A medium to disseminate novel experimental and theoretical research results in the field of biomedicine, biology, clinical, rehabilitation engineering, medical image processing, bio-computing, D2H2, and other health related areas.

Call for Papers

Special issue on
Medical data analysis based on image and signal processing with deep learning application in cardiology

Journal of Medical Imaging and Health Informatics (JMIHI) invites authors to submit articles on the topics of medical data analysis based on image and signal processing with deep learning application in cardiology.

In recent years, deep learning has advanced medical diagnostics significantly. Use of deep learning in medical data analysis of cardiovascular system have assisted us in the better understanding of circulation mechanism. Based on artificial intelligence, how disease affects this circulation can be evaluated through different imaging modalities such as computed tomography, magnetic resonance imaging, ultrasound, SPECT, PET, etc. In addition, flow simulation methodologies, virtual reality surgical planning techniques and other new medical imaging technologies using deep convolutional networks have been progressing so rapidly, it brings novel developments of cardiovascular science and medicine. Processing on biosignals such as ECG is also a vital research area that we would like to draw papers from.

This special issue focuses on the relevant clinical application of medical imaging, engineering, computational fluid dynamics, mechanobiology, medical device design, signal processing, deep learning as well as various other engineering techniques in the cardiovascular system. The main objective of this special issue is to provide an overview of
the current advances of medical data analysis and deep learning technology into the analysis of cardiovascular physiology and dysfunction over the past decade.

Potential topics include, but are not limited to:

- Novel medical imaging techniques to visualize circulation system.
- Disorder mechanism in cardiovascular disease.
- Computational models of the vasculature at all levels.
- Systems biological models of stimuli within the cardiovascular system.
- Computational models of arterial and heart biomechanics.
- Computational design of cardiovascular medical devices.
- Signal processing in relation to ECG.
- Deep learning of medical imaging in cardiology.

READ THIS NOTE BEFORE SUBMISSION:

Authors are encouraged to discuss with a guest editor to determine the suitability of their intended submissions. Before submission authors should carefully read over the journal’s Author Guidelines, which are located at http://www.aspbs.com/jmihi/inst-auth_jmihi.htm. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at http://mstracker.com/submit1.php?jc=jmihi, according to the following timetable:

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