17th Annual Colloquium on International Engineering Education: New Frontiers

November 6-8, 2014 in Providence, Rhode Island

Preliminary Program

Thursday, November 6

7 AM – 12 PM  Registration
7 AM – 8 AM  Breakfast
8 AM – 10 AM  Pathways To Language Excellence: Integrating Language and Workforce Needs

This session showcases successful career path visions and models for preparing students for global workforce needs.

Part I discusses Roadmaps to Language Excellence in Utah and Rhode Island. What can we learn from Utah’s implementation of dual language immersion pipelines in K-16? How can these initiatives to bring up K-16 learners’ foreign language proficiency be linked to the agendas of Superintendents, Commissioners of Education, and Governors’ workforces? How to work with legislators, influence policies, gain industry advocacy?

Speakers:
• Gregg Roberts (Utah State Office of Education)
• Erin Papa (University of Rhode Island)

Part II showcases successful language content courses in business, engineering, and technology within the Bachelor of Science in Applied Languages and Intercultural Studies program at Georgia Institute of Technology.

Speakers:
• Bettina Cothran, Jan Uelzmann (German), Osvaldo Cleger (Spanish) (Georgia Institute of Technology)

10:15 – 11:45 AM  Engaging Latin America: Educating Global Engineering Leaders

Panelists:
• Jim Nelson (Brigham Young University), “Successful Ingredients to a Sustainable Study Abroad Program in Latin America”
• Joe Tort (Purdue University), “Setting up the Purdue GEARE program in Colombia”
• Jessica Lothman (Marquette University), “Increasing Intercultural Competencies and Cultural Awareness within Healthcare Practices Among
Biomedical Engineers Through a North American Consortium (U.S., Canada, Mexico)

- Megan Echevarría (University of Rhode Island) and Erik Simpanen (Spanish IEP intern in Chile, URI), “President Obama’s 100,000 Strong in the Americas Initiative - Expanding the URI International Engineering Program to Chile”

12 – 1:30 PM
Lunch and Keynote Speaker (TBD)

Opening Remarks:
Sigrid Berka (IEP Executive Director, University of Rhode Island)

Welcome:
Winifred Brownell (Dean of Arts & Sciences, University of Rhode Island)

1:45 – 4:30 PM
Afternoon Workshops
(Concurrent 2.5 hour workshops)

A. Getting Started Workshop
Led by Gayle Elliot (University of Cincinnati)

The Getting Started Workshop is designed to solicit any questions you may have to start a new program on your campus, and to bring the wisdom and experience of established international engineering programs to those seeking to launch new initiatives. What are the realistic models? What are the challenges and hurdles? What are the best strategies for success? How does one build an internship program or a study abroad exchange? What is the value of an international Living & Learning Community? How can we set up a new program and sustain it? How do we make it work?

Presenters:
- Gayle Elliott, Chris Cooper (University of Cincinnati)
- Sigrid Berka, Jason Lavigne (University of Rhode Island)
- Erin Koontz (Worcester Polytechnic Institute)

B. Preparing Students To Go Abroad: Cross-Cultural Training for Engineers
Led by Amy Henry and Jennifer Baird (Georgia Institute of Technology)

All can benefit from some basic intercultural training and knowledge before going abroad. While providing culture-specific information may help students navigate their overseas environment, pairing that with a culture-general foundation will enable students to apply these tools in any cultural setting. This workshop will outline how to provide engineering students with a solid foundation of intercultural tools to help them take the most advantage of their time abroad. Attendees will participate in at least two activities geared towards engineering students, and will be provided with several others that will be easy to incorporate into pre-departure orientations.

4:30 – 5 PM
Coffee Break
Round Table with Institutional Leadership on Internationalization Strategies

Leaders from universities and government agencies will discuss their strategies and successes in internationalizing STEM education. Topics will include: financing internationalization initiatives, engaging industry partners, working with government agencies in the U.S. and abroad, choosing strategic regions, forming partnerships across disciplines and developing global content within the STEM curriculum, promoting faculty involvement, and incentivizing student participation.

