13th International Workshop on Discrete Event Systems (WODES 2016)

Special Session on Event-Driven Control, Estimation, and Optimization

Xi'an, China, 30 May - 1 June 2016

The interdisciplinary field of *Discrete Event Systems* (DES) combines different formalisms, methodologies and tools from control, computer science and operations research. DES is now a mature field with many interesting applications in manufacturing, process control, supervisory systems, software engineering, transportation, and so on. While DES traditionally studies dynamic systems with *discrete quantities*, the event-based paradigm has seen an increasing interest in recent years also for control and optimization of systems with underlying *continuous variables* and *dynamics*. The last two decades have witnessed manifold developments in methods for event-based control, state estimation, and optimization for continuous or hybrid systems. This is largely driven by the need for economic management of limited processing and communication resources, such as in modern large-scale networked control or cyber-physical systems.

This Special Session aims at bringing together researchers and practitioners active in the areas of *Discrete Event Systems* and *Event-based (or event-triggered) Control, Estimation and Optimization* to discuss latest results, current research trends, and potential synergies. This special session is planned to include 4 to 6 presentations and possibly a panel discussion. See the workshop website for more information.

Suggested topics for this session include (but are not limited to) the following:

- Event-driven / event-based / event-triggered control for systems with discrete, hybrid, or continuous dynamics
- Event-driven / event-based / event-triggered state estimation and signal processing
- Event-driven / event-based / event-triggered optimization
- Event-based methods for resource-constrained problems
- Formalisms and modeling methodologies
- Analysis and synthesis methods
- Software tools
- Applications

Organizers

Sebastian Trimpe, Max Planck Institute for Intelligent Systems, Tübingen, Germany
Christos G. Cassandras, Boston University, USA

Contributions

Please contact Sebastian Trimpe (strimpe@tuebingen.mpg.de) **as soon as possible**, but **no later than 21 December 2015**, if you would like to contribute a paper to this Special Session. Please include in your e-mail: names, affiliations, contact addresses (incl. e-mail addresses) of the contributing authors; and a tentative title of your paper. Special sessions papers will follow the reviewing process of regular papers (see workshop website).

Important dates

Deadline for announcing contribution to special session (by e-mail to strimpe@tuebingen.mpg.de)	**21 December 2015**
Deadline for submission of special session paper	**8 January 2016**
Notification of acceptance of special session papers	15 March 2016
Deadline for submission of final papers	10 April 2016
Workshop (Xi'an, China)	30 May - 1 June 2016