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Second International Workshop on

"Energy Aware Computing and Communication Networks"

Co-Located with the

"8th International Wireless Communications and
Mobile Computing Conference (IWCMC 2012)"

http://iwcmc.org/2012/

August 27-31, 2012, CYPRUS

Aims and Scope

This workshop hopes to provide a forum for presenting the latest research and debating directions, challenges, and novel ideas about building high performance and energy efficient computing systems. Building such systems can be addressed at one or more platform layers such as software, language and compiler design, computer architecture, hardware, embedded systems, and networking. Researchers coming to these issues from these different fields will gain the opportunity to interact and learn from one another. Topics of particular interest include, but are not limited to:

I.   Energy Aware / HPC for Data Mining and Mobile Applications
- Multi-layer energy optimizations and HPC across layers: Application, Compiler, Operating Systems, Architecture, Hardware.
- Energy-efficient and High Performance network services and operations
- Energy-efficient and High Performance Wireless Applications
- Energy-aware and High Performance scheduling
- Energy-aware and High Performance software
- Energy and HPC profiling and accounting
- Energy and HPC Benchmarking and Assessment
- Energy and thermal-aware techniques for scheduling, memory management, and quality of service
- Multi-Core Architectures and Support
- Dynamic frequency and voltage scaling
- Energy-aware and High Performance Computing software monitoring, measurement, and modeling.
- Performance characterization and evaluation for HPC and energy-aware systems/applications
- Standards and metrics for HPC and energy-aware systems
- Low energy displays
- Energy consumption simulation, optimization, management and evaluation tools

II.   New applications
- Energy-efficient mass data storage and processing
- Energy-aware computing in multicore/manycore systems
- Mobile data mining, opinion mining, sentiment mining
- Text mining, multimedia mining, stream data mining
- Frameworks for KDD systems, and parallel or distributed mining.
- Making sense out of sensors
- Context aware applications
- Personal assistant and smart devices
- Low-radiation in wireless devices
- Applications in environment protection, healthcare, creature conservation, mobile, avionics, aerospace, control, etc.
- Education, experience, case studies, and lessons learned for energy-aware systems and applications
- Scalable and/or parallel/distributed algorithms for various mining tasks like classification, clustering, sequences, associations, trend and deviation detection, etc.

Submission Guidelines

Prospective authors are invited to submit technical papers electronically through EDAS (http://edas.info/). More information can be found at the conference website (http://iwcmc.org/2012/). Authors need to submit original technical papers—up to 6 pages of length, using the EDAS link: http://edas.info/newPaper.php?c=11197 and **select the "HPC & Energy-Aware" Workshop** for possible publication in the IWCMC 2012 Conference Proceedings, which will be included in IEEE Digital Library. Selected papers will be further considered for possible publication in three special issues in the following Journals:

1. Wiley Journal of *Wireless Communications and Mobile Computing (WCMC)*: http://www3.interscience.wiley.com/journal/76507157/home

2. The *International Journal of Sensor Networks (IJSNet)*: http://www.inderscience.com/browse/index.php?journalCODE=ijsnet

3. The *International Journal of Autonomous and Adaptive Communications Systems (IJAACS)*: www.inderscience.com/ijaacs

4. KSII Transactions on Internet and Information Systems: www.itiis.org

5. Peer-to-Peer Networking & Applications, http://www.springer.com/engineering/signals/journal/12083

There will also be best paper awards, one best symposium award, and one best Workshop award.

Important Dates

Paper Submission Deadline:	**15 December 2011**
Paper Acceptance Notification:	25 March 2012
Camera-ready Paper Submissions:	30 April 2012
Registration Deadline for Authors:	30 April 2012