Welcome

elcome to the 21st Annual Colloquium on International Engineering Education: Pathways to Diversified and Sustainable Programs

As its title reflects, this year's Colloquium aims to reach out to and create synergies between diverse groups in several ways. While it keeps some of its core themes such as the integration of engineering with the languages, creating appropriate research venues, building and sustaining IEPs, and engaging industry, it also aims to bring underrepresented groups to the forefront of engineering contexts. Our three keynote speakers – from Sukup Manufacturing, ZF and ASEE – represent women in engineering corporations and societies. Likewise, we have dedicated a session to including and funding more minority students in engineering and study abroad. Many of our panels feature leaders with demonstrated success in engineering and international education.

The 2018 Colloquium builds pathways and partnerships between groups that usually operate independently, bringing them together to create a powerful win-win for all. This year we are concurrently hosting high schools building pathways to IEPs as well as the Goethe Institute's Career Booster Day, which will get a boost from our company and alumni networks through the Colloquium, and in turn, will bring to the meeting a young audience eager to find out where language learning can take them in college and beyond. Those youngest participants joining us for selected activities on Friday will continue on Saturday to get involved in handson learning during the German STEM Immersion Day organized by Niko Tracksdorf on the URI campus.

Friday will also see the DAAD sponsored Professional Development Workshop for German teachers from US universities who can explore the Colloquium on Thursday while focusing on developing STEM curricula for their classrooms on Friday. The DAAD/Goethe Institute/AATG collaboration is meant to provide a model for groups from other countries and languages to explore similar interactions at future meetings.

I wish to thank our government, corporate, and academic sponsors. Thank you to the IEP and CSPD teams for your dedication and for bringing the collaboration of various networks to fruition. As always, our Colloquium Steering Committee members have provided valuable support:

Melissa Armstrong, Northern Arizona University
George Chiu, Purdue University
Chris Cooper, University of Cincinnati
Gayle Elliott, University of Cincinnati
Camille George, University of St. Thomas
Amy Henry, Georgia Institute of Technology
Eric Johnson, Valparaiso University
Mark Rectanus, Iowa State University
Gregg Warnick, Brigham Young University

I hope you all will get inspired by, contribute to and take away much from this year's annual meeting! ~ Cordially, Sigrid Berka

Presented By

THE UNIVERSITY OF RHODE ISLAND INTERNATIONAL ENGINEERING PROGRAM

Since 1987, the International Engineering Program has provided an unmatched global engineering experience for students looking to leave their mark on society. Jointly administered by the College of Engineering and the College of Arts & Sciences, the program marries engineering and foreign language during a seamless five-year experience that includes a study and internship year abroad and ends with students earning degrees in both a foreign language and an engineering discipline. The Colloquium has been a staple of the program since its inception in 1998.

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21st Annual Colloquium on International Engineering Education



THINK BIG WE DO

Daily

7:30 a.m. - 8:15 a.m. Continental Breakfast (Easton Pavilion)

7:00 a.m. - 5:00 p.m. Registration (Atlantic Foyer)

Thursday, November 1

8:15 a.m. Welcome by Provost DeHayes, URI (Easton Pavilion)

Plenary: Making the Case for International 8:30 a.m. **Engineering Programs and Interdisciplinary**

Faculty Research (Easton Pavilion)

Ray Wright, University of Rhode Island Jeannette Riley, University of Rhode Island Eric Johnson, Valparaiso University

Brent Jesiek, Purdue University

Shanna Saubert, NAFSA

Moderator: Gregg Warnick, Brigham Young University

10:00 a.m. Coffee Break (Sponsored by the Asia Institute)

(Atlantic Pavilion)

10:30 a.m. Concurrent Sessions

I. How to get Diverse Communities Involved in

International Engineering Programs and Initiatives

(Mariner Room)

Melissa Armstrong, Northern Arizona University

Richard Harris, Northeastern University & Charles Watson,

University of Rhode Island

Theodore Sawruk, University of Hartford

Kathleen Maher, University of Rhode Island

Moderator: Leslie Calman, Engineering World Health

II. Engaging Industry for Sustainable Programs (Sunset Rm)

Friedemann Weidauer, UCONN, Niko Tracksdorf, URI &

Christine Benz, Trumpf, Inc.

Larisa Schelkin, Global STEM Education Center, Inc.

Megan Swanick, CRCC Asia

Sherry Sun, G-MEO, Global Maximum Ed. Opportunities

Moderator: Katharine Hazard Flynn, University of Rhode Island

III. European Perspectives (Board Room A)

Valerie Stehling, RWTH Aachen University

Cornelia Marin, Université de Technologie de Compiègne

Peter Rosenbaum, University Alliance Ruhr

Andreas Nauerz, Mannheim University of Applied Sciences

Moderator: Camille George, University of St. Thomas

IV. Integrating STEM into FL Classroom (Board Room B)

Damon Rarick, University of Rhode Island Benning Wentworth Tieke, Northern Arizona University

Wayne He, University of Rhode Island

Lars Erickson, University of Rhode Island

Moderator: Nancy Nobile, University of Delaware

12:00 p.m. Lunch & Keynote by Emily Schmitt, Sukup Manufacturing (Easton Pavilion)

Introduction by Mark Rectanus, Iowa State University

1:30 p.m. International Cafés: (Atlantic Pavilion)

