Data analytics, data mining and knowledge discovery from data are becoming increasing important for solving complex real world problems across engineering, business, cybersecurity and healthcare. Such real-world data are often characterized by various properties such as large volume, rich heterogeneity and large amount of uncertainty, which is now known as big data. These data are also characterized by high-dimensionality, strong imbalance in class distribution, changing nature in data distribution, and also sparsity. To analyse these data, extract useful information and acquire understandable knowledge from these data, powerful learning techniques, especially those inspired from biological and natural systems are in high demand.

This special issue aims to present the state-of-the-art of bio-inspired learning techniques for complex data analysis. Topics include, but are not limited to the following:

- Spiking neural networks and reservoir computing
- Deep learning architectures and deep learning techniques
- Evolutionary multi-objective learning and ensemble learning
- Big data analysis and knowledge discovery from big data
- Dimension reduction and data fusion
- Applications

Authors are invited to submit original and unpublished papers on any topics related to bioinspired learning for data analysis. Manuscripts must be prepared according to the journal guidelines and should conform to the standard format of the Memetic Computing journal. All submissions will undergo a blind peer-review process subject to the standards of the journal. The submission of manuscripts must be done via the journal online submission system.

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