

Special section on High Performance computing for Autonomous Cloud

High-performance computing has been an important and fundamental research topic over the past decade and has posed many challenging problems. Researchers and industrial professionals have been devoted to designing innovative tools and techniques to keep up with the rapid evolution and increasing complexity of large and complex scientific and engineering problems. Recent years have witnessed a deluge of network data propelled by the vehicular communications, mobile sensing, IoT, M2M communications, emerging online social media, user-generated video contents, and global-scale communications, bringing people into the era of big data. These network data hold much valuable information that could significantly improve the effective and intelligent optimisation of Internet, vehicular networking, mobile networking, and IoT. Autonomous cloud is an exciting area of development and research that utilizes artificial intelligence, machine learning and data analytics to aid in intelligent cloud management and decision making. Such techniques can support automation of operations such as services mapping, scaling, network design, data organization and security management.

Potential topics included, but not limited

- New models for the distributed cloud infrastructure
- Distributed analytics – considering data and usage patterns across the network and federated Cloud
- Intelligent Cloud responses to application and usage behaviours
- Cloud security and dynamic security management
- High performance computing for embedded, mobile, and networking environments
- High performance green communication systems and networks
- Heterogeneity of edge systems
- Modelling and evaluation of high performance computer based systems
- High performance data networking, management, and analytics
- Related theory and modelling of high-performance computing

Important Dates:

- Paper Submission: December 30, 2018.
- First Round of Reviews: February 28, 2019.
- Submission of Revision: April 30, 2019.
- Decision of Acceptance: May 30, 2019.

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