

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!