International Workshop on
Structural Health Monitoring 2009
Stanford University, Stanford, CA
September 9-11, 2009
Call for Papers

Major topics for the workshop include, but are not limited to:

Sensor and Actuator Development

- Integrated sensors, wireless sensors, "smart" sensors, fiber optics, piezoelectrics, shape memory alloys/polymers, MEMS sensors and micro-actuators, nano-sensors, etc.

Sensing Network/Autonomous System/Energy Harvesting

- Bio-inspired network, network communication, self-diagnostic and configurable network, energy harvesting for sensing, embedded technology for sensor network, durability/reliability of sensor network, etc.

Signal Processing/Monitoring/Diagnostics

- Advanced signal processing, Wavelet techniques, data mining/fusion, statistics-based signal processing methods, innovative environmental compensation techniques, baseline free methods, neural network techniques, genetic algorithms, inverse techniques, etc.

Prognostics/Health Management/CBM+

- Data-driven residual strength and life prediction, integrated structural health management systems, SHM-based condition assessment of critical structures, etc.

Modeling/Simulations/SHM-based Design

- Global-local analyses, modeling of sensor/structural responses, multifunctional design optimizations, innovation in integrated sensor/structure design, design methodology based SHM, etc.

Implementation/Validation/Certification

- Quantification, probability of detection (POD), reliability methods, validation techniques, certification methods, etc.

Applications/Intelligent Structures/Hotspots

- Civil infrastructures: Bridges, highway systems, buildings, power plants, underground structures, etc.
- Aircraft and missile structures: Helicopters, airplanes, unman vehicles (UAV), engines, rocket motor cases, etc.
- Space structures: Satellites, space stations, reusable launch vehicles, exploration vehicles, space robots, etc.
- Land/Marine/Offshore structures: Automobiles, trains, submarines, ships, offshore structures, etc.
- Critical devices: Implants, personal armor, electronics, etc.

Theme of Workshop

The purpose of the workshop is to assess the current state-of-the-art technologies in this field and to discuss and identify key and emerging issues in research and development that are critical and unique in structural health monitoring.

The workshop is also intended to promote communication exchange and cross-fertilization between multiple disciplines.

Technical presentations will be made by invited and selected distinguished speakers, and plenary discussions on the future direction and the "road-map" will be organized. Potential applications of the techniques to military and civilian structures will be discussed. An exhibition area will be available for product and technology demonstrations.

Time Table

Abstract Due	February 1, 2009
Acceptance Notification By	March 1, 2009
Full-Length Paper Due	May 1, 2009
Workshop	Sept. 9-11, 2009

Abstract

Please send a succinct one-page abstract that clearly describes the contents of the proposed paper. A complete abstract should include the following:

- Title
- Author's name, affiliation, title, address, phone number, fax number, and e-mail address (e-mail is very important)
- Abstract (300 words minimum) and key figure(s).

If you are a new member, Please register at http://young-acl.stanford.edu/register_member.php, please send in your abstracts online at http://young-sacl.stanford.edu/index.php in an MS Word or pdf file

A special volume of the Proceedings will be published. For any further information, please check the workshop website at
http://structure.stanford.edu/workshop
or contact
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