# 2015 9th International Conference on Application of Information and Communication Technologies (AICT 2015)

Rostov-on-Don, Russia 14 – 16 October 2015



**IEEE Catalog Number:** 

CFP1556H-POD 978-1-4673-6857-5

**ISBN**:

# Copyright © 2015 by the Institute of Electrical and Electronic Engineers, Inc All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

\*\*\*This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.

IEEE Catalog Number: CFP1556H-POD ISBN 13: 978-1-4673-6857-5

#### Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com
Web: www.proceedings.com



## TABLE OF CONTENTS

### SESSION 1 – BIG DATA MANAGEMENT AND APPLICATION

NEW COMPUTATIONAL MODELS FOR BIG DATA AND OPTIMIZATION Sergey Rodzin, Olga Rodzina.	3
PARAMETER SELECTION IN FUZZY JOINT POINTS CLUSTERING ALGORITHMS  Efendi Nasibov, Can Atilgan	. 8
RUNNING GENETIC ALGORITHM APPLICATION RUNNING ON HADOOP FOR HIGH DIMENSIONAL OPTIMIZATION PROBLEMS	12
Güngör Yildirim, İbrahim R. Hallac, Galip Aydin, Yetkin Tatar  DISTRIBUTED STORAGE SYSTEM FOR IMAGERY DATA IN ONLINE SOCIAL NETWORKS	12
Kokoulin Andrey, Dadenkov Sergey	17
INFORMATION AND KNOWLEDGE INTEGRATION BASED ON SIMULATION MODELING YU.A. Kravchenko, Vl.Vl. Kureichik, D.YU. Zaporozhets, D.V. Zaruba	22
CREATION AND USE OF ONTOLOGY OF SUBJECT DOMAIN "ELECTRICAL ENGINEERING"  Le Thanh Tung Nguyen, Matokhina A. V., Kizim A. V.	25
DEVELOPMENT OF THE TRANSLATION TOOLS FOR DISTRIBUTED STORAGE OF MODELS  Maxim Polenov, Vyacheslav Guzik, Sergey Gushanskiy, Artem Kurmaleev	
MIPR – A FRAMEWORK FOR DISTRIBUTED IMAGE PROCESSING USING HADOOP  Andrey Sozykin, Timofei Epanchintsev	35
BIG DATA AS THE BIG GAME CHANGER Gennady Smorodin, Olga Kolesnichenko	40
A MONITORING SYSTEM TO PREPARE MACHINE LEARNING DATA SETS FOR EARTHQUAKE PREDICTIO BASED ON SEISMIC-ACOUSTIC SIGNALS  Alper Vahaplar, Resmiye Nasiboglu, Barish Tekin Tezel, Efendi Nasibov	
ANALYSIS OF FINITE FLUCTUATIONS FOR SOLVING BIG DATA MANAGEMENT PROBLEMS Semen L. Blyumin, Galina S. Borovkova, Kseniya V. Serova, Anton S. Sysoev	
ON-CHIP HARDWARE ACCELERATORS FOR DATA PROCESSING AND COMBINATORIAL SEARCH Valery Sklyarov, Iouliia Skliarova	
TRANSLATION OF NATURAL LANGUAGE QUERIES TO STRUCTURED DATA SOURCES Ruslan Posevkin, Igor Bessmertny	57
KNOWLEDGE-BASED SYSTEM IS A GOAL AND A TOOL FOR BASIC AND APPLIED RESEARCH Victor Abrukov, Valery Kochakov, Alexander Smirnov, Sergey Abrukov, Darya Anufrieva	60
THE TECHNOLOGY OF DATA MINING CIVIL INFRASTRUCTURE  Alexandra Alexandrovna Golubeva, Yury Borisovich Gritsenko, Oleg Igorevich Zhukovsky	64
REVIEW OF STATISTICAL ANALYSIS METHODS OF LARGE-SCALE DATA Makrufa S. Hajirahimova, Aybeniz S. Aliyeva	67
INFORMATION SYSTEM OF EFFICIENT DATA MANAGEMENT OF GROUNDWATER MONITORING THE REPUBLIC OF KAZAKHSTAN  Erken Turganbaev, Zhanar Beldeubayeva, Saule Rakhmetullina, Vladimir Krivykh	72
TEXT ANALYSIS CASE STUDY: DETERMINING WORD FREQUENCY BASED ON AZERBAIJAN TOP 500 WEBSITES	
Abzetdin Adamov SESSION 2 – DATA MINING AND DATA ENGINEERING	<u>.</u> 76
DOMAIN ONTOLOGY DEVELOPMENT FOR LINGUISTIC PURPOSES Semenova A.V., Kureychik V.M.	83
THE EXTENDED LONGEST COMMON SUBSTRING ALGORITHM FOR SPOKEN DOCUMENT RETRIEVAL  Dmitriy Prozorov, Alexandra Yashina	
A MULTI-MODAL PERTURBATION-BASED SELECTIVE ENSEMBLE ALGORITHM	
Youqiang Zhang, Feng Jiang, Junwei Du, Guozhu Liu	91

