nikitin A. A., Gretsova N. V. THE MODEL OF IONIC TRANSPORT IN A CELL WITH TWO MEMBRANES .....	140
Zhoga V.V., Kravchuk A.A., Skakunov V.N. NAVIGATION ALGORITHM FOR MOBILE ROBOT USING COMPUTER VISION SYSTEM WITH STRUCTURED-LIGHT CAMERA .....	142

Zhoga V.V., Aniskov R.V., Merkulov A.A., Skakunov V.N. STRUCTURE MULTIPROCESSOR DISTRIBUTED CONTROL SYSTEM OF THE MOBILE ROBOT .....	144
Matlin M. M., Shandybina I.M., Lebskiy S. L., Solovyev A.S. USE THE VIRTUAL ENVIRONMENT FOR RESEARCH WELDED SEAMS WHEN STUDYING SUBJECT «ELEMENTS OF MACHINE ».....	147
Matlin M.M., Shandybina I.M., Popov A.V., Tetyushev A.A., Toporkova O.V. THE USE OF THE INFORMATION SYSTEM OF DISTANCE LEARNING FOR RATING STUDENT ACADEMIC PERFORMANCE IN THE COURSE “MACHINE ELEMENTS AND DESIGN PRINCIPLES” .....	148
Gretsova H. V., Gretsov M. V. THE SELF-OSCILLATORY PROCESSES IN BIOLOGICAL SYSTEM OF THE BOUND TRIGGERS .....	155
Avdeuk O.A. SYNTHESIS OF THE SYSTEM INTERFACE OF MULTICOHERENT MEASURING SYSTEMS ON THE BASIS OF NEURAL NETWORKS .....	157
Kharlamov V. O., Krokhaliev A. V., Kuz'min S. V., Lysak V. I. OBTAINING OF Cr <sub>3</sub> C <sub>2</sub> -Ti HARD ALLOYS USING EXPLOSIVE PRESSING .....	160
Dmitriev A.V., Rayushkina A.A., Shiryaev S.A., Shipilov E.S., Krashennnikov A.V. MANAGEMENT INFORMATION SYSTEMS - THROUGH IMPROVED FUNCTIONING OF URBAN PASSENGER TRANSPORT, AND QUALITY OF TRANSPORT SERVICES POPULATION.....	161
Krokhaliev A. V., Kharlamov V. O., Avdeyuk O. A., Prihod'kov K. V., Savkin A. N., Kuz'min S. V., Lysak V. I. OPTIMIZATION OF Cr <sub>3</sub> C <sub>2</sub> -Ti HARD ALLOYS USED IN SLIP BEARINGS.....	163
Krokhaliev A. V., Kharlamov V. O., Avdeyuk., O. A., Prihod'kov K. V., Savkin A. N., Kuz'min S. V., Lysak V. I. FRICTIONAL PROPERTIES OF HARD POWDER ALLOYS USING EXPLOSIVE PRESSING .....	165
Baydachenko V.A., Zemlyakov A.V., Tubol O.A. SPATIAL MODEL OF ANKLE.....	167

Vasich K.N., Gretsova N.V. THE "REACTION - DIFFUSION" MODEL TAKING INTO CONSIDERATION THE ARBITRARY EXTERNAL MICROWAVE RADIATION .....	169
Stolyarchuk A.S., Vdovenko A.V., Korobov A.V., Tishenko P.O. SOME REGULARITIES OF SUMMATION OF FATIGUE DAMAGES UNDER CYCLIC CREEP OF MATERIALS .....	172
Shilin A.N., Shilin A.A., Petrenko A.R. SYSTEMS FOR DIAGNOSING AND PREDICTION OF EMERGENCY OPERATION MODES OF OVERHEAD POWER LINES .....	176
Shilin A.N., Shilin A.A., Petrenko A.R. NEUROCOMPUTING SYSTEM FOR DIAGNOSING AND PREDICTION OF EMERGENCY OPERATION MODES OF OVERHEAD POWER LINES.....	177
