



June 17-19, 2015  
KRAKÓW

### 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

### Honorary Co-Chairs

#### Marek Florkowski

ABB Krakow, Poland

#### Tadeusz Pisarkiewicz

AGH Univ. of Science & Technology,  
Poland

### General Co-Chairs

#### Sebastian Dormido

UNED, Spain

#### Marek Miśkiewicz

AGH Univ. of Science & Technology,  
Poland

### Organizing Chair

#### Richard Zurawski

ISA Group, USA & AGH Univ. of Science  
& Technology, Poland

### Program Committee Co-Chairs

#### Ming Cao

University of Groningen,  
The Netherlands

#### Laurent Fesquet

Grenoble Institute of Technology, France

### Workshops Co-Chairs

#### José Sánchez Moreno

UNED, Spain

#### Antonio Visioli

University of Brescia, Italy

### Work-in-Progress Co-Chairs

#### Manuel Mazo

TU Delft, The Netherlands

#### Sebastian Trimpe

Max Planck Institute for Intelligent  
Systems, Tübingen, Germany

### Special Sessions Co-Chairs

#### Sylvain Durand Chamontin

ISM, Marseille, France

#### José Luis Guzmán Sánchez

University of Almería, Spain

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

**Aim:** The aim of the conference is to bring together researchers and practitioners from the industry and academia and provide them with a platform to report on recent advances and developments in the event-based systems and architectures applied in wide spectrum of engineering disciplines including control, communication and signal processing

**Solicited Papers:** Research papers reporting on new developments in technological sciences. Industry and development papers reporting on actual developments of technology, products, systems and solutions. Tutorial and survey papers. Work-in-progress papers. In addition, EBCCSP 2015 solicits special session proposals to stimulate in-depth discussions in special areas relevant to the conference theme. Please consult the conference web page for more details.

**Topics within the scope of the conference include:**

#### Event-based control & systems

Event-based and self-triggered control, Continuous and periodic event-triggered control, State-feedback and output-based event-triggered control, Event-based PI and PID controllers, Event-based control over networks, Decentralized event-triggered control, Distributed event-triggered control, Distributed event-triggered control for multi-agent systems, Event-based state estimation, Control systems with Lebesgue sampling, Lyapunov sampling for event-driven controllers, Event-based intermittent control, Generalized predictive event-triggered control, Discrete-event systems

#### Event-based communication, computing & systems

Event-based and time-triggered communication architectures, Event-based protocols, Flexible time-triggered protocols and architectures, Event-based fieldbuses, Event-based real-time systems, Controller Area Networks (CAN), Complex events detection, Event-based wireless sensor and control systems, Event-triggered and self-triggered real-time task scheduling, Performance evaluation of event-based communication systems, Event-based and adaptive sampling, Cost-aware sampling, Adaptive sampling and sleep mode, Intelligent sampling, Design of event-based sampling criteria, Event-based spatial and spatiotemporal sampling, Intelligent event-driven sensors, Send-on-delta data reporting strategy, Event-based communication systems modeling and design, Event-based control applications, Responsive systems

#### Event-based signal processing & systems

Event-driven signal processing chain, Event-driven signal processing theory, Event-driven data acquisition, Event-driven analog-to-digital conversion techniques, Adaptive-rate analog-to-digital conversion, Level-crossing analog-to-digital converters, Event-driven filters, Event-driven adaptive filters, Clockless and self-timed circuits and architectures, Spectral analysis of event-triggered sampled data, Asynchronous Delta modulation, Asynchronous Delta modulator implementations, Event-based signal reconstruction methods, Event-based signal processing applications, Intelligent event-driven sensors, Continuous-time digital signal processing, Event-driven computing, Biologically-inspired event-driven systems, Spike-event generation, Event-driven visual attention, Event-driven vision sensing, Dynamic Vision Sensor (DVS) systems, Frame-free event-driven vision systems, Address-Event Representation (AER) protocol and interface, Event-driven convolution processors, Event-driven stereo vision

**Conference Format:** The conference will comprise multi-track sessions for regular papers, to present significant and novel research results with a prospect for a tangible impact on the research area and potential implementations; work-in-progress (WIP) sessions; panel discussions on the state-of-the-art and emerging trends, involving leading experts from industry and academia; and public discussion sessions moderated by leading experts in the field of event-based systems.

