

First Announcement and Call for Papers ICAST 2010

## **21<sup>st</sup> International Conference on Adaptive Structures and Technologies October 4-6, 2010**

The Nittany Lion Inn, The Pennsylvania State University  
State College, Pennsylvania USA



### **ICAST 2010**

The 2010 ICAST aims at promoting research, development and use of adaptive structures and technologies through the exchange of scientific results and insight from leading international scholars and specialists. This conference provides a forum for discussion of recent advances in the highly multidisciplinary field of smart materials and structures, and encourages transfer of advanced scientific results from research to application. ICAST is a single session conference with limited attendance.

### **Scientific Program**

#### Materials:

• Active or field-dependent materials • Shape memory alloys • Ferroelectrics & piezoelectrics • Electroactive polymers • Electrostrictive and magnetostrictive materials • Electrorheological and magnetorheological fluids • Multifunctional materials • Smart composites • Smart textiles

#### Structural Systems and Solutions:

• Adaptive or smart structural systems • Active vibration control and reduction • Active/semi-active/hybrid damping • Active noise control • Sensors and actuators • Shape and position control • Variable geometry structures • Micro/nano structures/systems

*Papers on applications related to energy and sustainability are especially welcomed.*

### **Technical Sponsors**

• ASME Adaptive Structures & Material Systems Technical Committee  
• AIAA Adaptive Structures Technical Committee  
• U.S. National Science Foundation  
• U.S. Air Force Office of Scientific Research (tentative)

### **Important Dates**

Abstract submission: May 13, 2010  
Notification of authors: June 18, 2010  
Early registration: August 2, 2010  
Final program: September 3, 2010  
Final paper submission: October 6, 2010  
Conference: October 4-6, 2010

### **Abstract Submission**

Participants are kindly invited to submit abstracts by May 13, 2010. Please submit your extended abstract (in English, max. 300 words) online at [www.icast2010.net](http://www.icast2010.net).

#### Tools and Methodologies:

• Coupled-field mechanics • Modeling and simulation • Numerical methods • Structural integration of sensors and actuators • Control methodologies • Integrated system design • Bioinspiration and biomimetics • Embodying intelligence

#### Applications:

• Aerospace, military, automotive and transportation • Sustainable buildings and renewable energy • Compact hybrid actuation • Morphing structures • Energy harvesting • Structural health monitoring • Mechatronics and robotics • Measurement and manufacturing systems • Medicine

### **Special Issues**

Selected papers may be published in the Journal of Intelligent Material Systems and Structures as well as Smart Materials and Structures, subject to regular review procedures of these journals.

## Contact

ICAST 2010  
Department of Aerospace Engineering  
Penn State University  
University Park, PA 16802 USA

Phone: +1-814-863-0103  
Fax: +1-814-865-5965  
gal4+icast2010@psu.edu

## Registration

Please register online at [www.icast2010.net](http://www.icast2010.net).  
Register by August 2, 2010 and save US\$100  
(standard registration only).

### Conference Fee (tentative)

Early registration	\$500 (US)
Regular	\$600
Student	\$250

Includes: CD-ROM proceedings, receptions, daily  
breakfast and lunch, banquet, coffee breaks.

## Local Organizing Committee

The Pennsylvania State University  
George A. Lesieutre (Conference Chair)

	Aerospace Engineering
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Mary Frecker	Mechanical Engineering
Mike Jonson	Applied Research Lab
Gary Koopmann	Mechanical Engineering
Cliff Lissenden	Eng'g Science & Mechanics

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Coming to ICAST? Also consider the ASME SMASIS Conference (Smart Materials, Adaptive Structures and  
Intelligent Systems), September 28 – October 1, 2010, Philadelphia. [www.asmeconferences.org/smasis2010/](http://www.asmeconferences.org/smasis2010/)