Call for Papers for a Special issue on
Advances in Medical Image Analysis on Applications of Biomedical Engineering and Health Informatics

Guest Editors

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Manuscripts due 15th of March 2015

Medical imaging has been a powerful tool to analyze physiological functions, and to examine anatomical artifacts in medicine. In order to improve the quality of our lives, several well-established companies are developing more reliable and faster imaging systems allowing for accurate assessment of physiological functions. This motivates us to consolidate a number of articles describing promising biomedical applications in the field of medical image analysis within this special issue.

Importantly, advances in medical imaging and related computing methodologies have provided a paradigm shift for the therapeutic or diagnostic management of diseases and disabilities. Potentially, information arising from these computing technologies should be able to be utilized for health monitoring. Modern medical imaging is a great motivation for the development of health diagnostic systems from a clinical perspective, and can be applied to a wide spectrum of medical fields. As such, state-of-the-art medical image processing and analysis technologies can play a significant role in the near future for advancement of these medical imaging technologies.

This special issue focuses on recent research into applications of biomedical digital signal processing and image analysis technologies. Its main goal is to provide an overview of the current state-of-the-art advances in biomedical engineering and health informatics with a special emphasis given to research into medical image processing, and to promote further applications of medical imaging in engineering, science, and medicine. Potential topics include, but are not limited to:

- Image processing technique to quantitatively extract the valuable information;
- Analysis and processing of widely used image data (such as CT, MRI, SPECT, PET, ultrasound, and echocardiography), as well as image analysis techniques to integrate this wide spectrum of biomedical data to assist with clinical decision-making and therapy guidance;
- Combining clinical and engineering approach with image processing and analysis methods to provide screening, diagnosis, therapy planning, and treatment follow-ups;
- Applications of biomedical engineering and health informatics towards their clinical translations in various medical fields such as cardiology, neurology, orthopedics, geriatrics, etc.