

IEEE STC on Sustainable Computing

Upcoming Events and Call for Papers

Conferences/Journals/Workshops with Sustainable Computing Focus:

- **IEEE GreenCom:** 2011 IEEE Online Conference on Green
 - September 26-29, 2011
 - Virtual Conference (Online)
 - <http://www.ieee-greencom.org/>
- **HotPower'11:** 4th Workshop on Power-Aware Computing and Systems
 - Will be held immediately before the 23rd ACM Symposium on Operating Systems Principles (SOSP'11)
 - Oct 23, 2011
 - Cascais, Portugal
 - <http://sosp2011.gsd.inesc-id.pt/workshops/hotpower>
- **EEHiPC'11:** 2nd International Workshop on Energy Efficient High-Performance Computing
 - Held in Conjunction With 18th IEEE/ACM International Conference on High Performance Computing (HiPC)
 - December 18, 2011
 - Bangalore, India
 - <http://nscac.rutgers.edu/GreenHPC/EEHiPC/>

➤ Elsevier Journal of Sustainable Computing: Informatics and Systems

- <http://ees.elsevier.com/suscom/>
- *Sustainable computing is a rapidly expanding research area spanning the fields of computer science and engineering, electrical engineering as well as other engineering disciplines. The aim of Sustainable Computing: Informatics and Systems (SUSCOM) is to publish the myriad research findings related to energy-aware and thermal-aware management of computing resource. Equally important is a spectrum of related research issues such as applications of computing that can have ecological and societal impacts. SUSCOM publishes original and timely research papers and*

survey articles in current areas of power, energy, temperature, and environment related research areas of current importance to readers. SUSCOM has an editorial board comprising prominent researchers from around the world and selects competitively evaluated peer-reviewed papers.

Conferences/Journals/Workshops with Sustainable Computing-Related Sessions/Special Issues/Topics of Interest:

- **UbiComp 2011:** 13th International Conference on Ubiquitous Computing
 - Session of Interest: Energy and Networking
 - September 17-21, 2011.
 - Beijing, China
 - <http://www.ubicomp.org/ubicomp2011/index.html>

- **PerCom 2012:** IEEE International Conference on Pervasive Computing and Communications
 - Topic of Interest: Energy-efficient and green pervasive computing
 - Mar 19-23, 2012
 - Lugano, Switzerland
 - Paper Registration: Sep 23, 2011
 - Paper Submission: Sep 26, 2011
 - Author Notification: December 20, 2011
 - Camera-ready Due: January 27, 2012
 - <http://www.percom.org/>

- **NSDI 2012:** 9th USENIX Symposium on Networked Systems Design and Implementation
 - Topic of Interest: Energy-efficient computing in networked systems
 - April 25-27, 2012
 - San Jose, CA
 - Paper titles and abstracts due: September 27, 2011, 5:00 p.m. PDT
 - Complete paper submissions due: October 4, 2011, 5:00 p.m. PDT

- Notification of acceptance: December 20, 2011
- Papers due for shepherding: February 22, 2012
- Final papers due: March 14, 2012
- <http://www.usenix.org/events/nsdi12/>

➤ **ACM SIGMETRICS/Performance 2012: Joint International Conference on Measurement and Modeling of Computer Systems**

- Topic of Interest: Energy-efficient computing systems
- June 11-15, 2012
- London, United Kingdom
- Abstract Registration: November 4, 2011 - 11:59pm GMT (hard, required)
- Paper Submission: November 11, 2011 - 11:59pm GMT (hard, no extensions)
- Notification of Decision: February 9, 2012
- <http://www.sigmetrics.org/sigmetrics2012/>

➤ **Call for Papers: A Special Issue of Computer Networks On "Green Communication Networks"**

- <http://ees.elsevier.com/comnet/>
- *Communication networks are increasingly leveraged to reduce the environmental impact of human activities by improving energy efficiency in many sectors of the world economy. Moreover, networking functionalities are central to power delivery and promise benefits through smart grid applications and support for distributed renewable sources. On the other hand, it has been recognized that the energy consumption and scalability of communication networks themselves can become an issue due to the rapid growth of traffic and infrastructure. The design of "green" networks has become a focus for research in academia and industry. Keeping pace with network expansion requires new paradigms for energy use in networks including improving the efficiency of networking devices and adapting the network energy consumption to the varying traffic load.*
- *This special issue solicits submissions of original work and survey papers on all aspects of green wired and wireless networks. Topics of interested include (but are not limited to):*
 - *Architectures and protocols for improving energy efficiency in wired networks*
 - *New energy-aware routing and switching devices*
 - *Energy consumption measurements and models*
 - *Networking issues for energy efficient content distribution and applications*
 - *Networking issues for green cloud computing*

