

EBCCSP 2015

June 17-19, 2015

KRAKÓW

IEEE International Conference on Event-based Control, Communications & Signal Processing

Call for Papers to Special Session SS07

Event-based Technologies in Building Automation Systems

Special Session Organizers

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Keynote Presentations

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Plenary Presentations

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Maurice Heemels

Eindhoven University of

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University of Almeria, Spain

Aim and scope:

The Building Automation Systems (BASs) are well established field of distributed control implemented by the use of heterogeneous networking technologies, but there are still new challenges in it. Most of these technologies are based on event-triggered architectures because in general building automation systems belong to the class of non-real-time or soft real-time applications. Therefore, the networking technologies adopted in BASs provide usually a best-effort instead of a guaranteed strategy of service delivery. Various networking technologies in BASs are widely used for data communication between devices – network nodes. The representative examples of commercial network platforms based inherently on event-driven paradigm are LonWorks, KNX, BACnet, or CAN. Event-based architectures in BASs incorporate event-triggered task scheduling, data reporting strategy (send-on-delta), event-driven application programming and event-triggered protocol stack. An emerging trend in BASs is the adoption of the Internet of Things and its fusion with existing networking technologies within a vision of Smart Cities and Smart Grids

Topics within the scope of the Special Session:

The special session is focused on event-triggered and time-triggered architectures applied to the building automation and control. Topics of interest are included but not limited to:

- Event-triggered and time-triggered architectures in BASs
- Integration of event-triggered and time-triggered architectures in BASs
- Event-driven application programming
- Event-triggered protocol stacks (e.g., various versions of CSMA)
- Wireless communication technologies in BASs
- Energy-efficient control over event-triggered control systems
- Event-triggered technologies in component-based automation systems
- Applications and case studies in building and home automation
- The best practices in BASs implementations
- Energy management systems (EMS) based on event-triggered architectures
- Event-triggered networks in energy efficient buildings
- BASs in Smart Grid and Smart City
- Emerging trends in BAS based on event-triggered architectures
- Internet of Things (IoT) in BASs
- Building Internet of Things (BIoT) - web based management of event-triggered control systems
- Distributed control networks for residential buildings

Submission of Papers: The working language of the conference is English. The special session 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.

Further Information: EBCCSP 2015 Conference Secretariat: Tel: + 48 12 617 3034, Fax: + 48 12 633 2398; Email: ebccsp15@agh.edu.pl

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 EBCCSP 2015 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:

February 15, 2015

Notification of acceptance of special sessions papers:

March 15, 2015

Final manuscripts due – special sessions:

May 1, 2015

<http://www.ebccsp2015.org>

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(requested)

