

2012 IEEE Conference on Evolving and Adaptive Intelligent Systems

(EAIS 2012)

**Madrid, Spain
17 – 18 May 2012**



**IEEE Catalog Number: CFP1214N-PRT
ISBN: 978-1-4673-1728-3**

Table of Contents

On-line Active Learning Based on Enhanced Reliability Concepts.....	1
<i>Edwin Lughofer</i>	
A Property of Learning Chunk Data Using Incremental Kernel Principal Component Analysis	7
<i>Takaomi Tokumoto and Seiichi Ozawa</i>	
Self-Adaptive Mechanism for Distributed Computing.....	11
<i>Ichiro Satoh</i>	
Online Learning with Kernels in Classification and Regression.....	17
<i>Guoqi Li and Guang She Zhao</i>	
An Enhanced Approach for Evolving Participatory Learning Fuzzy Modeling.....	23
<i>Leandro Maciel, Fernando Gomide and Rosangela Ballini</i>	
Adaptative Evolutionary Strategy for Robotic Manipulation	29
<i>César Arismendi, Javier V. Gómez, Santiago Garrido and Luis Moreno</i>	
Elastic Adaptive Ontology Matching on Evolving Folksonomy Driven Environment	35
<i>Massimiliano Dal Mas</i>	
Cognitively Inspired Classification for Adapting to Data Distribution Changes	41
<i>Wing Yee Sit and K.Z. Mao</i>	
A New Fuzzy Adaptive Law With Leakage.....	47
<i>Saso Blazic, Igor Skrjanc and Drago Matko</i>	
An Adaptive Soft-Sensor for Non-Destructive Cement-Based Material Testing, through the Use of RBF Networks	51
<i>Alex Alexandridis, Dimos Triantis, Eva Chondrodima, Charalambos Stergiopoulos, George Hloupis, Ilias Stavrakas and Konstantinos Ninos</i>	
A Procedural Long Term Memory for Cognitive Robotics.....	57
<i>Rodrigo Salgado, Francisco Bellas, Pilar Caamaño Sobrino, Borja Santos-Diez and Richard Duro</i>	
Adaptive Strategy for Online Gait Learning Evaluated on the Polymorphic Robotic LocoKit.....	63
<i>David Johan Christensen, Jørgen Christian Larsen and Kasper Stoy</i>	
Platform for Building Large-Scale Agent-Based Systems.....	69
<i>Carolina Zato, Alejandro Sánchez, Gabriel Villarrubia, Sara Rodríguez, Javier Bajo and Juan Manuel Corchado</i>	
On Path Planning: Adaptation to the Environment using Fast Marching	74
<i>Javier V. Gómez, César Arismendi, Santiago Garrido and Luis Moreno</i>	
A Kinodynamic Planning-Learning Algorithm for Complex Robot Motor Control	80
<i>Javier Gonzalez-Quijano, Mohamed Abderrahim, Fernando Fernandez and Choukri Bensalah</i>	

An Adaptive Energy-Aware Routing Protocol for MANETs Using The SARSA Reinforcement Learning Algorithm	84
<i>Saloua Chettibi and Salim Chikhi</i>	
Autonomous Visual Self-localization in Completely Unknown Environment	90
<i>Pouria Sadeghi-Tehran, Sasmita Behera, Plamen Angelov and Javier Andreu</i>	
Evolving Activity Recognition from Sensor Streams	96
<i>Jose Antonio Iglesias, Javier Ordonez, Agapito Ledezma, Paula de Toledo and Araceli Sanchis</i>	
Automatic Mobile Photographer and Picture Diary	102
<i>Plamen Angelov, Javier Andreu and Tu Vuong</i>	
A Real-time Approach for Novelty Detection and Trajectories Analysis for Anomaly Recognition in Video Surveillance Systems	108
<i>Pouria Sadeghi-Tehran and Plamen Angelov</i>	
User Modeling in Changeable Environments	114
<i>Jose Antonio Iglesias and Esteban Garcia-Cuesta</i>	
Evolving Social Network Analysis: A Case Study on Mobile Phone Data	121
<i>Rashmi Dutta Baruah and Plamen Angelov</i>	
Intelligent System for Automatic Reconfiguration of Distribution Networks	128
<i>Luciano Pfitscher, Daniel Bernardon, Luciane Canha, Vinicius Montagner, Lorenzo Comassetto and Maicon Ramos</i>	
An Evolutionary-Based approach in RBF Neural Network Training	134
<i>Alex Alexandridis</i>	
Introducing the Fuzzy Relational Extended Composition and its Usage in Fuzzy Relational Modeling	140
<i>Arya Aghili Ashtiani and Mohammad Bagher Menhaj</i>	
Data transformations and seasonality adjustments improve forecasts of MLP ensembles ...	146
<i>Domingos S. P. Salazar, Paulo J. L. Adeodato and Adrian L. Arnaud</i>	
A self-organized system improving inner topology for data sharing efficiency	152
<i>Frédéric Armetta, Mohammed Haddad, Salima Hassas and Hamamache Kheddouci</i>	
Classification of Data Streams with Skewed Distribution	158
<i>Abhijeet Godase and Vahida Attar</i>	
A Multi-Objective Evolutionary Algorithm for Solving Integrated Scheduling and Layout Planning Problems in Manufacturing Systems	164
<i>Kazi Shah Nawaz Ripon, Kyrre Glette, Mats Hovin and Jim Torresen</i>	
Space-Based Nonlinear Dynamic Inversion Control for Aircraft Continuous Descent Approach	171
<i>Bouadi Hakim and Mora-Camino Félix</i>	
Calibration of Stewart Platforms Using Neural Networks	177
<i>Dali Wang and Ying Bai</i>	

Genotype-Phenotype with BNF Mapping: An Automatic Approach of Producing a Computer Program	183
<i>Rasha Abdulwahhab</i>	
Parallelization of an Evolving Artificial Neural Networks System to Forecast Time Series using OPENMP and MPI	189
<i>Borja Prior Gonzalez, Juan Peralta Donate, Paulo Cortez, German Gutierrez Sanchez and Araceli Sanchis de Miguel</i>	
SIOPRED performance in a Forecasting Blind Competition	195
<i>José D. Bermúdez, José V. Segura and Enriqueta Vercher</i>	
Time Series Forecasting using Ensemble of AR models with Time-Varying Structure	201
<i>Ekaterina Mangalova and Evgeny Agafonov</i>	
Sequential Learning of Differential Trend	207
<i>Eng Yeow Cheu</i>	