CONTENTS

VOLUME IX

COMPUTER SCIENCE AND ENGINEERING: II

Contents

Agent-Based Computing - Invited Session
Organizer: Shahram Rahimi (USA)

Alboae, Sincă; Buraga, Sabin C.; Alboae, Lenuţa (Romania): "An XML-based Serialization of Information Exchanged by Software Agents" 1

Elmore, Mark T.; Potok, Thomas E.; Sheldon, Frederick T. (USA): "Dynamic Data Fusion Using An Ontology-Based Software Agent System" 5

Harrington, Patrick; Gordon, Minor; Nauli, Andy; Paprzycki, Marcin; Williams, Steve; Wright, Jimmy (USA): "Using Software Agents to Index Data in an E-Travel System" 11

Hexmoor, Henry; Battula, Srinivas (USA): "Adjusting Autonomy and Reliance on Agents in Human Supervised UCAV" 17


Potok, Thomas E.; Elmore, Mark; Reed, Joel; Sheldon, Frederick T. (USA): "VIPAR: Advanced Information Agents discovering knowledge in an open and changing environment" 28

Rahimi, Shahram; Ramakrishna, Santosh (USA): "An Agent-Based Architecture for Automated System Administration" 34

Sanchis, Eric; Selves, Jean-Louis; Pan, Zhao Yang (France): "Translation in progress with mobile agents" 38

Zhou, Hong; Wang, Yufang; Ali, Dia; Cobb, Maria; Rahimi, Shahram (USA): "A Task-Oriented Compositional Mobile Agent Architecture For Knowledge Exchange Between Agencies And Agents" 44
Artificial Intelligence Techniques for Optimization and Constrained Problems - Invited Session
Organizer: Jihad Mohamad Dr. Jaam (Qatar)

Aboud, Sattar J. *; Abu-Ayyash, Abdulla M. ** (* USA, ** Jordan): "Fraction-Integer Method (FIM): Calculating Multiplicative Inverse" 49

Bouamama, Sadok; Ghedira, Khaled (Tunisia): "D²G²A and D³G²A: a new generation of Distributed Guided Genetic Algorithms for Max_CSPs" 54

EL-Emary, Ibrahiem M. M.; Al-Hasani, Jafar S.; Al-Obaidy, Mohanad (Jordan): "On the Design of Software Package to Predict and Track the Performance and Faulty Condition for a Double Loop Computer Networks" 60

Fiaidhi, Jinan *; Mohammed, Sabah *; Jaam, Jihad **; Hasnah, Ahmad ** (* Canada, ** Qatar): "A Standard Framework for Search Hosting Via Ontology-Based Query Expansion" 66

Motahari Nezhad, Hamid Reza; Barfuorosh, Ahmad Abdollahzadeh (Iran): "Expanding Reinforcement Learning Approaches for Efficient Crawling of the Web" 71

Computing Techniques

Aredo, Demissie B. (Norway): "Semantics of UML Statecharts in PVS" 77

Baek, Sung-hoon; Park, Jin-won; Park, Chong-won (Korea (South)): "Performance Evaluation for a New Embedded Linux Based RAID System" 83

Bellacicco, Antonio (Italy): "Two Automata Linguistic Communication System (TALCS)" 87

Boughaci, Dalila; Drias, Habiba (Algeria): "Taboo Search as an Intelligent Agent for the Combinatorial Auctions Problem" 93

Bouzida, Yacine; Gombault, Sylvain (France): "Intrusion Detection Using Principal Component Analysis" 98

Chen, Wei-Mei (Taiwan): "Analysis in distribution of algorithms for the Dutch national flag problem" 104

Fikes, Richard; Frank, Gleb; Jenkins, Jessica (USA): "JTP: A System Architecture and Component Library for Hybrid Reasoning" 110
Jangho, Lee; Lee, SookHeon; Park, Sung-Soon; Park, Myong-Soon (Korea (South)): "Enhanced scalability with multiple dispatchers in cluster-based high availability web server system"  

