

# **CALL FOR PAPERS**

## 2011 ASME Dynamic Systems and Control Conference

# System Modeling

### October 31-November 2, 2011, Arlington, Virginia, USA (http://dsc-conference.org/)

The Technical Committee on **Model Identification and Intelligent Systems-MIIS** of the ASME Dynamic Systems and Control Division is organizing <u>invited technical sessions</u> at the 2011 Dynamic Systems and Control Conference. Contributions involving the theory and/or application of modeling, optimization, identification, and control of dynamic systems are welcome. Application areas include but are not limited to automotive/transportation systems, energy systems, industrial/manufacturing systems, bio systems, large-scale systems, micro/nanosystems, electro-mechanical systems, and aerospace systems. Industrial case studies are especially welcome. Specific topics of interest include but are not limited to:

#### Automated Modeling

Automated modeling seeks computer algorithms and tools to assist engineers in systematically developing mathematical models to meet engineering objectives in design optimization or controller design. The session aims to bring together researchers, and practitioners in the areas of physical system modeling, bond graphs, and qualitative reasoning to exchange ideas and promote cooperative research. The topics may include but are not limited to: Model Synthesis, Model Assembly, Model Reduction, Model Validation, Modeling Metrics, Modeling/Design Interdependence, Model/Control Interdependence, Computer Environments and Languages for implementing these ideas, etc.

#### Modeling of Energy Systems

Modeling of energy systems seeks dynamic systems based modeling and identification techniques for developing, validating and analyzing models of energy systems, including but not limited to energy conversion systems for stationary and motive applications, energy storage, smart grids, renewable energy, and energy efficiency. The session aims to highlight the need of physics-based and data-driven models for design, analysis, optimization, control, and engineering system management.

You are invited to submit a manuscript for consideration in these sessions or other related areas of interest. Please submit your abstract describing the focus and intent of the paper including a brief problem description, objectives, approach, key results and conclusions.

The draft submissions are used to develop the sessions and the corresponding authors will receive a <u>session code</u> to use for their on-line submission. The timeline is as follows:

<ul> <li>Extended summary/draft paper submission via email, to organizers below</li> </ul>	March 8, 2011
<ul> <li>Notification to authors for inclusion in MIIS Invited Sessions</li> </ul>	March 12, 2011
<ul> <li>Authors submit papers via <u>http://asme-dscd.papercept.net</u>.</li> </ul>	March 15, 2011
<ul> <li>Notification of Acceptance/Rejection by DSCD</li> </ul>	May 15, 2011
<ul> <li>Final manuscript submission deadline</li> </ul>	June 15, 2011
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For details regarding the conference, please see <u>http://www.dsc-conference.org</u>.

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### Session Organizers: