



Information Sciences

<http://www.sciencedirect.com/science/journal/00200255>



Special Issue Call for Papers

“Swarm Intelligence and Applications”

Guest Editors

Prof. **Jeng-Shyang Pan**, Managing Guest Editor, Department of Electronic Engineering, National Kaohsiung University of Applied Sciences, 415 Chien-Kung Road, Kaohsiung 807, Taiwan.

Tel: +886-7-3814526 ext. 5636, jspan@cc.kuas.edu.tw

Prof. **Peng Shi**, Department of Computing and Mathematical Sciences, University of Glamorgan, Pontypridd, CF37 1DL, UK; ILSCM and School of Computer Science and Mathematics, Victoria University, Melbourne, Vic 8001, Australia.

pshi@glam.ac.uk; peng.shi@vu.edu.au

Aims and Scope

The special issue will explore new approaches and perspectives of swarm intelligence algorithms and applications. It intends to collect a series of leading and cutting-edge articles on ideas, concepts, and technologies that make use of swarm intelligence in all walks of research fields.

Swarm intelligence (SI) is based on collective behavior of self-organized systems. Typical swarm intelligence schemes include particle swarm optimization (PSO), ant colony system (ACS), stochastic diffusion search (SDS), bacteria foraging (BF), the bees algorithm, swarm robotics, etc. Besides the applications to conventional optimization problems, SI can be used in controlling robots and unmanned vehicles, predicting social behaviors, enhancing the telecommunication and computer networks, etc. Indeed, the use of swarm optimization can be applied to a variety of fields in engineering and social sciences.

The objective of the special issue is to provide original contributions, and to review and survey research and development in applications of swarm intelligence (SI), focusing on state-of-the-art and potential future technologies and providing a good starting point for individuals entering these active research areas.

Topics will include, but not limited to, the follows:

applications of swarm intelligence techniques, including

- data clustering,
- design optimization,
- job scheduling,
- multimedia content protection,
- multi-objective optimization,
- pattern recognition,
- robotics, and
- other relating applications;

new algorithms addressing the problem of swarm intelligence;

comparisons of techniques and performance of various swarm intelligence algorithms;

theoretical analysis for swarm intelligence, and other relating research topics to swarm intelligence.

Tentative Schedule

Manuscript submission deadline:	August 15, 2009
Acceptance notification:	November 1, 2009
Revised paper due:	January 1, 2010
Estimated Publication:	2010

Submission Instructions

There will be one round reviews and acceptance will be limited to papers needing only moderate revisions. Submission of a manuscript to this special issue implies that no similar paper is already accepted or will be submitted to any other conference or journal. Authors should consult the "Guide for Authors", which is available online at http://www.elsevier.com/wps/find/journaldescription.cws_home/505730/authorinstructions, for information about preparation of their manuscripts. Manuscripts should be submitted via the Elsevier Editorial System <http://ees.elsevier.com/ins/>. Please choose "**Spec. Iss.: Swarm Intelligence and App.**" when you reach the Article Type step. First time users need register themselves as Author.