Call for Papers / Invitation to Special Session

SS01. Emerging Technologies and Solutions for Smart Buildings

Special Session Organizers

Andrzej Ożadowicz, AGH University of Science and Technology, Krakow, Poland, ozadow@agh.edu.pl

Jakub Grela, AGH University of Science and Technology, Krakow, Poland, jgrela@agh.edu.pl

Lukasz Wisniewski, Institute Industrial IT/OWL University, Lemgo, Germany, lukasz.wisniewski@hs-owl.de

Georgios Lilis, École Polytechnique Fédérale de Lausanne, Switzerland, georgios.lilis@epfl.ch

Michele Albano, Polytechnic Institute of Porto, Porto, Portugal, mialb@isep.ipp.pt

Stefan Seifried, Vienna University of Technology, Vienna, Austria, stefan.seifried@tuwien.ac.at

Aim:

This Special Session aims to bring together researchers and designers from different domains (Computer Science, Energy and Automation) for sharing novel ideas, exploring state of the art challenges, investigating ground-breaking designs, concepts and solutions for the next generation of Smart Buildings. The Building Automation and Control Systems (BACSs) involving control, monitoring, networking, data processing and information technologies (IT), appear as mature technologies. Still, there are many recent advancements in the BACSs research including adoption of Internet of Things (IoT), energy harvesting, cloud computing and big data, as well as their inclusion in Smart Grid. It is therefore a widely recognized challenge to coordinate, integrate, and interoperate the emerging technologies with legacy ones. Key part of this process is the IoT, as a unifying and catalysing technology for the success of the new generation of the BACSs, increasing safety and comfort in buildings while improving their energy management and efficiency.

This special session will be focusing on (but not limited to) the following topics:

- Applications and case studies on building and home automation
- New paradigms and trends in the BACS organization
- The BACSs for Smart Grid and Smart City applications
- Event-driven and time-triggered architectures in the BACS
- The best practices in the BACS design
- Internet of Things (IoT) in the BACS
- A Building Internet of Things (BIoT) - web based management in building control and monitoring systems
- Building Energy Management Systems with the BACSs and IoT technologies
- Active Demand Response and Energy Management in commercial and residential buildings
- Integration of renewable energy sources (RES) into the BACS
- Security and privacy aspects while integrating the BACS with Smart Grid, Smart City or cloud services
- Distributed control networks for residential buildings (Smart Homes)
- Interoperable technologies for buildings
- Wireless communication and sensor technologies in the BACS
- Performance analyses
- Consumer grade electronics for the BACS
- Smart Factories and new smart applications

Submission of Papers: The working language of the conference is English. Papers are limited to 8 double column pages in a font no smaller than 10-points. Manuscripts must be submitted electronically in PDF format, according to the instructions contained in the Conference web site.

Paper Acceptance: Each accepted paper must be presented at the conference by one of the authors. The final manuscript must be accompanied by a registration form and a registration fee payment proof. All conference attendees, including authors and session chairpersons, must pay the conference registration fee, and their travel expenses.

No-show Policy: The ETFA2017 Organizing Committee reserves the right to exclude a paper from distribution after the conference at IEEE Xplore if the paper is not presented at the conference.

Author's Schedule:

Deadline for submission of special sessions papers:	April 9, 2017
Notification of acceptance of special sessions papers:	May 15, 2017
Deadline for submission of final manuscripts – special sessions:	July 2, 2017

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