SMASIS Conference Synopsis
Adaptive Structures and Materials Systems by definition are intelligent, flexible systems that have sentience and responsiveness to ever changing environments. The field has rapidly matured due to synergistic interdisciplinary efforts across sectors of universities, government and industry. To continue the high impact growth of this field and lead it into the future, the purpose of this conference is to assemble world experts across engineering and scientific disciplines (mechanical, aerospace, electrical, materials, and civil engineering, biology, physics chemistry, etc) to actively discuss the latest breakthroughs in smart materials, the cutting edge in adaptive structure applications and the recent advances in both new device technologies and basic engineering research exploration. The conference is divided into six symposia broadly ranging from basic research to applied technological design and development to industrial and governmental integrated system and application demonstrations.

Schedule
May 3, 2008: 1000 word extended abstracts due
June 6, 2008: Authors informed of abstract acceptance
June 20, 2008: Copyright form due
July 28, 2008: Final manuscript due

Manuscript will appear in archival ASME Conference Proceedings. Selected papers will be published in archival Journals.

Participation
Authors should submit a 1000 word abstract to the conference web site www.asmeconferences.org/SMASIS08. Questions can be directed to the Conference General Chair / Co-Chair.

Executive Committee
Dan Inman, Jay Kudva, Greg Carman, Kon-Well Wang, Ephraim Garcia, Dimitris Lagoudas, Nancy Johnson, Alison Platou, Anna McGowan, Roger Ohayon

Call for Papers
NEW ASME Conference* on
SMART MATERIALS, ADAPTIVE STRUCTURES AND INTELLIGENT SYSTEMS

October 28-30, 2008 • Turf Valley Resort, Ellicott City, MD

Sponsored by the Adaptive Structures & Materials Systems Technical Committee, Aerospace Division,
Co-Sponsored by the Technical Committee on Vibration and Sound, Design, Division
Co-sponsored by the AIAA Technical Committee on Adaptive Structures

*This ASME conference will replace the annual ASME IMECE ASMS Symposium

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Multifunctional Materials: focuses on the development of materials (polymers, oxide single crystals and ceramics, metals, multifunctional, new materials systems)
Chair: Pavel Chaplyga, Sandia National Labs
Co-Chair: Zoubeida Ounaei, Texas A&M

Topical areas: Material formulations and evaluation, novel manufacturing technologies, material design and characterization, interface and interaction modeling

Enabling Technologies and Integrated System Design: focuses on the design processes and development of smart devices, active technologies and intelligent systems
Chair: Mary Frecker, Penn State
Co-Chair: Nancy Johnson, GM R&D

Topical areas: Sensors and actuators, power and control electronics, smart devices and technologies, compliant mechanism design, adaptive / intelligent /integrated systems design, smart structures design processes and tools, Industrial and Government smart products and system applications, smart electronics and devices, MEMS

Nonlinear Dynamics and Passive / Adaptive Controls†: focuses on the dynamic modeling, damping and control aspects of smart structures and their applications
Chair: Chris Rahn, Penn State
Co-Chair: Don Leo, VirginiaTech

Topical areas: Vibration and acoustic control, passive/semi-active/active damping, active control surfaces and shape control, damped and gyroscopic systems, rotor dynamics, nonlinear dynamics and vibrations; intelligent and adaptive controls

Active Materials, Mechanics and Behavior: focuses on characterization and mechanics based modeling of field coupled materials
Chair: Marc Kamla, Forschungszentrum Karlsruhe
Co-Chair: Stefan Seelecke, North Carolina State

Topical areas: Advanced constitutive measurements, micro- and nano-mechanics of actuator & sensor materials, phase field modeling, multi-scale and multi-physics material models, finite element implementations, reliability issues: aging, fatigue, and fracture

Structural Health Monitoring / NDE: focuses on the application of distributed sensor networks to damage detection
Chair: Shiv Joshi, NextGen
Co-Chair: Kara Peters, North Carolina State

Topical areas: Damage identification & mitigation, sensor networks, data fusion, data mining and management, damage diagnostic and prognostic modeling software, system integration, and applications.

Bio-Inspired Smart Materials and Structures: focuses on application of biological understanding to inspire novel biomimetic smart materials, devices and structures
Chair: Sergio Lucato, Teledyne Scientific
Co-Chair: Lisa Mauck Weiland, Pittsburgh

Topical areas: Modeling of biological systems, understanding physical phenomena in biological systems, biomimetic and bio-inspired devices, machines and robotics, utilizing biological systems