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CALL FOR PAPERS

Special Issue on Natural Computing and Signal Processing

The ever-increasing need for making sense of large amounts of data and extracting information associated with complex underlying models has, in the last three decades, led to significant changes in the repertoire of tools employed to handle classical signal processing tasks. It can be safely stated that natural computing has played a crucial role in this process. This assertion can be justified from three distinct (albeit interrelated) perspectives, those of 1) nonlinear filtering structures (e.g. neural networks); 2) efficient clustering and optimization techniques (e.g. evolutionary and immune-inspired approaches, particle swarm optimization) and 3) new implementation paradigms (e.g. DNA and quantum computing).

In spite of the growing importance of these formulations, there is a demand for efforts that contribute to their consolidation as a mature branch of modern signal processing theory and for investigations concerning their applicability to a wide range of real-world problems. Having these facts in view, this special issue aims to bring together works covering theoretical and/or practical aspects of signal processing methods based on natural computing paradigms such as:

- Neural networks
- Reservoir computing
- Evolutionary computation
- Particle swarm optimization
- Ant colony optimization
- Artificial immune systems
- DNA and quantum computing
- Bio-inspired clustering

This special issue is also devoted to disseminating and, hopefully, extending the repertoire of relevant signal processing tasks that may be advantageously addressed with the aid of natural computing techniques, which encompasses, but is not limited to, those of filtering, time series prediction, deconvolution, channel equalization, seismic processing, image processing, source separation and array signal processing.

Prospective authors should note that only original and previously unpublished contributions, review papers and tutorials will be considered.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/guidelinessubmission.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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