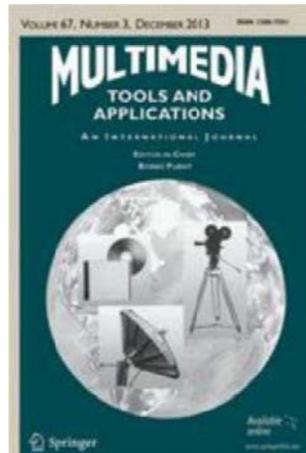


# Multimedia Tools and Applications

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## Call for papers

### Special Issue on

### Soft Computing Techniques and Applications on Multimedia Data Analyzing Systems

## Scopes and Objectives

In computer science and engineering research, soft computing is the use of inexact solutions to computationally hard tasks such as the solution of NP-complete problems, for which there is no known algorithm that can compute an exact solution in polynomial time. Soft computing differs from conventional computing in that, unlike hard computing, it is tolerant of imprecision, uncertainty, partial truth, and approximation. In effect, the role model for soft computing is the human mind. The three major components of soft computing are fuzzy logic, neural network, and probabilistic reasoning, which complement each other. Fuzzy logic is used for error analysis and neural network for knowledge learning. Probabilistic reasoning is used to solve uncertainties and chestnut problems. It is concluded that fuzzy logic can simulate the function of human processing language, and neural network and probability inference model imitate human process data, knowledge learning and reasoning process, so it can deal with multivariable and nonlinear system problem with soft computing theory. The integration of soft computing and multimedia systems is the trend especially when the deep learning arises.

The aim of this special issue is to provide a premier international platform for wide range of professions including scholars, researchers, academicians and industry researchers to discuss and present the different types of cutting-edge soft computing techniques toward multimedia data analyzing systems. The special issue is open to submit novel and high quality research contributions. We target the researchers from both the industry and academia and anticipate that this special issue will open new entrance for further research and technology improvements in this important area.

### **Topics of Interest**

This special issue solicits innovative ideas and solutions in all aspects around soft computing in system and application domains. The general scope of this issue covers the design, modeling, prototyping, programming and implementation of high performance computing architectures, systems and software for the applications on multimedia. We aim at encouraging the research and various contributions towards soft computing based multimedia system design, analysis and verification paradigms. Preferred topics in this issue include (but are not limited to):

- Online multimedia stream classification
- On-line single-pass active learning from multimedia data streams
- Multimedia big data mining, advanced analytics and visualization
- Operating systems and real-time processing for multimedia data-intensive applications
- Reliability in multimedia model predictions and parameters
- Dynamic dimension reduction and feature selection in multimedia streams
- User activities recognition for multimedia systems
- Semi-supervised learning from multimedia data streams
- Interplay between multimedia components for novel big data applications
- Soft computing model for multimedia assisted prediction
- Performance characterization, evaluation, optimization and design trade-offs
- MapReduce and parallel models for multimedia big data processing
- Web applications for multimedia systems
- Compiler support for multimedia data-intensive in high performance systems
- Multimedia information retrieval and feature extraction
- Remote sensing multimedia system model and platform
- Multimedia data stream modelling and identification
- Robotics, intelligent system and advanced manufacturing with multimedia
- Deep learning model and the applications in multimedia systems

### **Important Dates**

Paper submission due: 20 January, 2018  
Final manuscript due: 10 March, 2018  
Publication of special issue: To be determined

### **Submission Guideline**

Submitted papers should present original, unpublished work, relevant to one of the topics of the Special Issue. All submitted papers will be evaluated on the basis of relevance, significance of contribution, technical quality, scholarship, and quality of presentation, by at least three independent reviewers. It is the policy of the journal that no submission, or substantially overlapping submission, be published or be under review at another journal or conference at any time during the review process.

Each paper for submission should be formatted according to the style and length limit of Multimedia Tools and Applications. Please refer complete Author Guidelines on the website. Note that published papers and those currently under review by other journals or conferences are prohibited. Each paper will be reviewed rigorously, and possibly in two rounds, i.e., minor/major revisions will undergo another round of review. Prospective authors are invited to submit their papers directly via the online submission system at: <https://www.editorialmanager.com/mtap/>. Choosing “**1080 - Soft Computing Techniques and Applications on MM Data Analyzing Systems**” as article type. When uploading your paper, please ensure that your manuscript is marked as being for this special issue.

### **Guest Editors**

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