Computational Intelligence and Neuroscience

Special Issue on

Advances in Recent Nature-Inspired Algorithms for Neural Engineering

CALL FOR PAPERS

Nature-inspired algorithms are general-purpose problem solvers that operate as a collection of intelligent agents, mimicking interesting phenomena from nature in order to efficiently solve a specific problem. Many optimization techniques belonging to artificial intelligence were born under this paradigm, which are able to combine data, knowledge, learning, and search strategies for building advanced algorithms. This is a particularly interesting area for neural engineering, and other AI-related applications.

During the last three years, many new nature-inspired algorithms have been proposed, such as human behavior-based optimization, spotted hyena optimization, dragonfly optimization, Andean Condor Algorithm, water evaporation optimization, collective decision optimization, interactive search algorithm, vapour-liquid equilibrium metaheuristic, selfish herds algorithm, scattering and repulsive swarm intelligence, social engineering optimization, virus colony search, thermal exchange optimization, and kidney-inspired algorithm. Most of them involve interesting novel aspects that have enabled the efficient solving of complex problems, particularly from the NP-hard and NP-complete class of problems.

This special issue aims to publish original research and review articles involving theoretical and/or practical aspects of recent nature-inspired algorithms for Neural Engineering.

Potential topics include but are not limited to the following:

- Recent nature-inspired algorithms in neural engineering
- Recent nature-inspired algorithms in neural networks
- Recent nature-inspired algorithms in computational neuroscience
- Recent nature-inspired algorithms in real-world optimization problems
- Neural network learning in recent nature-inspired algorithms and vice versa

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/cin/arnia/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor
Ricardo Soto, Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile
ricardo.soto@pucv.cl

Guest Editors
Juan A. Gómez-Pulido, University of Extremadura, Cáceres, Spain
jangomez@unex.es

Eduardo Rodriguez-Tello, CINVESTAV-Tamaulipas, Tamaulipas, Mexico
ertello@tamps.cinvestav.mx

Pedro Isasi, University Carlos III of Madrid, Getafe, Spain
isasi@ia.uc3m.es

Submission Deadline
Friday, 26 July 2019

Publication Date
December 2019