

– Call for papers –

Special issue of the **European Journal of Automation** – JESA

on

Predictive Control and Receding Horizon Estimation

Optimization-based synthesis methods as Model Predictive control (MPC) and moving horizon estimation (RHE) provide *avant-garde* solutions with respect to the industrial control practice for dynamical systems. With the increased computing capacity, these techniques are nowadays applied in real-time for a large variety of applications including relatively fast processes.

At the theoretical level, predictive control strategies present many advantages such as the ability to take into account in a simple and natural manner, at the design stage, the constraints on the control as well as on the state. The compromise between partially contradictory objectives are considered through an optimization criterion. The robustness issues towards uncertainties and disturbances can be taken into by their incorporation on the prediction model.

The purpose of this special issue is to assess the progress in predictive control and moving horizon estimation. The papers will present new methods for MPC/RHE implementation, highlight the latest technical results and explore the theoretical and practical issues related to the optimisation-based control design. Contributions focusing on different fields of application of this technique are highly encouraged.

Organizers

Sorin Olaru, SUPELEC - Systems Science (E3S), Automatic Control Department

Ahmed Chemori, CNRS, LIRMM - UMR 5506

Submission procedure :

- The preferred language is French, however, contributions written in English are welcomed.
- The accepted papers for this special issue are limited to 15 pages according to the JESA style (for further details please consult the authors' support page : <http://jesa.revuesonline.com/appel.jsp>)
- It is highly recommended to respect the style from the initial submission stage in order to avoid a negative evaluation with respect to the page limitations.
- The review process of each contribution will be assured by at least 2 independent evaluators.
- The contributions are to be submitted by email simultaneously to the following addresses :
Sorin.Olaru@supelec.fr , Ahmed.Chemori@lirmm.fr
- Important dates :

March 2011 : First call for papers

15 October 2011 : Submission deadline

15 January 2012 : Review results

2 March 2012 : Final version due