COMPARATIVE ANALYSIS OF CLASSIFICATION ALGORITHMS  R. Muhamedyev, K. Yakunin, S. Sainova, A.Abdilmanova, Y. Kuchin	96
USING HYBRID MODEL OF ARTIFICIAL BEE COLONY AND GENETIC ALGORITHMS IN SOFTWARE COST ESTIMATION  Farhad Soleimanian Gharehchopogh, Isa Maleki, Akbar Talebi	Т
INTELLIGENT LEARNING ENVIRONMENTS FOR CORPORATIONS A.N. Afanasyev, N.N. Voit	
A NEW APPROACH BY USING TABU SEARCH AND GENETIC ALGORITHMS IN SOFTWARE COST ESTIMA Farhad Soleimanian Gharehchopogh, Raheleh Rezaii, Bahman Arasteh	TION
PROCESSING OF FUZZY GRAPHIC IMAGES IN INTELLIGENT COMPUTER VISION SYSTEMS ON RAILWA TRANSPORT  Alexander Dolgiy, Sergey Kovalyev, Vladimir Samsonov, Agop Khatlamadzhiyan	Y
COGNITIVE MEASUREMENTS FOR NEW GENERATION KNOWLEDGE ACQUISITION SYSTEMS  Valery B. Tarassov, Maria N.Svyatkina, Baurzhan S. Karabekov	
EXTRACTING PHRASE-CONTENT PAIRS FOR TURKISH SENTENCES İlknur Dönmez, Eşref Adalı	
ARGUMENTATION IN INDUCTIVE CONCEPT FORMATION  Vadim Vagin, Marina Fomina, Oleg Morosin	133
AN AUTOMATION OF THE COURSE DESIGN WITH USE OF LEARNING OBJECTS WITH EVALUTION BASE THE BLOOM TAXONOMY  Maria Karpova, Vadim Shmelev, Alexey Dukhanov.	
ADD-REMOVE-CONFIRM: CROWDSOURCING SYNSET CLEANSING  Dmitry Ustalov, Yuri Kiselev	
A NOVEL CARDHOLDER BEHAVIOR MODEL FOR DETECTING CREDIT CARD FRAUD  Yiğit Kültür, Mehmet Ufuk Çağlayan	148
AN APPROACH TO PERSONALIZED VIDEO SUMMARIZATION BASED ON USER PREFERENCES ANALYSIS Maria Miniakhmetova, Mikhail Zymbler.	
INTEGRATION OF ONTOLOGIES IN SCOPE OF MODEL AND CONCEPTUAL SEMANTICS: MODIFIED APPROACH  V.V. Bova, V.V. Kureichik, A.A. Lezhebokov	156
THE PRINCIPLES OF ANALYTIC DECISION SUPPORT SYSTEM CONSTRUCTION ON THE BASIS OF FUZZY LOGIC  Natalya Bereza, Maxim Lyashov, Andrey Bereza, Luis Blanco	Y
VISUAL REPRESENTATION OF THE WORKFLOWS BY USING SUGIYAMA ALGORITHM  Huzeyfe Esen	
SESSION 3. CYBER SECURITY ISSUES  METHOD TO COUNTER THE THREAT OF COVERT CHANNELS IN LONWORKS-BASED INDUSTRIAL CONSYSTEMS	
Igor I. Bezukladnikov, Efim L. Kon  MALICIOUS HYPERVISOR AND HIDDEN VIRTUALIZATION OF OPERATION SYSTEMS	
Anton Sergeev, Victor Minchenkov, Vladimir Bashun  DEVELOPMENT OF HYBRID INTELLIGENT SYSTEM OF EXPRESS-DIAGNOSTICS FOR DETECTION POTENTIAL ATTACKER	1/8
A.E. Yankovskaya, A.A. Shelupanov, I.A. Hodashinsky, I.V. Gorbunov	183
CONSIDERATION FOR FORMAL CYBERSECURITY MODELS IN I&C SYSTEM DESIGN Vitaly G. Promyslov	188
BIOMETRIC STUDENT IDENTIFICATION USING LOW-FREQUENCY EYE TRACKER  Andrey V. Lyamin, Elena N. Cherepovskaya	191
MODEL OF ROLE-BASED ACCESS TO SPATIAL DATA OF ELECTRONIC MASTER PLAN Yury B. Gritsenko, Mikhail M. Milikhin, Pavel V. Senchenko, Oleg I. Zhukovsky	196
SECURITY ATTACKS AND COUNTERMEASURES IN SURVEILLANCE WIRELESS SENSOR NETWORKS Seyyit Alper Sert, Ertan Onur, Adnan Yazici	201
NEW ENCRYPTION TECHNIQUE USING THE MEANING OF LOCATION ALGORITHM  Hassan M. Elkamchouchi, Mahmoud A. Shawky, Ahmed R. El Sawi	206

