Industry Collaboration

How to increase industry participation?

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Roles of Academic Programs

- Research
- Graduate Studies
- Undergraduate Studies
- Service to the Constituency, Community and Society
Paradigm shift in engineering education and research

- **Change in focus** - from technology to business and people
- **Change in emphasis** - from theory to practice and application
- **Change in expectation** – more in people skill and management skill than just technical knowhow
- **Change in market demand** – more demand for skills in entrepreneurship and leadership, and on interdisciplinary knowledge than just specialist knowledge
Issues and Challenges

- Perception - Lack of understanding and appreciation
- Lack of incentive to the industry
- Lack of incentive to the faculty
- Lack of R&D funding available to the industry
Challenges in engineering education and research

- Are we preparing our students to face these shifts or changes?
  - Curriculum and training
  - Body of knowledge
  - Skills – Leadership, Entrepreneurship, People

- Are we motivating our students to become innovative problem solvers?
  - Research
  - Interdisciplinary collaboration

- Are we serving the needs of the community?
  - Society?
  - Civilization?
Industry interaction in teaching

- Curriculum
- Guest lecture/Adjuncts
- Field trips
Industry interaction in research

- Participation as
  - focus group
  - Funding source
  - Consultant/Partner
  - Members in dissertation committees
Job placement and internships

- **Students** – Paid v. unpaid
- **Faculty** - Summer employment
Other industry involvement

- Industry Advisory Council –
  - Curriculum
  - Fund raising
  - Outreach/Continuing education
Thank you!