



**Third
International
Conference**
Intelligent Sensors
Sensor Networks
and Information Processing

*December 3-6 2007
Melbourne, Australia*

Call for Papers

Symposium on Computational Intelligence for Sensor Networks (CISN 2007)

Introduction

Sensor networks are a sensing, computing and communication infrastructure that employs devices/instruments, to observe and respond to phenomena in the natural environment, and in our physical and cyber world. The sensors themselves can range from small passive microsensors (e.g., "smart dust") to larger scale, controllable weather-sensing platforms. Sensor networks offer a collection of engineering challenges, ranging from software to hardware.

Computational intelligence is the study of adaptive mechanisms to enable or facilitate intelligent behavior in complex and changing environments. These mechanisms include paradigms that exhibit the ability to learn or adapt to new situations, generalize, abstract, discover and associate. Computational intelligence paradigms are promising solutions to some of the challenges posed by large sensor networks including:

- Information fusion in sensor networks
- Energy efficiency schemes in wireless sensor networks
- Optimal sensor placement
- Scheduling for optimal sensor coverage
- Localization in sensor networks
- Self-organization in sensor networks
- Fault-tolerance in sensor networks.

The symposium committee seeks original and unpublished research work on all aspects of computational intelligence and its applications to sensor networks. Topics of interest include but not limited to:

- Neural Networks
- Evolutionary computation – genetic algorithms, genetic programming, evolutionary programming, evolution strategies, differential evolution
- Swarm intelligence – particle swarm optimization, ant colony optimization, bacterial foraging
- Artificial immune systems
- Fuzzy systems
- Reinforcement learning
- Adaptive dynamic programming, adaptive critic designs
- Hybrid Systems.

Paper Submission

Paper submissions are online (www.issnip.org) – Due August 15, 2007.
Contact: CISN2007@gmail.com.

Chair:

- Ganesh Kumar Venayagamoorthy (University of Missouri-Rolla, USA)

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