

SmarTABCD'15

Workshop on Smart Technologies and Applications on Buildings, Cities and Districts

Description

Energy consumption efficiency is a worldwide phenomenon for several reasons namely ecological, economic and technological. A significant part in the energy consumption in many developed and developing countries is related to building management. For example, on annual basis buildings consume about 40% of the energy and 70% of the electricity in the United States. In China, the energy consumption in buildings has risen from 10% to 25% of the overall energy consumption of the country since 1978, and is predicted to be 35% increase every year in the coming years. In Europe, 40% of the energy consumption is generated from buildings and also 32% of the CO₂ emission.

Building energy consumption is strongly dependent on the functionality of the building, the occupancy behavior, the outdoor environment, the structure and building materials, and the operation management. Nowadays and to optimize energy consumption, buildings are using automation systems with equipment, metering systems, smart devices and IoT applications to optimize their usage. Today's automation systems produce tremendous amounts of data. This data can be very hard to organize and use across different applications because it is stored in many different formats; has inconsistent naming conventions and very limited data descriptors. In essence it lacks information to describe the meaning of the data. And without meaning a time-consuming manual effort is required before value creation can begin.

The objective of this workshop is to provide a scientific forum gathering people with different backgrounds in at least one of the areas relevant to this new multidisciplinary field of research; namely academia, researchers, and industry partners, for discussing the recent advances in AI and Information/knowledge modeling in the domain of smart buildings, smart cities, smart Microgrids, smart Energy management systems, etc.

Topics of interest

Submissions are invited in, but not limited to, the following areas:

<ul style="list-style-type: none">• Building management systems• Building automation systems• Energy forecast in smart environments• Energy management systems• Building Knowledge domain modeling• Building Domain ontology• City Knowledge domain modeling• City Domain ontology• MicroGrid Knowledge domain modeling• MicroGrid Domain ontology• Building information modeling	<ul style="list-style-type: none">• Smart microgrids• Semantic sensor networks• Multimedia semantic sensor networks• Decision making in building control• Reasoning in buildings• Information acquisition techniques (such as wireless sensor network)• Building integrated control for energy saving• Building as a micro grid• Human comfort control in buildings• HVAC fault detection, diagnosis, and prognosis
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Paper Submission

The workshop seeks submissions from academia and industry presenting novel research on all theoretical and practical aspects in forms of demos, exhibitions, industrial and scientific papers. Contributions should be submitted in electronic form (PDF). Scientific papers should be **no longer than 15 pages** and industrial papers should be **no longer than 7 pages** and must be formatted according to the LNCS Springer style format which can be found here: <http://www.springer.com/lncs>

Selection criteria will include relevance, significance, impact, originality, technical soundness, and quality of presentation. Preference will be given to submissions that take strong or challenging positions on important emergent topics. At least one author should attend the conference to present the paper.

The conference will be published by Springer in [IFIP Advances in Information and Communication Technology Series](#) and indexed by major indexes.

Important Dates

Submission Deadline: June 1st, 2015
Notification of Acceptance: May 15th, 2015
Conference Dates: 14-17 September 2015

Workshop chairs (to be completed)

Gilbert Tekli, Nobatek Technology Center, France, gtekli@nobatek.com
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