

2009 IEEE 5th International Conference on Intelligent Computer Communication and Processing

(ICCP 2009)

**Cluj-Napoca, Romania
27 – 29 August 2009**



**IEEE Catalog Number: CFP0909D-PRT
ISBN: 978-1-4244-5006-0**

Table of Contents

Foreword

Conference Committees

Keynote Lecture - Michel Parent

Keynote Lecture - Denis Caromel

Part I: Intelligent Systems	1
Full Papers	3
An Offline System for Handwritten Signature Recognition <i>Ioana Barbantan, Camelia Vidrighin, Raluca Borca</i>	3
Evolutionary Optimization in Dynamic Environment <i>Corina Rotar, Ioan Ileană, Manuella Kadar, Maria Muntean</i>	11
An Argumentation Framework for Optimal Repair Checking <i>Emanuel Santos, João Pavão Martins</i>	19
Short Papers	27
Evolutional Meta-learning Framework for Automatic Classifier Selection <i>Silviu Cacoveanu, Camelia Vidrighin, Rodica Potolea</i>	27
IPA - An Intelligent Personal Assistant Agent For Task Performance Support <i>Gabriela Czibula, Adriana-Mihaela Guran, Istvan Gergely Czibula, Grigoreta Sofia Cojocar</i>	31
Intelligent Component for Adaptive E-learning Systems <i>Adina Anca Firté, Camelia Vidrighin Bratu, Calin Cenan</i>	35
Cognoscenti Agents <i>Ion F. Gheorghisor</i>	39
Modelling Imprecise Arguments in a Weighted Argument System <i>Adrian Groza</i>	43
Integrating Agent Programs with the Support of Formal Concepts <i>Ioan Alfred Letia, Anca Goron</i>	47
Aligning Meaning Understanding Between Agents Using Different, but Close Ontologies <i>Ioan Alfred Letia, Octavian Pop</i>	51
Arguments as a Form of Mixing Ontologies and Rules <i>Anca Marginean</i>	55
Meta-learning Enhancements by Data Partitioning <i>Beata Merk, Camelia Vidrighin Bratu, Rodica Potolea</i>	59
Reaching Consensus Over Contradictory Interpretation of Semantic Web Data for Ontology Mapping <i>Miklos Nagy, Maria Vargas-Vera</i>	63
A Dialogue-based Model for the Query Synchronization Problem <i>Giuseppe Polese, Mario Vacca</i>	67

Part II: Computer Vision	71
Full Papers	73
Texture Analysis Within Contrast Enhanced Abdominal CT Images <i>Anca Ciurte, Sergiu Nedevschi</i>	73
Real Time Stereo Vision Based Pedestrian Detection Using Full Body Contours <i>Ion Giosan, Sergiu Nedevschi, Silviu Bota</i>	79
A Practical Method for Ego Vehicle Motion Estimation from Video <i>Cătălin Golban, Cosmin Mitran, Sergiu Nedevschi</i>	87
Barriers Detection Method for Stereovision-Based ACC Systems <i>Tiberiu Marița</i>	95
Camera Response Estimation. Radiometric Calibration <i>Mihai Negru, Sergiu Nedevschi</i>	103
Global Map Building Based on Occupancy Grids Detected from Dense Stereo in Urban Environments <i>Florin Oniga, Sergiu Nedevschi, Radu Danescu, Marc-Michael Meinecke</i>	111
Real-time SLAM based on Hybrid Odometry and LDPDs (Local Differential Probability Distances) <i>Dan Pojar, Pangyu Jeong, Sergiu Nedevschi</i>	119
Action Recognition based on Fast Dynamic-Time Warping Method <i>Tamás Vajda</i>	127
Automatic Detection of Liver Capsule using Gabor Filters. Applications in Steatosis Quantification <i>Cristian Vicas, Sergiu Nedevschi, Monica Lupsor, Radu Badea</i>	133
Short Papers	141
Binarization for Digitization Projects Using Hybrid Foreground-Reconstruction <i>Costin-Anton Boiangiu, Andrei-Iulian Dvornic, Dan-Cristian Cananau</i>	141
High-Precision Orientation and Skew Detection for Texts in Scanned Documents <i>Costin-Anton Boiangiu, Bogdan Raducanu, Andrei-Cristian Spataru</i>	145
Correlation Between Features and Classifiers for Semantic Understanding of Pedestrian Attitudes in Traffic Scenes <i>Raluca Borca-Mureșan, Sergiu Nedevschi</i>	149
A Framework for Object Detection, Tracking and Classification in Urban Traffic Scenarios Using Stereovision <i>Silviu Bota, Sergiu Nedevschi, Matthias König</i>	153
Image Moments Based Visual Control Algorithm for Servoing Systems <i>Cosmin Copot, Adrian Burlacu, Corneliu Lazar</i>	157
Carpet Wear Classification based on Support Vector Machine Pattern Recognition Approach <i>Cosmin Copot, Syam Syafie, Sergio Vargas, Robin de Keyser, Lieva van Langenhove, Corneliu Lazar</i>	161
A Flexible Solution for Detection and Tracking of Multiple Objects <i>Radu Danescu, Daniel Lebu, Florin Oniga, Sergiu Nedevschi, Marc-Michael Meinecke</i>	165
Automatic Registration of Multiple Range Views based on Feature Matching and Feature-Depth Correspondences <i>Daniel Moldovan, Sumio Yano, Naomi Inoue</i>	169
Influence of Driver Behavior Patterns in Correcting Video Sensing Errors in Traffic Surveillance Applications <i>Florica Maria Naghiu, Dan Pescaru</i>	173
Texture Analysis of Tissue Samples using DTOCS and Approximated Path DTOCS <i>Jouni Pääkkönen, Niina Päivinen, Pekka Toivanen</i>	177
An Effective Method for People Detection in Grayscale Image Sequences <i>Mircea Popa, Gheorghe Lazea, Andras Majdik, Levente Tamas, Istvan Szoke</i>	181
Enhancing Automatic Speed Estimation Systems Performance Using Support Vector Machines <i>Afshin Seyedi Viand, Seyed Hamid Haji Seyedjavadi, Amir Masoud Rahmani</i>	185

