CALL FOR PAPERS

This international event promotes all aspects of the theory and applications of Computational Intelligence. With its hosting of over thirty technical meetings in one location, it is bound to attract lead researchers, professionals and students from around the world. Sponsored by the IEEE Computational Intelligence Society, the 2011 edition follows in the footsteps of the SSCI 2007 meetings held in Honolulu and of the SSCI 2009 series held in Nashville. The event will take place in the magic town of Paris.

Workshop on Evolving and Adaptive Intelligent Systems EAIS 2011

The true intelligent systems should be dynamically evolving and be able to adapt and learn. The recently established concept of evolving intelligent systems is a synergy between conventional systems, neural networks and fuzzy systems as structures for information representation and real time methods for machine learning. In order to address the problems of modeling, control, prediction, classification and data processing in a dynamically changing and evolving environment, one important research challenge is to develop methodologies, concepts, algorithms and techniques towards the design of intelligent systems with a higher level of flexibility and autonomy, so that the systems can evolve their structure and knowledge of the environment and ultimately – evolve their intelligence. EAIS 2011, organized by the Adaptive Fuzzy Systems Task Force, FSTC, CIS, IEEE, continues the tradition set by the previous forums (EFS’06, GEFS’08, ESDIS’09, EIS’10) dedicated to promote novel research results and future directions in the emerging area of evolving and self-adaptive intelligent systems. It will provide an opportunity to meet old friends, making new contacts and exchange ideas as well as to establish links with other related areas in the SSCI 2011 grand event in the magic city of Paris.

International Programme Committee

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Topics of interest (include but not limited to):

Methodology

- New Adaptive and Evolving Learning Methods
- Stability, Robustness, Unlearning Effects
- Structure Flexibility and Robustness in Evolving Systems
- Evolving in Dynamic Environments
- Drift and Shift in Data Streams
- Self-monitoring Evolving Systems
- Evolving Decision Systems
- Evolving Perceptions
- Self-organising Systems
- Neural Networks with Evolving Structure
- Non-stationary Time Series Prediction with Evolving Systems
- Automatic Novelty Detection in Evolving Systems
- On-Line Identification of Fuzzy Systems
- Evolving Neuro-fuzzy Systems
- Evolving Fuzzy Clustering Methods
- Evolving Fuzzy Rule-based Classifiers
- Evolving Regression-based Classifiers
- Evolving Intelligent Systems for Time Series Prediction
- Evolving Intelligent System State Monitoring and Prognostics Methods
- Evolving Intelligent Controllers
- Evolving Fuzzy Decision Support Systems
- Evolving Probabilistic Models

Real-life applications

- Robotics
- Defence
- Intelligent Transport
- Bio-Informatics
- Industrial Applications
- Data Mining and Knowledge Discovery
- Control Systems
- Evolving Consumer Behaviour
- Evolving Activities Recognition
- Evolving Self-localisation Systems

Submission requirements:

- Full papers - 6 pages IEEE style
- Short papers - 4 pages IEEE style

All accepted papers will be published in the Proceedings and selected authors will be invited to submit extended papers for a special issue of the Springer journal Evolving Systems

IMPORTANT DATES
Title and authors as soon as possible
Paper Submission Due: October 31, 2010
Notification to Authors: December 15, 2010
Camera-Ready Papers Due: January 15, 2011

Please visit www.ieee-ssci.org or contact ssci2011@poleia.lip6.fr for submission information and additional details or contact EAIS 2011 Chair directly at p.angelov@lancaster.ac.uk