

Call for Papers
Journal of Computational and Theoretical Nanoscience
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Special Issue on

Recent Advances on Swarm Intelligent Systems

Swarm intelligence is the discipline that deals with natural and artificial systems composed of many individuals that coordinate their activities using decentralized control and self-organization. In particular, the discipline focuses on the collective behavior that result from the local interactions of the individuals with each other and with their environment. Examples of systems studied by swarm intelligence are colonies of ants and termites, schools of fish, flocks of birds, herds of land animals. Some human artifacts also fall into the domain of swarm intelligence, notably some multi-robot systems, and also certain computer programs that are written to tackle optimization and data analysis problems.

The objective of this special issue is to bring researchers from academia and industry together to report and review the latest progresses in this field, and to explore future directions. Relevant topics include, but are not limited to, the following:

- **Modelling of collective biological systems such as social insect colonies, flocking vertebrates, and human crowds as well as any other swarm intelligence systems;**
- **Swarm-based optimization for complex constrained optimization problems;**
- **Swarm-based optimization for multi-objective optimization problems;**
- **Swarm-based optimization for dynamic environment optimization;**
- **Hybrid Swarm-based optimization techniques;**
- **Learning and search strategies in swarm-based optimization;**
- **Applications of swarm-based optimization methodology, such as graph partitioning, data clustering, etc.;**
- **Future direction on swarm-based systems.**

All papers are refereed through a peer review process. Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

Guest Editors:

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Potential authors of this special issue are invited to electronically submit paper manuscripts in the form of PDF to:

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Deadlines:

- **Submit article:** 31 December 2011,
- **Acceptance Notification:** 1 March 2012,
- **Submit (in Latex, or MS Word) revised, final paper:** 1 May 2012,
- **Expected Publication Date:** Mid or late of 2012.