

CONTENT

SECTION 1. MATHEMATICAL MODELING

O. Yasniy, I. Didych, L. Tsymbaliuk PREDICTION OF STRUCTURAL ELEMENTS DURABILITY BY THE METHODS OF MACHINE LEARNING	3
SECTION 2. INFORMATION SYSTEMS AND TECHNOLOGIES	
R. Bahrii, O. Lypak THE EUROPEAN EXPERIENCE OF CREATION CONSOLIDATED INFORMATION RESOURCES OF SOCIAL MEMORY INSTITUTIONS	4
H. Baran LOGICAL TRAFIC INSOLATION IN VPN	5
D. Baran, I. Miriavets, A. Stashko AUTOMATED FLAW DEFECTOSCOPY OF FLAT AND BULK DEFECTS OF LONG-TERM SERVICED OIL AND GAS FACILITIES	6
O. Bilous, V. Kornafel, O. Boichun DIAGNOSTICS, PROTECTION AND MONITORING OF ELECTRICAL MECHANICAL SYSTEMS	7
K. Brima, I. Opurum, R. Zoloty RESEARCH OF WIFI SYSTEMS PROTECTION EFFICIENCY	8
V. Borodaiko, Y. Venher, O. Mryhlod BIGDATA IN "SMART CITY" PROJECTS	9
O. Botiuk RESEARCH OF MECHANISM FOR DATA MIGRATION STORED IN RELATIONAL DBMS	10
I. Butynets, R. Horodyskyi, P. Cherniavskyi ANALYSIS OF PLATFORM OF CHEMICAL MANAGEMENT BY A REASONABLE HOUSE	11
S. Vyshkovskyi RESEARCH OF VULNERABILITIES OF INFORMATION WEBSITES AND METHODS OF THEIR ELIMINATION	12
D. Vladyka, N. Kunanets INTELLIGENT PLATFORM "CHARITY AUCTION OF MEETING"	13
A. Helyi, N. Kunanets, A. Rzheuskyi INTELLIGENT SYSTEM "FAMILY DOCTOR"	14
M. Hnutel, J. Myskevych, N. Smolskyi SEMANTIC DATA MODELS IN SMART CITY PROJECTS	15
A. Holub MODERN INFORMATIONAL TECHNOLOGIES IN ACCOUNTING ORGANIZATION	16

A. Holub	MODERN INFORMATION TECHNOLOGIES IN THE SYSTEM OF MANAGEMENT BY THE ENTERPRISE	17
A. Huzenkova	INPUTS AND STAGES OF SOFTWARE ARCHITECTURE DESIGN	18
A. Humennyi	IMPROVEMENT OF THE COMPREHENSIVE INFORMATION PROTECTION SYSTEM OF THE NEW POLISH AGRICULTURAL COUNCIL WITH THE PROTECTION OF THE INTERNATIONAL EXPERIENCE	19
L. Humeniuk	INFORMATION TECHNOLOGIES OF THE CONCEPT OF «SMART CITY»	20
Z. Danilov, A. Berko, N. Kunanets, A. Rzheuskyi	DEVELOPMENT OF WEB SERVICE IT PROJECT OF TRACKED TRANSPORTATION	21
O. Deynega, D. Parhomchuk, V. Kovaliuk	DEVELOPMENT OF INSTALLATION FOR THE PROTOTYPICAL TESTING ALGORITHMS OF MANAGEMENT ELECTRIC MOTORS	22
O. Jindu Jude, R. Zoloty	ADAPTATION PROBLEMS OF COMPUTER CONTROL MANAGEMENT SYSTEMS ADAPTATION FOR MOBILE TRADING	23
B. Dytyniak, T. Kostiuk, O. Ivanyshyn	DISCRETE MATHEMATICAL MODEL OF ASYNCHRONOUS MOTOR	24
Yu. Dmytruk, Yu. Syrotiuk, O. Kostyshy	IEEE STANDARDS FOR "SMART CITIES"	25
V. Dubovyi, D. Dmytriv	.NET FRAMEWORK AND BASIC STORAGE PLATFORMS OF .NET	26
V. Dubovyi, D. Dmytriv, I.V.Lytvynenko	METHODS AND TOOLS ANALYSIS OF PROFILES OF SOCIAL NETWORKS IN THE PROCESS OF ADVERTISING CAMPAIGN	27
O. Izbianskiy	RESEARCH OF VULNERABILITIES OF SECRECY OF DIGITAL WATERMARKS TO VARIOUS TYPES OF ATTACKS	28

