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SPECIAL ISSUE ON

Big Data and Cyber-Physical-Social Computing

Overview:

Data is becoming an increasingly decisive resource in modern societies, economies, and governmental organizations. Big Data is an emerging paradigm encompassing various kinds of complex and large scale information beyond the processing capability of conventional software and databases. Cyber-Physical-Social Computing (CPSC) is characterized by the deep complex intertwining among cyber/physical components and integrating Human into Computing. CPSC encompasses not only cyberspace and physical world, but also human knowledge, mental capacity, and sociocultural elements. This nature of "big data" imposes fundamental challenges on the design and management of CPSC in multiple aspects such as performance, energy efficiency, security, privacy, reliability, sustainability, fault tolerance, scalability and flexibility. Tackling these challenges necessitates innovative big data techniques for handling massive data in CPSC. This special issue will present the state-of-the-art research results on the topic of big data sensing, processing and storage for CPSC and enabling technologies in developing and optimizing the architecture, design, and operation of CPSC.

Topics

Topics of interest include, but are not limited to, the following scope:

Scalable data storage and computation management for Big Data	New architecture, protocols, and services for CPSC
Resource scheduling, SLA, Fault tolerance and reliability for Big Data	High performance computing and many-task computing for CPSC
Novel programming models and platforms such as MapReduce or Spark for Big Data	Next generation computational technologies for CPSC
Security and privacy in Big Data processing	Big data analytics for CPSC
Innovative Cloud infrastructure for Big Data	Energy-efficiency and green computing for CPSC
Wireless and mobility support in for Big Data	Applications, simulations and field test for CPSS
Scalable software platforms for fast Big Data analytics on heterogeneous and hybrid architectures	New embedded devices, protocols, and applications for CPSC
Cross-layer modeling and optimizations in CPSC	New social cloud computing for CPSC
Green, energy-efficient models and sustainability issues for Big Data	Quality of Experience (QoE) and Quality of Protection (QoP) issues for CPSC
Multiple source streaming data processing and integration	Novel applications in smart healthcare, smart grid, and smart transportation for CPSC

Important Dates

- **Manuscript submission deadline:** December 15, 2016
- Notification of acceptance: **March 15, 2017**
- Submission of final revised paper: **May 1, 2017**
- Publication of special issue (tentative): **August 2017**

Submission Procedure

Authors should follow the MONET Journal manuscript format described at the journal site. Manuscripts should be submitted on-line through http://www.editorialmanager.com/mone/.

A copy of the manuscript should also be emailed to the Guest Editors at the following email addresses.

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