Jenq, John; Li, Wing Ning (USA): "Parallel Polygon Scan Conversion on RMESH Multiprocessors"  

Koh, Hikyoo (USA): "An Automatic Compiler Syntax Error Checker using Binary/Tertiary Relations"  

Li, Kenli; Pan, Jun (China): "An Optimal Parallel Algorithm for the Knapsack Problem"  

McCollum, B.; McMullan, P. J. P.; Milligan, P.; Corr, P. H. (UK): "A Hyper-Heuristic Approach to Parallel Code Generation"  

Ostrovskaya, Yulia A. (Mexico): "Recognizing Text Structures: Computational Applications of the Formulaic Theory of Language"  

Park, Yong Hun; Jo, Yong Gun; Kang, Hoon (Korea (South)): "Color Space Classification by Using Additive Competitive Learning"  

Pimentel, César F.; Cravo, Maria R. (Portugal): "Permissive Belief Revision Using Default Logic"  

Slazinski, Erick D. (USA): "Adding Linguistic Variables to a Modern Database System"  

Soares, Manuel G.; Malheiro, Benedita; Restivo, Francisco J. (Portugal): "Real Time Internet DGPS Service"  

Son, Kangsoo; Wee, Kyubum (Korea (South)): "A technique for intrusion detection using multiple sequence alignment of system call sequences"  

Tabakow, Iwan (Poland): "Using Test Points to Improve the Place-Transition Net K-Distinguishability"  

Tack, Han-Ho; Kim, Young-Tak; Kim, Soo-Jung; Lee, Sang-Bae (Korea (South)): "Determination of a Threshold Value in Monitoring Environment Using BP Algorithm and Construction of the Processing System"  

Zhang, Jia *; Chang, Carl K. *; Gong, Zhiguo ** (* USA, ** China): "Analysis of Recent CSCW Work"

Dependency Theory on the Web - Invited Session
Organizer: Klaus-Dieter Schewe (New Zealand)

Embley, David E.; Mok, Wai Y. (USA): "Producing XML Documents with Guaranteed "Good" Properties"

Hartmann, Sven; Link, Sebastian; Kirchberg, Markus (New Zealand): "A subgraph-based approach towards functional dependencies for XML"

Link, Sebastian (New Zealand): "Towards Dependencies on the Web: The Nested Attribute Approach"

Thalheim, Bernhard (Germany): "From Databases To XML Suites: Pearls And Hereditary Diseases"

Vincent, Millist W.; Liu, Jixue (Australia): "Strong Functional Dependencies and a Redundancy Free Normal Form for XML"

Emergent Computing and Applications

Aguia Agudelo, Alan; Amaya Guiio, Diego Andres; Carrillo, Angela; Rueda, Francisco (Colombia): "Architecture of a multiagent system to do recommendations on the participation and negotiation in a market of auctions"

Aguia Agudelo, Alan; Amaya Guiio, Diego Andres; Carrillo, Angela; Rueda, Francisco; Beltran, Fernando (Colombia): "Creation of an environment for the interaction among intelligent agents in an auction"

Carrasquero, Néstor; Luna, José; Garcia, Cristina; Moreno, José Ali (Venezuela): "Solving the Symmetric Traveling Salesman Problem by Simulating Annealing with an Untying Heuristic"

Joshi, Sameer; Kursun, Olcay; Favorov, Oleg (USA): "Exploiting the Structure of Order: An Application to Natural Images"

Lee, Sang-Bae; Tack, Han-Ho; Lee, Jae-Hyun; Kong, Suk-Min; Kim, Dong-Han; Kang, Jong-Yoon (Korea (South)): "A Study on the Fingerprint Directional Feature Detection Method using Artificial Intelligence"

Saleh, Kassem; El Morr, Christo (United Arab Emirates): "Mobile UML for the Modeling of Mobile Agent-Based Software Systems"

Mathematical Methods and Optimization in Problem Solving Systems


Klapp, Jaime *; Mendoza, Gonzalo *; Sigalotti, Leonardo Di G. **; Sira, Eloy ** (* Mexico, ** Venezuela): "Numerical Simulation of flow through Wellhead Chokes with the Smoothed Particle Hydrodynamics Method"