N. Zadorozhnyi, H. Karelina	DEVELOPMENT OF THE COMPREHENSIVE INFORMATION SECURITY SYSTEM OF AT"TP3"OPIOH" USING METHODOLOGY OF GAME THEORY	29
I. Kovalyk, M. Yashchuk, I. Rembokha	ANALYTICAL STRENGTH OF BIGDATA IN "SMART CITY" PROJECTS	30
R. Kozak, Yu. Skorenkyy, N. Zagordna	USAGE OF AUGMENTED REALITY FOR CYBER SECURITY EDUCATION IMPROVEMENT	31
V. Kokota, G. Shymchuk	REVIEW OF THE LZ77 ALGORITHM FOR IMPROVING THE QUALITY OF IMAGES	32
I. Konovalenko, P. Maruschak, V. Chernets, M. Chertkovh	DEVELOPMENT OF THE AUTOMATED METHOD FOR IDENTIFYING THE PARAMETERS OF DIMPLES OF VISCOUS TEARING ON THE FRACTURE SURFACE OF HIGH-STRENGTH TITANIUM ALLOYS	33
I. Konovalenko, P. Maruschak, A. Shaykin, V. Shpakovych	USING CONVOLUTIONAL NEURAL NETWORKS TO CALCULATE THE PARAMETERS OF THE FRACTURE SURFACE COVERED WITH DIMPLES OF TEARING	34
A. Lutskiv, A. Tsapko	METHODS AND MEANS OF MIGRATION FROM THE RELATIONAL MODEL OF DATA TO A NON-RELATIONAL	35
R. Maikhrych, A. Tehza	ANALYSIS OF MAGNETIC OBSERVERS FOR ELECTRIC DRIVER MANAGEMENT	36
P. Maruschak, M. Polutrenko, S. Huntselizer, T. Nevidomyi	AUTOMATED ANALYSIS OF THE STRUCTURALLY SHAPED SURFACE OF THE PIPE STEEL DAMAGED BY BIOCORROSION DEFECTS	37
A. Matsiuk	BRIEF REVIEW SMART CITY ON CONTINENTS	38
H. Matsiuk, N. Kunanets	STANDARDS GOVERNING THE FORMAT OF INFORMATION RETRIEVAL THESAURUS	39
H. Matsiuk, N. Kunanets	CONSTRUCTION OF ONTOLOGY AS INTEROPERABLE MODEL OF KNOWLEDGE IN THE SCIENTIFIC RESEARCH PROCESS OF THE "SMART CITY" SUBJECT DOMAIN	40

T. Moryak		
	SOFTWARE FOR ACCOUNTING AND REPORTING	41
O. Nadrichnyi, M. Solenko, M. Slobodian		
	“SMART CITY” AND FOG COMPUTING	42
Kh. Nakonechna		
	FEATURES OF THE CONSOLIDATED ACCOUNTS AND COMPILING ACCOUNTING ARRANGEMENTS	43
V. Novykov, V. Pustovoi, N. Slobodian		
	AUTOMATION OF TECHNOLOGICAL PROGRESS FOR MANUFACTURING OINTMENT WITH SCHNEIDER PLC	44
E. Ovcharuk, H. Osukhivska		
	ANALYSIS OF DATA TRANSFER IN COMPUTERIZED SYSTEMS FOR ELECTRICITY ACCOUNTING	45
V. Ornatovska		
	FEATURES OF MODERN NODE.JS PLATFORM FOR WEB APP DEVELOPMENT	45
O. Orobchuk		
	METHODOLOGY OF DEVELOPMENT AND ARCHITECTURE OF ONTO-BASED E-LEARNING SYSTEMS FOR CHINESE IMAGE MEDICINE ON THE BASIS OF LEARNING MANAGEMENT SYSTEM	47
V. Palii		
	INFORMATION SYSTEM OF ELECTROCARDIOGRAM STUDY BASED ON FUNCTIONS WITH VARIABLE PERIOD	48
B. Paperovskyi, N. Zagorodna		
	ANALYSIS OF MODERN METHODS OF ANOMALY DETECTION AND POSSIBLE INTRUSIONS IN COMPUTER SYSTEM	49
A. Pylypenko, A. Dul, S. Zaytsev		
	DEVELOPMENT OF AUTOMATED METHODS OF IMPACT-OSCILLATORY LOADING OF PRISMIC SPECIMENS OF TITANIUM ALLOYS	50
Y. Pil, V. Kovalchuk, M. Konoval		
	DEVELOPMENT THE INSTALLATION FOR SETTING OF THRISTER CONVERTERS	51
Yu. Savula, T. Chumak, A. Shumelda		
	ANALYSIS OF EXISTING TOURISM APPLICATIONS	52
V. Semeniuk, M. Hnutel, O. Mryhlod		
	IERARCHIC MASTERED DATABASE OF INFORMATIONAL RESOURCES SMART CITY	53

