

# Special Issue Proposal

## Neural Processing Letters (Springer)

### Special Issue on

### Feature Representation and Learning in Big Data

#### ✚ Summary and Scope:

In the big data era, the volume of data has been dramatically enlarged than before. The traditional representation of data or feature learning algorithms may not work well or be computationally tractable for large-scale applications, such as image retrieval, object recognition, etc. It is desirable to develop new, efficient data representation or feature learning, which can be easily performed with big data and achieve promising performance in the related tasks. This special issue will focus on the most recent progress on feature representation and learning for various visual tasks with big data, such as content-based image/video retrieval/classification, annotation, multimedia processing and visual semantic analysis. This special issue will also target on novel applications based on the feature representation and indexing techniques. The primary objective of this special issue fosters focused attention on the latest research progress in this interesting area.

The special issue seeks for original contribution of work, which addresses the challenges from the feature representation and learning algorithms in big data. Selected papers from 2017 International Conference on Intelligence Science and Big Data Engineering (**IScIDE2017**, <http://ice.dlut.edu.cn/IScIDE/>) will be invited to extend their paper for possible inclusion in the special issue. An extended version of paper is expected to include at least 30% of new material. The list of possible topics includes, but not limited to:

- Feature extraction methods for visual data
- Feature learning algorithms for visual representation
- Visual recognition (detection, categorization, indexing, matching, segmentation, grouping) with fast feature learning
- Biometrics with representation learning

- Fast deep learning techniques
- Big data, large scale methods
- Novel applications based on feature representation and learning algorithms
- Big Data novel theory, algorithm and applications
- Big Data Infrastructure, MapReduce and Cloud Computing
- Big Data visualization

### **Submission Guideline**

Authors should prepare their manuscript according to the Guide for Authors available from the online submission page of the Neural Processing Letters journal via the following link <http://link.springer.com/journal/11063>. All the papers will be peer-reviewed following the Neural Processing Letters reviewing procedures.

#### **Important Dates:**

- Paper submission due: Nov. 1, 2017
- First notification: Jan. 1, 2018
- Revision: March. 1, 2018
- Final decision: May. 1, 2018
- Publication date: Aug. 1 2018 (Tentative)

#### **Guest Editors:**

- Dr. Wankou Yang, Southeast University, China (wkyang@seu.edu.cn)
- Dr. Fumin Shen, University of Electronic Science and Technology of China (fumin.shen@gmail.com)
- Dr. Richard Yi Da Xu, University of Technology, Sydney (yida.xu@uts.edu.au)
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## **IScIDE2017**

The 2017 International Conference on Intelligence Science and Big Data Engineering (IScIDE 2017) aims at a collective venue for introducing world frontier researchers to China and for introducing researchers of an ever developing and huge population of Chinese colleagues to international communities. This meeting is scheduled as the seventh of a serial annual meetings that promotes academic exchange of researches on various areas of intelligence science and big data engineering in China and abroad, and will be held in Dalian.

IScIDE 2017 is intended to have a broad scope, including information theoretic and Bayesian approaches, probabilistic graphical models, Big data analysis, neural networks and neuro-informatics, bioinformatics, computational biology and Brain-computer interfaces, as well as advances in fundamental pattern recognition techniques relevant to image processing, computer vision and machine learning. Submissions will be rigorously reviewed, and should clearly make the case for a documented improvement over the existing state of the art. Experimental results for contributions in established areas such as speech, face, iris and gait are encouraged to use the largest and most challenging existing publicly available datasets.

**For more information, please visit <http://ice.dlut.edu.cn/IScIDE/>.**