



Call for Papers

Special Issue on Journal of Universal Computer Science

Intelligent Distributed Processing Methods for Big Data

Guest Editors

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Motivation

Today, “Big Data” is a new information overloading problem in many different areas. Such areas include health cares (e.g., medical records, bioinformatics), e-sciences (e.g., physics, chemistry, and geology), and social sciences (e.g., politics). Thus, as we have various types of feasible data from a number of available sources, it is becoming increasingly more difficult to efficiently process such Big Data.

Distributed computing technologies (e.g., Hadoop, Hive and Pig) are strongly related to the “Big Data” issues. Given a very large scale “Big Data,” efficient distributed data processing and management remain a challenge in many research areas, for example, information acquisition and stream processing, as well as data integration. Also, the number of diverse information processing system architectures might be involved in these areas. They need to exploit relevant solutions to support a number of intelligent services (e.g., knowledge management and decision making).

The aim of this special issue is to bring together researchers and practitioners in areas of distributed computing to share their visions, research achievements and solutions, to resolve the issues on big data processing and to establish worldwide cooperative research and development. This will give an opportunity to push further the discussion upon the potential of knowledge and semantic systems across many communities.

List of Topics

- Scalable Processor for Big Data
- Scalable Memory Systems for Big Data
- Scalable Parallel and Distributed Information Retrieval
- Scalable Storage for Big Data
- Scalable Web and Mobile Systems
- Scalable Network Architectures for Big Data
- Integrated Systems for Big Data (Blades, Racks, and Data Centers)
- Custom Accelerators for the Big Data Domain
- Big Data Systems and Workloads in the Wild

- Software Support for Big Data Processing: Programming Languages, Operating Systems, Runtime Environments
- Energy Efficiency in Big Data Systems through Vertical Integration, Specialization, and Approximation
- Emerging Compute, Storage, and Communication Technologies for Big Data Applications
- Architectural Support for Security in the Context of Big Data
- Scalability Issues on Emerging Computing Architectures (SMTs, GPUs, Multicores)
- Information Security for Big Data
- Scalable Sensor Networks and Systems
- Scalable Systems and Conceptual Modelling
- Scalable Multimedia Information Systems
- Scalable Data Mining

Author guideline

All submissions must be written in English and formatted according to the journal guidelines (<http://www.jucs.org/ujs/jucs/info/submissions>). All papers will undergo the special issue guidelines of the journal (http://www.jucs.org/jucs_special). Submissions should be sent to Prof. Jason J. Jung (j2jung@gmail.com).

Important Dates

First submission deadline: 30 October 2014
 First notification: 30 December 2014
 Second submission deadline: 30 January 2015
 Final notification: 20 February 2015
 Final submission: 15 March 2015
 Tentative publication date: March/April 2015

Reviewer Board

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