IMPLEMENTATION OF DYNAMICALLY AUTOCONFIGURED MULTISERVICE MULTIPOINT VPN Petr Polezhaev, Alexander Shukhman, Yuri Ushakov	211
RELATED-KEY RECTANGLE CRYPTANALYSIS OF REDUCED-ROUND BLOCK CIPHER MIBS  Kexin Qiao, Lei Hu, Siwei Sun, Xiaoshuang Ma	216
TOOL FOR I&C SYSTEM SECURITY POLICY VERIFICATION  Vitaly G. Promyslov	221
POLICY ALGEBRA FOR ACCESS CONTROL IN ENTERPRISE DOCUMENT MANAGEMENT SYSTEMS  Ivan Tarkhanov	
THE USE OF CRYPTOGRAPHY IN NETWORK SECURITY  Zafar Jafarov	229
MONITORING OF THE INFORMATION SECURITY OF WIRELESS REMOTE DEVICES  N. Bazhayev, I. Lebedev, V. Korzhuk, I. Zikratov	233
SESSION 4. LATEST TRENDS IN ICT APPLICATION	
MODELING OF A MOTION OF HAND PROSTHESIS BASED ON THE FUZZY DEDUCTIVE INFERENCE SCHEMI Alexander Bozhenyuk, Vitalii Bozheniuk, Alexandra Khamidulina	
A SIMPLE AUDITING MECHANISM FOR FINANCIAL REPORTS IN E-LEDGER PROJECT  Burçin Camcı, Salih Bayar, Mehmet Görkem Ülkar	244
LEVEN – A PARALLEL SYSTEM FOR SIMULATION OF THE HEART LEFT VENTRICLE  Andrey Sozykin, Sergey Pravdin, Anton Koshelev, Vladimir Zverev, Konstantin Ushenin, Olga Solovyova	249
COMPUTERIZED ENVIRONMENT FOR CONCEPTUAL EXPERIMENTING IN DESIGNING THE SYSTEMS WITH SOFTWARE  Petr Sosnin	
THE HYBRID RECONFIGURABLE SYSTEM FOR HIGH-PERFORMANCE COMPUTING  Lyashov M.V., Alekseenko J.V., Bereza A.N., Blanco L.M.L.	258
OPTIMIZED STOCK MARKET PREDICTION USING ENSEMBLE LEARNING Muhammad Asad	263
COMPARISON OF USER PERFORMANCE AND SATISFACTION OF TABLET VIRTUAL KEYBOARDS IN THREE DIFFERENT OS ENVIRONMENT  Yeliz Korkmaz, Pınar Onay Durdu	Ξ
FAULT-TOLERANT ARCHITECTURE FOR THE HAZARDOUS OBJECT INFORMATION CONTROL SYSTEMS Vladimir Korobkin, Eduard Melnik, Anna Klimenko	274
THE PARALLEL SIMULATED ANNEALING-BASED RECONFIGURATION SPEEDUP ALGORITHM FOR THE REAL TIME DISTRIBUTED CONTROL SYSTEM FAULT-TOLERANCE PROVIDING  A.B. Klimenko, V.V. Klimenko, E.V. Melnik	277
MOBILE INDOOR NAVIGATION SYSTEM IN IOS PLATFORM USING AUGMENTED REALITY  Ibrahim Arda Cankaya, Arif Koyun, Tuncay Yigit, Asim Sinan Yuksel	
CONTROL OF UML DIAGRAMS IN DESIGNING AUTOMATED SYSTEMS SOFTWARE  A.N. Afanasyev, N.N. Voit, E. Yu. Voevodin, R.F. Gainullin	285
SMART CONTROL SYSTEM OF GAS WELLS CLASTER PROVIDING A MODE OF MAXIMUM PRESSURE Gulyaev S.V., Pashchenko F.F., Pashchenko A.F.	289
DETERMINING THE MINIMUM COST FLOW IN FUZZY DYNAMIC NETWORK WITH GIS «OBJECTLAND»  Alexander Bozhenyuk, Evgeniya Gerasimenko, Igor Rozenberg	294
THREE-DIMENSIONAL CONTENT IN MOBILE APPLICATIONS FOR EDUCATIONAL INFORMATION SYSTEM A.A. Lezhebokov, D.V. Zaruba, D.Yu. Zaporozhets	
MULTIMODAL NATURAL INTERACTION FOR 3D IMAGES Fatih Ergüner, Pınar Onay Durdu	305
STATISTICAL INFERENCE IN ALPR SYSTEM B.Y. Amirgaliyev, C.A. Kenshimov, Z.Y. Baibatyr, K.K. Kuatov, M.Z. Kairanbay, A.K. Jantassov	310
"BINARY KNOWLEDGE MODEL": SPECIFYING, INSTANTIATING, AND INTERPRETING ADVANCED ONTOLOGIES	
G.S. Plesniewicz, D.E. Masherov, Nguen Thi Min Vu, A.B. Karabekov	314
A CHANNEL TRUST BASED APPROACH FOR CONGESTION CONTROL IN IoT  Moumita Poddar, Rituparna Chaki, Debdutta Pal	319

