

# ***MEMS Education Workshop:***

# **Recommendations**

**January 30, 2005 (Miami)**

# Academics

- **Textbook**
  - Undergraduate-level text books
    - with homework problems, examples, etc.
- **Rebrand and Disseminate**
  - Miniaturization Science and Technology
  - Broadcast topic opportunity to students in other departments
  - Each campus build webpage that links to all things small (classes, research, ...)

# Federal Agencies

- **Fund faculty (small amount of time and admin support) at universities to implement recommendations**
- **Create document emphasizing importance of the “MEMS” area (perhaps relabeled), supported by NSF, DARPA, ONR, AFOSR, NASA, etc.**
  - **would help faculty defend their on-campus proposals from the nano giant**

# Conferences and Journals

- **Conference**
  - More satellite meetings to MEMS, Transducers, etc.
  - Special session in conference?
    - May be very hard due to lack of room on programs and high competitiveness
  - Posters are much easier with 1-min talks
- **Journal**
  - Document curriculum at institutions
  - Special issue

# Industry

- **Need dialog to find how to serve their needs to achieve the desired outcome**
- **Equipment donations for instructional laboratories**
- **Is MEMS a strategic field that should have industry-sponsored fellowships**
  - **Similar to SRC fellowships**
- **Multi-Campus MEMS Center**
  - **Allow small schools to access industry much like BSAC and WIMS already do**

# K-12

- **CD/DVD with flashy MEMS examples**
  - MIG has developed a version of this
- **Transfer simple / cute modules to K-12**
- **Develop a “MEMS Run” video**
- **Develop K-12 Kits for basic fabrication**
- **Lecture content for physics, chemistry, biology classes**

# Society / Ethical

- **Reluctance to adapt**
  - Perception of unreliability
- **“MEMS Inside” campaign to increase awareness**
- **Create Awareness and Excitement**
  - Take-home K-12 kits and check lists
  - Advertisements
  - Build on ASEE, ASME, IEEE outreach efforts