

CONTENTS

INFORMATICS, COMPUTER ENGINEERING AND AUTOMATION

Avramenko A.A., Varakuta I.Ye., Savula A.A., Korotynskiy A.P.

THE INFLUENCE OF PRELIMINARY DATA SMOOTHING ON ACCURACY OF IDENTIFIED MATHEMATICAL MODELS OF THE METHANOL SYNTHESIS COLUMN.....1

Andriushchenko T.Yu.

INTELLIGENT LAYOUT AND ILLUSTRATION SYSTEMS FOR PUBLICATIONS AS PART OF AN AUTOMATED PUBLISHING ECOSYSTEM.....10

Artemenko A.V., Kostyrko V.S., Kostenko A.V.

LOCAL – FIRST AND EDGE – DATABASE: CRDT SYNCHRONIZATION ON SQLITE (TURSO/ELECTRICAL) FOR OFFLINE COLLABORATION.....15

Babchuk S.M.

IMPROVED CLASSIFICATION OF LARGE LANGUAGE MODELS CREATED BY MISTRAL AI...19

Bazylevych R.P., Kliushka O.V.

COMBINED METHOD FOR CONTROLLED ISLANDING OF A POWER SYSTEM BASED ON AN OPTIMAL REDUCTION TREE.....26

Barkovska O.Yu.

CONTEXT-AWARE, ADAPTIVE HMI TECHNOLOGY FOR ENHANCING THE AUTONOMY OF USERS WITH DISABILITIES.....32

Bihanskyi B.M., Kovaliuk D.O.

VISUAL-INERTIAL ODOMETRY ALGORITHM USING A GEOMETRY-AWARE NEURAL NETWORK.....39

Bohdan H.A., Feoklistov D.A.

A COMPREHENSIVE APPROACH TO MODELING INERTIAL NAVIGATION SYSTEMS46

Bouraou N.I., Osovtssev A.V.

MODELING THE DYNAMICS OF ANGULAR INCLINATIONS OF A MOBILE ROBOT WHEN MOVING ON SURFACES WITH A COMPLEX PROFILE AND IRREGULAR DISTURBANCES.....53

Vyshnevyyi S.V., Tovkach I.O., Chmelov V.O., Cherkas M.V.

ALGORITHM FOR GENERATING TEXTURES OF DIGITAL IMAGES BASED ON AUTOREGRESSIVE MODEL OF RANDOM FIELD.....62

Voitiuk O.V.

ANALYSIS OF METHODS AND TECHNOLOGIES FOR WEB APPLICATION RENDERING.....74

Volk M.O., Buhrii A.M., Polozov D.M., Yemets D.S., Olefirenko M.Ye., Litovka D.V.

INTEGRATED ARCHITECTURE FOR ORCHESTRATION OF CONTAINERIZED SERVICES IN MULTI-CLOUD-EDGE ENVIRONMENT.....81

Glukhova N.V., Pesotskaya L.A.

IMPROVEMENT OF THE METHODOLOGY OF AUTOMATED DETERMINATION OF PHOTOMETRIC CHARACTERISTICS OF IMAGES BASED ON ROBUST AND NONPARAMETRIC METHODS.....87

Dyvnych M.V., Holubiev L.P., Kiva I.L.

AN INFORMATION SYSTEM FOR GAME CONTENT FILTERING BASED ON USERS SOCIAL ACTIVITY.....94

Dovhaliuk D.V.

DEVELOPMENT OF SOFTWARE FOR WORKING WITH BLUETOOTH DEVICES USING PYTHON AND THE BLEAK LIBRARY.....105

Yevsieiev V.V., Maksymova S.S., Starodubcev M.G., Demska N.P.

USING QUANTUM COMPUTINGS DURING COLLABORATIVE MOBILE ROBOT TRAJECTORY CONSTRUCTING.....111

Zhigulin O.A., Rusu O.P., Gorbachev V.E.