TOWARDS THE PROBLEM OF RISK ASSESSMENT IN THE SAFETY MANAGEMENT SYSTEM OF AN AIRLINE  Elena Jharko, Ekaterina Sakrutina 325
QUANTUM GATES TRANSFORM OPTIMIZATION ALGORITHM FOR QUANTUM COMPUTER MODELING  Vyacheslav Guzik, Sergey Gushanskiy, Evgeny Kubrakov, Maxim Polenov
SIMULATION OF TWO-CHANNEL BULK MATERIALS METERING SYSTEM Aizhan Erulanova, Gennadii Shadrin, Natalia Arinova, Ielibek Asangaliiev
SESSION 5. COMMUNICATION, NETWORK AND HARDWARE
RECOGNITION OF 3D OBJECT USING KINECT Sagandykova Aigerim, Askarbekuly Askhat, Amirgaliyev Yedilkhan 341
DEVELOPMENT OF A METHOD FOR THE SYNTHESIS OF TOPOLOGY IN INFOCOMMUNICATION SYSTEMS  A.A. Sorokin, P.S. Reznikov 347
ANALOG-CONTROLLED FEEDBACK FOR PREDISTORTION Of GaN POWER AMPLIFIER  Aleksandr Timoshenko, Konstantin S Tafintsev, Ksenia Lomovskaya, Alexey Lisov
DIGITAL MODULATOR FOR FIBER-OPTICAL NETWORKS  Yashar Hajiyev 356
CYCLIC PREFIX BASED TIME SYNCHRONIZATION AND COMB TYPE CHANNEL ESTIMATION FOR SC-FDMA SYSTEMS OVER TIME-VARYING CHANNELS
Niyazi Odabasioglu, Mehmet Merih Leblebici, Bahattin Karakaya, Hakan Dogan359
FPGA - BASED APPROACH FOR ORGANIZATION OF SDN SWITCH  Anatoly Kalyaev, Eduard Melnik 365
AN EASY TO IMPLEMENT AND ENERGY-SAVING ANTI-COLLISION ALGORITHM FOR RFID SYSTEMS  Rafael Perazzo Barbosa Mota, Daniel M. Batista 367
EXTENDED RECURSIVE SOFT SEQUENTIAL ESTIMATION OF M-SEQUENCES  Michael Balanov, Dmitriy Prozorov 375
FUZZY ANNEALING TEMPERATURE CONTROLLERS FOR BELL-TYPE ELECTRIC FURNACES  Kudinov Y.I., Kudinov I.Y., Pashchenko A.F., Pashchenko F.F., Durgaryan I.S. 377
CHANNEL ESTIMATION FOR SPATIAL MODULATION ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING SYSTEMS
Hakan Doğan, Yusuf Acar, Erdal Panayırcı 382
DEVELOPMENT "FILTRATION" SOFTWARE FOR THE DIGITAL PROCESSING OF THE MEASURING SIGNALS  Naila Allakhverdiyeva 386
CONVERGENCE IN LOCAL PRESS  Ozhan Tingoy, Sevki Isikli, Ali Ozcan  390
RESEARCH ON ARCHITECTURE AND EVOLUTION OF THE EUROPEAN UNION META-NETWORK MODEL  Kun Wang, Duoyong Sun  394
VISUAL REPRESENTATION CHARACTERISTICS OF CALCULATION RESULTS IN LABORATORY RESEARCH ON ELECTROMAGNETIC ECOLOGY
Zvezdina M.Yu., Shokova Yu.A., Shokov A.V399
DESIGN OF MEWMA CONTROL CHART FOR PROCESS SUBJECT TO QUALITY SHIFT AND EQUIPMENT FAILURE  Hui Yin, Haiping Zhu, Guojun Zhanga, Yuhao Deng 404
RAISING THE EFFECTIVENESS OF DATA PROCESSING IN AUTOMATED INFORMATION CONTROL SYSTEMS  Aleksandr V. Galkin, Daria V. Dyatchina, Anatoly K. Pogodaev 408
ACCELERATING MEDOIDS-BASED CLUSTERING WITH THE INTEL MANY INTEGRATED CORE ARCHITECTURE
Timofey Rechkalov, Mikhail Zymbler413
COMPARISON OF SCHEDULING ALGORITHMS FOR MULTIMEDIA APPLICATIONS IN IPv4 AND IPv6  Murat Koyuncu, Hayder Al-Fayyadh  418
GRAPHICAL FRAMEWORK FOR SCIENTIFIC PAPERS CLUSTERING  Tamara Trofimenko, Alexander Visheratin, Mikhail Melnik, Ksenia Mukhina, Nikolay Butakov 423
RESEARCH ON REGIONAL COLLABORATIVE INNOVATION EVOLUTION FROM COMPLEX NETWORK PERSPECTIVE
Kun Wang, Duoyong Sun 428

