

Special Issue on New Trends in data pre-processing methods for signal and image classification

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Journal: **Neural Computing and Applications**
Special Issue: “**New Trends in data pre-processing methods for signal and image classification**”

A special issue of the Neural Computing and Applications (NCAA) will be dedicated to “**New Trends in data pre-processing methods for signal and image classification**”. Prospective authors are invited to submit their original unpublished research work.

Data pre-processing is crucial for effective data mining. Low quality data usually produce inaccurate and unpredictable outcomes. Today’s real-world data are greatly vulnerable to noise and getting lost either due to large data size or the sources of origin. Real-world data are often inconsistent, incomplete, and is possible to have several errors. These poor-quality data will results in poor-quality mining outcomes. Data pre-processing enhances the data standard and subsequently aids to refine the value of data mining outcomes. Data pre-processing performs certain processing on raw original data to prepare it for further processing or analysis. In short, data pre-processing prepares original raw data for further processing. Data pre-processing converts the data into a form acceptable easily for further processing by the user.

Data pre-processing methods has various applications in Signal and Image processing such as, signal and image pre-processing, feature extraction, feature dimension reduction, classification and idea or information extraction.

Data pre-processing can be applied to (i) removal of noise part from signal or image, otherwise increase the consequence of reaching incorrect conclusions using raw signal or image data, (ii) extract features, reduce the dimensionality of the signal or image and maintain as much significant information as possible, and (iii) develop concept formation from the signal or image data.

The main focus of this issue is the application of soft computing on signal and image classification using different and new data pre-processing methods on the following problems: signal detection, image detection, personal identification systems, iris recognition, face recognition, biomedical signal and image classification, and etc. We are looking for original research that has solved the technical challenges in data pre-processing using Soft Computing techniques.

Topics of this special issue include (but not limited to)

Feature Selection
Feature Extraction
Data Normalization
Non-linear Data Transformation Methods
3D to 2D Transformation Methods
Signal Detection
Image Detection
Image or Signal classification and analysis
Pattern Recognition
Emerging technologies in Signal or image processing
Image or Signal processing applications
Image or Signal acquisition and display
Optimization algorithms for data pre-processing
Evolutionary Computation
Evolutionary Algorithms
Genetic Algorithms
Differential Evolution
Metaheuristic and Swarm Intelligence
Ant Colony Optimization
Particle Swarm Optimization
Chaos Theory

Submission Guideline

Submitted papers will be subject to a double-blind review process. Submission procedure: Authors should use the Online Manuscript Submission system of the journal at:

<http://www.editorialmanager.com/nca/>

New Key deadlines/dates:

**The deadline to submit is:
September, 30, 2016**

Notification: January 31, 2017

1st revision due: March 30, 2017

2nd revision notification: April 15, 2017

Final acceptance: May 15, 2017

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