Nanyang Executive Center
Nanyang Technological University
Singapore

2014.cloudcom.org

IEEE CloudCom 2014 Call For Papers

15-18 December, 2014

The “Cloud” is a natural evolution of distributed computing and of the widespread adaption of virtualization and SOA. In Cloud Computing, IT-related capabilities and resources are provided as services, via the Internet and on-demand, accessible without requiring detailed knowledge of the underlying technology. The IEEE International Conference and Workshops on Cloud Computing Technology and Science, steered by the Cloud Computing Association, aim to bring together researchers who work on cloud computing and related technologies. Manuscripts need to be prepared according to the IEEE CS format, for regular papers, the page limit will be 8 pages. Distinguished papers will be invited to be included within a number of special issues in prestigious international journals.

Topics of interest include, but are not limited to:

Architecture
- Cloud Services models
- Cloud services reference models and standardization
- Intercloud architecture models
- Cloud federation and hybrid cloud infrastructure
- Cloud services provisioning and management
- Cloud services delivery models, campus integration and “last mile” issues
- Networking technologies for data centers, intracloud and interclouds
- Cloud powered services design
- Programming models and systems/tools
- Cloud system design with FPGA, GPU, APU
- Monitoring, management and maintenance
- Operational, economic and business models
- Green data centers
- Business processes, compliance and certification
- Dynamic resource provisioning

Big Data
- Machine learning
- Data mining
- Approximate and scalable statistical methods
- Graph algorithms
- Querying and search
- Data Lifecycle Management for Big Data
- Frameworks, tools and their
- Composition
- Storage and analytic architectures
- Performance and debugging
- Hardware optimizations for Big Data
- Data Flow management and scheduling

Security and Privacy
- Accountability and Audit in clouds
- Authentication and authorization
- Cloud integrity and binding issues
- Cryptography for/ in the cloud
- Hypervisor security
- Identity/ Security as a Service
- Prevention of data loss or leakage
- Secure, interoperable identity in the Cloud
- Security and privacy in clouds
- Trust and credential management
- Trusted Computing in Cloud Computing
- Usability and security

Services and Applications
- Security services on the Cloud
- Data management applications and services
- Scheduling and application workflows on the Cloud
- Cloud application benchmarks
- Cloud-based services and protocols
- Cloud model and framework
- Cloud-based storage and file systems
- Cloud scalability and performance
- Fault-tolerance of cloud services and applications
- Application development and debugging tools
- Business models and economics of Cloud services
- Services for improving Cloud application availability
- Use cases of Cloud applications

Virtualization
- Server, storage, network virtualization
- Resource monitoring
  Virtual desktop
- Resilience, fault tolerance
- Modeling and performance evaluation
  Security aspects
- Enabling disaster recovery, job migration
- Energy efficient issues

HPC on Cloud
- Load balancing for HPC clouds
- Middleware framework for HPC clouds
- Scalable scheduling for HPC clouds
- HPC as a Service
- Performance Modeling and Management
- Programming models for HPC clouds
- HPC cloud applications ; Use cases, experiences with HPC clouds
- Cloud deployment systems for HPC clouds
- GPU on the Cloud

IoT and Mobile on Cloud
- IoT cloud architectures, models
- Cloud-based dynamic composition of IoT
- Cloud-based context-aware IoT
- Mobile cloud architectures and models
- Green mobile cloud computing
- Resource management in mobile cloud environments
- Cloud support for mobility-aware networking protocols
- Multimedia applications in mobile cloud environments
- Security, privacy and trust in mobile IoT clouds
- Cloud-based mobile networks and applications

General Track
Other emerging and new topics in the cloud, such as,
- Software defined systems
- Economics and market mechanisms
- Green Cloud Computing
- Benchmarking and performance studies

Organizing Committee

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Wentong Cai, Nanyang Technological University
*Rick Siow Mong Goh, IHPC A*Star, Singapore*

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Important Dates

Workshop proposals	~~May 15, 2014~~
Notification of workshops	~~May 22, 2014~~
Paper submissions	Aug 15, 2014
Notification	Sep 20, 2014
Camera-ready	Oct 5, 2014
Author registration	Oct 1, 2014