Special Session on Data Mining Techniques for Large Scale Data

Analysis of large and still growing amounts of data requires techniques that allow a user to go beyond the ability of commonly used software tools. Large volume, high velocity of changes and variety of data as well as veracity issues make it challenging to apply machine learning techniques for investigation this kind of data. Even a simple algorithm, when applied to large scale data, requires taking into account massive data analytics issues related to effective decomposition of an original task into sub-tasks. In spite of the complexity of extracting knowledge from big data resources, the domain itself draws an increasing interest, and its recent developments make it possible to answer the questions that were previously considered beyond our reach.

The session will provide an opportunity for the participants to exchange novel ideas and new research developments in the field of big data analytics. Particularly, we want to discuss:

- Cases studies of machine learning applications for Big Data
- Techniques for scaling up machine learning methods for Big Data
- Applications in domains including: energetic industry, text, image and video processing, and analytics are particularly welcome.

The topics of interest include, but are not limited to:

- Architectures for Big Data
- Large scale applications of data mining techniques
- Clustering
- Classification
- Features Selection
- Neural Networks
- Deep Learning
- Data Sampling and Hashing techniques
- Dimensionality reduction,
- Visualization
- Parallelization of intelligent computations
- Scalable applications of machine learning
- High performance computing
- GPU implementations
- Information Retrieval

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