

BuildSys 2016



The 3rd ACM International Conference on Systems for Energy-Efficient Built Environments

November 16-17th

Stanford, CA, USA

buildsys.acm.org/2016/



Advances in the effective integration of networked sensors, building controls, and physical infrastructure are transforming our society, allowing the formation of unprecedented built environments and interlocking physical, social, cyber challenges. Built environments, including buildings and critical urban infrastructure, account for over half of society's energy consumption and are the mainstay of our nation's economy, security and health. As a result, there is a broad recognition that systems optimizing explicitly for the built environment are particularly important in improving our society, e.g., by increasing its sustainability and enhancing people's quality-of-life. These systems represent the foundation for emerging "smart cities."

The 3rd ACM International Conference on Systems for Energy-Efficient Built Environments (BuildSys 2016) will be held November 16-17th, 2016 at Stanford University in Palo Alto, California. We invite original contributions in the areas of intelligent systems and applications for the built environment. BuildSys particularly emphasizes approaches that improve energy efficiency, reduce costs, increase performance, and add novel functionality for improving users' comfort and experience. BuildSys' scope is broad, encompassing all systems within the built environment of the urban fabric, including not only buildings but also critical infrastructure systems, such as water, power, communications, and transportation that will make up the "smart cities" of the future. BuildSys has established itself as the premier conference for researchers and practitioners working to develop and optimize smart infrastructure systems that are driven by sophisticated sensing, computing, and control functions. Papers are invited in all emerging aspects of information-driven systems for the built environment. Topics of interest include but are not limited to the following.

- Sensing and control systems for managing urban infrastructure systems, such as water supply and distribution networks, wastewater treatment systems, electrical grids, transportation networks, etc.;
- Sensing, actuation, and management of electrical loads in residential, commercial and industrial settings;
- Novel sensor methodologies, sensor networks and applications that enhance energy efficiency, energy reliability, durability and occupant comfort;
- Systems that integrate infrastructure 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 built environments;
- 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;
- Human in the loop sensing and control for efficient usage of electricity, gas, heating, water;
- New sociotechnical systems for innovative applications and services to enable more livable, workable, sustainable, and connected communities;
- Localization and contextual computing for increased human-infrastructure interactions;
- Security and privacy issues for the built environment;
- Optimizations interconnected and interdependent systems-of-systems, such as water, energy, or transportation systems.

General Chair:

Mario Bergés, Carnegie Mellon University, USA

Technical Program Co-Chairs:

David Irwin, University of Massachusetts, Amherst, USA

Burcin Becerik-Gerber, University of Southern California, USA

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 page limit. Paper reviewing is single-blind and submissions should list author names on the front page. Regular and short papers must be submitted through the BuildSys submission site. Requests relating to the technical program and deadlines should be sent to the TPC co-chairs.

Important Dates

Abstract Registration: June 10th, 2016, AOE

Paper Submission: June 17th, 2016, AOE

Paper Notification: August 15th, 2016, AOE

Poster/Demo Abstracts: August 29th, 2016, AOE

Poster/Demo Notification: September 7th, 2016 AOE

Camera Ready Submission: September 14th, 2016 AOE