

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

EBCCSP 2015
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KRAKÓW

Call for Papers to Special Session SS02

Event-Based Vision and Robotics

Special Session Organizers:

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Keynote Presentations

Panos Antsaklis
University of Notre Dame, USA
Karl Henrik Johansson
KTH Royal Institute of
Technology, Sweden
Yannis Tsividis
Columbia University, USA

Plenary Presentations

Tobi Delbrück
ETH Zurich, Switzerland
Maurice Heemels
Eindhoven University of
Technology, The Netherlands
Jan Lunze
Ruhr-University Bochum, Germany

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José Luis Guzmán Sánchez
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Aim and scope:

All embedded miniaturized networked systems require novel asynchronous versions of the current time-triggered sensors, actuators and algorithms.

At this special session, it is proposed to present the latest experimental studies on methods of optimizing the resources and the efficiency of event-based solutions to actuation, sensing, computation and communication problems.

In the field of robotics, one of the most promising recent alternatives to the “computer vision” approach consists in mimicking biological visual sensors, using methods based on asynchronous time-stamped events.

In order to implement event-based sensors on event-based robots, it will be necessary to develop electronic event-driven computing devices and new event-based control laws and algorithms. Event-driven actuators which can be integrated into the sensorimotor chain can also be an asset. The aim of the overall design is to reduce the computational and communication load without any loss of efficiency.

Topics within the scope of the Special Session:

This special session will focus on event-based visual and robotic applications of the following kinds:

- Integrating event-based visual sensors into robotic/mechatronic applications;
- Implementing event-based strategies for innovative closed-loop control;
- Optimizing the computational and communication resources using event-based approaches;
- Applications in the fields of biologically inspired sensing, vision and robotics.

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: January 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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