- *Energy efficient networking technologies (Ethernet, Optical networks, IP networks, MPLS, etc.)*
 - *Design of energy efficient networks*
 - *Green future mobile networks*
 - *MAC, routing and transport protocols for green wireless*
 - *Energy efficient wireless devices*
 - *Energy management of wireless access networks*
 - *Energy-aware radio planning*
 - *Bounds and limits on energy efficiency*
 - *Energy-Performance tradeoff*
 - *Experiments, testbeds and prototypes*
- Important dates:
 - Paper submission: 30-09-2011
 - Acceptance notification: 30-11-2011
 - Final papers: 30-12-2011
 - Guest Editors:
 - Antonio Capone (Politecnico di Milano, antonio.capone@polimi.it)
 - Dan Kilper (BellLabs Alcatel-Lucent, dan.kilper@alcatel-lucent.com)
 - Zhisheng Niu (Tsinghua University, niuzhs@tsinghua.edu.cn)
 - Submission format:
 - The submitted papers must be clearly written in excellent English and describe original research which is neither published nor currently under review for other journals or conferences. Papers must not exceed 25 pages (one-column, at least 11pt font) including figures, tables and references. Author guidelines for preparation of manuscript can be found at <http://www.elsevier.com/locate/comnet>.
 - Submission Guideline:
 - All manuscripts and any supplementary material should be submitted through Elsevier Editorial System (EES). The authors must select as 'SI:Green Communication Networks' when they reach the Article Type step in the submission process. The EES website is located at: <http://ees.elsevier.com/comnet/>.
- **IEEE Transactions on Computers**
- Special Section on Energy Efficient Computing - CALL FOR PAPERS
 - September 2012
 - <http://www.computer.org/tc>

- *From portable devices to data centres, energy consumption has grown to be a major limitation to usability and performance. Energy cost and associated infrastructure also constitute a growing proportion of the expense of building and running a typical data centre. Therefore, energy efficient computing has become an active area of research, motivated further by environmental concerns and a desire to limit the impact of computing on the ecosystem. The IEEE Transaction on Computers seeks original manuscripts for a Special Section on Energy Efficient Computing scheduled to appear in the September issue of 2012.*

- Topics of interest include but are not limited to:
 - Energy-efficient system architecture.
 - Architectural support for energy aware computing.
 - Compiler support for energy efficient computing.
 - Power management in operating systems, hypervisors and runtime systems.
 - Application support for energy efficiency.
 - Monitoring tools for energy aware computing.
 - Energy-efficient real time systems.
 - Memory and cache power management.
 - Energy-efficient storage systems.
 - Energy-proportional systems.
 - Energy-efficient networking and communications protocol.
 - Interactions of performance and energy management.
 - Energy modeling, validation and estimation of computer systems.
 - Energy-aware fault tolerance.
 - Thermal-aware computing.
 - Power/energy-aware mobile computing.
 - Code profiling and transformation for power management.
 - Models for collective optimization of power and performance.
 - Algorithms for reduced power, energy and heat.

- Submitted articles must not have been previously published or currently submitted for journal publication elsewhere. Authors are responsible for understanding and adhering to IEEE Transactions on Computers submission guidelines.

- Important dates:
 - November 4, 2011 Deadline for submission of papers [Firm, no extensions]
 - January 20, 2012 First decisions to authors
 - February 17, 2012 Revisions due (if needed)
 - March 16, 2012 Notification of final acceptance
 - March 30, 2012 Final publication materials due from authors
 - September 2012 Special section publication

- Guest Editors:
 - Elmootazbellah Elnozahy, IBM Research, Austin (mootaz@us.ibm.com)
 - Rami Melhem, The University of Pittsburgh (melhem@cs.pitt.edu)

- Visit <http://www.computer.org/tc> to view the complete call for papers and submission instructions.