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

EBCCSP 2015

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KRAKÓW

Call for Papers to Special Session SS06

Pixel-Level Event-Driven Vision Sensing, Processing, and Infrastructures

Special Session Organizers
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Aim and scope:

Biological and Artificial Vision Systems differ fundamentally in the way visual scenes are sensed and processed: in conventional artificial vision systems a camera sensor captures sequences of still frames, which are processed afterwards frame by frame; in biological eyes and subsequent cortical processing there is no notion about the "frame" concept nor about a "frame rate". In biology, retina cells send asynchronous spikes to cortex which represent some pixel-level (or pixel-surrounding-level) "scene event". Event-driven vision sensors, also called Address-Event-Representation (AER) artificial retinas, have been around for about two decades now, but restricted to neuromorphic enthusiasts research laboratories. Since the advent of the first Dynamic Vision Sensor (DVS), which is a special AER sensor sensitive to pixel-level relative light changes, this enthusiasm is slowly and shyly expanding to other disciplines as well as to industry.

In this Special Session the aim is to present aspects of event-driven sensing, event-driven processing for both low level as well as higher level more cognitive tasks, but also ping on infrastructure aspects necessary for this new but growing technology.

Topics within the scope of the Special Session:

The following is a list of non-exclusive topics that can be covered within this Special Session:

- event-driven computation techniques for vision
- event-driven stereo vision techniques
- event-driven vision filtering techniques
- event-driven sensor applications
- event-driven infrastructure techniques

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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