IT PROJECT MANAGEMENT DURING CRISIS PHENOMENA AND INFORMATIZATION OF SOCIETY.....119

Zhigulin O.A., Rusu O.P., Gribova V.V. ECONOMIC EFFICIENCY OF SOFTWARE SYSTEMS.....	126
Zhuchenko O.A., Savula A.A. THE INFLUENCE OF REGULATOR TYPES CONTROL SYSTEM WITH ACOUSTIC DIAGNOSTICS ON MODE RECOVERY AFTER ANOMALIES.....	132
Zavhorodnia G.A., Zavhorodnii V.V. MODELING PLAYER BEHAVIOR THROUGH NEURAL NETWORK AGENTS.....	141
Ivanotchak O.M. EXPERIMENTAL RESULTS AND MODEL VALIDATION OF THE INTELLIGENT DECISION SUPPORT SYSTEM IN THE OIL WELL DRILLING PROCESS.....	146
Kovalenko A.O., Zhuchenko O.A. FPV DRONE FLIGHT MODELING USING FLIGHT CONTROLLER INITIAL DATA.....	153
Kozak L.M., Surovtsev I.V., Romanyuk O.O., Pezentsali H.O. INFORMATION TECHNOLOGIES FOR ACQUISITION, ANALYSIS AND EXCHANGE OF DIGITAL MEDICAL AND ENVIRONMENTAL DATA.....	161
Kostromin A.A., Holubiev L.P., Kiva I.L. INFORMATION SYSTEM FOR MONITORING SOFTWARE QUALITY WITH INTELLIGENT ANALYSIS OF TEST RESULTS.....	167
Kostyuchenko A.V., Kushnir N.O., Loktikova T.M. DEVELOPMENT AND RESEARCH OF EFFECTIVE DEEP LEARNING MODELS FOR IMPROVING THE RESOLUTION OF IMAGES AND VIDEO SEQUENCES.....	175
Krainiuk O.V., Buts Yu.V., Pिकासov M.M., Tiutiunyk V.V., Didenko N.V. ALGORITHMIC SUPPORT FOR CYBER RESILIENCE OF AUTOMATED PERSONAL PROTECTIVE EQUIPMENT DISPENSING SYSTEMS	182
Krisilov V.A. USING NEURAL NETWORKS IN DECISION SUPPORT SYSTEMS FOR DATA MODELING AND FORECASTING.....	190
Lebid Ye.A. ASSESSMENT OF THE EFFECTIVENESS OF A CROSS-FUNCTIONAL IT PROJECT TEAM: CURRENT TRENDS AND DIRECTIONS.....	195
Markova Ye.D., Cherepanska I.Yu. ALGORITHMIC IMPLEMENTATION OF AN AUTOMATED SYSTEM FOR ASSESSING THE QUALITY AND EFFICIENCY OF CARDIOPULMONARY RESUSCITATION.....	207
Maslov Yu.V. THE USE OF DIGITAL TWINS FOR WEAR PREDICTION IN ELECTROMECHANICAL SYSTEMS...	214
Melnyk R.P., Melnyk O.H. METHODOLOGY FOR THE ASSESSMENT OF CRYPTOGRAPHIC STRENGTH AND SECURITY OF INFORMATION AND COMMUNICATION SYSTEMS UNDER MODERN CYBER THREATS.....	221
Mykhalyuk A.P., Mirkevich R.M. AUTOMATED METHODOLOGY FOR MONITORING AND CONTROLLING CHANGES IN THE ENVIRONMENT OF CYBER-PHYSICAL SYSTEMS AND AUTOMATED COMPLEXES....	229
Minkov K.O. HYBRID ARCHITECTURE OF ACTIVE LEARNING AND SEMI-SUPERVISED LEARNING FOR CLASSIFICATION TASKS WITH MINIMAL LABELING.....	238
Mikhav V.V., Meleshko Ye.V., Yakymenko M.S., Bosko V.V., Didyk O.K. STRUCTURAL MODELS OF COMPLEX NETWORKS FOR SIMULATION MODELING OF COMPUTER AND TELECOMMUNICATION SYSTEMS.....	246
Oleshchenko L.M., Antonenko I.V. SOFTWARE BASED ON A HYBRID NEURAL NETWORK MODEL FOR ANALYZING USER REVIEWS ON E-COMMERCE PLATFORMS.....	252

