Special issue on Algorithms and Computational Models for Sustainable Computing in Cloud and Data Centers

IEEE Transactions on Sustainable Computing

Cloud Computing and Data Centers offer computing and data storage services and solutions at very large scale. These solutions however come with high costs and environmental impacts due to high energy consumptions at various levels of the computational and data storage processes. Therefore, energy consumption has become a key issue for the normal operation and maintenance of cloud computing platforms and datacenters, raising serious concerns from Cloud providers. Research trends such as Green Cloud Computing (GCC), Sustainable Cloud Computing (SSC) and alike aim to minimize energy consumption and therefore minimize costs and environmental impact.

This special issue seeks high quality contributions covering the topics of energy efficiency cloud computing, emerging trends and advances in sustainable cloud and data centers and applications at various levels of the computational and data storage processes.

- Optimization algorithms for energy-efficiency Cloud computing
- Energy-aware memory management solutions for data centers and processing of large data sets
- Energy-aware scheduling approaches for data centers and processing of large data sets
- Energy consumption models, analytics and performance evaluations and applications
- Middleware and modular architectures for resource-efficient green data centers
- Energy consumption monitoring and patterns in Cloud from massive data processing and collective intelligence
- Security, privacy and trust of energy-related Cloud computing and data centers
- Emerging trends and applications

Submission Instructions

Before submitting your manuscript, please ensure you have carefully read the Instructions for Authors for IEEE Transactions on Sustainable Computing (T-SUSC). The complete manuscript should be submitted through T-SUSC's submission system. To ensure that you submit to the correct special issue, please select the appropriate section in the drop-down menu upon submission. In your cover letter, please also clearly mention the title of the SI.

Important Dates

- Submission of papers to the journal due: 14th July 2016
- First round review results: 14th October 2016
- Revised papers due for submission: 14th November 2016
- Second round review results: 14th December 2016
- Final version of accepted papers & sources due to the journal: 30th December 2016
- Publication: 2017

Special Issue Guest Editors

Ciprian Dobre, University Politehnica of Bucharest, Romania.
George Mastorakis, Technological Educational Institute of Crete, Greece
Constandinos X. Mavromoustakis, University of Nicosia, Cyprus
Fatos Xhafa, Universitat Politècnica de Catalunya, BarcelonaTech, Spain

CONTACT
Fatos Xhafa (fatos at cs.upc.edu)
Universitat Politècnica de Catalunya (BarcelonaTech)
Campus Nord, Omega Bld.
C/Jordi Girona 1-3
08034 Barcelona, SPAIN