

## TABLES OF CONTENTS OF IJ ITK – VOLUME 2

### Volume 2, Number 1

Preface .....	3
<i>Aleksandr Palagin, Viktor Gladun, Nikolay Petrenko, Vitalii Velychko, Aleksey Sevruk, Andrey Mikhailyuk</i> Informational Model of Natural Language Processing .....	5
<i>Maria Nickolova, Eugene Nickolov</i> Hardware-based and Software-based Security in Digital Rights Management Solutions .....	7
<i>Margarita Knyazeva, Dmitry Volkov</i> Management of Information on Program Flow Analysis .....	11
<i>Elena Sidorova, Yury Zagorulko, Irina Kononenko</i> Knowledge-Based Approach to Document Analysis .....	17
<i>Adriana Toni, Angel Herranz, Juan Castellanos</i> An Effective Method for Constructing Data Structures Solving an Array Maintenance Problem .....	23
<i>Gennadiy Lbov, Maxim Gerasimov</i> Interval Prediction Based on Experts' Statements .....	29
<i>Galina Rybina, Victor Rybin</i> The Experience of Development and Application Perspectives of Learning Integrated Expert Systems in the Educational Process .....	33
<i>Santiago Alonso, Luis Fernández, Fernando Arroyo, Javier Gil</i> A Circuit Implementing Massive Parallelism in Transition P Systems .....	35
<i>Ginés Bravo, Luis Fernández, Fernando Arroyo, Juan A. Frutos</i> A Hierarchical Architecture with Parallel Communication for Implementing P Systems .....	43
<i>Juan Alberto Frutos, Luis Fernandez, Fernando Arroyo, Gines Bravo</i> Static Analysis of Usefulness States in Transition P Systems .....	49
<i>Francisco Javier Gil, Luis Fernández, Fernando Arroyo, Jorge Tejedor</i> Delimited Massively Parallel Algorithm Based on Rules Elimination for Application of Active Rules in Transition P Systems .....	56
<i>Sandra Gómez, Luis Fernández, Iván García, Fernando Arroyo</i> Researching Framework for Simulating/Implementating P Systems .....	61
<i>Nataliia Kussul, Andrii Shelestov, Mykhailo Korbakov, Oleksii Kravchenko, Serhiy Skakun, Mykola Ilin, Alina Rudakova, Volodymyr Pasechnik</i> Grid Infrastructure for Satellite Data Processing in Ukraine .....	69
<i>Andrii Shelestov, Oleksiy Kravchenko, Mykola Ilin</i> Distributed Visualization Systems in Remote Sensing Data Processing Grid .....	76
<i>Alexander Kuzemin, Olesya Dyachenko, Darya Fastova</i> Information Supply of Geo-information Systems for the Forecasting Problem of the Avalanche Danger .....	82
<i>Krassimir Markov</i> Data Independence in the Multi-dimensional Numbered Information Spaces .....	87
<i>Julian Vasilev</i> How to Use a Desktop Version of a DBMS for Client-Server Applications .....	95
Table of Contents of Volume 2, Number 1 .....	100

### Volume 2, Number 2

<i>Dimitrina Polimirova-Nickolova, Eugene Nickolov</i> Analysis of Information Security of Objects under Attacks and Processed by Methods of Compression .....	103
<i>Jeanne Schreurs, Rachel Moreau</i> ICT Security Management .....	110
<i>Denis Kourilov, Lyudmila Lyadova</i> Complex Protection System of Metadata-based Distributed Information Systems .....	116
<i>Krassimir Markov, Krassimira Ivanova, Iliia Mitov, Stefan Karastanev</i> Advance of the Access Methods .....	123
<i>Yevgeniy Bodyanskiy, Nataliya Teslenko</i> General Regression Neuro-Fuzzy Network for Identification of Nonstationary Plants .....	136
<i>Volodymyr Romanov, Volodymyr Sherer, Igor Galeyuka, Yevgeniya Sarakhan, Oleksandra Skrypnyk</i> Smart Portable Fluorometer for Express-Diagnostics of Photosynthesis: Principles of Operation and Results of Experimental Researches .....	142
<i>Alexander Djurkov, Justin Cloutier, Martin P. Mintchev</i> Mathematical Model and Simulation of a Pneumatic Apparatus for In-Drilling Alignment of an Inertial Navigation Unit during Horizontal Well Drilling .....	147
<i>Peter Sharlandjiev, Georgi Stoilov</i> Modeling Optical Response of Thin Films: Choice of the Refractive Index Dispersion Law .....	157