Y. Sydoryk, G. Shymchuk	OVERVIEW OF DATA PRIVACY ALGORITHM	54
D. Sinkovskiy, O. Shevchenko	HARMFUL SOFTWARE: CONCEPTS, FEATURES, CLASSIFICATION	55
T. Skliarova	SITE'S SEO OPTIMIZATION FOR NEWS OPPORTUNITIES	56
O. Slouchyevska, L. Zakharia, N. Kunanets	DEVELOPMENT OF INFORMATION RETRIEVAL SYSTEM FOR EMPLOYMENT	57
N. Smik	INSTRUMENTAL MEANS OF GAME PROGRAMS DEVELOPMENT WITH ELEMENTS OF AUGMENTED REALITY	58
Y. Stepura, O. Muzyka, O. Polianskyi	MODELING OF ELECTRODIGUE LINE PROCESSES IN MATLAB ENVIRONMENT	59
M. Tutskiy, M. Kostiuk, S. Krushynskiy	DEVELOPMENT OF MEDICAL WEB PORTAL	60
A. Uchman	METHOD OF NETWORK ANOMALIES AND POTENTIAL THREATS DETECTION ON AN EXAMPLE OF A COMPUTER NETWORK OF TNTU	61
V. Khraptak, T. Basyuk, N. Kunanets	PROJECT OF INFORMATION SYSTEM MONITORING AND FORECASTING OF CURRENCY VALUE	62
V. Chornenky, N. Kunanets, A. Rzhеuskyi	AUTOMATION OF IMPLEMENTATION OF ORDERS FROM PUBLIC CATERING	63
N. Yakubiv, O. Yatsenyk, R. Andrushchak	DEVELOPMENT OF WATER CLEANING SYSTEM WITH USING ARDUINO PLC	64
SECTION 3. COMPUTER SYSTEMS AND NETWORKS		
N. Goryachyy, A. Lutskiv, H. Osukhivska, V. Yatsyshyn	THE MAIN METRICS OF THE QUALITY IN DATA TRANSMISSION NETWORKS	65
B. Hrynda	METHODS AND MEANS OF EARLY RESPONSE ON TECHNOLOGICAL FAILURES IN COMPUTER NETWORK SYSTEMS IN ENTERPRISES	66

B. Hrynda	SPECIFICS OF SYSTEMS OF EARLY RESPONSE ON TECHNOLOGICAL FAILURES	67
Y. Danilyuk	SERVER TESTING AND ADMINISTRATION OF COMPUTER NETWORKS	68
T. Korzhak	DETERMINATION OF THE BIOMETRIC IDENTIFICATION EFFECTIVENESS IN COMPUTER NETWORKS	69
K. Kruts	METHODS AND MEANS OF STATISTICAL ANALYSIS AND FORECASTING TRAFFIC COMPUTER NETWORK	70
K. Kruts	METHODS OF MONITORING AND ANALYSIS OF THE COMPUTER NETWORK TRAFFIC	71
A. Lupenko, B. Bihalskyi	ANALYSIS OF TECHNOLOGIES FOR THE SYNTHESIS OF SOFTWARE DOCUMENTATION FOR COMPUTER SYSTEMS	72
S. Lupenko, Y. Andriichuk	IMPLEMENTATION OF AUTHENTICATION PROTOCOLS OF WEB-ORIENTED COMPUTER SYSTEMS USERS	73
S. Lupenko, M. Poberezhnyi	APPLICATION MANAGEMENT SCHEME IN COMPUTERIZED SERVICE SYSTEMS FOR USERS OF SERVICE CENTERS	74
A. Lutskiv, V. Didenko	ARCHITECTURES OF COMPUTER SYSTEMS FOR BIG DATA PROCESSING	75
A. Lutskiv, V. Mykhaliuk	SOFTWARE AND ALGORITHMS FOR BUILDING LANGUAGE CORPORA OF CAT SYSTEMS	76
A. Lutskiv, V. Khudoba	WAYS TO IMPROVE THE PROCESSING OF BIG DATA IN THE JVM ENVIRONMENT	77
V. Markiv	ACCESS CONTROL SYSTEM TO A SMART HOUSE WITH THE USE OF THE PROTOCOL ZEEGBE	78
A. Maschak, I. Plavutska	USE OF INSTAGRAM SOCIAL NETWORK TO PROMOTE BUSINESS	79