- 1. Getting started with program building: IEPs, co-ops, dual degrees, internships, company involvement
- 2. Sustaining a program after you have started
- 3. Engaging industry What's in it for them, what can we learn for academia?
- 4. Innovative approaches to assessing international programs

3:00 p.m. Mid-afternoon Break (Atlantic Pavilion)

3:30 p.m. Concurrent Sessions

I. Maximizing Time Abroad (Sunset Room)

Lars Erickson, Zoila Castro, Yu Wu, Sigrid Berka, Univ. of Rhode Island Clifford Griffin, NC State University

Patrick Tunno, Pennsylvania State University

Moderator: Mark Rectanus, Iowa State University

II. Thinking Outside the Box: Unconventional Ideas to **Enhance Programs** (John Clarke Room)

Andrew Wingfield, University of Colorado Boulder

Heidi Parker (also presenting for Jill Churchill), Purdue Univ.

Thomas Huston, University of Cincinnati Moderator: Kelly Watts, University of Rhode Island

III. Sourcing Internships and International Research **Collaborations in Diverse Areas and Communities**

(Mariner Room)

Amy Henry, Georgia Institute of Technology Michelangelo La Luna, Michael Videtta, University of Rhode Island

Joshua Grodotzki, TU Dortmund University Thomas Boving, University of Rhode Island

Moderator: George Chiu, Purdue University

6:00 p.m. Dinner & Keynote by

Dr. Rocio Chavela Guerra, ASEE (Easton Pavilion)

Introduction by **Jeannette Riley**, University of Rhode Island

Friday, November 2

Overview of Synergistic Activities by 8:15 a.m.

Niko Tracksdorf, URI (Easton Pavilion)

Plenary: Building Pathways, Integrated Curricula 8:30 a.m

and Global Opportunities (Easton Pavilion)

Erin Papa, Rhode Island College, William Tejada, Mt. Pleasant High Baerbel Tully, Cranston High School East, Niko Tracksdorf,

Christine Dolan, University of Rhode Island

Kirsten Davis, Virginia Tech

Dena Lang, Pennsylvania State University

Moderator: Karen de Bruin, University of Rhode Island

10:00 a.m. Coffee Break (Easton Pavilion)

10:15 a.m. Concurrent Sessions

I. Things I Wish I Had Known (Sunset Room)

Susanne Wagner, Camille George, University of St. Thomas Sally Conant, Dana Munzner, Northeastern University

Brian Schwarz, University of Connecticut

Manabu Takasawa, University of Rhode Island

Moderator: Patricia Frederick, Northern Arizona University

II. Motivating and Preparing STEM Students to Go

Abroad (John Clarke Room)

Zoe Petropoulou, St. John's University

Ute Kopka, Technische Universität Braunschweig

Sarah Koenig, Pratt & Whitney

Silke Scholz, University of Rhode Island

Moderator: Donna Gamache-Griffiths, University of Rhode Island

III. Operating in Challenging Times (Board Room A)

Gifty Ako-Adounvo, University of Rhode Island

Jeffrey Delmore, FM Global

Peggy Blumenthal, Institute of International Education

Hong Cheng, University of Cincinnati

Moderator: Nancy Stricklin, University of Rhode Island

11:45 a.m. Lunch & Keynote by Connie Rightmer, **ZF North America** (Easton Pavilion)

Introduction by William Murray, Teknor Apex

1:30 p.m. Workshop or Unsession

1. Workshop: Writing Grants to Build and Sustain Diverse Programs (Sunset Room)

Anne Emig, (NSF OISE), Melissa Armstrong, Northern Arizona University (NSF IRES)

Jennifer Rudolph, Worcester Polytechnic Institute (ED UISFL, DoD Project GO)

Uschi Niethammer, (DAAD Group Study Visit/RISE)

Sigrid Berka, University of Rhode Island (DAAD Group Study) Moderator: Peggy Blumenthal, Institute of International Education

2. Unsession: In an unplanned and spontaneous environment, participants are invited to present and contribute about shared topics of interest and unaddressed issues. (John Clarke Room)

Moderator: Amy Henry, Georgia Institute of Technology

Mid-afternoon Break (Atlantic Pavilion) 3:15 p.m.

3:30 p.m. Plenary A: Alumni Panel (John Clarke Room)

Martha Ziolkowski, University of Rhode Island, French IEP Samuel Browne, Boren Scholar, URI, Chinese Language Flagship Prog. Aide Robles, Northern Arizona University, Spanish & Civil Egr. Kevin Drumm, University of Rhode Island, Spanish IEP

Moderator: Gayle Elliott, University of Cincinnati

Plenary B: German Alumni Panel (Atlantic Pavilion) 3:45 p.m

Erin Papa, University of Rhode Island / Rhode Island College Sydney Smith-Romanski, University of Connecticut / Defibtech LLC Kristen Riley, University of Rhode Island / The BioProcess Institute Michael Palmer, University of Rhode Island / MTU Kelly Engels, URI / TU Braunschweig Dual Master / Sensata

Moderator: Maria Reger, University of Connecticut

5:00 p.m. Poster/Info Fair (Atlantic Pavilion)

6:00 p.m. Reception & Closing Remarks (Atlantic Pavilion)

Nicole Menzenbach (Consul General of the Federal Republic of Germany-Boston),

Uschi Niethammer (DAAD),

Chris Cooper, University of Cincinnati