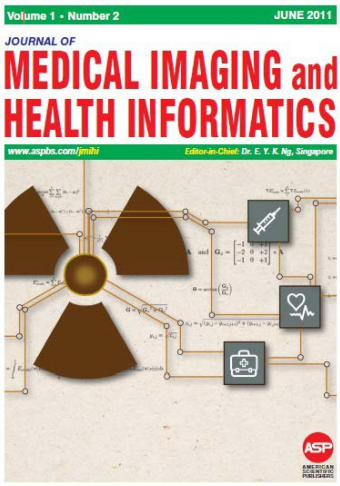

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Call for Papers

Special Issue on

Deep Learning in Medical Information Systems

With the vigorous development of hospital digital construction, "digital hospital" concept has been accepted by the majority of hospitals, and the current main problem is how to build a "digital hospital". Digital hospital construction is not only limited to the digitization of management, but also includes all the medical information involved in the hospital all the information involved in the "patient-centered" digital management and comprehensive utilization. Correspondingly, the medical information system as the basis of the construction of digital hospital will focus on pure medical activities for all types of medical information systems and their integration research. Medical information systems have two meanings. In a broad sense, it refers to all the information systems associated with the medicine, collectively, all kinds of information systems for hospital management belong to the category of medical information systems; in the narrow sense, it only involves purely medical activities, related clinical data and knowledge for integrated management and application of information systems. Typically, we consider the system from following major aspects. (1) Electronic medical record system. Electronic medical records is not simply the traditional paper to electronic medical records, but the whole medical process reflects the patients, to store all the patient medical information, including history, all kinds of test results and imaging data which is on the individual medical information and related processing integrated embodiment. (2) Monitoring information system. With the promotion of the hospital digital construction and the support of the HL7 standard, the development of clinical monitoring information system has become the dawn, especially the surgical monitoring information system which has been developed rapidly. (3) Physiological information system. Physiological information system refers to the ECG, EEG, breathing machine and other kinds of physiological information of the exam room inspection data are collected, stored, and the business of digital information system. (4) Image information system. The PACS system in the narrow sense is only responsible for the collection, filing and communication of the image data while, image information system covers all the contents of the

narrow PACS system and the RIS system.

To effectively provide theoretical support for medical information systems, machine learning and pattern recognition models are always integrated among which the deep learning is the recent trend. Deep learning is a model with a multi-level layer that uses the underlying output as input from the top. From down to above is a process of unsupervised learning, which automatically learns useful features, and expresses the low-level features as advanced features and from top to bottom is supervised learning process that through the labeled data to the whole network parameter optimization and adjustment of the whole network which has the characteristics of better learning ability. The learning and presentation structure of this characteristic is very robust to the deformation of the image and the translation. This special issue concentrates on the proper combinations of deep learning and modern medical information systems. The topics of interest include, but are not limited to:

- Deep learning for medical image analysis systems
- Deep learning for medical imaging modelling
- Deep learning for medical image processing
- Deep learning for mobile medical systems
- Deep learning for biomedical informatics process and analysis
- Deep learning for big data application in motor disorders
- Deep learning for virtual medical systems
- Deep learning for health information mining
- Deep learning for health informatics systems
- Deep learning for medical sensor models
- Deep learning for medial wireless communication
- Deep learning for remote health care
- Deep learning for medical industry applications
- Deep learning for e-healthcare management
- Deep learning for clinical and biological applications

Submission Guidelines:

All manuscripts must be submitted via mstracker.com and authors are request to write in their cover letter that their submission is for this special issue and the name of the guest editor, so that the guest editor can be notified separately. Guidelines for preparation of the manuscripts are available at the journal website http://www.aspbs.com/jmihi/instauth_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.

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Important Dates:

- Submission of Full Papers: 25 August 2018
- Review Result Notification: 25 October 2018
- Final Manuscript: 25 November 2018
- Publication Date: Early 2019

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