Bagmutov V. P., Bogdanov E. P. FEM SIMULATION OF PROCESSES OF ELASTIC-PLASTIC DEFORMATION OF MULTIPHASE POLYCRYSTALLINE MATERIALS .....	184
Avilova E.D, Rayushkina A.A., Vaganova T.V, Shiryaev S.A., Fedotov V.N. FORMATION OF A SINGLE MEDIUM, AS ASPECTS OF IMPROVING FOREIGN TRADE MARKET WORK FREIGHT TRANSPORTATION.....	195
Petrov S.A., Shilin A.N. SIMULATION OF GEOMETRIC TRANSFORMATION IN OPTOELECTRONIC SYSTEMS WITH THE USE OF QUATERNION THEORY.....	197
Medennikov V.I., Salnikov S.G., Luppov V.V. PERSPECTIVES OF DEVELOPMENT OF INTERNET TECHNOLOGIES FOR AGRICULTURAL ENTERPRISES BASED ON TYPIFICATION IN UNIFIED WEB SPACE OF AGRARIAN KNOWLEDGE.....	203
Alsova O.K., Uskova K.S. MEDICAL MIXED-TYPE DATA CLUSTERING WITH MIXDC SOFTWARE.....	207
Americanov A.A., Bogachev K.A., Korobova K.V., Lezhnyov E.V., Panasik D.S. USING THE UPGRADED PYROELECTRIC SENSOR IN ROBOTIC DEVICES. ....	216
Linetskiy B.L., Sedova T.L., Tikhonov A.N., Trubochkina N.K. SPATIAL TECHNOLOGY ENVIRONMENT FOR THE IMPLEMENTATION OF INNOVATIVE SCIENTIFIC AND EDUCATIONAL PROJECTS.....	219

Baulina O. V. TECHNIQUE OF APPLICATION OF BIOLOGICAL FEEDBACK ON THE BASIS OF STABILOGRAFIYA IN GYMNASTICS .....	226
Istomina T.V., Kosenok N.Y. BIOTECHNICAL LIFE SUPPORT SYSTEM.....	230
Brodsky Yu. I. BOURBAKI'S STRUCTURE THEORY IN THE PROBLEM OF MULTI-COMPONENT SIMULATION MODELS SYNTHESIS .....	234
Bublík T. PERFORMANCE TOOL FOR FAST DETECTION OF JAVA STRUCTURES.....	244
Kharkov V.P. SYNTHESIS OF ADAPTIVE CONTROL FOR NONLINEAR SYSTEMS .....	254
Chernodarov A. MONITORING AND DIAGNOSIS OF OBSERVABLE DYNAMICAL SYSTEMS BY THE USE OF COMBINED GOODNESS-OF-FIT TESTS .....	261
Klochkov U.S., Mikshina V.S. COMPUTER USAGE IN THE ANALYSIS OF VALIDITY OF DECISION MAKING CRITERIA. ....	270
Savochkina M.M. DEVELOPMENT OF NEW DESIGN OF FIBER-OPTIC DIFFERENTIAL PRESSURE SENSOR.....	274
Valyukhov D.P., Djudjun D.E., Zubrilov V.G. DISTRIBUTED COMPUTER CONTROL SYSTEM FOR ELECTRON SPECTROMETER, GATHERING AND MATHEMATICAL PROCESSING OF ELECTRON SPECTRA .....	281
Enatskaya N.Yu., Khakimullin E.R. DIVISION OF A POPULATION OF ELEMENTS INTO A GIVEN NUMBER OF DISCERNIBLE PARTS .....	282
Dobroserdov O.G., Miroshnichenko S.Yu. AUTOMATIC DIGITAL ELEVATION MODELS CREATION FROM RASTER TOPOGRAPHIC MAPS .....	290

Dunin V. O., Egorov V. A. DESIGNING AND DEVELOPING INTELLIGENT INFORMATION SYSTEMS TO SUPPORT MEDICAL FACILITIES.....	294
