

Contents

Special Session on Adaptive Multiagent Systems

Use of Agents to Realize a Federated Searching of Learning Objects	1
<i>Jaime Muñoz-Arteaga, Edgar A. Calvillo-Moreno, Carlos A. Ochoa-Zezzatti, René Santaolaya-Salgado, Fco. Álvarez-Rodríguez</i>	
MDD for Virtual Organization Design	9
<i>Jorge Agüero, Miguel Rebollo, Carlos Carrascosa, Vicente Julián</i>	
Towards Soccer Simulation as a Testbed for Adaptive Systems and Agreement Technologies	19
<i>Víctor Sánchez-Anguix, Juan A. García-Pardo, Ana García-Fornes, Vicente Julián</i>	
Normative Argumentation	29
<i>N. Criado, S. Heras, E. Argente, V. Julián</i>	
Engineering Ambient Intelligence Services by Means of MABS	37
<i>Teresa García-Valverde, Alberto García-Sola, Francisco Lopez-Marmol, Juan A. Botia</i>	
Mobile Agent Middleware for Intelligent Management of Communication Infrastructures	45
<i>Carmelo R. García, Francisco Alayón, Ricardo Pérez</i>	
A Multiagent System for Efficient Portfolio Management	53
<i>Vivian F. López, Noel Alonso, Luis Alonso, María N. Moreno</i>	
Managing Real-Time Web Services through Agents	61
<i>Elena del Val, Martí Navarro, Vicente Julián, Miguel Rebollo</i>	

Open MAS Architecture. Providing Real Time Solutions	69
<i>Martí Navarro, Sara Rodríguez, Vicente Julián, Vivian F. López</i>	

Special Session on Multiagent Systems for Health Care and Bioinformatics

PathAgent: Multi-agent System for Updated Pathway Information Integration	77
<i>M. Reboiro-Jato, D. Glez-Peña, R. Domínguez, G. Gómez-López, D.G. Pisano, C. Campos, F. Fdez-Riverola</i>	

Multi-agent System for Mass Spectrometry Analysis	87
<i>Miguel Reboiro-Jato, Daniel Glez-Peña, Hugo M. Santos, Mário S. Diniz, Carlos Lodeiro, José L. Capelo, Florentino Fdez-Riverola</i>	

Multi-agent Personal Memory Assistant	97
<i>Ángelo Costa, Paulo Novais, Ricardo Costa, Juan M. Corchado, José Neves</i>	

TENSSION: A Tool for the Medical Patient Follow-Up	105
<i>Del Rey Ignacio, Ana Belén Gil, R. González-Celador</i>	

Dynamic Planning with Bayesian Network Applied in MAS	113
<i>Juan F. De Paz, Manuel Pablo Rubio, Angélica González</i>	

Special Session on Multiagent Systems for Ambient Intelligence

Enhancing the Role of Multi-agent Systems in the Development of Intelligent Environments	123
<i>Davide Carneiro, Paulo Novais, Ricardo Costa, José Neves</i>	

Towards Distributed Wireless Intelligent Sensor Networks . . .	131
<i>J.A. Fernández-Prieto, J. Canada-Bago, M.A. Gadeo-Martos, J.R. Velasco</i>	

Context-Aware Agents for Vehicular Networks: An Aspect-Oriented Approach	139
<i>Mercedes Amor, Lidia Fuentes</i>	

Reasoning on a Semantic Web Based Context-Awareness Middleware	147
<i>Alberto García-Sola, Teresa García-Valverde, Juan A. Botía</i>	

