

# CALL FOR PAPERS

## Third International Conference on Swarm Intelligence(ICSI)

June 17~20, 2012, Shenzhen, China

<http://www.ic-si.org/>

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The third International Conference on Swarm Intelligence (ICSI' 2012) will be held in Shenzhen, China from June 17 to 20, 2012. Shenzhen is a coastal city located in the south of China's Guangdong Province, adjoining Hong Kong. As China's first Special Economic Zone, Shenzhen has been a touchstone for the country's reform and opening-up policy. In Shenzhen, you will behold the epitome of China's achievements in reform and opening during the past three decades. Shenzhen also has built a close relationship with its neighbor Hong Kong based on promoting cross-border tour activities. Frequent and convenient transportation between these two cities will offer you a fabulous opportunity to experience two cities in just a single day.

ICSI' 2012 serves as a forum for scientists, engineers, educators, and practitioners to exchange the latest advantages in theories, technologies, and applications of swarm intelligence. Prospective authors are invited to contribute high-quality papers (6-10 pages) to ICSI' 2012 through Online Submission System. Submitting to ICSI' 2012 is a blind submission and the reviewing is double blind this year. Papers presented at ICSI' 2012 will be published in Springer Lecture Notes in Computer Science (indexed by EI, ISTP, DBLP, and ISI) and some high-quality papers will be selected for special issues in SCI-indexed International Journals. Topics of interest include, but are not limited to:

### Theories

- Swarm-based optimization techniques
- Swarm computing
- Particle swarm optimization
- Ant colony optimization
- Fish school search
- Stochastic diffusion search(SDS)
- Swarm robotics
- Artificial life
- Bioinformatics
- Cognitive science
- Social evolution
- Optimization theory and methods
- Immune system theory
- Evolutionary computation
- Grammatical evolution
- Natural computing
- Simulation and emulation of nature
- Multi-agent based complex systems
- Collective intelligence
- Social intelligence
- Social computing

### Algorithms

- PSO algorithms
- ACO algorithms
- FSS algorithms
- Bees algorithm
- Artificial bee colony algorithms
- Cultural algorithms
- Genetic algorithms
- Co-evolution algorithms
- Memetic algorithms
- Hybrid optimization methods
- Bio-inspired algorithms
- Evolutionary programming
- Evolutionary strategy
- Hybridization method
- Evolutionary learning systems
- Parallelizing algorithms
- others

### Emerging areas

- Molecular computing
- DNA computing
- Quantum computing
- Granularity computing

### Models

- Computational swarm models
- Artificial immune system
- Multi-objective optimization
- Evolutionary intelligent agents
- Constrained environment
- Information system
- Analytic models of emergent behaviors
- Classifier system
- Evolving fuzzy system
- Evolving neural networks
- Models for social insects
- Bio-inspired computing models
- Socio-inspired computing models
- Hybridizations of algorithms
- Parallelization of swarm-based algorithms
- Parallelization of evolutionary computing
- others

### Applications

- Pattern recognition
- Intelligent control
- Intelligent energy systems and networks
- Financial prediction
- Information security
- Web intelligence
- Data mining
- Knowledge discovery
- Neural system
- 2D or 3D virtual swarms
- Virtual reality
- Audio or Image processing
- Telecommunications systems
- Evolutionary robotics
- Automatic control
- Routing
- Socio-technical systems
- Scheduling
- Cybernetics and self-organization
- Intelligent traffics
- Simulations
- Electronics systems
- Defense security
- Video surveillance

### Important Dates:

**Special session proposals deadline:**

November 15, 2011

**Paper submission deadline:**

December 31, 2011

**Notification of acceptance:**

March 01, 2012

**Camera-ready copy and author registration:**

March 31, 2012

**Information and Enquiry:** Email: [icsi2012@ic-si.org](mailto:icsi2012@ic-si.org)

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