Mikitchuk A. EXPERIENCE IN THE USE OF THE WCF SERVICE IN A GAME APPLICATION FOR WINDOWS PHONE.....	300
Merkulev A.Yu., Trusov V.A., Yurkov N.K. GRAPHENE AS A MATERIAL FOR A NEW GENERATION OF HEAT SINKS .....	301
Joao A.J., Gromkov N.V. HISTORY OF DEVELOPMENT OF ELECTRO-MUSICAL INSTRUMENTS IN RUSSIA ..	306
Fedorenko J.V. INVESTIGATION LISSAJOUS ORBITS AROUND THE L2 LIBRATION POINT OF THE EARTH-MOON SYSTEM .....	311
Gluhova O.E., Kolesnikova A.S., Slepchenkov M.M., Savostyanov G.V. NEW IT-SOLUTIONS FOR BREAKTHROUGH RESEARCH IN NANO- AND BIOELECTRONICS .....	314
Kagan M.Yu. , Abrameshin A.E. PHYSICAL GROUNDS OF THE INFORMATION STORAGE AND REORDERING IN MAGNETIC NANOCLUSTERS .....	319
Korsakov I.N. , Atabaeva V.D., Vorobyeva E.E. THE PATIENT-PHYSICIAN RELATIONSHIP IN REMOTE HEALTHCARE MONITORING .....	321
Kropotov Y.A. MULTI-CHANNEL ALGORITHM COMPENSATION ECHO SIGNALS IN TELECOMMUNICATION HANDSFREE SYSTEMS.....	324
Lysenko A.V., Zatytkin A.V., Yurkov N.K. ACTIVE PROTECTION SYSTEM OF RADIO-ELECTRONIC FACILITIES .....	329
Kolganov A., Sviridov A. GSM MODULES IN ENERGY EFFICIENT M2M-SYSTEMS .....	333
Mashkov V., Barilla J., Simr P. ILLUSTRATIVE MODELING OF COALITION FORMATION .....	337

Golev D.M. MEASURING DEVICE FOR CALIBRATION OF MECHANICAL CONVERTING SYSTEM OF FIBER-OPTIC DIFFERENTIAL PRESSURE SENSOR .....	345
Botvinkin P., Kamaev V. METHODS OF PROTECTION FROM ADVERSE FACTORS THAT MAY AFFECT AUTOMATED INFORMATION AND MEASUREMENT SYSTEMS .....	351
Mironova A.S. MEDICAL ASPECTS OF RESEARCH GUNNER’S HEALTH .....	355
Miroshkin V.M. CREATE A CLOUD DATABASE IN A PRIVATE DATA CENTER USING WINDOWS AZURE PACK.....	357
Mixeev M.Yu., Yurmanov V.A., Kuts A.V., Piskaev K.Yu., Volodin K.I. INCREASING THE PRECISION OF METROLOGICAL CHARACTERISTICS OF SMART SENSORS IN LARGE SCALE MONITORING SYSTEMS.....	358
Kulikova O. A. MODERN STATE OF THE PROBLEM OF THE DEFINITION OF THE DISEASE AS A RESULT OF THE VIOLATIONS OF ADAPTATION.....	363
Monakhov M.A. PROCEDURE FOR CREATING DATABASE PARTITIONON THE CHARACTERISTICS OF RELIABILITY OF MECHANICAL ELEMENTS .....	366
Mozgovoi Yu.D, Khritkin S.A. PHYSICAL EFFECTS AND PROBLEMS IN GAMMA-ELECTRONICS .....	370
Murashkina E.N. DEVELOPMENT SEQUENCE DIAGRAM OF NEURAL NETWORK IDENTIFICATION OF A COMPLEX SIGNAL USING THE UNIFIED MODELING LANGUAGE UML 2.0.....	378
