

# CONTENTS

## INFORMATICS, COMPUTER ENGINEERING AND AUTOMATION

<b>Abakumov R.V.</b> AUTOMATED DETECTION OF ARCHITECTURAL VIOLATIONS IN JAVA PROJECTS USING STATIC ANALYSIS.....	1
<b>Bondarenko V.S., Barkovska O.Yu., Trunov V.O., Havrashenko A.O.</b> A METHOD FOR DATASET AUGMENTATION IN IMAGE SEGMENTATION TASKS BASED ON IMAGE SYNTHESIS.....	9
<b>Boriak K.F., Ihnatenko O.A.</b> AUTOMATION OF THE PROCESS OF OPERATIVE ASSESSMENT OF THE CURRENT TECHNICAL CONDITION OF MARINE DIESEL ENGINES.....	18
<b>Varhanova D.O., Kolomiiets R.O., Okunkova O.O.</b> INTELLIGENT ADAPTIVE LEARNING SYSTEMS IN THE TRAINING OF FUTURE IT SPECIALISTS.....	31
<b>Volkov D.V., Liubchenko V.V.</b> FORMAL MODEL OF SECURITY THREATS TO MICROSERVICE APPLICATIONS BASED ON FIRST-ORDER LOGIC.....	37
<b>Hazdiuk K.P., Sribnyi O.I.</b> ARCHITECTURE OF A MULTI-AGENT SYSTEM FOR MODELLING THE SPREAD OF INFLECTIOUS DISEASES BASED ON A JAVA SERVICE.....	44
<b>Holovenets M.I., Kolisnyk M.M.</b> METHOD OF CORRELATING WEB SERVER AND WAF LOG EVENTS FOR PREVENTION OF CYBER INCIDENTS IN WEB APPLICATIONS.....	50
<b>Horba D.O., Tereikovskiy I.A.</b> ANALYSIS OF OBJECT DETECTION TECHNOLOG IN VIDEO STREAMS ON MOBILE PLATFORMS.....	55
<b>Goyushova U.M.</b> STRUCTURAL VISION-BASED UAV NAVIGATION USING HESS MATRIX AND B-SPLINE MODELING.....	61
<b>Yeroshenko O.A., Fedorchenko V.M., Partyka S.O., Pyvovarova D.I.</b> HIGHER-ORDER INFORMATION ENTROPY-BASED DDOS ATTACK DETECTION METHOD FOR SDN CONTROLLER.....	67
<b>Zdolnyk M.O., Stepanets O.V.</b> TARGET FUNCTIONS FOR INTELLIGENT CONTROL OF LOCAL HEAT CONSUMPTION FACILITIES IN MULTI-AGENT SYSTEMS.....	78
<b>Kandyba I.O.</b> SCENARIO GENERATION FOR UNIVERSITY ADMISSION CAMPAIGNS USING ONTOLOGIES.....	87
<b>Kobets V.M. Belei O.I.</b> DESIGN OF A LOWER LEVEL AUTOMATED INFORMATION SYSTEM FOR FOREST YIELD.....	93
<b>Korniyenko B.Ya., Ladieva L.R., Kornienko Ya.M., Nesteruk A.O., Savina O.O.</b> CONTROL SYSTEM FOR THE PRODUCTION OF MINERAL FERTILIZERS IN A FLUIDIZED BED GRANULATOR WITH A FUZZY CONTROLLER.....	98
<b>Korotkykh V.M.</b> CONCEPTUAL MODEL OF A SEARCH SYSTEM IN COMPUTER-AIDED DESIGN SYSTEMS.....	107
<b>Krivoulya G.F., Zygin S.E.</b> DETECTION OF CONTROL SIGNALS IN UNMANNED AERIAL SYSTEMS UNDER INTENSE INTERFERENCE CONDITIONS.....	114
<b>Kukhta O.P., Pirko I.B.</b> ROLLING HORIZON AND CORRIDOR CONSTRAINING METHOD IN HIERARCHICAL ENVIRONMENTS WITH DYNAMIC OBSTACLES.....	120
<b>Lysenko O.I., Tachynina O.M., Chumachenko S.M., Kyselov V.B., Guida O.H., Ometsynska N.V.</b> CASCADE SISO LTI AUTOMATIC CONTROL SYSTEM OF THE ELECTRIC DRIVE OF A MOBILITY UNIT OF A MILITARY HUMANOID ROBOT.....	125

