



FUZZ-IEEE-Special Session: Bio-inspired Fuzzy Logic Approaches

Special Session Organizers:

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FUZZ-IEEE 2016: Paper Submission

Important deadlines:

- January 15, 2016 - Paper submission deadline
 - March 15, 2016 - Author notification of acceptance/rejection
 - April 15, 2016 - Deadline for receipt of final manuscript
- The accepted papers to this special session will be published in the conference proceedings of FUZZ-IEEE published by the IEEE.

Aim and Scope

In the nature there are many examples that could help humanity to develop new projects, to improve and to solve some real life complex problems. The Bio-inspired Fuzzy Systems have the ability to include both natural computing and real life coefficients of uncertainty to keep in balance the solutions of the large-scale static and dynamic problems. The strategies of natural organisms (as ants, bees, nano-bots, swarms, flocks etc.) include adaptation and learning based on environmental changes, incomplete input information and the presence of noise. That is why Artificial Intelligence uses bio-inspired techniques, like ant colonies, artificial immune systems, swarm intelligence, neural networks, evolutionary computation, and not at last fuzzy logic to solve difficult problems.

Scope and Topics

The aim of this special session is provide an opportunity for international researchers to share and review recent advances in the foundations, integration architectures, and applications of Bio-inspired Fuzzy Logic systems in Pattern Recognition, Bioinformatics and computational biology, Healthcare, Industry, Microelectronics, Transportation, Green Logistics, Social Network, Web services, Cloud Computing and other domains.

The topics of interest include, but are not limited to:

- Fuzzy logic approaches in Evolutionary Computation, Swarm Intelligence, Genetic Algorithms, Particle Swarm Optimization, Ant Colony Optimization, Artificial Immune Systems and other natural computing systems
- Uncertainty theory, programming, calculus and processes
- Adaptive fuzzy pattern recognition
- Learning based on Fuzzy Rule-Based Systems
- Fuzzy-Neural and Hybrid schemes in adaptive estimation and control
- Neuro-fuzzy technologies for medical and bioengineering applications
- Bio-inspired fuzzy logic controllers for power system stabilizers
- Agent based modeling and fuzzy logic
- Multiobjective Bio-inspired Fuzzy Systems
- Bio-inspired Fuzzy Clustering, Image Classification
- Computational complexity
- Microelectronics for Fuzzy and Bio-inspired Systems
- Bio-inspired fuzzy models applied to cloud computing, transportation problems, systems automation, supply chain management, energy management systems, wireless sensor networks, medicine, in robotics (bots/nano-bots), in social network, web services, complex data analysis and other real life static and dynamic problems.

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