Shaymardanov R.V., Elizarov A.A. MICROWAVE MEDICAL ELECTROD BASED ON SLOW-WAVE SYSTEM .....	380
Nazarov D. AN APPROACH TO COMPLEX SYSTEMS SENSITIVITY ESTIMATION ON THE BASIS OF REGIONS OF ACCEPTABILITY .....	385



Krevchik V. D., Semenov M. B., Zaitsev R. V., Krevchik P. V., Aringazin A. K., Yamamoto K. NONLINEAR TRANSPORT AND OPTICAL PROPERTIES OF QUANTUM DOTS FOR NANOMEDICINE.....	389
Eremin D.V., Ivanov F.F. NUMERICAL SIMULATION OF THE NATURAL GAS FLOW IN THE SECTION OF THE GAS PIPELINE.....	398
Pecherskaya E. A., Pecherskaya R.M., Shepeleva .Yu.V., Kuznetsova O.N., Ryabov D.V. METHODICAL ERRORS OF DIELECTRIC PARAMETERS OF FERROELECTRICS MEASUREMENT .....	406
Pecherskaya E. A., Pecherskaya R.M. Shepeleva, Yu. V., Mihailov A. A., Rybakova N. O. PARAMETERS INTERDEPENDENCY ANALYSIS OF UNIVERSITIES INTERNATIONAL RATINGS BASED ON QUALITY CONTROL TOOLS.....	408
Pilkov A. V. Radomsky A. N. THIRD ORDER INTERMODULATION DISTORTION REQUIREMENTS FEAUTERES FORMULTI-CHANNEL RADIO RECIEVER .....	411
Perelyayev S. E., Perelyaev D.S. ON THE THEORY PARAMETRIZATION OF THE THREE-DIMENSIONAL ROTATIONS GROUP ABSOLUTE RIGID BODY. METHODS AND APPENDICES ....	414
Afanasyeva M. A. POLYIMIDES FOR THE PROTECTION OF SPACECRAFT EQUIPMENT.....	417
Posevkin R. SENTIMENT ANALYSIS AS THE METHOD OF INFORMATION EXTRACTION .....	420
Sviridov A., Kolganov A. PRESELECTOR OF WIRELESS SIGNALS OF SATELLITE NAVIGATION SYSTEMS.....	422
Pustovalova N. USING COMMON ONTOLOGY OF SOFTWARE REQUIREMENTS FOR AUTOMATED REQUIREMENTS FORMALISATION TOOL'S DEVELOPMENT.....	426
Puzino Y.A. SIMULATION OF A CYLINDRICAL ROD STRETCHING PROCESS DURING HOT DEFORMATION.....	432

Raznometov D. A., Korsakov I.N. ALGORITHMS FOR GATHERING WIRELESS WEARABLE SENSORS INFORMATION IN REMOTE HEALTHCARE MONITORING.....	438
Grab I.D., Sivagina U.A., Goryachev N.V., Yurkov N.K. RESEARCH METHODS OF COOLING SYSTEMS.....	443
Rozaliev V.L., Orlova Yu.A. APPLYING THE AUTOMATED SYSTEM FOR THE DETERMINATION OF EMOTIONS IN THE EDUCATION'S TASKS FOR PEOPLE WITH DISABILITIES .....	446
Salov V.K., Gazizov T.R., Nikitina O.A. CONVERGENCE OF MULTIPLE ITERATIVE SOLUTION OF LINEAR ALGEBRAIC SYSTEMS WITH A FULLY VARYING MATRIX USING A SINGLE CALCULATED INITIAL PRECONDITIONER.....	452
Mityakov A. V, Tatarinov U. S. SAMPLING DATA PROCESSING – APPROACH TO SPEEDING UP ITERATIVE ALGORITHMS ON MAPREDUCE MODEL .....	457
Semenov A. MULTIAGENT APPROACH FOR DEVELOPING HYBRID INTELLECTUAL SYSTEM ..	461
