

CALL FOR PAPERS

Special issue of
Journal of Advanced Computational Intelligence and Intelligent Informatics
on
Awareness Computing in Science and Engineering

This issue of the Journal focuses on advanced computational intelligence, including the synergetic integration of neural networks, fuzzy logic, and evolutionary computation enabling more intelligent systems to be built for industrial applications.

Readers learn about state-of-the-art theory and applications in advanced computational intelligence and intelligent informatics, including, but not limited to: fuzzy logic, neural networks, genetic algorithm (GA) and evolutionary computation, hybrid systems, adaptation and learning systems, distributed intelligent systems, network systems, multimedia, human interfaces, biologically inspired evolutionary systems, artificial life, chaos, fractals, and wavelet analysis.

As aware computing emerges and attracts increasing attention, this special issue for researchers, engineers, and scientists provides an opportunity for discussing aware computing and exchanging ideas, opinions, and the latest results in this emerging new field.

“Awareness” in this field is the ability to be conscious of, feel, or perceive (Wikipedia). This implies vigilance in observing and alertness in drawing inferences from what one experiences (Merriam-Webster). The ultimate goal of aware computing is to create computing systems that are themselves aware. Topics of interest include, but are not limited to, the following:

A. Awareness Theories and Methodologies

- A1: Brain awareness mechanism and modeling
- A2: Aware system modeling and simulation
- A3: Machine learning and knowledge management for awareness
- A4: Pattern recognition and understanding for awareness
- A5: Soft/ agent computing for awareness
- A6: Artificial intelligence for aware computing
- A7: Awareness ontology and semantics

B. Motivation/Aspects of Aware Computing

- B1: Context/ situation/ background aware computing
- B2: Intention/ emotion/ preference aware computing
- B3: Location/ position/ goal aware computing
- B4: Power/ energy/ capability/ resource aware computing
- B5: Weakness/ risk/ danger aware computing
- B6: Safety/ security/ privacy/ trust aware computing
- B7: Chance/ opportunity aware computing

C. Aware Systems for Different Applications

- C1: Aware systems for web/ internet services
- C2: Aware systems for overlay/ P2P networking services
- C3: Aware systems for mobile/ ubiquitous services
- C4: Aware systems for data/web/ text mining
- C5: Aware systems for e-business/ e-government/ e-learning
- C6: Aware systems for health/ child/ elderly care
- C7: Aware systems for smart grid/ transportation/ public services

Important Dates

- Paper submission deadline: 2011/4/23
- Notification of initial review results: 2011/6/22
- Revised manuscript submission: 2011/7/22
- Notification of final review results: 2011/8/22
- Final manuscript submission: 2011/9/21
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