Zakrevskij, Arkadij D. *; Zakrevski, Lev A. ** (* Belarus, ** USA): "Optimizing Solutions in a Linear Boolean Space - a Decomposition Method"

Zhang, Gexiang; Tang, Zhong (China): "Multi-criterion Satisfactory Optimization Method and Its Application in Control Systems"

Modeling, Analysis, and Simulation of Software Systems - Invited Session
Organizer: Te-Kai Liu (USA)

Ding, Yiping; Newman, Kenneth (USA): "On Modeling Aspect of Server Consolidation and Grid Computing"

Liu, Te-Kai; Kumaran, Santhosh; Chung, Jen-Yao (USA): "Performance Modeling of Enterprise JavaBeans"

Lyu, Michael R.; Wong, Tsz Yeung (Hong Kong): "A Progressive Fault Tolerant Mechanism in Mobile Agent Systems"

Merseguer, José; Campos, Javier; Mena, Eduardo (Spain): "A Pattern-based Approach to Model Software Performance Using UML and Petri Nets: Application to Agent-based Systems"

Ramachandran, Bala; Buckley, Steve; Koide, Akio; Lee, Young M.; Liu, Te-Kai (USA): "IT Level Simulation of Business Processes"

Simulation and Applications of Modeling

DeSousa, Marcos A.; Machado, Joana; Ribeiro, Raul V.; Carlson, Carlos M. F. (Brazil): "A Revenue-Focused Planning Model of Cellular Networks with Imprecise Demand Constraints"
Habibi, Jafar; Younesy, Hamid; Heydarnoori, Abbas (Canada): "Using the Opponent Pass Modeling Method to Improve Defending Ability of a (Robo)Soccer Simulation Team" 326

Imahori, Shinji; Yagiura, Mutsunori; Adachi, Shinya; Ibaraki, Toshihide; Umetani, Shunji (Japan): "Local Search Algorithms for the Two Dimensional Cutting Stock Problem" 334

Liu, HsinChih Frank (Taiwan): "2D Unstructured Simulation with Periodic Condition for Couette Flow in Transition Region" 340

Software Systems and Engineering Systems - Invited Session
Organizer: Veera Boonjing (Thailand)


Inokuchi, Masayuki (Japan): "Yield Management System for Semiconductor Manufacturing Based on User Oriented Engineering Concept" 351

Intakosum, Sarun; Boonjing, Veera (Thailand): "Using Z as a Tool to Record Framelet Requirement Specification" 357

Kongkachandra, Rachada; Chamnongthai, Kosin; Kimpan, Chom (Thailand): "Automatic Knowledge Base Updating for Keyphrase Extraction System" 360

Leenawong, Chartchai (Thailand): "Systems with Complex Interactions and a Special Influential Component" 366

Punpeng, Rujapa; Nudon, Chaiyos; Vongmanee, Varin; Chamnongthai, Kosin (Thailand): "Nondestructive Mangosteen Grading Using External Features" 371

Virtual Engineering

Aloisio, Giovanni; De Paolis, Lucio T.; Mongelli, Antonio; Provenzano, Luciana (Italy): "Artery Soft-Tissue Modelling for Stent Implant Training System" 376

Asai, Kikuo (Japan): "Interplanetary Field Visualization System" 381

Jaffrey, Kamal; Zhou, Joe; Bonyuet, David; Youcef-Toumi, Kamal (USA): "Assessments of Haptic Systems for Virtual Training" 387

Nam, Seung-woo; Kim, Do-hyung; Lee, Ji-hyung; Lee, In-ho (Korea (South)): "3D Animation Engine for Virtual World" 393
O'Hare, G. M. P.; Byrne, C. A.; Sas, C. (Ireland): "Virtual Community Cohesion through Fourth Wall Demolition" 398

Pan, Yi; Abe, Norihiro; Tanaka, Kazuaki (Japan): "The Virtual Debugging System for Embedded Software Development" 402

Author Index 408