http://fuzzieee2011.nutn.edu.tw/ or http://www.fuzz-ieee2011.org/

Call for Papers

Special Session on

Fuzzy Cognitive Maps-Theory and Applications

- **Introduction**

FCM is a soft computing technique that modeling dynamic systems and clarifying any complex environment. It specifically describes the behavior of a system in terms of concepts; each concept representing an entity, a variable, or a characteristic of the system.

From an Artificial Intelligence perspective, FCMs are supervised learning neural systems, whereas more and more data is available to model the problem, the system becomes better at adapting itself and reaching a solution. FCMs combine fuzzy logic and neural network inheriting their main advantages. They gained momentum due to their dynamic characteristics and learning capabilities. These capabilities make them essential for modeling and decision making tasks as they improve the performance of these tasks.

FCMs have been applied in such different fields as engineering, business, medicine, computer science, IT projects success, and other domains. In addition, FCMs have been used in simulation and prediction projects. Moreover, FCM provide an intuitive, yet precise way of expressing concepts and reasoning about them at their natural level of abstraction.

The proposed special session aims to present highly technical papers describing novel FCM models addressing any of the following specific topics: theoretical aspects, novel applications and extensions of FCMs. The main effort is concentrated to development of FCMs for real world application by designing methods, techniques, algorithms and software.

- **Topics for Interest**

This special session seeks original articles on the following specific FCM topics (but not limited to):

- Theoretical Aspects on FCMs
- FCMs for Approximate Reasoning
- Knowledge Representation
- Learning Algorithms
- FCMs in Decision Making & Support
- Dynamic Cognitive Networks
- FCMs in Control Systems
- FCMs in Education and e-Learning Approaches

- FCMs in Agricultural Systems
- FCMs in Engineering
- FCMs in Data Mining
- FCMs in Computer Vision Tasks
- FCMs for Stakeholders analysis
- FCMs in Biomedical Engineering
- FCMs in Pattern Recognition
- Fuzzy Grey Cognitive Maps
- Intuitionistic FCMs

- **Important Dates**
  February 28, 2011: Deadline for submission of papers (full-length papers only)
  March 31, 2011: Notification of acceptance
  April 30, 2011: Submission of final camera-ready papers

- **Session Organizers**

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