<b>Luferenko S.L., Shcherbyna I.S.</b> MATHEMATICAL MODEL OF INDIVIDUAL EDUCATIONAL TRAJECTOR AS AN OPTIMIZATION PROBLEM.....	134
<b>Liushenko A.M.</b> DESIGN AND DATA SYNCHRONIZATION MODELS FOR OFFLINE-FIRST SCALABLE MOBILE APPLICATIONS.....	140
<b>Marchenko O.I.</b> ENSURING CYBERSECURITY OF INFORMATION SYSTEMS UNDER THE CONDITIONS OF INCREASING CYBER THREATS IN THE DIGITAL ENVIRONMENT.....	148
<b>Medvediev D.H., Khotskina V.B., Lysunkin D.D.</b> FAKE NEWS DETECTION USING NLP AND VISUALIZATION OF ITS RESULTS.....	156
<b>Myroniuk F.Yu., Beglov K.V., Zyma I.V.</b> POWER DISTRIBUTION CONTROL IN A HYBRID ENERGY SYSTEM WITH SOLAR, WIND, AND BATTERY SUBSYSTEMS.....	162
<b>Nikitin V.S., Hiorhizova-Hai V.S.</b> AN APPROACH TO DOCUMENT TEMPLATE GENERATION USING LLM AGENTS.....	170
<b>Oleksii A.O., Dychka I.A., Oleshchenko L.M., Khitsko Ia.V., Suschuk-Sliusarenko V.I.</b> REVIEW OF POTENTIAL IMPROVEMENTS TO THE UWAR-GAN NEURAL NETWORK METHOD AND THE U-NET NEURAL NETWORK ARCHITECTURE TO ENHANCE BACKGROUND NOISE SUPPRESSION .....	178
<b>Onai M.V., Zghurovskyi Ya.Yu.</b> ARCHITECTURE DESIGN AND REQUIREMENTS SPECIFICATION OF A SOFTWARE SYSTEM FOR POST-QUANTUM CRYPTOGRAPHIC ALGORITHM EVALUATION.....	187
<b>Palonyi A.S., Nechypurenko A.G.</b> OPTIMIZATION OF AUTOMATED STRESS MANAGEMENT STRATEGIES FOR AIR TRAFFIC CONTROLLERS USING REINFORCEMENT LEARNING METHOD.....	194
<b>Parfenenko Yu.V., Kuznetsov E.G.</b> ANALYSIS OF APPROACHES AND DESIGN OF BIG DATA PROCESSING ARCHITECTURE FOR DIGITAL TWINS OF ENERGY MICROGRIDS.....	202
<b>Pylypenko A.H.</b> MULTI-AGENT METHODS FOR DETECTING CORRELATION DEPENDENCIES IN HETEROGENEOUS DATA.....	208
<b>Pyroh M.V., Tereshchuk H.M.</b> THE VALIDITY OF TEST-BASED ASSESSMENT OF STUDENT KNOWLEDGE IN THE AGE OF GENERATIVE ARTIFICIAL INTELLIGENCE: A SYSTEMATIC REVIEW.....	215
<b>Pivtorak D.O., Lakoza S.L., Skoryk Ye.V.</b> DESIGN AND PHYSICAL MODELING OF THE IMPROVING WATER QUALITY AUTOMATED SYSTEM.....	223
<b>Prevysokova N.V., Semankiv M.V., Izmailov A.V.</b> DECISION-MAKING MODEL FOR RESIDENTIAL HOUSE PRICE BASED ON A SOFTWARE SYSTEM FOR DATA ANALYSIS AND PRICE PREDICTION.....	231
<b>Puchkov V.O.</b> PROBLEM STATEMENT OF RESEARCH ON PREDICTIVE AR SYSTEMS BASED ON MULTIMODAL ANALYSIS.....	239
<b>Romanenko O.O.</b> Q-ANALYSIS OF A PREDICTIVE MAINTENANCE SYSTEM.....	245
<b>Rud A.V., Rud A.V.</b> INTELLIGENT AGRICULTURAL MACHINES IN PRECISION FARMING SYSTEMS: AUTOMATION, SENSOR TECHNOLOGIES AND OPTIMIZATION OF OPERATIONS .....	250
<b>Syromiatnikov M.V.</b> A CONTEXT-EFFICIENT EVIDENCE-BASED TECHNOLOGY FOR AUTOMATED REPOSITORY- LEVEL SOFTWARE QUALITY EVALUATION USING LARGE LANGUAGE MODELS.....	257

<b>Tkachov V.M., Ruban I.V.</b> DEVELOPMENT OF A METHOD FOR ANALYZING THE SURVIVABILITY OF INFORMATION SYSTEM SERVICES ON A MOBILE PLATFORM BASED ON RESOURCE-TIME VARIABLES.....	266
<b>Filippova M.V., Bohdan H.A., Demchenko M.O.</b> CONTROL OF THE ELECTRICAL CABLE EXTRUSION PROCESS.....	276
<b>Furtat S.O., Furtat O.V., Lialikova Yu.V.</b> PROMISING DIRECTIONS FOR AUTOMATING THE PROCESSING OF AIR TRANSPORTATION OPERATIONAL PARAMETERS.....	282
<b>Shevchenko V.V., Polushko M.M.</b> AUTOMATED SYSTEM FOR DIAGNOSTICS OF THE PARTS PROCESSING .....	286
<b>Shtifzon O.Y., Yudin O.S.</b> MICROCLIMATE CONTROL SYSTEM USING FUZZY LOGIC FOR STORAGE FACILITIES AT A WOODWORKING ENTERPRISE.....	292
<b>Yurchenko V.A., Yeromina N.S., Blyznychenko O.M.</b> BLOCKCHAIN ARCHITECTURE AND ITS APPLICATION IN MODERN INFORMATION SYSTEMS.....	301
<b>Yakymenko M.S., Bosko V.V., Boki A.R., Lysenko I.A., Meleshko Ye.V.</b> METHODS OF ENERGY-EFFICIENT ROUTING IN MESH NETWORKS OF THE INTERNET OF THINGS.....	308
<b>Yaroshchuk L.D., Savchenko T.V.</b> EXPERT DECISION SUPPORT METHODS IN RESOURCE EFFICIENCY TASKS OF PHOSPHORIC ACID PRODUCTION.....	313
INFORMATION ABOUT AUTHORS.....	321