O. Mytnyk	ARCHITECTURE OF SOFTWARE-DEFINED NETWORKS	80
O. Onofriychuk, N. Zagorodna	ANALYSIS OF SAFETY OF AN AUTOMATED WORKPLACE AND THE DATA TRANSFER FROM A SETTLEMENT TRANSACTION RECORDER TO THE STATE FISCAL SERVICE	81
N. Pachkovskiy, O. Yasniy	ALGORITHMS, SOFTWARE AND HARDWARE OF MULTISERVICE VPN-NETWORK	82
Y. Skop	ALGORITHM AND SOFTWARE REALISATION OF COMPUTER SYSTEM FOR CREATING MUSICAL TEXT	83
Ie. Tysh, P. Kostyk	FORMALIZATION OF COMPUTER SYSTEMS SOFTWARE INTERFACES ON THE BASIS OF A COMPONENT APPROACH	84
Ie. Tysh, P. Kostyk	FACTORS INFLUENCE ON THE EFFICIENCY OF APPLICATION PROGRAMING INTERFACE DESIGN	85
Ie. Tysh, E. Shamrai	THE ROLE MODEL OF THE AUTOMATION TOOL FOR EVALUATING THE SECURITY OF WEB SERVERS	86
Ie. Tysh, K. Yakobchuk	REQUIREMENTS TO TOOLS OF THE RISK MANAGEMENT METHOD BASED ON THE SEI MODEL IN THE AGILE METHODOLOGY IN THE DESIGN OF SOFTWARE COMPONENTS OF COMPUTER SYSTEMS	87
A. Chorniy	COMPUTERIZED SYSTEM OF ELECTRICITY SUPPLY ACCOUNT OF ENTERPRISE	88
N. Shynhera, T. Oliinyk	ANALYSIS OF THE INTERACTION PATTERNS OF IOT COMPONENTS IN COMPUTER SYSTEM DESIGN	89
A. Shtamburskyi	THE ROLE OF CONTINUOUS INTEGRATION IN THE SOFTWARE DEVELOPMENT PROCESS	90
V. Yatsyshyn, A. Boiko	INTELLIGENT SOLUTION SUPPORT SYSTEM FOR DETERMINING THE PRIORITIES OF THE COMPUTER SYSTEM CHARACTERISTICS	91