Semenova L. DOUBLE-LEVEL EXPERT SUPPORT SYSTEM OF MAKING DECISION IN THE CHOICE OF ELECTRIC SYSTEMS DEVELOPMENT MODEL .....	463
Shalkovsky A.G., Kuptsov S.M. INFORMATION MODEL OF REMOTE HEALTHCARE MONITORING SYSTEM.....	467
Safonova I. E., Zhelenkov B. V., Goldovskii Y. M., Tsyganova N. A. TO THE QUESTION OF EVALUATING THE RELIABILITY OF FUNCTIONING OF THE ELEMENTS OF THE TELECOMMUNICATION ENTERPRISE-WIDE NETWORKS .....	474
Tarantsev K. V. NUMERICAL MODELING OF THE PROCESSES OF COAGULATION AND DISPERSION OF DROPS IN ELECTRIC FIELD .....	477
Lushpa I.L. THE CALCULATION OF THE VIBROINSULATORS' FAILURE RATE.....	483

Artemov I. I., Krevchik V. D., Simonov N.P. THE FORMATION PROCESS OF NANOCCLUSERS IN THE METAL SURFACE LAYER, INITIATED BY NONLINEAR TUNNELING DYNAMICS IN THE ELECTROSTATIC FIELD.....	490
Karpov A.V. INFORMATION PROCESSING METHODS IN VISUAL SENSOR NETWORKS.....	495
Karpov I.V. ISSUES OF LONG-HOP AND SHORT-HOP ROUTING IN WIRELESS AUDIO SENSOR NETWORKS.....	499
Ayusheeva N.N., Kusheeva T.N. IDENTIFYING SEMANTIC CONTENT-BLOCK OF TERMS AND RELATIONS IN SCIENTIFIC TEXTS .....	502
Zakhariev I. Yu. THE DETERMINATION OF AMg6 ALLOY SUPERPLASTIC CHARACTERISTICS BASED ON THE FREE BULGING TEST .....	507
Zatytkin A.V., Tankov G.V., Golushko D.A. MODELING THE INTRODUCTION OF MECHANICAL INFLUENCES IN THE DESIGN OF RADIO-ELECTRONIC FACILITIES.....	512
Gubarev V.V., Abalov N.V., Bulgakova N.V., Gorodov E.Y., Kuragin A.V., Melnikov G.A., Terehov R.V., Fedorov E.I. INTELLIGENT SYSTEM “OBJECT-MODEL-APPLICATION RESULT”.....	514
Dianov V.N., Gevondian T.A. PARKING SYSTEM OF HIGH RELIABILITY .....	519
Dianov V.N. INTEGRO-DIFFERENTIAL DIAGNOSIS OF FAILURES COMBINATIONAL CIRCUITS.	523
Vasil'ev V.A., Kalmykova M.A., Chernov P.S. COMPUTER SIMULATIONS OF ELASTIC COPONENTS OF NANO- AND MICROELECTROMECHANICAL SYSTEMS .....	528
Nikolaev P.A., Nikolaev A.D. THE TASK OF DETERMINING THE NUMBER OF TEST PULSES TO EVALUATE THE RESISTANCE OF ENGINE CONTROL SYSTEM OF A VEHICLE TO ELECTROMAGNETIC RADIATION OF LIGHTNING .....	533

Elizarov V.N., Kelina N.Y. THE METHODS OF STATISTICAL ANALYSIS AND DATA MINING IN INFORMATION SYSTEM FOR IMMUNE-BIOCHEMICAL TESTS .....	535
Ipatova V. M. AN ATTRACTOR OF THE DIFFERENTIAL INCLUSION FOR THE MULTILAYER OCEANIC GENERAL CIRCULATION MODEL .....	541
Kusnetsov V.V., Kechiev L.N. CHARGED BOARD EVENT ANALYSIS USING CIRCUIT SIMULATOR FOR PCB MOUNTED MOSFET .....	545