Agent-Based AmI System Case Study: The Easy Line + Project	157
<i>Armando Roy Delgado, Rubén Blasco, Álvaro Marco, Diego Cirujano, Roberto Casas, Armando Roy Yarza, Vic Grout, Richard Picking</i>	
Multiagent System for Detecting Passive Students in Problem-Based Learning	165
<i>Alexandre Ádames Alves Pontes, Francisco Milton Mendes Neto, Gustavo Augusto Lima de Campos</i>	
Context-Aware Agents for People Detection and Stereoscopic Analysis	173
<i>Sara Rodríguez, Juan F. De Paz, Pablo Sánchez, Juan M. Corchado</i>	
Analysis and Design of a SOA-Based Multi-agent Architecture	183
<i>Dante I. Tapia, Ricardo S. Alonso, Carolina Zato, Oscar Gil, Fernando De la Prieta</i>	
Special Session on Multi-Agent Systems for Manufacturing and Supply Chain	
A Multiagent Scheduling Repair Method for Disruption Management in Complex Socio-technical Organizations	191
<i>Sebastien Fournier, Alain Ferrarini</i>	
Price Updating in Combinatorial Auctions for Coordination of Manufacturing Multiagent Systems	201
<i>Juan José Lavios Villahoz, Ricardo del Olmo Martínez, Alberto Arauzo Arauzo, José Manuel Galán Ordaz</i>	
Study on Integrated Model of Lean and Agile Supply Chain Based on Multi-DPs	209
<i>Jiang Mei Xian, Feng Ding Zhong, Fan Jia Jing, Yan Lian Lian, Jin Shou Song</i>	
Towards Improving Supply Chain Coordination through Agent-Based Simulation	217
<i>Areti Manataki, Yun-Heh Chen-Burger, Michael Rovatsos</i>	
Using Multi-agent System for Improving and Implementing a New Enterprise Modeling Tool	225
<i>Paul-Eric Dossou, Pawel Pawlewski</i>	
Production Process Based on CIMOSA Modeling Approach and Software Agents	233
<i>Pawel Pawlewski, Arkadiusz Kawa</i>	

A Beehive-Like Approach for Dynamic Generation of Integration Services to Enable Adaptive Supply Chains Using Enterprise Tomography	241
<i>Ammar Memari, Roberto Pérez López de Castro, Jan Aalmlink</i>	
Cooperative Purchasing of Logistics Services among Manufacturing Companies Based on Semantic Web and Multi-agent System	249
<i>Arkadiusz Kawa, Pawel Pawlewski, Paulina Golinska, Marcin Hajdul</i>	
Sandbox for Development of Evolving Manufacturing Control Architectures	257
<i>Zbigniew J. Pasek</i>	
Agent-Based Model of Kanban Flows in the Environment with High Demand Variances	267
<i>Paulina Golińska, Joanna Oleśków-Szłapka, Agnieszka Stachowiak, Paweł Rudiak</i>	
Supply Chain with Reverse Flows- Benefiting from Recycled Resources	277
<i>Konrad Fuks, Paulina Golinska, Agnieszka Stachowiak</i>	
Special Session on Enterprise Application and Information Integration	
e-Wedding Based on Multi-agent System	285
<i>Kobkul Kularbphetpong, Gareth Clayton, Phayung Meesad</i>	
Distributed Computing Using RESTful Semantic Web Services	295
<i>Antonio Garrote Hernández, María N. Moreno García</i>	
Enhancing the Services Integration Mechanism in the HoCa Multi-agent Architecture	303
<i>J.A. Fraile, Jesús A. Román, Belén Pérez-Lancho</i>	
Integrating Deep-Web Information Sources	311
<i>Iñaki Fernández de Viana, Inma Hernandez, Patricia Jiménez, Carlos R. Rivero, Hassan A. Sleiman</i>	
Ontological Trading in a Multi-agent System	321
<i>J. Criado, N. Padilla, L. Iribarne, J.A. Asensio, F. Muñoz</i>	

An Agent-, Service-Based Platform Supporting Ontological Integration of Proficient Knowledge Managed in Decision Making	331
<i>Elsa Trigueros, María V. Hurtado, Kawtar Benghazi, José-Manuel Zurita</i>	

Special Session on Software Agents in Knowledge Management

A Multi-agent Recommender System to Suggest Documents in Communities of Practice	339
<i>Aurora Vizcaíno, Juan Pablo Soto, Javier Portillo-Rodríguez, Mario Piattini</i>	

AIDeM: Agent-Based Intrusion Detection Mechanism	347
<i>Cristian Pinzón, Martí Navarro, Javier Bajo</i>	

A Multi-agent System that Searches for Learning Objects in Heterogeneous Repositories	355
<i>Fernando De la Prieta, Ana Belén Gil</i>	

Application of a Modeling Standard Language on the Definition of Agent Oriented Development Processes	363
<i>Alma M. Gómez-Rodríguez, Juan C. González-Moreno</i>	

Special Session on Bio-Inspired and Multi-Agents Systems: Applications to Languages