Oliinyk P.A., Savenko O.S., Hnatyuk O.I. CONCEPTUAL SYSTEM'S ARCHITECTURE FOR ASSESSING INFORMATION SECURITY IN CORPORATE NETWORKS.....	260
Onatskyi V.V., Savinov V.Yu. TRAFFIC ANALYSIS AND OPTIMIZATION IN SCALABLE NETWORK INFRASTRUCTURES.....	271
Onyshchenko A.O., Bocharov B.P., Kostenko O.B. A FUZZY MULTI-AGENT MODEL FOR SUPPORTING SEO STRATEGIES IN AN INSOURCING ENVIRONMENT.....	277
Palonyi A.S., Zienov D.O. AUTOMATED ASSESSMENT OF AIR TRAFFIC CONTROLLER TEAM COMPETENCE: AN ADAPTIVE TRAINING APPROACH.....	282
Palonyi A.S., Nechypurenko A.G. HYBRID DECISION SUPPORT SYSTEM FOR ADAPTIVE ASSESSMENT AND MANAGEMENT OF AIR TRAFFIC CONTROLLERS' OCCUPATIONAL STRESS IN REAL-TIME.....	291
Pushkar O.I., Khoroshevska I.O., Ahapova A.D. METHODOLOGY FOR DEVELOPING A MOBILE APPLICATION DESIGN FOR REGISTERING STRAY ANIMALS.....	300
Sgadov S.O. .NET AS A PLATFORM FOR LEARNING EMBEDDED DEVELOPMENT USING STM32F4 BOARD...	312
Sierhieiev Ye.V., Savenko O.S. DETECTION OF BUFFER OVERFLOW VULNERABILITIES IN SYSTEM SOFTWARE BASED ON GRAPH AND TRANSFORMER MODEL.....	318
Spasibov B.V. ANALYSIS, SELECTION AND IMPLEMENTATION OF CRM/BPM NO-CODE SYSTEMS FOR BUSINESS PROCESS AUTOMATION AT THE ENTERPRISE.....	328
Strashko R.V. INFORMATION TECHNOLOGY FOR ASSESSING EMPLOYEE ENGAGEMENT IN ORGANIZATIONS.....	334
Sukalo M.L., Zakharov K.O., Guida O.G. AUTOMATED DIAGNOSTIC SYSTEM FOR SEWING EQUIPMENT USING INTERNET OF THINGS TECHNOLOGY.....	340
Terletska K.V. PERFORMANCE EVALUATION OF BLUE-GREEN DEPLOYMENT MODELS FOR STATEFUL MICROSERVICES.....	347
Timenko A.V., Shkarupylo V.V., Kulykovska N.A., Hrushko S.S. FORMAL MODEL FOR CHECKING THE INTEROPERABILITY BETWEEN THE COMPONENTS OF THE IOT SYSTEM.....	354
Troinina A.S., Nazarov I.Ya. INFORMATION SYSTEM FOR BUS TICKET SEARCH USING DISTRIBUTED BIG DATA PROCESSING TECHNOLOGIES.....	359
Turchak V.R. MODEL OF AN INFORMATION SYSTEM FOR MULTI-CRITERIA DATA SORTING WITH DYNAMIC CONSEQUENCE-BASED MOVEMENT CONSTRAINT.....	365
Udod O.S., Kryvokhata A.G. DEVELOPMENT OF A HIGHLY SCALABLE SERVERLESS CLOUD ARCHITECTURE FOR A TASK MANAGEMENT SYSTEM.....	374
Fedorchenko V.M., Yeroshenko O.A. APPLICATION OF ARTIFICIAL INTELLIGENCE ALGORITHMS FOR MODELING INFORMATION SYSTEM THREATS.....	384
Furikata D.V. HYBRID METHODS FOR DETECTING ANOMALIES IN SMART METER DATA.....	392
Tsapar V.S., Skladannyi D.M., Ishchenko V.O. MATHEMATICAL MODELING OF THE MOTION OF A HEXACOPTER AS A CONTROL OBJECT.....	397

Shkurupii A.V. USE OF BLOCKCHAIN TECHNOLOGY TO ENSURE TRANSPARENCY AND SECURITY IN AUTOMOTIVE PARTS SUPPLY CHAINS.....	403
Yunak D.A., Tsapar V.S. METHODOLOGY FOR AUTOMATING THE CONSTRUCTION OF ECONOMIC MODELS OF BUSINESS PROCESSES.....	409
INFORMATION ABOUT AUTHORS.....	413