Machine Learning Techniques for Neuroscience Big Data

Developing data-intensive tools to process and analyse the neuronal big data is one of the biggest challenges posed to today's multidisciplinary brain science community. To share recent progress in decoding neuronal information processing, both in healthy and diseased brain, this Special Issue on Machine Learning Techniques for Neuroscience Big Data aims to provide a forum for scientists from diverse disciplines including – computer, electrical, biomedical, and neuro engineering – who are looking for more relevant information in interpreting brain functions and diagnosing diseases using machine Learning based techniques.

The topics include but are not limited to:

- Processing and modelling of neuronal data for disease diagnosis and brain decoding;
- Bio-inspired methods for network analysis and pattern recognition in neural data;
- Novel machine learning techniques for neuronal big data analysis;
- Application of deep and reinforcement learning to neuronal big data analysis;
- Computationally intelligent techniques for neuroscience applications;
- Machine learning inspired neuroinformatics (including cloud computing and real-time systems).

Guest Editors

Mufti Mahmud (muftimahmud@gmail.com), Nottingham Trent University, UK
M Shamim Kaiser (mskaiser@juniv.edu), Jahangirnagar University, Bangladesh
Ganesh Naik (Ganesh.Naik@westernsydney.edu.au), Western Sydney University, Australia
Ning Zhong (zhong@maebashi-it.ac.jp), Maebashi Institute of Technology, Japan

Submission Instructions

Prospective authors are invited to prepare and submit manuscripts following the instructions at: https://braininformatics.springeropen.com/submission-guidelines
The complete manuscript should be submitted through online submission system at: https://www.editorialmanager.com/brai/default.aspx

To ensure that you submit to the correct special issue, please select the appropriate Article Type Name ‘SI: MLTNBD’. In addition, please indicate within your cover letter that you wish your manuscript to be considered as part of the Special Issue on Machine Learning Techniques for Neuroscience Big Data.