

**CALL FOR PAPERS**  
**SPECIAL SESSION ON**  
**Modelling and control with discrete event systems for scheduling problems**

14th Workshop on Discrete Event Systems (WODES 18)  
May 30 - June 1, 2018  
Sorrento Coast, Italy

**Session Co-Chairs:**

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**Session description:**

One of the main challenge of the industry 4.0 is to develop new methods and tools for the planning, the control, the scheduling, and their implementation for advanced manufacturing and information systems. In particular, scheduling opens a large extent of problems that concern at first the allocation of the resources within the system, the repartition of the operations to the machines and the computation of the operation starting and completion dates. Usual approaches issued from the operational research and based mainly on dynamic programming or heuristics can be replaced by recent contributions in the domain of discrete event systems. The advantage of such contributions is to provide models and methods that adapt to a large variety of problems and that are robust to the uncertainties and changes in the system environment. This special issue focuses on models and methods issued from discrete event systems with specific applications in scheduling problems. The related topics include:

- Timed Petri Nets
  - Timed automata
  - Analytical approaches
  - Performance evaluation
  - Control design
  - Supervisory control
  - Novel optimization techniques in DESs
  - Re-scheduling under disruptions in DESs
- Submission of draft papers: 15 November 2017  
- Submission website: <http://ifac.papercept.net/conferences/>  
- Conference website: <http://wodes2018.unisa.it/>