Computational Intelligence and Neuroscience

Special Issue on
Neurocomputing Methods for Innovative Multimedia Systems

Hindawi

CALL FOR PAPERS

The production and usage of multimedia content have grown significantly in the last few years owing to many factors including increased processing power, faster networks, cheaper storage devices, and growing popularity of social media websites. This rapid generation of multimedia content demands efficient techniques for multimedia computing, communication, storage, content analysis, understanding, retrieval, annotation, tagging, and other innovative applications.

Developments in neurocomputing provide promising opportunities for multimedia processing. Recently, neurocomputing methods have been employed by researchers on various aspects of multimedia systems including context based retrieval, multimedia understanding, object detection and recognition, and multimedia surveillance. The purpose of this special issue is to explore the possibilities of applying the following aspects (not limited to the given topics) of computational intelligence and neurocomputing to multimedia processing: neural networks, deep learning, biologically inspired learning systems, biological neural network modeling, computational learning theory, and novel neurocomputing methods.

The special issue seeks original contributions on usage of the above-mentioned technologies of computational intelligence and neurocomputing for all domains of multimedia processing.

Potential topics include but are not limited to the following:

- ▶ Multimedia storage
- ▶ Content based multimedia retrieval
- ▶ Multimedia tagging and archiving
- ▶ Multimedia communications
- ▶ Multimedia security and watermarking
- ▶ Multimedia information encoding and decoding
- ▶ Multimedia data analysis for surveillance and compound security
- ▶ Multimedia applications
- ▶ Multimedia content analysis and understanding
- ▶ Multimedia and data fusion in personal, sensor, p2p, and ad hoc networks
- ▶ Mobile multimedia processing
- ▶ Multimedia knowledge extraction and reasoning
- ▶ Multimedia recommender systems
- ▶ Interactive multimedia applications
- ▶ Multimedia language description
- ▶ Multimedia refereeing expression

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