CONTROL Viktors Gopejenko, Ilja Mihailovs	433
FEATURES OF INFORMATION FLOWS IN THE BACKBONE INTERNET-CHANNEL: THE ANALYSIS OF THE STATISTICAL CHARACTERISTICS OF THE RELATIONSHIP BETWEEN THE NUMBER OF PACKETS AND TH TIME  Porshnev S.V., Koposov A.S., Bozhalkin D.A.	
CONDITIONAL PROBABILITY DENSITY ESTIMATION USING ARTIFICIAL NEURAL NETWORK G.V. Kobyz, A.V. Zamyatin	
INCREASING THE INFORMATION CAPACITY OF THE INTERFACE OF THE CONTROL SYSTEM FOR MULTYPARAMETER OBJECTS  Kosnikov Yu.N.	_446
AN APPLICATION OF BUILDING AUTOMATION SYSTEM BASED ON WIRELESS SENSOR/ACTUATOR NETWORKS Seyit Alperen Çeltek, Hakkı Soy	
HYPERGRAPH MODEL OF HIERARCHICAL CLIENT-SERVER ARCHITECTURE FOR DISTRIBUTED COMPUTING  V.M. Glushan, P.V. Lavrik, M.V. Rybalchenko	
CMOS - BASED UWB BANDPASS FILTER WITH IN-BAND INTERFERENCE CANCELLATION A.A. Saadi, M.C.E. Yagoub, R. Touhami, A. Slimane, A. Taibi, M.T. Belaroussi	
CARBON EMISSION-AWARE ROUTING PROTOCOL IN VEHICULAR AD-HOC NETWORKS  Ghulam Yasin, Syed Fakhar Abbas, Waseem Iqbal	
STUDYING METHODS OF DATA TRAFFIC MANAGEMENT IN WIRELESS NETWORKS IN THE TERMS OF UNCERTAINTY  V.N. Dmitriev, A.A. Sorokin, Q.T. Tran, K.T. Pham.	
SESSION 6. ICT IN EDUCATION, HUMANITIES, SOCIAL SCIENCES AND RESEARCH  INFORMATION TECHNOLOGY TO ASSESS THE LEVEL OF COMPETENCE IN THE EDUCATIONAL PROCESS Gusyatnikov Viktor Nicolaevich, Bezrukov Alexey Iosifovich, Sokolova Tatyana Nikolaevna, Kayukova Inna Victorovna	-
ANALYSIS AND EVALUATION METHODOLOGY FOR ROUTE PLANNING APPLICATIONS IN PUBLIC TRANSPORTATION  Efendi Nasiboglu, Alican Bozyigit, Yigit Diker	, c
TESTS IN EDUCATION AND THEIR APPLICATION IN THE ELECTRONIC ENVIRONMENT	477
Nikiforov N.S., Lavrinenko S.V.	
Nikiforov N.S., Lavrinenko S.V.  MATHEMATICAL BASIS AND INFORMATION SYSTEM SOFTWARE FOR EDUCATIONAL INSTITUTIONS RANKING	_482
MATHEMATICAL BASIS AND INFORMATION SYSTEM SOFTWARE FOR EDUCATIONAL INSTITUTIONS RANKING Indira Uvalieva, Ruslan Chettykbayev, Anar Utegenova, Shara Toibayeva QUALITY ASSESSMENT OF REMOTE REAL EXPERIMENTS AND THEIR USE IN PRACTICE	_482 _486
