

Special Issue on Computational Intelligence and Cognitive Science

CALL FOR PAPERS

Cognitive science is an interdisciplinary field of knowledge to study the mind and its processes including perception, language, memory, attention, reasoning, and emotion. These faculties could be analyzed in several levels, from neural activities to modular brain functions leading to cognition and behaviors. In fact, computational intelligence plays an important role in understanding of these procedures in all levels. In addition, signal and image processing especially biosignal processing, neuroimaging, and brain computer interface also serve the state of the art to improve this understanding. Computational approaches mainly include computational modeling, machine learning, pattern recognition, deep-learning, optimization, spectral and pseudo spectral analysis, stochastic modeling, iterative systems, model adaptation, and multiscale analysis.

This special issue focuses on the recent advances in signal processing and computational modeling approaches, with an emphasis on main streams for specific problems in cognitive science. We invite authors to contribute papers on interdisciplinary studies in fields of psychology, neural engineering, computer engineering, biology, medicine, or other related disciplines.

Potential topics include but are not limited to the following:

- ▶ Human brain mapping in cognitive science
- ▶ Modeling and simulation of biological, biochemical, cellular, and subcellular processes in cognitive science
- ▶ Machine learning and computational intelligence for cognitive science problems
- ▶ Pattern recognition techniques in cognitive science
- ▶ Wearable device based upon cognitive science
- ▶ Brain computer interface in cognitive science
- ▶ Developing of machine learning methods inspired from cognitive science
- ▶ Clinical neural engineering for cognitive problems based on signal processing of neuroimaging and physiological data

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/acisc/cics/>.

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