



Preparing Engineering Students to be a Part of the Global Technical Workforce: Education and Training Needs



Keynote Speech

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A bulk of engineering graduates go to work right after graduation. **How do you get them ready for work?**

Only a small fraction goes to graduate school. **How do you get them ready for international competition?**

An engineer is supposed to be ready to start working right when he/she enters the job market. It is a common practice for the employer to offer some on-the-job training. But the training is more effective if the recent graduate has some training and exposure to how things are done in the industrial setting where he/she is entering.

For this reason it is very important to have industry engineers become involved in the training of engineering students as they pass through universities/colleges.

Internships

Outcome-based Education (OBE)

Need an Ecosystem involving teaching,
research and training where universities
industry and government has a role

Examples of Industry-academy collaboration

- US National Science Foundation **GOALI** program
(Grant Opportunities for Academic Liaison with Industry)
- US Government **RANN** Program in the 70's
(Research Applied to National Needs)
- US, EU and UK run the US-India, US-China, EU-China, UK-India joint research programs with industry participation
- Japan Society for Promotion of Science (**JSPS**) supports for industry-academy collaborative work
- **GIAN** program in India works with scholars/researchers in developed countries.
(Global Initiatives of Academic Networks)

A roadmap For Bangladesh

Facilitate industry's appreciation of academia beyond producing graduates

Develop a GOALI-like program in Bangladesh

Encourage and reward student and faculty participation in industry (UGC)

Facilitate industry contribution in academic programs

Use elements of 4IR as building blocks for the industry-academy collaboration (deal with complexities)

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Questions