Wednesday, Nov. 29

Student Retreat:
Organizers: U. Mass–Amherst CASA SLC (Kathleen Rubin, Co-Director for Education & Outreach and Brian Donovan, CASA SLC President)

- CASA SLC Introductions and Welcome
- Welcome by Lynn Preston, NSF ERC Program Leader
- Putting Your Degree to Work: Practical Career Strategies – Peter Fiske, V.P. Business Development, RAPT Industries
  - Discussed PhD alternate careers
  - Only a minority of PhD’s continue in the classic route of PhD, Post Doc, Academic job
  - Reluctance for PhD students to switch careers due to feeling that their degree is wasted
  - PhD degrees open many opportunities that graduates should embrace

- Roundtables: SLC Best Practices
  I sat with SLC members of at least 6 other ERC’s mostly new ones
  Told them about how our SLC works
  Our SLC is doing wonderfully!! Few SLC’s have as many activities or are as well organized.
Thursday, Nov. 30
THEME FOR THE DAY: Innovating and Educating in the Global Context

Plenary Session: NSF Session

- NSF & ERC Program Update – Lynn Preston
- Research Center Programs Worldwide: A Survey and Findings Relevant to ERCs – Bhavya Lal, Science & Technology Policy Institute
- Introducing the ERC on Mid-Infrared Technologies for Health and the Environment – Claire Gmachl, Center Director
- Flat World: The View from Asia – Vivek Paul, Partner, Texas Pacific Group (formerly President & CEO, Wipro Technologies)

Breakout Session I – Empowering Innovation and Creativity Building Entrepreneurial Leaders for the Global Environment
Co-moderators: Amr Elnashai (MAE) & Fred Lee (CPES)
Topics: Profile of the “Global Engineer”
Speakers: Gary Downey, Professor of S&T in Society, Va Tech; Michael Zhang, Dept. Mgr., Intel Platform Architecture Solutions Division, Shanghai; Michael Silevitch, CenSSIS; Michael McCorquodale, CTO, Mobius Microsystems

Lunch Key Speaker:
Speaker: Dr. William Haseltine, founder & ex-CEO of Human GenomeSciences, Inc., now setting up a virtual global pharmaceutical company
Building Companies with the World as Playing Field

Very inspiring autobiography targeted at students. It followed his path from chemistry student to global biotech company startups
**Breakout Session II: Impact of Globalization on ERCs**
New Communication and “Collaboratory” Technologies: Workshop with Demos  
*Moderator: Joy Pauschke*, NSF  
*Speakers: Thomas Finholt*, Univ. of Michigan, Sakai and web instrumentation;  
*Gerhard Klimeck* and *Michael McLennan*, Network for Computational Nanotechnology, Purdue University, NanoHub

- First talk focused on SAKAI which is a new course management and research collaboration software being developed and its use as base in the MAE research exchange software MAEviz  
- Second talk was about an online teaching tool for nanotechnology

**Breakout Session III – Attracting Diverse Students to the Engineering Pathway**
Creating Diverse Multicultural Teams to Enhance the Educational Experience  
*Co-moderators: Jorge Rocca (EUV) & Anthony Johnson (MIRTHE)*  
*Topics:* How to meld domestic and foreign students (including underrepresented groups) into diverse multicultural ERC teams, with cross-cultural mentoring, to improve assimilation of foreign students and retention in the U.S.

- Very animated debate with sobering statistics concerning the unbalance in minority and women recruitment and retention in engineering graduate studies  
- Importance of minority and women role-models affect the recruitment and retention significantly  
- Minority students tend to choose minority advisors  
- Lack of critical mass of minority and women does not provide support network for these students  
- International students are very numerous and provide their own support networks to survive graduate studies  
- Efforts being made to reduce “clicking” among ethnic groups included creating a common space for all students to congregate

**Friday, Dec 1**

**Plenary Session:** *Moderator:* Lynn Preston  
Student Retreat Reporting-out – Brian Donovan, President, CASA SLC  
Introducing the ERC for Structured Organic Composites for Pharmaceutical, Nutraceutical, and Agrochemical Applications – Fernando Muzzio, Center Director  
Introducing the ERC in Compact and Efficient Fluid Power – Kim Stelson, Center Director
Breakout Session IV — Cross-center Issues by Tech Cluster
Earthquake Engineering Centers Discussion Section –
Co-moderators: Jack Moehle (PEER) & Vilas Mujumdar, NSF PD

Members in attendance: Michel Bruneau (MCEER), Vilas, Mujumdar (NSF PD), Mary Poats (NSF), Andre Filiatrault (MCEER), Sofia Tanganos (MCEER), Jack Moehle (PEER), Greg Deierlein (PEER), Yousef Bozorgnia (PEER), Scott Ashford (PEER), Wassim Ghannoum (PEER), Darlene Wright (PEER), Amr Elnashai (MAE), Jerry Hajjar (MAE), Philiip Gould (MAE), and Sandra Menke (MAE), Kenneth Dean Mitchell (MAE).

Closing accounts at end of year 10: explanation by Vilas
Education directors of 3 centers are working on proposal to NSF to keep funding for all SLC’s
Self-sufficiency of 3 centers:
  MAE raised 4.2M dollars and have one year extra under NSF (w/o NSF funding)
  MCEER has secured State funding for research as well as University funding for operations
  PEER has state agency funding to continue operations and research
All centers will continue past year 10
ERC framework has been very useful especially in education