Moderator: Donald De Hayes (Provost and Vice President for Academic Affairs, University of Rhode Island)

Panelists:
- Dr. Nina Lemmens (Director, DAAD, NY)
- Prof. Katja Windt (President of Jacobs University Bremen)
- Prof. Dr. Imre J. Rudas (Former President, Óbuda University, Budapest)
- Dr. Harvey Charles (Vice-Provost for International Education, Northern Arizona University)
- Prof. Richard Vaz (Dean of the Interdisciplinary and Global Studies Division at Worcester Polytechnic Institute)

Dinner & Keynote Address: Senator Howard Stephenson (Utah State)

“Implementing STEM Education Initiatives, Digital Learning, and Dual Language Immersion Programs in Utah’s K-16 Classrooms”

Introduction: David Dooley (President, University of Rhode Island)

Friday, November 7

7:30 AM – 12 PM Registration

7 – 8 AM Continental Breakfast

8 – 9:30 AM New Frontiers in Global Interdisciplinary Programs:
Linking Engineering with the Sciences, Social Sciences, and Beyond

Engineering curricula are becoming increasingly interdisciplinary, not only within colleges of engineering, but also with respect to STEM disciplines, the social sciences, and programs with a focus on technology. This panel will present interdisciplinary models that include global collaborations with a focus on research and experiential learning as key programmatic components. The panelists will discuss how global programs can add value to interdisciplinary or cross-disciplinary approaches by integrating international experiences such as field research, internships, or study abroad.

Moderator: Mark Rectanus (Iowa State University)
Panelists:
- James Oliver (Iowa State University)
- Thomas Boving (University of Rhode Island), "Indonesia – Immersing Students into a Rapidly-Developing Country in Southeast Asia"
- Wayne Jones and Rosmarie T. Morewedge (SUNY Binghamton), "Exploring International Student and Faculty Research Exchange in Science and Engineering: A Binghamton-DAAD Collaboration"
- Mandy Bratton (University of California, San Diego), "Engineering for Humanity: Engaging Students in Global Social Innovation"

9:30 AM – 9:45 AM  
Coffee Break

9:45 – 10:35 AM  
Engaging and Assessing our Students While Abroad and Engaging International Students on our Campuses

Moderator: Eck Doerry (Northern Arizona University)

Speakers:
- Eck Doerry and Melissa Armstrong (Northern Arizona University), “Engineering Gone but not Forgotten: Engaging Students while Abroad”
- Shannon Miner (Iowa State University), “On-Campus Experiences: Engaging Domestic and International Engineering Students”
- Anett Geithner (DAAD Lecturer at URI) and John Neilsen (German IEP student, University of Rhode Island), “A 3 Credit J-Term Study Tour to Germany Geared Towards Engineering and Business Students”

10:40 – 11:30 AM  
Retaining Students Through Short-Term Programs Abroad

Moderator: Manfred Philipp (CUNY)

Speakers:
- Ilka Balk (University of Kentucky), “Short-Term Programs for the Faint of the Heart”
- Stephen Mecca (Providence College), “Engaging Students in the US and Ghana: The International Reach of the S-Lab”

11:45 – 1 PM  
Lunch & Keynote Speaker: Cheryl Merchant (President and C.E.O., Hope Global)

“Growing a Global Business: What it Takes to Get It Done.”

Introduction:
Raymond Wright (Dean of Engineering, University of Rhode Island)

1:15 – 2:45 PM  
New Frontiers in the STEM Disciplines: Open Panel

Moderator: Mufit Akinc (Iowa State University)
Panelists:
• Serenella Sferza (Massachusetts Institute of Technology), “The Global Teaching Lab: Introducing the Teaching into the Learning”
• Friederike Vollenberg (DB Netz AG), "New Frontiers in Industry-Academia Partnerships: the DB-URI Business Visitor Model"
• Mary Besterfield-Sacre (University of Pittsburgh), "Development of a Conceptual Model for Global Preparedness in Engineering Education via the Delphi Method"
• Daniela Pscheida (TU Dresden), “Discover TU9: MOOC on German Engineering”

3 – 4:30 PM

Distinguished Scholarship Alumni Panel
Showcasing success stories of international engineering alums who received prestigious scholarships such as Boren, DAAD, Freeman-ASIA, Gilman, or Whitaker and the impact their research or internships abroad had on their life and career path.

