



International Journal of Natural Computing Research

Editor-in-Chief: Prof. Leandro Nunes de Castro

ISSN: 1947-928X

EISSN: 1947-9298

www.igi-global.com/journal/international-journal-natural-computing-research/1148

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Submission Deadline (New)

June 30, 2014

First Notification

August 15, 2014

Revision Deadline

September 15, 2014

Second Notification

October 31, 2014

Final Version

November 30, 2014

Final Decision

December 15, 2014

CALL FOR PAPERS

Special Issue on Natural Computing for Chaotic System Optimization, Control and Identification

The study of nonlinear dynamical systems in general and of chaotic systems in particular raises a number of complex issues that have been increasingly handled with the aid of general mapping models, data analysis tools and metaheuristic optimization strategies. Interestingly, many of these methodologies can be elegantly unified under the aegis of the concept of natural computing, as well as neural networks, pulsed neural networks, evolutionary computation, swarm intelligence, and artificial immune systems.

In spite of the growing importance of these formulations, there is a demand for efforts that contribute to their consolidation and, moreover, for investigations concerning their applicability to a wide range of real-world problems. Therefore, this special issue aims to bring together works covering theoretical and practical aspects related to the use of natural computing in contexts such as:

- Dynamic system control, modeling and optimization
- Synchronization
- Neurodynamics
- Chaos-based communication

This special issue is also devoted to disseminating and, hopefully, extending the repertoire of chaotic system optimization, control and identification tasks that may be advantageously addressed with the aid of natural computing techniques. Possible tasks include - but are not limited to - parameter estimation (e.g. via synchronization procedures), characterization of chaotic systems employing time series analysis, automatic controller tuning, secure communication, bifurcation analysis, numerical procedures and neuron modeling and synchronization.

Prospective authors should note that only original and previously unpublished contributions, review papers and tutorials will be considered. Interested authors must consult the journal guidelines for manuscript submission at <http://www.igi-global.com/Files/AuthorEditor/guidelinesubmission.pdf> prior to submission. All article submissions will be forwarded to at least 3 reviewers for double-blind, peer review. Final decision regarding acceptance/revision/rejection will be based on the reviews received from the reviewers. All submissions and inquiries must be forwarded electronically to the attention of:

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