



Hindawi

Special Issue on **Advances in Neuroscience and Computational Intelligence that Bridge the Gap between Physiology and Engineering**

CALL FOR PAPERS

Bioinspired and neuromorphic circuits and systems are an engineering simplification of neuroscience and physiology. This fascinating growing field aims to translate in silicon or into a computer complex physiological phenomenon such as learning, neural networks, sensing-to-action, and computational intelligence. Recent advances in this field have made the boundaries between physiological and circuitual systems even thinner.

This special issue is intended to present and discuss breakthrough technological developments which are expected to bridge the gap between physiology and engineering.

Potential topics include, but are not limited to:

- ▶ Integrated theories of natural and artificial cognitive systems
- ▶ Neural modeling and neural-computation
- ▶ Neural signal processing
- ▶ Brain-computer interfacing
- ▶ Neuron-electronics
- ▶ Neurofeedback, neural rehabilitation
- ▶ Neuroinformatics
- ▶ Neural control and neural system analysis
- ▶ Learning theory (supervised/unsupervised/reinforcement learning)
- ▶ Knowledge based neural networks, probabilistic, spatial, and temporal knowledge representation and reasoning
- ▶ Computational aspects of perceptual systems; perception of different (visual, auditory, and tactile) modalities; perception and selective attention
- ▶ Cognitive systems from artificial life, dynamical systems, and complex systems perspectives

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/cin/anci/>.

Lead Guest Editor

Gaetano D. Gargiulo, University of Western Sydney, Penrith, Australia
g.gargiulo@uws.edu.au

Guest Editors

Yossi Buskila, University of Western Sydney, Campbelltown, Australia
y.buskila@uws.edu.au

Paolo Bifulco, Università degli Studi di Napoli Federico II, Naples, Italy
pabifulc@unina.it

Alistair L. McEwan, University of Sydney, Sydney, Australia
alistair.mcewan@sydney.edu.au

Emre Neftci, Emre Neftci, University of California, Irvine, USA
nemre@ucsd.edu

Manuscript Due

Friday, 25 December 2015

First Round of Reviews

Friday, 18 March 2016

Publication Date

Friday, 13 May 2016