Moderator: Sabeen Altaf (Institute of International Education)
Panelists:
• Brian Mitchell (Tulane University; DAAD Scholar in Germany)
• Michelle Sandrian (University of Pittsburgh; Whitaker Scholar in Austria)
• Hannah Rolston (Oregon State University; Boren Scholar in Tanzania)
• Joe Hackman (Intel; Gilman, Freeman-ASIA, & Hasbro Scholar in China)

5 – 6:30 PM

Reception with Concurrent Poster/Info Fair
Exhibit for international educators, companies, and faculty and students to share information, best practices, and experiences related to their programs abroad.

Saturday, November 8

7 – 8 AM
Continental Breakfast

7:30 – 9:30 AM
Registration

8 – 10 AM
Tackling Ongoing Issues in International Engineering Education: Where Are We With Respect to Developing Assessment Tools for Global Experiences for Engineers?
Moderator: Gregg Warnick (Brigham Young University)
Panelists:
• Cheryl Matherly (The University of Tulsa)
• Brent Jesiek (Purdue University), “Toward 360-Degree Assessments of Global Competency: Status Report and Research Agenda”
• Gisele Ragusa (University of Southern California), “Measuring Students’ Preparedness for Engineering Global Workforces”
Working Groups

(Pick two: each 45-minute group repeats once)

Working groups address how to manage the challenges of setting up internships, research, and study abroad; how to navigate security, visa, economic, and funding questions in these regions; and how to teach languages for specific purposes.

A. Asia/Australasia – Focus on Internships/Study Abroad/Travel Courses to Australia, China, India, Japan, Nepal, Thailand, and Timor Leste

Moderator: Michael Byrnes (President, Middle Kingdom Advisors)

Speakers:
- Gerry Johnson (Colorado State University), “Taking Undergraduate Engineering Students to China: A Hunan University – Colorado State Collaborative Faculty-Led Immersion Course”
- Wen Xiong (University of Rhode Island) "Internships in China - Tackling the Recent Visa Regulations"
- Surabhi Dholakia (Purdue University GEARE program)
- Nevan Hanumara (Massachusetts Institute of Technology) “The MIT Tata Center for Technology + Design: Developing Solutions and Expertise For India”
- Jenny Turner (Engineers Without Borders, Australia), “Creating an Introduction to the Engineering Without Borders Challenge with Communities in Timor Leste, Nepal, and Australia”

B. Europe – Focus on Internships, Study Abroad/Travel Courses in Austria, France, Germany, Ireland, Italy, and Spain

Moderator: Manfred Hampe (Technische Universität Darmstadt)

Speakers:
- Miguel Ayllon (University of Missouri), “Building a Culture of Study Abroad for Engineers: The Mizzou ENGR 3000 Humanities Model”
- Joerg Mosbrucker (Milwaukee School of Engineering), “On the Seamless Integration of an International Master Program into an International Bachelor Program”
- Nick Dininger (Purdue University GEARE program)
- Amanda Daquila (Cultural Vistas), “Engineering Internships in Germany: Challenges and Cooperative Solutions”

C. Languages for Specific Purposes – Focus on Teaching Content-Based Courses for STEM Students

Moderator: Norbert Hedderich (University of Rhode Island)

Speakers:
- Niko Tracksdorf (University of Connecticut), “Language Excellence through STEM: The EUROTECH Roler Coaster Class”
- Wayne He (University of Rhode Island), “Constructing a Chinese Language Flagship Curriculum Across the Disciplines”
- Lars Erickson (University of Rhode Island), “French for Engineering: Materials for Specific Purposes”

11:45 AM Lunch (boxed) & End of Colloquium