



**MicroCantilevers Workshop**  
**University of New Mexico**  
**Manufacturing Training and Technology Center (MTTC)**  
**December 4, 2010, 1 pm to 5 pm**

### **Workshop Description**

This workshop covers the applications and operation of MEMS cantilever and MEMS cantilever arrays. This workshop will simulate the dynamic operation of MEMS cantilevers - cantilevers that use a change in resonant frequency to identify changes in cantilever mass due to the accumulation of micro and nano-size materials on the cantilever's surface. Participants will use various materials to study how a dynamic cantilever's operation is affected by its dimensions and mass. Workshop discussions will include where and how this material and the related activities can be incorporated into an existing curriculum.

**Audience: High School and Community College Instructors**

### **Participant Preparation:**

- Participants need to read the following educational material prior to the workshop:
  - o MEMS Cantilever Learning Module
- Participants have full access to this and all of SCME's educational materials via [scme-nm.org](http://scme-nm.org).

### **Participant Workshop Materials (SCME Provided)**

- MEMS Cantilever Learning Module
- All materials necessary to complete all workshop activities

**Participants are encouraged to bring cameras.**

**Discussion Led Format for presentations – Ask questions!**

**Workshop Schedule** - Note: *Schedule is subject to change as required by SCME/MTTC.*

### **Saturday, December 4: 1pm to 5pm**

13:00-13:30

- Welcome and Introductions
- Overview of Workshop and Expectations
  - o Pre workshop survey

13:30-15:00

- MEMS Cantilevers Applications
- Dynamic Cantilever Activity

15:00-17:00

- Dynamic Cantilever Activity (continued)
- Analysis of activity
- Dissemination and Wrap-up