Kusnetsov V.V. ELECTROSTATIC POTENTIAL METER WITH HIGH INPUT OVERSHOOTS ROBUSTNESS .....	548
Pashchenko D.V., Trokoz D.A. EQUIVALNCE OF INHIBITORY AND NON-INHIBITORY SAFE PETRI NETS .....	550
Pozhidaev E. D., Smirnov D. D., Pozhidaeva N. V. ABOUT THE MICROSCOPIC PICTURE OF THE HOLE TRANSPORT IN DEH-DOPED POLYCARBONATE .....	557
Bolotova L.S. METHOD CONCEPTUALIZATION OF SUBJECT DOMAIN AS A BASIS OF TECHNOLOGY OF ACQUISITION KNOWLEDGE FOR INTELLIGENCE SYSTEMS	558
Pyrkova O.A. EFFECT OF ACCOUNTING INTERMITTENCY DEPENDENCE ON THE TIME OF LONGITUDINAL CORRELATION COEFFICIENT THIRD ORDER .....	568
Grachev N.N. ANALYSIS AND FEATURES PARAMETERS NORMALIZATION EMC COSMIC DEVICES AND SYSTEMS .....	573
Grachev N.N. QUESTIONS ANALYSIS EMC SPACE RES .....	577
Tihonov G.V., Grachev N.N. CALCULATION LEASE PAYMENTS CURRENT ECONOMIC CONDITIONS .....	581

Ustselemov V.N. CURRENT ISSUES IN IMPROVING INFORMATION SECURITY SUBSYSTEM.....	585
Avakyan A., Kopnjonkova M. METHODS OF OPERATIONAL STATE MONITORING FOR INTERFACE AND COMPUTER PATHS OF AVIONICS SYSTEMS .....	589
Dambaeva S.V., Merdygeev B.D. USING FCA BASIS THEOREM ON CONCEPT LATTICES IN ANALYZING SCIENTIFIC MONOLOGIC TEXT ONTOLOGY .....	600
Burukina I. P., Burukina I. S. MULTIWORD EXPRESSION DESCRIPTION IN LEXICAL DATABASES.....	606
Dykov M.A., Kravets A.G., Korobkin D.M., Ukustov S.S., Strelkov O.I. COMBINING STATISTICAL AND SEMANTIC FEATURES FOR PATENTS PRIOR- ART RETRIEVAL.....	609
Kofanov Y.N., Sotnikova S.Y., Lemanskiy D.A. METHOD OF COMPUTER MODELLING ACCURACY INCREASE FOR ELECTRONIC MEANS BASED ON INTERCONNECTION OF DIFFERENT PHYSICAL PROCESSES PROCEEDING.....	616
Berketov G., Mikryukov A., Fedoseev S. INFORMATIONAL SAFETY SUBSYSTEMS IMPROVEMENT AT RISK CORRUPTED OR LOST DATA .....	620
Savin G.I., Sotnikov A.N., Suleymanov R.S. COMPARATIVE ANALYSIS OF SOLUTIONS FOR FULL-TEXT SEARCH IN DIGITAL LIBRARIES .....	624
Borisova A.V., Finochenko V.A. INSTRUMENTATION AND METHODOLOGY SUPPORT FOR THE MOBILE LABORATORIES IN THE ENVIRONMENTAL CONTROL AND MONITORING OF RAIL TRANSPORT. ....	629
Vostrikov A.V., Borisov N.I. DEVELOPMENT REDUCED COMPUTATIONAL SCHEME IS BASED ON USING NUMERICAL METHODS FOR CALCULATION OF DYNAMIC CHARACTERISTICS MATHEMATICAL MODEL .....	633

Stepanova E. G. ANALYSIS THE TRENDS OF EMPLOYMENT IN THE INFORMAL SECTOR OF THE ECONOMY.....	639
