



Mechanical Systems and Signal Processing CALL FOR PAPERS

Special Issue on Interdisciplinary Aspects of Vehicle System Dynamics Integration

Hybridization/electrification of automotive systems has been increasingly considered the most promising venue to future transportation, and a solution to the global energy crisis and to the more and more stringent requirements on vehicle safety and environment protection. However, this direction poses many challenges and it demands revolutionary alternatives to well-established conventional automotive technologies as related to the powertrain system, the chassis design and layout, and the vehicle dynamic characteristics. Apart from these, the hybridization/electrification of automotive systems also requires rapid advances in development of alternative energy storage systems (e.g., various types of batteries) and associated technologies. The combined effects of these challenges associated with each one of these aspects add considerable difficulties in design and analyses, and produce complex dependencies among the vehicle system dynamics modeling, control, and integration.

Mechanical Systems and Signal Processing (MSSP) (Impact Factor of 1.984), is therefore launching a Special Issue on **Interdisciplinary Aspects of Vehicle System Dynamics Integration**. The primary objective of this special issue is to compile research efforts contributing to advances in signal processing and system integration related to automotive system modeling, dynamics, and control. The specific topics of interest within the scope of this special issue include (although not limited to) the following:

- Signal processing in vehicle dynamics and control
- Vehicle control system integration
- Advanced vehicle dynamic system modeling
- Parameter estimation for vehicle systems
- Model reductions and sensitivity analyses
- Dimensional vehicle dynamics and control
- Advanced chassis system design and layout
- Multidisciplinary design optimization of vehicle systems
- System integration of hybrid and electric vehicles
- Advanced driver assistance systems

Prospective authors are invited to submit their original works relevant to the above-stated scope of the special issue. The authors should follow the Journal guidelines for preparing and submitting their manuscripts:

<http://www.elsevier.com/locate/ymssp>

The manuscript should be submitted electronically to the Journal website using the web-based submission tool and indicating that the submission is intended for the Special Issue "*Interdisciplinary Aspects of Vehicle System Dynamics Integration*". Each manuscript will be reviewed by at least three referees in accordance with the Journal requirements.

SCHEDULE FOR SUBMISSIONS

Manuscript Submission Deadline: 28 February, 2010
Reviewers' Reports and Decisions: 31 May, 2010
Revised Manuscript Submission: 15 July, 2010

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