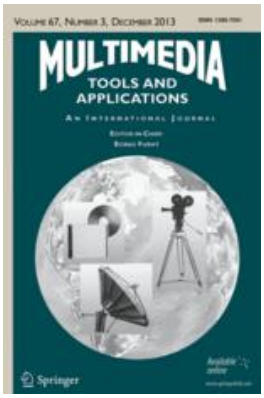

Multimedia Tools and Applications

Editor-in-Chief: Borko Furht

(http://www.springer.com/journal/11042)

Call for Papers

Special Issue on "Advances in Computational Intelligence for Multimodal Biomedical Imaging (ATSIP 2017)"

Aim and Scope

Nowadays, many modalities such as CT, X-ray scanners, MRI/fMRI, PET scan, etc. generate complex images with a large amount of data that are becoming extremely difficult to handle. This growing mass of data requires new strategies for the diagnosis of diseases and new therapies.

In recent years, particular attention has been paid to computational intelligence methods in multimodal biomedical imaging applications. Inspired by artificial intelligence, mathematics, biology and other fields, these methods can find relationships between different categories of this complex data and provide a set of tools for the diagnosis and monitoring of the disease.

This special issue will provide a forum to publish original research papers covering the state-of-the-art, new algorithms, methodologies, theories and implementations of computational intelligence methods for computer-aided diagnostic systems and multimodal biomedical imaging applications such as classification, restoration and registration.

This special issue aims to consider extended versions of the best papers presented at ATSIP 2017 (http://www.atms-researchgroup.com/atsip_2017.php). *External submissions are also accepted.*

The topics of this special issue include the following computational intelligence based methods for multimodal biomedical imaging systems and applications, but are not limited to:

Topics

- Bio-inspired methods and neural modelling
- Learning theory for biomedical image processing
- Machine, deep and manifold learning for biomedical imaging systems
- Pattern recognition and big data in medical imaging systems methodologies
- Compressive sensing and time series analysis
- Evolutionary algorithms and metaheuristics optimization for medical imaging
- Neural networks and genetic algorithms for biomedical imaging systems
- Applications (diagnosis, classification, denoising, registration, segmentation, security, augmented reality-aided surgery, brain-computer interface etc ...)
- Modalities (X-ray, CT, MRI, fMRI, PET scan etc ...)

Paper submission

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.

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Important dates

- Paper submission deadline: September 15th, 2017
- Notification: October 27th, 2017
- Revision: December 8th, 2017
- Final decision: January 20th, 2018

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