**Submission of Papers:** The working language of the conference is English. Two types of submissions are solicited. Long Papers – limited to 8 double column pages in a font no smaller than 10-points. Work-in-Progress limited to 4 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.

**Best Paper Award:** Best paper awards in the submission categories will be presented at the conference banquet dinner.

**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:

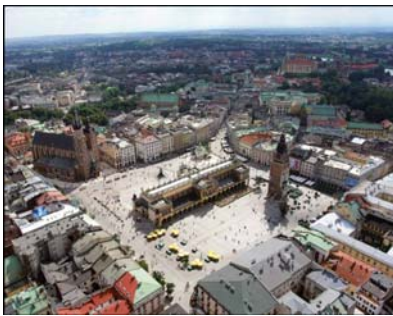
<i>Deadline for submission of regular and special sessions papers:</i>	March 15, 2015
<i>Notification of acceptance of regular and special sessions papers:</i>	April 8, 2015
<i>Deadline for submission of work-in-progress papers</i>	April 10, 2015
<i>Notification of acceptance of work-in-progress papers:</i>	April 30, 2015
<i>Final manuscripts due – regular and special sessions:</i>	May 15, 2015
<i>Final manuscripts due – work-in-progress papers:</i>	May 15, 2015

<http://www.ebccsp2015.org>

Sponsors  
(requested)



**Kraków (Cracow)** is one of the most beautiful and popular cities in Europe thanks to a fine architectural heritage, outstanding artistry and royal patronage. The city is ranked among European metropolises whose unique image has been shaped through the creative efforts of representatives of many nationalities. In the Middle Ages, German settlers brought the best of their guild traditions here. During the Renaissance, Italians brought the wealth of the magnificent achievements of art and architecture of the time to the city. Throughout the centuries, Jews were here to cultivate commerce and crafts. The waves of the immigrants were drawn to the foot of Wawel, attracted by unique tolerance and interesting culture. In the Jagellonian era, the 15th and the 16th centuries, Kraków was the capital of one of the most powerful and extensive European countries. At that time, the republic stretched from the Baltic Sea to the Black Sea coast. The city, open to all the nations which inhabited the vast country became the sanctuary of priceless national mementoes, a treasury of Polish science and culture. Its features were carved by the time, both through the abundance of architectural treasures and the sequence of memorable historical events. There are many, in fact innumerable reasons, why one should and must visit Kraków. There are phenomena here of which no other city throughout the world can boast.



In 1364, King Casimir III the Great issued a privilege establishing the first Polish university (Jagiellonian University) which at the same time is the second-oldest university east of the Rhine, after Prague's university. Only few original facilities of Medieval universities have survived to the present day. Outside England, only Salamanca, Spain, Bologna, Italy, and Prague, Czech Republic, can boast such universities. Cracow university has lasted for over six hundred years at the same location. Among the university graduates were Nicolaus Copernicus, the creator of the heliocentric system, the Pope John Paul II, Ignacy Łukasiewicz, the deviser of the first method of distilling kerosene from seep oil, Carl Menger, founder of the Austrian School of economics, Karol Olszewski the physicist and chemist; the first to liquefy oxygen, nitrogen and carbon dioxide from the atmosphere, Leo Sternbach, the chemist; inventor of the benzodiazepine, Ivo Andric and Wisława Szymborska, Nobel laureates in literature.



**AGH University of Science and Technology** is one of the oldest and biggest Polish technical universities with 90 years of scientific experience, 15 faculties and Multidisciplinary School of Engineering in Biomedicine, 33 fields of study, more than 170 specializations, and with over 35000 students, over 500 doctoral students and over 2000 researchers including 227 full professors. Over 150 000 graduates have passed through the halls our university. AGH-UST cooperates with 190 academic centers from 50 countries, and with numerous companies (e.g. IBM, Valeo, Comarch, Motorola, EDF, L.G., Philips, RWE Power AG, Lafarge, Cemex, Delphi, Siemens, KGHM). AGH-UST participates in many research and educational programs e.g.: FPs of EU, SOCRATES-ERASMUS, CULTURE, INTERREG III, LEONARDO, TEMPUS, EUREKA, COST, e-TEN. AGH builds the bridges between science and industry by teaching students and industrial staff, as well as, by R&D activity: *Labore creata, labori et scientiae servio.*



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