<i>Dmitry Cheremisinov, Liudmila Cheremisinova</i> Formalization of Interaction Events in Multi-agent Systems.....	159
<i>Ivan Ganchev, Máirtín O'Droma, Damien Meere</i> Intelligent Car Parking Locator Service .....	166
<i>Emiliya Saranova</i> Traffic Offered Behaviour Regarding Target QOS Parameters in Network Dimensioning.....	173
<i>Rossitza Goleva, Mariya Goleva, Dimitar Atamian, Tashko Nikolov, Kostadin Golev</i> VoIP Traffic Shaping Analyses in Metropolitan Area Networks.....	181
<i>Seferin Mirtchev</i> Study of Queuing Behaviour in IP Buffers .....	187
<i>Stoyan Poryazov</i> Towards Useful Overall Network Teletraffic Definitions .....	193
Table of Contents of Volume 2, Number 2 .....	200

### Volume 2, Number 3

<i>Vassil Vassilev, Mariana Vassileva, Boris Staykov, Krassimira Genova, Filip Andonov, Plamena Chongova</i> MultiDecision-2: A Multicriteria Decision Support System.....	203
<i>Aleksej Voloshin, Maksim Zaporozhets, Pavel Mulesa</i> Diagnostic Systems in Medicine as Personal Intellectual Tooling.....	211
<i>Alexander Berman, Olga Nikolaychuk, Alexander Yurin, Alexander Pavlov</i> An Intelligent System for Investigations and Provision of Safety for Complex Constructions .....	218
<i>Yurii Zaychenko, Maliheh Esfandiyarfard</i> Optimization of the Investment Portfolio in the Conditions of Uncertainty.....	225
<i>Alexander Kuzemin, Vyacheslav Lyashenko</i> Analysis of Spatial-temporal Dynamics in the System of Economic Security of Different Subjects of Economic Management ..	234
<i>Helen Shynkarenko</i> The Problems of Forming the Inner Personal Conflict as a Factor which Influences Decision-making .....	239
<i>Jose Calvo-Manzano, Gonzalo Cuevas, Tomás San Feliu, Edgar Caballero</i> A Small Settings Case Study using TSPi in a Software Project.....	245
<i>Andrii Shelestov, Mykhailo Korbakov, Mykhaylo Zynovyev</i> Metadata and Geospatial Data Processing on the Base of XML and Grid .....	251
<i>Anna Malinova, Snezhana Gocheva-Ilieva</i> Using the Business Process Execution Language for Managing Scientific Processes.....	257
<i>Nina Bakanova, Tatiana Atanasova</i> Development of the Combined Method for Designing Dataflow Systems .....	262
<i>Anton Tsybin, Lyudmila Lyadova</i> Software Testing and Documenting Automation .....	267
<i>Vyacheslav Lanin</i> Architecture and Implementation of Reporting Means in Adaptive Dynamically Extended Information Systems.....	273
<i>Nadezhda Filipova, Filcho Filipov</i> An Approach to Representing the Process of Information Business Modeling .....	277
<i>Sergey Kiprushkin, Sergey Kurskov, Vadim Semin</i> Development of Database for Distributed Information Measurement and Control System.....	283
<i>Arsenij Bakanov, Vladislava Grigorova</i> An Approach to Designing the Interface of the Automated Documentary System.....	287
<i>Todorka Kovacheva</i> The Strategical Impact of Knowledge Markets and Knowledge Management for Small and Medium Enterprises.....	290
<i>Tetiana Palonna, Iurii Palonnyi</i> Bivirtual Organization as a Queuing System .....	293
<i>Aygun Alasgarova, Leyla Muradkhanli</i> Expert System for Decision-Making Problem in Economics .....	297
Table of Contents of Volume 2, Number 3 .....	300

### Volume 2, Number 4

<i>Nikola Ikonov, Milena Dobрева</i> Creation of a Digital Corpus of Bulgarian Dialects .....	303
<i>Detelin Luchev, Desislava Paneva, Konstantin Rangochev</i> Use of Knowledge Technologies for Presentation of Bulgarian Folklore Heritage Semantics .....	307
<i>Desislava Paneva, Lilia Pavlova-Draganova, Lubomil Draganov</i> Towards Content-Sensitive Access to the Artefacts of the Bulgarian Iconography .....	313
<i>Juan Bekios, Igor Boguslavsky, Jesús Cardeñosa, Carolina Gallardo</i> Automatic Creation of Lexical Resources for an Interlingua-based System .....	318
<i>Velina Slavova, Werner Verhelst, Hichem Sahli</i> A Cognitive Science Reasoning in Recognition of Emotions in Audio-Visual Speech .....	324

