Corporate Member Council
Special Interest Group
on International Engineering Education

MISSION: The mission of the International Engineering Education SIG will be to foster, encourage and support the interests of the ASEE Corporate Members in establishing and promoting high-quality engineering education around the world to assure a global supply of well-prepared engineering graduates.

The International Engineering Education SIG will work to enhance the ability of engineering faculty, students and practitioners to understand the varied cultures of the world and work effectively within them. It will help to connect engineering graduates with CMC members – international corporations with a pressing need for well-trained engineers able to work in a global environment.

Initiatives:

1. Serve as the main point of communication between the CMC, the ASEE and other engineering education societies, associations, councils and organizations around the world. The International Engineering Education SIG will provide information concerning the activities of such groups to the CMC membership.

2. Develop and present an assessment of the skills and experiences required by engineering graduates to work effectively in a global environment with the goal of enhancing the employability of engineering graduates and increasing the international competitiveness of ASEE's academic members.

3. Advocate for the adoption of international curriculum development and innovation leading to a common worldwide framework of readable and comparable degrees. A global "quality assurance" – with comparable criteria and methods – to ensure engineering graduates attain equivalent skills and experiences.

4. Determine and gather profiles of engineering programs around the world to enable CMC members to compare schools using a range of characteristics and measurements.

The Desired Attributes of a Global Engineer

- An excellent understanding of engineering science fundamentals:
  - Mathematics (including statistics),
  - Physical and life sciences, and
  - Information technology (far more than "computer literacy.")
- A good understanding of the design and manufacturing processes:
  - Product life cycle development (i.e., how key processes and deliverables flow together over time and program phases), and
  - Basic project management principles (i.e., task and schedule planning and integration.)
  - LEAN+
  - Supplier Management
- A basic understanding of the broad context in which engineering is practiced:
  - Economic, business and ethical issues,
  - History,
  - Environmental and sustainability concerns, and
  - Customer and societal needs.
- An appreciation and awareness of cultural diversity issues and the flexibility to accommodate them, collaborate on a global basis and communicate across language and cultural differences for a successful project.
- A profound understanding of the importance of teamwork.
- Good communication skills:
  - Written, oral, graphic and listening,
  - Technically fluent in English and in at least one other language, and
  - Competent at Internet collaboration tools (WebEx, team rooms, teleconferencing, file sharing, etc.)
- A multi-disciplinary, complex systems perspective.
- Awareness of security requirements and repercussions of information protection, Intellectual Property laws, ITAR/EAR regulations.
- An ability to think critically, creatively, independently and cooperatively.
- The capability and self-confidence to adapt to rapid or major change.
- Curiosity and a desire to learn for life.

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