BuildSys 2014

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co-located with ACM SenSys 2014

The 1st ACM International Conference on Embedded Systems for Energy-Efficient Buildings (BuildSys 2014) invites submissions of original papers on innovation in embedded building systems delivering efficiency, operation and performance. Over the past five years, BuildSys has established itself as the premier workshop for researchers, developers, and practitioners across interdisciplinary fields to present research results and exchange ideas in all information-driven aspects of building energy. 2014 marks the first year for BuildSys as a full ACM conference. With this exciting development, BuildSys this year will accept both regular papers (10 pages maximum) and notes papers (4 pages maximum), that describe original and unpublished work advancing the state of art in building systems. Both regular and note papers will be reviewed by the same program committee and will be evaluated to the same standard of quality. Papers are expected to consider the entire energy system, including any effects on occupant behaviors, production efficiency, innovative energy management approaches, peak load and smart grid architectures, sustainability, pollutants or water, and/or total energy usage.

The world is increasingly experiencing a strong need for energy consumption reduction and a need for efficient use of scarce natural resources. Official studies report that buildings account for the largest portion of the world's energy expenditure and have the fastest growth rate. Clearly, energy saving strategies that target energy use in buildings and surroundings can have a major impact worldwide, driving the current energy market toward self-sufficiency and self-sustainability. This calls for effective techniques and methods that enable accurate carbon footprinting, monitoring and control of appliance activity, energy auditing and management in buildings and surroundings, and the generation of energy awareness.

Wireless sensor networks (WSNs) play a key role in enabling energy-saving systems in buildings and surrounding spaces by providing a reliable, cost-effective and extensible solution that can be placed in existing as well as new structures and can be controlled via the Internet. In fact, WSNs allow the monitoring of the energy consumption in near-real time and, as such, they are an essential tool in the control loop that will be used in future structures for the
generation and usage of diverse types of energy. Today, with the popularity of the smartphones and the proliferation of ubiquitous sensors, the building and campus energy community has the unprecedented opportunity to harness new contexts, and tightly integrate monitoring, services, and control with building occupants. BuildSys is a venue for incubating these new and exciting directions.

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**Paper Types (NEW THIS YEAR)**

We solicit three types of original submissions:
* Regular papers for oral presentation (10 pages);
* Notes papers for oral presentation (4 pages);
* Technical posters and demos will be solicited via a separate call

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**Topics of Interest**

Papers are invited in all emerging aspects of information-driven building systems, such as:
* Sensing, actuation and management of electrical loads in residential, commercial and industrial settings;
* Novel sensor methodologies, sensor networks and applications that enhance building energy efficiency, energy reliability, durability and occupant comfort;
* Systems that integrate buildings with the emerging smart grid to provide demand response and ancillary services and/or manage utility costs;
* Modeling, simulation, optimization, and control of heating, cooling, lighting, ventilation, water usage and other energy flows in buildings, campuses and surrounding spaces;
* Distributed generation, alternative energy, renewable sources, and energy storage in buildings;
* Emerging communication standards for data collection, energy control, or interoperation of disparate devices or systems;
* Systems that can influence building occupant behavior towards a more parsimonious usage of electricity, gas, heating, water, etc.;
* Indoor location and building-related contextual computing for increased human-building interactions

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**Submission Instructions**

Submitted papers must be unpublished and must not be currently under review for any other publication. Paper submissions should be no more than the indicated page count and must follow a double column format. All figures, appendices, and references must fit within this limit. Paper reviewing is single-blind and submissions should list author names on the front page.

Your submission must be in PDF with all fonts embedded, and be formatted according to the official ACM Proceedings format. Papers that do not meet the
size and formatting requirements will not be reviewed. Word and LaTeX templates are available at: http://www.acm.org/sigs/publications/proceedings-templates.

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Important Dates
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* Abstract registration: July 1, 2014
* Paper submission deadline: July 8, 2014
* Paper notification: August 22, 2014
* Camera ready: September 12, 2014
* BuildSys conference: November 4-6, 2014

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Organization
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Please disseminate this CFP to your colleagues!

Event Details
Location: Memphis, TN
URL: http://www.buildsys.org/2014/

Sync this event to your calendar