The Scientific World Journal

Special Issue on Machine Learning for Medical Applications

Call for Papers

Machine learning (ML) has been well recognised as an effective tool for researchers to handle the problems in signal and image processing. Machine learning is capable of offering automatic learning techniques to excerpt common patterns from empirical data and then make sophisticated decisions, based on the learned behaviours. Medicine has a large dimensionality of data and the medical application problems frequently make the human-generated, rule-based heuristics intractable. In this special issue, we provide a forum to present the cutting-edge machine learning methods for medical applications. Applications for medical application may include the learning of similarities across different image modalities, organ localization, learning of anatomical changes, tissue classification, and computer-aided diagnosis.

We invite authors to submit original research and review articles that seek to improve the quality of healthcare and medical diagnosis and treatment. Potential topics include, but are not limited to:

- Artificial intelligence in medicine
- Cardiovascular mechanics
- Clinical interpretation and analysis
- Decision support systems
- Brain-computer interface
- Biomedical and genomic signal processing
- Hospital information system
- Quantum computing and its applications in medicine
- Medical image analysis and understanding
- System biology in transitional medicine

Before submission authors should carefully read over the journal's Author Guidelines, which are located at http://www.hindawi.com/journals/tswj/guidelines/. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at http://mts.hindawi.com/submit/journals/tswj/signal.processing/mlma/ according to the following timetable:

Manuscript Due	Friday, 6 June 2014
Final Decision Date	Friday, 29 August 2014
Publication Date	Friday, 24 October 2014

Lead Guest Editor

Huiyu Zhou, School of Electronics, Electrical Engineering and Computer Science, Queen's University Belfast, Belfast, UK; h.zhou@ecit.qub.ac.uk

Guest Editors

Jinshan Tang, School of Technology, Michigan Technological University, Houghton, MI, USA; jinshant@mtu.edu

Huiru Zheng, School of Computing and Mathematics, University of Ulster, Londonderry, UK; h.zheng@ulster.ac.uk