MATHEMATICAL BASIS AND INFORMATION SYSTEM SOFTWARE FOR EDUCATIONAL INSTITUTIONS RANKING Indira Uvalieva, Ruslan Chettykbayev, Anar Utegenova, Shara Toibayeva	_482 _486 _491
MATHEMATICAL BASIS AND INFORMATION SYSTEM SOFTWARE FOR EDUCATIONAL INSTITUTIONS RANKING Indira Uvalieva, Ruslan Chettykbayev, Anar Utegenova, Shara Toibayeva QUALITY ASSESSMENT OF REMOTE REAL EXPERIMENTS AND THEIR USE IN PRACTICE Danka Lukáčová, Gabriel Bánesz, Alena Hašková EVALUATION BASED ON DATABASES OF SCIENTIFIC PUBLICATIONS MEASURING THE TRANSDISCIPLINARITY OF SCIENTIFIC PROBLEMS	_482 _486 _491 _496
MATHEMATICAL BASIS AND INFORMATION SYSTEM SOFTWARE FOR EDUCATIONAL INSTITUTIONS RANKING Indira Uvalieva, Ruslan Chettykbayev, Anar Utegenova, Shara Toibayeva QUALITY ASSESSMENT OF REMOTE REAL EXPERIMENTS AND THEIR USE IN PRACTICE Danka Lukáčová, Gabriel Bánesz, Alena Hašková EVALUATION BASED ON DATABASES OF SCIENTIFIC PUBLICATIONS MEASURING THE TRANSDISCIPLINARITY OF SCIENTIFIC PROBLEMS Nikita Kogtikov, Alexey Dukhanov, Tamara Trofimenko INFORMATIONAL AND TECHNOLOGICAL SUPPORT OF FOREIGN LANGUAGE TRAINING IN HIGH SCHOO Pisarenko Veronika ACADEMIC PAPERS EVALUATION SOFTWARE Viacheslav Lanin, Svetlana Strinyuk, Yuliya Shuchalova	482 486 491 496 <b>L</b> 501
MATHEMATICAL BASIS AND INFORMATION SYSTEM SOFTWARE FOR EDUCATIONAL INSTITUTIONS RANKING Indira Uvalieva, Ruslan Chettykbayev, Anar Utegenova, Shara Toibayeva QUALITY ASSESSMENT OF REMOTE REAL EXPERIMENTS AND THEIR USE IN PRACTICE Danka Lukáčová, Gabriel Bánesz, Alena Hašková EVALUATION BASED ON DATABASES OF SCIENTIFIC PUBLICATIONS MEASURING THE TRANSDISCIPLINARITY OF SCIENTIFIC PROBLEMS Nikita Kogtikov, Alexey Dukhanov, Tamara Trofimenko INFORMATIONAL AND TECHNOLOGICAL SUPPORT OF FOREIGN LANGUAGE TRAINING IN HIGH SCHOO Pisarenko Veronika ACADEMIC PAPERS EVALUATION SOFTWARE Viacheslav Lanin, Svetlana Strinyuk, Yuliya Shuchalova THE REALIZATION OF PROGRAMS: "OCCUPATIONAL SAFETY AND HEALTH (OSH)" AND "HEALTH SAFE AND ENVIRONMENTAL (HSE) MANAGEMENT SYSTEM"	482 486 491 496 <b>L</b> 501 <b>TY</b>