<i>Krassimir Markov, Stoyan Poryazov, Krassimira Ivanova, Iliia Mitov, Vera Markova</i> Culture Aspects of Inforaction .....	335
<i>Abdelmgeid Amin Aly</i> Using a Query Expansion Technique to Improve Document Retrieval .....	343
<i>Angel Castellanos, Marita Esteban, Ana Martinez, Valentin Palencia</i> Applications of Neural Networks to Find the Impact of Water in Different Berry Components in Grapes .....	348
<i>Álvaro Castro Castilla, Nuria Gómez Blas</i> Self-organizing Map and Cellular Automata Combined Technique for Advanced Mesh Generation in Urban and Architectural Design .....	354
<i>Jesús Cardeñosa, Pilar Rey</i> Lack of Answer Estimation by Fuzzy Control .....	360
<i>Nadezhda Kiselyova, Shuichi Iwata, Victor Dudarev, Ilya Prokoshev, Valentin Khorbenko, Victor Zemskov</i> Integration Principles of Russian and Japanese Databases on Inorganic Materials.....	366
<i>Dmitry Kinoshenko, Sergey Mashtalir, Konstantin Shcherbinin, Elena Yegorova</i> Image Quotient Set Transforms in Segmentation Problems .....	372
<i>Yonatan Shoshan, Alexander Fish, Xin Li, Graham Jullien, Orly Yadid-Pecht</i> VLSI Watermark Implementations and Applications .....	379
<i>Mikhail Bondarenko, Ekaterina Solovyova, Dmitriy Elchaninov</i> Systemological Bases of Management Consulting .....	387
<i>Todorka Kovacheva</i> Automated System for Effective Internet Marketing Campaign (ASEIMC) .....	391
<i>Timofey Ryabtsev, Elena Antonova</i> The Model of Unreliable Elements (Human Resources) Intellectual Management System on the Basis of Their Psychological and Personal Characteristics.....	394
Table of Contents of Volume 2, Number 4 .....	400

#### Volume 2, Number 5

<i>Laura Ciocoiu, Ionuț Petre, Dragoș Smada, Dragoș Nicolau</i> Web Interfaces Destined for People with Disabilities .....	403
<i>Anna Devreni-Koutsouki</i> Electronic Presentation of Bulgarian Educational Archives: an Ontology-Based Approach .....	407
<i>Yuriy Bezgachnyuk, Leonid Zamikhovskyy, Roman Matviyenko, Larysa Savyuk</i> Complex Adaptive On-line Learning System "Theory of Automatic Control" .....	414
<i>Antonio Ortega, Rubén Álvarez</i> Automating Exercises Validation in e-Learning Environments.....	421
<i>Larissa Kuzemina</i> Special Features of Musical Education in Distant Learning (Training of Intonation Thinking) .....	426
<i>George Totkov, Daniel Denev, Rositsa Doneva, Mariana Sokolova</i> Collaborative Learning and Authoring in the Frame of e-Projects.....	431
<i>Gloria Sánchez-Torrubia, Carmen Torres-Blanc, Víctor Giménez-Martínez</i> An eMathTeacher Tool for Active Learning Fleury's Algorithm .....	437
<i>Tsvetanka Kovacheva</i> Using Physical Quantities in Applied Mathematical Problems with Maple .....	443
<i>Evgeny Eremin</i> About Ontology Application to the Description of Syllabus .....	449
<i>Larisa Zainutdinova, Anatoly Korablin, Roman Lidgi Goryayev</i> Innovation Educational Programme "Marine Engineer" .....	455
<i>Maxim Polskiy</i> The Methods of Conducting Studies with the Application of Combined Didactic Interactive Programme Systems.....	459
<i>Elena Prisyazhnyuk</i> Fuzzy Model of the Automated System of Module Knowledge Control .....	465
<i>Olga Lyubova, Natalia Luybova</i> Peculiarities of the Electronic Educational and Methodological Complex under the Point-rating Technology.....	468
<i>Oleg Avrunin, Liliya Aver'yanova, Valery Golovenko, Olga Sklyar</i> The Experience Software-based Design of Virtual Medical Intrascopy Systems for Simulation Study.....	470
<i>Ivan Ganchev, Stanimir Stojanov, Máirtín O'Droma, Damien Meere</i> InfoStation-based Adaptable Provision of m-Learning Services: Main Scenarios .....	475
<i>Viktor Bondarenko</i> Technology of Satellite and Mobile Communication in Modern Distance Education .....	482
<i>Ludmila Lyadova, Alexey Urezalov, Andrey Khlyzov</i> Implementation of Distant Learning Portals based on CASE-technology METAS.....	489
Tables of Contents of IJ ITK – Volume 2.....	496
Authors' Index.....	499
Table of Contents of Volume 2, Number 5 .....	500