Variable Length-Based Genetic Representation to Automatically Evolve Wrappers	371
<i>David F. Barrero, Antonio González, María D. R-Moreno, David Camacho</i>	

A Case Study on Grammatical-Based Representation for Regular Expression Evolution	379
<i>Antonio González-Pardo, David F. Barrero, David Camacho, María D. R-Moreno</i>	

Towards the Automatic Programming of H Systems: jHsys, a Java H System Simulator	387
<i>J.M. Rojas Siles, M. de la Cruz Echeandía, A. Ortega de la Puente</i>	

L Systems as Bio-MAS for Natural Language Processing	395
<i>Leonor Becerra-Bonache, Suna Bensch, M. Dolores Jiménez-López</i>	

Poetic RNA: Adapting RNA Design Methods to the Analysis of Poetry	403
<i>Veronica Dahl, M. Dolores Jiménez-López, Olivier Perriquet</i>	

A Visual Language for Modelling and Simulation of Networks of Evolutionary Processors	411
<i>Antonio Jimenez, Emilio del Rosal, Juan de Lara</i>	
An Evolutionary Confidence Measure for Spotting Words in Speech Recognition	419
<i>Alejandro Echeverría, Javier Tejedor, Dong Wang</i>	
Workshop on Artificial Intelligence and Distributed Systems	
Intelligent Agents and Wireless Sensor Networks: A Healthcare Telemonitoring System	429
<i>Ricardo S. Alonso, Oscar García, Carolina Zato, Oscar Gil, Fernando De la Prieta</i>	
Indoor Navigation Multi-agent System for the Elderly and People with Disabilities	437
<i>Jose Maria Falco, Miguel Idiago, Armando Roy Delgado, Alvaro Marco, Angel Asensio, Diego Cirujano</i>	
Algorithms of Machine Learning for K-Clustering	443
<i>S. José Luis Castillo, José R. Fernández del Castillo, León González Sotos</i>	
Monitoring and Adaptation of Assessment Process in Virtual Courses Based in Multi-agent Systems	453
<i>M. Néstor D. Duque, C. Demetrio Ovalle, B. Jovani Jiménez</i>	
A Model-Based Ambient Agent Providing Support in Handling Desire and Temptation	461
<i>Mark Hoogendoorn, Zulfiqar A. Memon, Jan Treur, Muhammad Umair</i>	
Cluster Analysis and Decision Trees of MR Imaging in Patients Suffering Alzheimer's	477
<i>Ali Hamou, Michael Bauer, Benoit Lewden, Andrew Simmons, Yi Zhang, Lars-Olof Wahlund, Catherine Tunnard, Iwona Kloszewska, Patrizia Mecozzi, Hilkka Soininen, Magda Tsolaki, Bruno Vellas, Sebastian Muehlboeck, Alan Evans, Per Julin, Niclas Sjögren, Christian Spenger, Simon Lovestone, Femida Gwadry-Sridhar, other participants in the AddNeuroMed consortium</i>	
Improving the Quality of Health Service with Smart Communication	485
<i>Rosa Cano, Manuel P. Rubio, Ana de Luis</i>	

Multi-Agent System (MAS) Applications in Ambient Intelligence (AmI) Environments	493
<i>Nayat Sánchez-Pi, Eleni Mangina, Javier Carbó, José Manuel Molina</i>	
Agents to Help Context-Aware System in Home Care	501
<i>Juan A. Fraile, Dante I. Tapia, Jesús A. Román, Oscar García</i>	
SDL Ontology for Specifying Systems Based on Finite State Machines	509
<i>Marina Bagić Babac, Marijan Kunštić</i>	
Applying Data Mining Techniques to Stock Market Analysis	519
<i>Gabriel Fiol-Roig, Margaret Miró-Julà, Andreu Pere Isern-Deyà</i>	
Synthesis and Analysis of Classifiers Based on Generalized Model of Identification	529
<i>M. Tatur, D. Adzinets, M. Lukashevich, S. Bairak</i>	
Multiagent Based Spectrum Sharing Using Petri Nets	537
<i>Usama Mir, Leila Merghem-Boulahia, Dominique Gaïti</i>	
A Multi Agent Architecture for Tourism Recommendation	547
<i>Laura Sebastia, Adriana Giret, Inma Garcia</i>	
Improving Functionalities in a Multi-agent Architecture for Ocean Monitoring	555
<i>Fernando de la Prieta, Oscar Gil, Carolina Zato, Beatriz Martín, Alberto García</i>	
Multiagent Systems in Stock Index Prediction	563
<i>Ricardo Antonello, Ricardo Azambuja Silveira</i>	
Experiments on Robotic Multi-agent System for Hose Deployment and Transportation	573
<i>Ivan Villaverde, Zelmar Echegoyen, Ramón Moreno, Manuel Graña</i>	
On Cooperative Swarm Foraging for Simple, Non Explicitly Connected, Agents	581
<i>Mireia Sempere, Fidel Aznar, Mar Pujol, Ramon Rizo</i>	
Analyzing Large-Scale Crowd Simulations for Building Evacuation	591
<i>Carlos García-Cabrera, Pedro Morillo, Juan M. Orduña</i>	

