

**Special Session on “Handling Uncertainties in Big Data”
For FLINS2016 (<http://flins2016.ensait.fr>)**

Aims and Scope:

With rapid advancement of computing and sensing technology, it has become much easier to collect data and data available for analysis increases exponentially. Big data, which is featured by its “Five Vs”, i.e. the volume, variety, velocity, veracity and value, has attracted increasing attention from various disciplines. It will bring in fundamental changes in business intelligence and the ways of our living. However, big data, by its nature contains bias, noise and abnormality, as well as a significant amount of unstructured, uncertain and imprecise data. The inherent uncertainties in representation, processing, and analysis of big data can cause many challenges. For example, the existing solutions based on structured data may not represent the true characteristics of actual systems that they are meant to represent. Fuzzy systems, machine learning and other computational intelligent techniques are promising to efficiently and flexibly handle uncertainties in big data, satisfy the needs of real world big data applications and improve the quality of organizational data-based decisions. Successful developments in this area have appeared in many different aspects.

This special session aims to offer a systematic overview of this new field of “Handling Uncertainties in Big Data” and provide innovative approaches to address various uncertainty issues in presentation, processing and analysing of big data by applying computational intelligent techniques.

Topics:

We invite interested authors to submit their original and unpublished work to this special session. The main topics of this special session include, but are not limited to, the following:

- Fuzzy rule-based knowledge representation in big data processing
- Information uncertainty handling in big data processing
- Unstructured big data visualization
- Uncertain information and knowledge modeling in big data sets
- Tools and techniques for big data analytics in uncertain environments
- Context-aware big data processing
- Fuzzy systems for big data analytics and modelling
- Uncertain data presentation in big data systems
- Uncertain issues in data-driven decision support systems
- Uncertain issues in recommender systems in big data environments
- Uncertain issues in cloud computing
- Uncertain issues in social network and web services

Special Session organizers:

1. Jie Lu, University of Technology Sydney, Australia
2. Heyan Huang, Beijing Institute of Technology, China
3. Kan Li, Beijing Institute of Technology, China
4. Haiyan (Helen) Lu, University of Technology Sydney, Australia

Submission deadline is 15 Feb 2016.

All papers please email to Kan Li <likan@bit.edu.cn>