Part III: Software Engineering	189
Full Papers	191
Representing Object-Oriented Distributed Systems to Focus the Process of Reverse Engineering	
<i>Dan C. Cosma, Radu Marinescu</i>	191
Restructuring Object-Oriented Distributed Systems: An Impact-Driven Approach	
<i>Dan C. Cosma, Radu Marinescu</i>	199
Short Papers	207
Testing Techniques for a Logic Representation Generator	
<i>Ciprian-Bogdan Chirilă, Călin Jebelean, Krisztina Francz</i>	207
Efficient Ontology Processing Using Hierarchical Data Models Representation	
<i>Ioan Salomie, Mihaela Dinsoreanu, Cornel Rat, Sorin Suciu</i>	211
Metric Semantics for Modern Second Order Communication Abstractions	
<i>Eneia Nicolae Todoran</i>	215
Part IV: Distributed Computing and Networking	219
Full Papers	221
A Fault-Tolerant Peer-to-Peer Object Storage Architecture with Multidimensional Range Search Capabilities and Adaptive Topology	
<i>Mugurel Ionuț Andreica, Eliana-Dina Țișă, Nicolae Țăpuș</i>	221
A Policy Driven Self-healing Algorithm for Context Aware Systems	
<i>Ionut Anghel, Tudor Cioara, Ioan Salomie, Mihaela Dinsoreanu, Anca Rarau</i>	229
A Graph Based Backward Chaining Method for Web Service Composition	
<i>Viorica Rozina Chifu, Ioan Salomie, Agota Riger, Valentin Radoi</i>	237
A Context based Semantically Enhanced Information Retrieval Model	
<i>Tudor Cioara, Ionut Anghel, Ioan Salomie, Mihaela Dinsoreanu</i>	245
Automated Composition of Security Protocols	
<i>Béla Genge, Iosif Ignat, Piroška Haller</i>	251
A Self-adapting Peer-to-Peer Logical Infrastructure, to Increase Storage Reliability on top of the Physical Infrastructure	
<i>Voichița Iancu, Iosif Ignat</i>	259
Energy Saving Algorithm Tuning for Obstacle Avoidance Using Coverage Metrics for Video-Based Wireless Sensor Networks	
<i>Codruta Istin, Dan Pescaru, Horia Ciocarlie</i>	267
Grid Based Environment Application Development GreenView Application	
<i>Dănuț Mihon, Victor Băcu, Teodor Ștefănuț, Dorian Gorgan</i>	275
Establishing and Preventing a New Replay Attack on a Non-Repudiation Protocol	
<i>Carla Muntean, Reiner Dojen, Tom Coffey</i>	283
Optimal Web Service Composition Method based on an Enhanced Planning Graph and Using an Immune-inspired Algorithm	
<i>Cristina Bianca Pop, Viorica Rozina Chifu, Ioan Salomie, Mihaela Dinsoreanu</i>	291
Genetic Algorithm for DAG Scheduling in Grid Environments	
<i>Florin Pop, Ciprian Dobre, Valentin Cristea</i>	299
Distributed e-Health System with Smart Self-care Units	
<i>Mircea Rusu, Gavril Saplacan, Gheorghe Sebestyen, Calin Cenan, Lorand Krucz, Timotei Nicoara, Nicolae Todor</i>	307
Intelligent Cores and Intelligent Agents: Two Approaches to Achieve Autonomy in Swarm-Array Computing	
<i>Blesson Varghese, Gerard McKee</i>	315
Markov Models for Wireless Sensor Network Reliability	
<i>Cristian Vasar, Octavian Prosteian, Ioan Filip, Raul Robu, Dan Popescu</i>	323

