## 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 symposia broadly ranging from basic research to applied technological design and development to industrial and governmental integrated system and application demonstrations.

## Schedule

April 14, 2017:   400 word abstract due
April 17, 2017:   Authors informed of abstract acceptance
May 8, 2017:   Full-length draft paper due
June 9, 2017:   Authors informed of draft paper acceptance
June 23, 2017:   Revised paper for review
July 10, 2017:   Copyright form due

Full paper will appear in an archival ASME Conference Proceedings. Selected papers will be published in archival Journals.

## Participation

Authors should submit a 400 word abstract to the conference web site **https://www.asme.org/events/smasis** Questions can be directed to:

Ken Loh, General Chair
kenloh@ucsd.edu

Billy Oates, Technical Chair
woates@eng.fsu.edu

Mohammad Daqaq, Technical Co-chair
mdaqaq@clemson.edu

## Executive Committee

Diann Brei, Greg Carman, Inderjit Chopra, Kon-Well Wang, Alison Flatau, Dan Inman, Nancy Johnson, Jay Kudva, Dimitris Lagoudas, Chris Lynch, Anna McGowan, Roger Ohayon, Greg Reich, Janet Sater, Sergio Lucato, Stefan Seelecke, Ralph Smith



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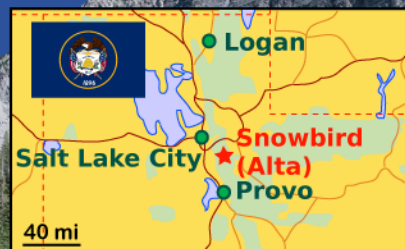
## *Call for Papers*
## ASME Conference on
## SMART MATERIALS, ADAPTIVE STRUCTURES AND INTELLIGENT SYSTEMS

September 18 – 20, 2017
Snowbird, UT, USA

Sponsored by the Adaptive Structures & Materials Systems Branch, Aerospace Division

The conference is divided into symposia broadly ranging from basic research to applied technological design and development to industrial and governmental integrated system and application demonstrations. The symposia specifically are:

### Development and Characterization of Multifunctional Materials
**Chair: Gary Seidel,** *Virginia Tech*
**Co-Chairs: Constantin Ciocanel**, *N. Arizona*
        **TBD**, *TBD*
*Topical areas:* Material formulations, evaluation, synthesis, and processing; multifunctional composites and hybrid materials; bio-inspired and nano-composites; self-healing materials; novel triggering approaches, including optical, chemical, electrical, and mechanical; material property enhancement; interface and interaction science.

### Mechanics & Behavior of Active Materials
**Chair: Jayasimha Atulasimha,** *VCU*
**Co-Chairs: Darren Hartl,** *Texas A&M Univ.*
        **Nakhiah Goulbourne,** *U. of Michigan*
*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, materials for energy storage, and multiferroic materials.

### Modeling, Simulation and Control of Adaptive Systems
**Chair: S. Nima Mahmoodi,** *Univ. Alabama*
**Co-Chair: Manuel Collet,** *CNRS*
        **Wael Zaki,** *Khalifa University*
*Topical areas:* Micro and macro level modeling, vibration and acoustic control, passive/semi-active/active damping and stiffness variation, actuation and motion control, intelligent and adaptive control, nonlinear control, hysteresis control, modeling simulation and control of micro/nano systems, nonlinear dynamics, and nonlinear vibration.

### Integrated System Design and Implementation
**Chair: Rich Beblo**, *Dayton Research Inst.*
**Co-Chair: Jay Gao**, *GM*
        **Andres Arrieta,** *Purdue University*
*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.

### Structural Health Monitoring
**Chair: Donghyeon Ryu,** *N.M. Tech*
**Co-Chairs: Ya Wang,** *Stony Brook Univ.*
        **Hae Young Noh,** *Carnegie Mellon*
*Topical areas:* Damage identification & mitigation, sensor networks, data fusion, data mining and management, damage diagnostic and prognostic modeling software, system integration, and applications.

### Bioinspired Smart Materials and Systems
**Chair: Eric Freeman,** *Univ. of Georgia*
**Co-Chairs: Yash Tummala,** *S&C Electric*
        **Jovana Jovanova,** *U. of Skopje*
*Topical areas:* Modeling of biological systems, understanding physical phenomena in biological systems, biomimetic and bio-inspired devices, machines and robotics, utilizing biological systems, smart prosthetic systems and intelligent implant materials and structures.

### Energy Harvesting
**Chair: Amin Karami,** *Univ. of Buffalo*
**Co-Chairs: Steve Anton,** *Tennessee Tech*      **Mostafa Nouh,** *Univ. of Buffalo*
*Topical areas:* Modeling and experiments of energy harvesting transducers and applied systems using piezoelectric and magnetostrictive materials; electroactive polymers; inductive and capacitive devices; broadband and nonlinear systems; biological, biomedical, aeroelastic, hydroelastic, and acoustic energy harvesting; MEMS and NEMS configurations; novel circuits and storage devices; novel applications/analysis of traditional transduction (e.g. solar, thermoelectric); energy harvesting using metamaterials.

## ASME
### SETTING THE STANDARD