Frontiers of Engineering
Mission Statement

To bring together outstanding engineers (ages 30-45) from companies, universities, and government labs to discuss leading-edge research and technology, bridging traditional disciplines, and to transfer techniques and approaches across fields in order to sustain and build innovative capacity.

To promote career development and create a network of future engineering leaders to ensure the continuing vitality of the engineering profession.

Frontiers of Engineering Symposia

U.S. FOE (1995-series initiation date)

German-American FOE (1998) – AvHumboldt Foundation

Japan-America FOE (2000) – Japan Science and Technology Agency and Engineering Academy of Japan

Indo-American FOE (2006) – Indo-U.S. Science and Technology Forum

China-America FOE (2009) – Chinese Academy of Engineering

Euro-U.S. FOE (2010) EuroCASE (European Council of Applied Sciences and Engineering)

Organization

2-1/2 -day meeting chaired and organized by committee of early-career engineers.

100 U.S. attendees at U.S. FOE and 60 (30 each country) at bilateral FOEs (country location alternates yearly). Approx. ½ from universities and ½ from industry and federal labs.

Four topics covered at each meeting with 3-4 speakers on each topic.

Plenary sessions plus time for informal interactions (longer breaks and mealtimes, poster sessions, breakout sessions, lab /plant/cultural tours).

Participants stay for entire meeting.

Programs

2009 China-America FOE: Engineering and Public Health: Ensuring Food Safety, New Energy-Saving Technologies, Sustainable and Disaster-Resilient Infrastructure Systems, Intelligent Transportation Systems

2009 Japan-America FOE: State-of-the-Art Technologies for Knowledge Management, Breakthrough Technologies in Brain Science, Novel Materials for Industrial Applications, Modeling Global Climate Change

2010 Indo-American FOE: Health Diagnostics and Disease Monitoring Technologies, High-Performance Computing, Technologies for a Clean Environment and Environmental Clean-up, Advanced Engineering Materials

2010 German-American FOE: Novel Concepts for Automobiles, Rapid Vaccine Manufacturing, Lasers, Modern Power System Grid Control

Network-Building Activities

- Online directory/searchable database
- Alumni newsletter
- Grants for post-meeting research projects (GAFOE and IAFOE)
- FOE page on Linked-in
- 2008 survey: adjunct faculty position in China; met with the director of the chemical risk characterization group for nanotechnology from the Industrial Research Center in Tsukuba after meeting at JAFOE; visiting/guest lectures
- FOE website

Data Collection
Stations 1 and 3