MATHEMATICAL BASIS AND INFORMATION SYSTEM SOFTWARE FOR EDUCATIONAL INSTITUTIONS RANKING Indira Uvalieva, Ruslan Chettykbayev, Anar Utegenova, Shara Toibayeva QUALITY ASSESSMENT OF REMOTE REAL EXPERIMENTS AND THEIR USE IN PRACTICE Danka Lukáčová, Gabriel Bánesz, Alena Hašková  EVALUATION BASED ON DATABASES OF SCIENTIFIC PUBLICATIONS MEASURING THE TRANSDISCIPLINARITY OF SCIENTIFIC PROBLEMS Nikita Kogtikov, Alexey Dukhanov, Tamara Trofimenko  INFORMATIONAL AND TECHNOLOGICAL SUPPORT OF FOREIGN LANGUAGE TRAINING IN HIGH SCHOO Pisarenko Veronika  ACADEMIC PAPERS EVALUATION SOFTWARE Viacheslav Lanin, Svetlana Strinyuk, Yuliya Shuchalova THE REALIZATION OF PROGRAMS: "OCCUPATIONAL SAFETY AND HEALTH (OSH)" AND "HEALTH SAFE AND ENVIRONMENTAL (HSE) MANAGEMENT SYSTEM" Andrienko A.S., Dmitrieva I.A., Bakaeva T.N., Popova O.V., Tolmacheva L.V.  MODELS OF EDUCATIONAL PROCESS ACTIVATION	482 486 491 496 <b>L</b> 501 506 <b>TY</b>
MATHEMATICAL BASIS AND INFORMATION SYSTEM SOFTWARE FOR EDUCATIONAL INSTITUTIONS RANKING Indira Uvalieva, Ruslan Chettykbayev, Anar Utegenova, Shara Toibayeva QUALITY ASSESSMENT OF REMOTE REAL EXPERIMENTS AND THEIR USE IN PRACTICE Danka Lukáčová, Gabriel Bánesz, Alena Hašková EVALUATION BASED ON DATABASES OF SCIENTIFIC PUBLICATIONS MEASURING THE TRANSDISCIPLINARITY OF SCIENTIFIC PROBLEMS Nikita Kogtikov, Alexey Dukhanov, Tamara Trofimenko INFORMATIONAL AND TECHNOLOGICAL SUPPORT OF FOREIGN LANGUAGE TRAINING IN HIGH SCHOO Pisarenko Veronika ACADEMIC PAPERS EVALUATION SOFTWARE Viacheslav Lanin, Svetlana Strinyuk, Yuliya Shuchalova THE REALIZATION OF PROGRAMS: "OCCUPATIONAL SAFETY AND HEALTH (OSH)" AND "HEALTH SAFE AND ENVIRONMENTAL (HSE) MANAGEMENT SYSTEM" Andrienko A.S., Dmitrieva I.A., Bakaeva T.N., Popova O.V., Tolmacheva L.V.	482 486 491 496 L 501 506 TY 511

