Special Session on

Green Cloud Computing (GCC)

Aims and Scope

Cloud computing opens doors to a new area where IT services are served as utility. Cloud propounds an IT infrastructure delocalized and available via Internet where processing and storage services are performed at Data Center level. Despite the success of cloud concept, it shows certain flows which are materialized as a hunger for energy consumption of the network, computing, and storage resources. Numerous reports that scrutinize Cloud energy consumption result that the Cloud is an energy monster. In 2012, Greenpeace International reports states that Cloud is the fifth in the world in the energy consumption. Such rate of energy consumption increases operational costs and poses environmental challenges with a very large CO2 emission rate. The Cloud Data Center shares a major part of this energy consumption with 2% of overall energy consumed in the world on 2011 and it continues to rise. As a solution, Cloud opts for virtualization technology.

The virtualization ensures an efficiently resource exploitation using Virtual Machines (VM) consolidation. Researchers have been developing various strategies and techniques to address all sub-problems related to VM consolidation like migration, monitoring, estimation, and placement of VMs to physical servers. Another solution to save energy consumptions is Energy-aware* (service composition, scheduling, data placement, etc.). These approaches are designed to optimize performance of application and energy consumption in Clouds.

This session aims to report the latest scientific advances and stimulates continuing research in green Cloud computing, especially in resource management techniques for virtualized Clouds and Energy-aware intensive application. We cordially invite researchers to submit original research and development works.

Topics of interest

The topics of **GCC** include, but are not limited to:

- VMs placement in data center
- VMs scheduling and migration in data center
- Communication-aware VM management in Clouds
- Performance monitoring, prediction and modelling of VM executions in Clouds
- VM Security
- Energy-aware : Scheduling intensive workflow, service-oriented applications, data intensive service composition, etc.
- Optimizing resource management for processing big data applications in Clouds
- Intensive-data placement strategy in data center
- Trade-offs between performance, energy and other resources in cloud datacenters

Submission procedure

We invite researchers to submit scientific papers which should not exceed 10 pages using the **Springer** templates (Latex template, Word template) without page numbers. Please select the acronym of the special session when submitting your paper on the Easychair system. Submitted papers are selected based on their originality, relevance to the Special session topics and technical soundness, following a double blind peer-revewing process. Authors names and affiliations should be deleted from the submitted version. Self-references should be in the third person. One of the authors of an accepted submission should attend the conference to present the work. Papers should be submitted in PDF format through the Easychair system. Please note that English is the only accepted language for writing and presenting papers. Registered and presented papers will be submitted for inclusion in **Springer Library**.

EasyChair online submission website:

https://easychair.org/conferences/?conf=icdec2017

Important Dates

- Deadline for paper submission: **January 2nd, 2017**
- Notification of the first round review: **February 5, 2017**

Deadline of revised version submission **February 26, 2017**

Special session Organizers

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