



METLAB
MATERIALS EVALUATION AND TESTING



METLAB at South Dakota State University presents

Conference on Engineering Materials: *Evaluation, Flaw Detection and Processing*

May 17-19, 2012 at South Dakota State University Campus in Brookings, SD

2012 Call for Papers

The Materials Evaluation and Testing Laboratory (METLAB) in the Mechanical Engineering Department at South Dakota State University (SDSU), with support from The Department of Defense (DoD) and American Science and Technology (AST) will hold their second Biannual conference on Engineering Materials – Evaluation, Flaw Detection and Processing. This conference focuses on recent developments, discoveries, modeling, testing and evaluation of engineering materials, smart materials and their processing. The general topics of interest in engineering materials include but are not limited to:

Advanced Materials

- Active and Smart materials
- Adaptive materials
- Composites materials and polymers
- Biomaterial and bio-inspired smart materials and structures
- Nano-materials
- Multifunctional materials
- Modeling, simulation and controls

Materials Behavior

- Mechanics, constitutive modeling, and behavior of materials
- Fatigue and fractures of materials
- NDE of materials
- Experimental and analytical stress analysis
- Dynamic modeling of materials
- Wave propagation in materials

Material Processing

- Casting, forming and machining
- Additive processing and joining technologies
- Material properties evaluation under manufacturing processes
- Surface engineering related to a manufacturing process

Structural Applications

- Structural health monitoring/NDE
- Material damping
- Damage detection in structures and machinery
- Life prediction analyses of pressurized thick walled cylinders

- Abstract deadline: February 29, 2012
- Notification by March 15, 2012
- Paper submission deadline: April 23, 2012

Submit abstract/paper online at www.sd-metlab.org/conference

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