Facilitating Selection and Travel Tasks in Virtual Environments using a Motion Sensitive Hand-Held Device <i>Radu-Daniel Vatavu, Ovidiu-Ciprian Ungurean, Stefan-Gheorghe Pentiu</i>	329
Short Papers	335
Setting Up Secure Wireless Sensor Networks <i>Victor Cionca, Thomas Newe, Vasile Dădârlat</i>	335
Strategies to Transparently Make a Centralized Service Highly-Available <i>Adrian Coleşa, Bogdan Marincea, Iosif Ignat, Cosmin Ardelean</i>	339
A Hybrid Approach to QoS-Aware Web Service Classification and Recommendation <i>Alexandra Moraru, Carolina Fortuna, Blaž Fortuna, Radu Răzvan Slăvescu</i>	343
Detection of Confidential Data Using the Open Sensitive Area Definition (OSAD) Language <i>George Pecherle, Cornelia Györödi, Robert Györödi</i>	347
Distributed Context Provisioning and Reaction Middleware <i>Sebastian Presecan, Nicolae Tomai</i>	351
Integration of Satellite Image Operators as Composed Web Services in gProcess Workflows <i>Denisa D. Rodilă, Victor Băcu, Dorian Gorgan</i>	355
Real-Time Predictability on Multi-processor and Multi-core Architectures <i>Gheorghe Sebestyen, Ramona Marfievici</i>	359
Part V: FPGA Systems	363
Short Papers	365
An FPGA Implementation of an All Digital Phase Locked Loop for Control Applications <i>Bogdan Alecsa, Alexandru Onea</i>	365
Power Consideration in Mapping LUT based FPGA Circuits <i>Ion I. Bucur, Costin Stefanescu, Adrian Surpateanu, Nicolae Cupcea</i>	369
FPGA based TRNG using Automatic Calibration <i>István Haller, Alin Suciu, Octavian Creț</i>	373
Part VI: INTERSAFE 2 Session	377
Full Papers	379
INTERSAFE-2 Architecture and Specification <i>Carl Shooter, John Reeve</i>	379
How to Support Drivers in Intersection-related Scenarios Functions of INTERSAFE-F2 Demonstrator Vehicles <i>Jörn Knaup, Marc-Michael Meinecke, Marian Andrzej Obojski, Malte Ahrholdt, Grant Grubb, Arne Purschwitz, Matthias Hopstock</i>	387
Sensor based Intersection Reconstruction for a Cooperative Intersection Safety System <i>Bernd Roessler, Kay Fuerstenberg</i>	393
Online Localization and Mapping with Moving Objects Detection in Dynamic Outdoor Environments <i>Qadeer Baig, Trung-Dung Vu, Olivier Aycard</i>	401
On-board Stereo Sensor for Intersection Driving Assistance. Architecture and Specification <i>Sergiu Nedevschi, Tiberiu Marița, Radu Danescu, Florin Oniga, Silviu Bota</i>	409
Real Time Trajectory Prediction for Collision Risk Estimation between Vehicles <i>Samer Ammoun, Fawzi Nashashibi</i>	417
Road Condition Monitoring System Based on a Stereo Camera <i>Maria Jokela, Matti Kutila, Long Le</i>	423
Index	