Agent Collaboration Framework	599
<i>Juan C. González-Moreno, Francisco J. Rodríguez-Martínez, Rubén Romero-González, Cástor Sánchez-Chao</i>	
Workshop on Systems, Man, & Cybernetics: SMC-Workshop.- IEEE.- SPANISH CHAPTER	
Some Issues and Extensions of JADE to Cope with Multi-agent Operation in the Context of Ambient Intelligence	607
<i>A. Paz-Lopez, G. Varela, S. Vazquez-Rodriguez, J.A. Becerra, R.J. Duro</i>	
P300-Based Brain-Computer Interface for Internet Browsing	615
<i>José L. Sirvent, José M. Azorín, Eduardo Iáñez, Andrés Úbeda, Eduardo Fernández</i>	
Modeling Virtual Agent Behavior in a Computer Game to Be Used in a Real Enviroment	623
<i>Catalina Roncancio, Jaime Gómez G-B, Eduardo Zalama</i>	
A Legal View of Ambient Assisted Living Developments	631
<i>J.P. Pedraza, M.A. Patricio, A. De Asís, J.M. Molina</i>	
An Intelligent Tutoring System Oriented to the Integration of People with Intellectual Disabilities	639
<i>A. Conde, K. López de Ipiña, M. Larrañaga, J.A. Elorriaga, J.M. López, E. Irigoyen, N. Garay-Vitoria, A. Ezeiza, J. Rubio</i>	
An Automatic Programming ACO-Based Algorithm for Classification Rule Mining	649
<i>Juan Luis Olmo, José María Luna, José Raúl Romero, Sebastián Ventura</i>	
Energy Cost Reduction in the Synchronization of a Pair of Nonidentical Coupled Hindmarsh-Rose Neurons	657
<i>A. Moujahid, A. D'Anjou, F. Torrealdea, F.J. Torrealdea</i>	
A Color Transformation for Robust Detection of Color Landmarks in Robotic Contexts	665
<i>Ramón Moreno, Manuel Graña, Alicia d'Anjou</i>	
Low Quality Data Management for Optimising Energy Efficiency in Distributed Agents	673
<i>Jose R. Villar, Enrique de la Cal, Javier Sedano</i>	

Interactive Multimedia Tabletops (IMT) for Casual Users . . .	681
<i>Andoni Beristain Iraola, Manuel Graña Romay</i>	
Emotion Elicitation Oriented to the Development of a Human Emotion Management System for People with Intellectual Disabilities	689
<i>R. Martínez, K. López de Ipiña, E. Irigoyen, N. Asla, N. Garay, A. Ezeiza, I. Fajardo</i>	
Acoustic Phonetic Decoding Oriented to Multilingual Speech Recognition in the Basque Context	697
<i>N. Barroso, K. López de Ipiña, A. Ezeiza</i>	
A Computer-Aided Decision Support System for Shoulder Pain Pathology	705
<i>K. López de Ipiña, M.C. Hernández, M. Graña, E. Martínez, C. Vaquero</i>	
Unsupervised Visualization of SQL Attacks by Means of the SCMAS Architecture	713
<i>Álvaro Herrero, Cristian I. Pinzón, Emilio Corchado, Javier Bajo</i>	
Assessing Knowledge Management in the Power Sector through a Connectionist Model	721
<i>Álvaro Herrero, Lourdes Sáiz, Emilio Corchado</i>	
Author Index	731