MOLECULAR DYNAMICS SIMULATION OF SPATIAL STRUCTURE OF RAT/MOUSE HEMOKININ-1  U.T. Agaeva, G.A. Agaeva, N.M. Godjaev	524
USE OF MODERN INFORMATION AND COMPUTER TECHNOLOGIES IN HISTORICAL AND URBAN STUDIES WITH THE EXAMPLE OF EPIDEMIOLOGICAL SITUATION IN THE CITY OF SIMBIRSK DURING THE FIRST WORLD WAR	
Andrey Guschin, Vadim Shmelev, Vladislav Karbovskii	527
NEW TRENDS IN IMPLEMENTATION OF ICT IN HIGHER EDUCATION	
Galina Kedrova, Sergei Potemkin	531
HOW TO IMPROVE PROFESSIONAL COMPETENCES OF TECHNICAL SUBJECT TEACHERS  Alena Hašková, Peter Kuna, Eva Malá, Dirk Van Merode	536
USING AUTOMATON MODEL TO DETERMINE THE COMPLEXITY OF ALGORITHMIC PROBLEMS FOR VIRTUAL LABORATORIES  E.A. Efimchik, M.S. Chezhin, A.V. Lyamin, A.V. Rusak	
ANALYSIS AND CLASSIFICATION OF FRACTURES WITH USE OF ALGORITHMS FUZZY INFERENCE  Openko Natalia	
HEURISTIC EVALUATION OF A MOBILE HAND-WRITING LEARNING APPLICATION  Banu Yılmaz, Pınar Onay Durdu	
COMPLEXITY REVISITED  Mohammad Ghiasi	
OVERVIEW AND PROBLEM STATE OF ONTOLOGY MODELS DEVELOPMENT  Kureychik V.M.	558
TECHNICAL PROBLEMS EXPERIENCED IN THE VIRTUAL LEARNING ENVIRONMENT AND COPING STRATEGIES	575
Yuksel Goktas, Murat Coban, Turkan Karakus	כסכ
E-LEARNING TECHNOLOGIES AS BASIS OF FORMATION OF THE INTEGRATED TRAINING IN THE EDUCATIONAL SERVICES  V.V. Bova, Yu.A. Kravchenko, V.V. Kureichik, D.V. Zaruba	570
COMPUTER SUPPORT OF "PSYCHOLOGY OF COMMUNICATION" DISCIPLINE AS A PART OF "INTERNATIONAL SCIENTIFIC AND TECHNICAL COMMUNICATIONS" COURSE  Andrienko A.S., Dmitrieva I.A., Popova O.V.	
DECISION-MAKING SUPPORT FOR HUMAN RESOURCES MANAGEMENT ON THE BASIS OF MULTI-CRITERI OPTIMIZATION METHOD  Mammadova M.G., Jabrayilova Z.G.	IA
MODELS OF A QUANTUM COMPUTER, THEIR CHARACTERISTICS AND ANALYSIS  Vyacheslav Guzik, Sergey Gushanskiy, Maxim Polenov, Victor Potapov	
APPLICATION OF THE CONCEPTUAL MODEL OF KNOWLEDGE FOR FORMALIZATION OF CONCEPTS OF EDUCATIONAL CONTENT  Bulat Kubekov, Janna Kuandykova, Irbulat Utepbergenov, Anar Utegenova	
NEW INFORMATION TECHNOLOGIES IN ETHNOPEDAGOGICAL PROCESS  Arsaliev Shavadi	
NECESSITY OF INTELLECTUALIZATION OF DEVELOPMENT IN XXI CENTURY  Lamara Qoqiauri	
AUTOMATED FORMATION OF THE INTERACTIVE TASKS FOR THE COMPUTER-AIDED TRAINING  A.N. Dukkardt, E.V. Kuliev, Vl.Vl. Kureichik, A.A. Novikov	604
GAME-BASED APPROACH FOR RETAINING STUDENT'S KNOWLEDGE AND LEARNING OUTCOMES  Dmitrii S. Kopylov, Margarita K. Fedoreeva, Andrey V. Lyamin	609
SIMULATOR AND BENCHMARK FOR RFID ANTI-COLLISION EVALUATION  Rafael Perazzo Barbosa Mota, Daniel M. Batista	614
DEVELOPMENT OF THE EDUCATIONAL SKILLS OF PRIMARY SCHOOL LEARNERS THROUGH ICT  Viera Tomková, Ivana Žemberová  6	619