V. Yatsyshyn, A. Skochynskyi	MONITORING AND EVALUATION OF QUALITY OF THE CRITERIA OF THE COMPUTER SYSTEMS SOFTWARE BASED ON MODELS	92
V. Yatsyshyn, Y. Fitsai	TOOLS FOR "QUALITY BUILDINGS" DEPLOYMENT IN OPTIMIZATION PROCESS OF THE PROPERTIES OF COMPUTER SYSTEMS	93
SECTION 4. SOFTWARE ENGINEERING AND SIMULATION OF COMPLEX DISTRIBUTED SYSTEMS		
D. Bilkevych, D. Mykhalyk	DEVELOPMENT OF CROSS-PLATFORM CUSTOM-SERVER APPLICATION FOR THE COLLECTION OF STATISTICAL DATA OF PSYCHOLOGICAL RESEARCH	94
V. Zdrok, I. Boyko	DEVELOPMENT OF SINGLE PAGE APPLICATION WITH REACT.JS AND NODE.JS	95
P. Zin	FEATURES OF APPLICATION OF MULTIFUNCTIONAL PROGRAMMING LANGUAGE PYTHON FOR WRITING THE PROGRAM FOR THE SECURITY SYSTEM "SAFEHOME" OF RESIDENTIAL AND PUBLIC BUILDINGS	96
A. Lutskiv, R. Lutsyshyn	CONTAINERIZATION USAGE FOR THE STUDENT'S LABORATORY WORKSHOPS DEVELOPMENT	97
I. Matusyak, I. Boyko	DEVELOPMENT OF A MOBILE APPLICATION FOR DELAYED PENALTY FOR GAS REPLACEMENT FOR IOS SYSTEMS	98
D. Rainchuk, I. Boyko	SOFTWARE COMPLEX OF AUTOMATED TESTING OF INFORMATION SYSTEMS USING A C# PROGRAMMING LANGUAGE	99
R. Riznyk	DEVELOPMENT OF AN APPLICATION FOR RADIOWEVES CHARACTERISTICS CALCULATION FOR ANDROID SYSTEM	100
SECTION 5. NEWEST PHYSICAL, TECHNICAL AND EDUCATIONAL TECHNOLOGIES		
P. Voloshyn	IMPLEMENTATION OF QUANTUM ALGORITHMS IN PHOTONIC DEVICES	101

Z. Babiak, O. Perenchyk	PROBLEMS OF OPTIMISATION OF THE FOREIGN LANGUAGES TEACHING AT UNIVERSITIES	102
I. Hinsirovska	PECULIARITIES OF LEARNING OF LEXICAL AND GRAMMATICAL UNITS OF ENGLISH LANGUAGE BY THE STUDENTS OF HIGHER TECHNICAL INSTITUTIONS	103
O. Karelina	CHALLENGES AND THREATS OF CYBER SECURITY IN UKRAINE AND THE WORLD	104
O. Kramar, Yu. Skorenkyy, T. Kramar, I. Vorobets	APPLICATION OF PROJECTED HOLOGRAMS FOR PHYSICAL REALIZATION OF AUGMENTED REALITY	105
S. Kryskova	DUAL EDUCATION	106
V. Kulchytskyy	FORMATION OF FUNDAMENTAL PHYSICAL CONCEPTS "ELECTROMAGNETIC INTERACTION" AND "ELECTROMAGNETIC FIELD" IN THE PROCESS OF THE STUDY OF SPECIAL THEORY	107
R. Lutsyshyn, O. Perenchuk	DOCKER VIRTUALIZATION AND CONTAINERIZATION TECHNOLOGY	108
H. Matsiuk	FORMATION OF THE COMMUNICATIVE COMPETENCE OF INTERNATIONAL STUDENTS BY MEANS OF THE ROLE GAME	109
L. Nazarevych	PRACTICAL APPROACH AND GAME ACTIVITIES IN STUDYING UKRAINIAN AS A FOREIGN LANGUAGE	110
M. Palasyuk	INNOVATIVE AND TECHNOLOGICAL PROCESSES IN TECHNICAL UNIVERSITIES	111
M. Pelcher, I. Stoyko	IMITATION TECHNOLOGIES AS THE MODERN EDUCATIONAL TECHNOLOGY	112
I. Plavutska	MOTIVATIONAL FACTORS AND TEACHER'S PROFESSIONAL COMPETENCY AS A GUARANTEE OF EFFECTIVE LEARNING OF A FOREIGN LANGUAGE AT TECHNICAL INSTITUTIONS OF HIGHER EDUCATION	113

O. Rokitskyi, N. Rokitska	
FROM THE HISTORY OF THE UKRAINIAN ACADEMY OF SCIENCES (DEDICATED TO CENTENNARY OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE)	114
O. Sitkar	
THE PROFESSIONAL COMPETENCES FORMATION OF ENGINEERING STUDENTS DURING THE STUDY OF PHYSICS COURSE	116
S. Fedak, N. Denysiuk	
WAYS OF USING ONLINE DICTIONARIES FOR FOREIGN LANGUAGE STUDY	117
V.P. Petruk	
ENERGY EFFICIENCY INCREASING OF SOLAR ENERGY CONCENTRATIONS IN A THERMAL POWER PLANT OF THE TOWER TYPE	118