Kulagin V., Dunham D., Shustov B., Kinet X. PROBLEMS OF ASTEROID AND COMET HAZARD. ROLE OF MODERN INFORMATION TECHNOLOGY.....	642
Fokin V. M. RESEARCH OF FAILURE MECHANISMS OF SOLENOIDS AND CONTACTORS.....	644
Khomenko T. V., Petrova I.Yu, Lezhnina Yu. A., Veselova Yu. A. BUILDING KNOWLEDGE SPACE FOR SYNTHESIS OF TECHNICAL SYSTEMS WITH ENERGY-CIRCUIT METHOD .....	648
Tsyganov P. ANALYSIS OF BASIC MECHANISMS AND REASONS OF BREAKDOWN OF COOLING SYSTEMS' PUMPS .....	652
Lytvyn O. O., Shtepa N. I., Denisova O. I., Chorna O. S. INTERNAL EARTH STRUCTURE RENEWAL BY MEANS OF CORE IN INCLINED BOREHOLES ANALYSIS.....	655
Krasnov A.E., Krasnikov C.A., Chernov E.A. METHOD OF THE COMPRESSION OF PHASE PORTRAITS OF GENERALIZED SPECTRAL DATA FOR SOLVING THEIR CLUSTERING AND RECOGNITION.....	664
Schelokov S.A., Sokolova I.M. DEVELOPMENT OF HYBRID OBJECT-RELATIONAL DATABASE ON THE BASIS OF THE FRAME AND SLOT NORMAL FORM.....	670
Shishulin D.N., Yurkov N.K., Yakimov A.N. A MODELING OF THE INFLUENCE OF VIBRATION ACTIONS ON THE RADIATION MIRROR ANTENNA BY USING ANSYS .....	673
Yarkin A. S., Popov F.A. DATA PROCESSING METHODS FOR INFORMATION SYSTEM OF SUPPORT TOURISM BUSINESSES .....	678

Volosatova, T.M., Belomoytsev, D.E. INDIVIDUAL EDUCATIONAL COURSE SYNTHESIS METHOD USING EVOLUTIONARY METHODS OF EDUCATIONAL CONTENT SPACE FORMATION .....	681
Astafjev A.V., Fedoseev S.V., Mikrukov A.A., Berketov G.A. USE OF EFFICIENCY PARAMETER OF REAL OPTIONS IN THE DECISION INNOVATIVE SOLUTIONS.....	683
Khalyutin S.P., Levin A.V., Kharkov V.P., Zhmurov B.V. TRENDS AND PROSPECTS OF AIRCRAFT ELECTRICAL EQUIPMENT .....	686
Eremina V. METHOD OF SIGNALS INTERFERENCE IMMUNITY ESTIMATION USED IN MULTICHANNEL COMMUNICATION SYSTEMS .....	691
Bilgaeva L.P., Sambyalov Z.G. EVALUATION OF MODIFIED CLUSTERING ALGORITHM CLOPE.....	694
Bazaron S.A. THE DEFINITION OF WELL-FORMED FORMULA ALGORITHM.....	698
Manohin A.I., Aminev D.A, Sotnikova S.Yu., Ivanov I.A., Uvaysov S.U. INVESTIGATION OF THE THERMAL PROCESSES INFLUENCE IN ELECTRORADIOPRODUCTS ON THE RELIABILITY INDICATORS OF ELECTRONIC RADIO EQUIPMENT BY USING ANALYSIS PROGRAMS OF THERMAL REGIMES.....	702
Veselov E.A., Uvaysov S.U., Furman, Ya. A., Lvov B.G. DIRECT AND REVERSE PROJECTION PROCEDURES IN PROBLEMS OF 3D OBJECTS RECONSTRUCTION FROM IMAGES .....	710
Gavrilenko A.A., Polessky S.N. STRUCTURE OF CLOUDING SERVICE FOR ELECTRONIC MEANS RELIABILITY ENSURE.....	717