Engineering, Social Justice, and Peace (ESJP)

ninth annual conference, 14-16 August 2013

Pat's Barn
Rensselaer Technology Park

Troy, New York, USA

Hosted by:
Dean Nieusma
School of Humanities, Arts, and Social Sciences
Rensselaer Polytechnic Institute

Conference Theme: Engineering and Development

Program Overview

WEDNESDAY, 14 AUGUST

9:00a Opening Talk: What Does It Mean to Be Human?
9:30 Panel Discussion: What is ESJP?
11:00 Workshop: Social Justice and Higher Education
12:00 Lunch on site
1:00p Session: Student-Led Initiatives
3:00 Session: Community Participation
4:15 Shuttle to West Hall, RPI main campus
5:00 Shadow Theater Performance: My Revolutionary Dream Toilet! (*West Hall Auditorium*)
7:00 Dinner on site (*West Hall 1st Floor*)

THURSDAY, 15 AUGUST

9:00a Session: ESJP Cases (waste management, building materials, infrastructure)
11:00 Session: ESJP in Education: Issues
12:00 Lunch on site
1:00p Workshop: Design with People
2:30 Session: ESJP in Education: Approaches
4:30 Workshop: Fishing Together
6:00 Open Discussion and Reflections
7:00 Dinner on Your Own

FRIDAY, 16 AUGUST

9:00a Workshop: Training for Engineering for Development
9:30 Workshop: The Critical Development Forum
11:00 Session: Culture Change for ESJP
12:00 Lunch on site with presentation: Community Participation in Colombia and Chile
1:00p ESJP Resources
3:00 Wrap-Up Discussion and Reflections
4:00 Adjourn

WEDNESDAY, 14 AUGUST

8:30am Coffee and snacks

9:00-9:30 Opening Talk: **What Does It Mean to Be Human?**
George CATALANO (State University of New York at Binghamton)

9:30-10:30 Panel Discussion: **What is ESJP?**
Moderator: ***Dean NIEUSMA***, 2013 conference host. Panelists:
Caroline BAILLIE, 2004 Kingston, Ontario, Canada & 2010 London, England
George CATALANO, 2006 & 2007 Binghamton, New York
Donna RILEY, 2008 Northampton, Massachusetts
Chris BYRNE, 2009 Whidbey Island, Washington
Andrés VALDERAMMA & ***Juan LUCENA***, 2011 Bogotá, Colombia

10:30-11:00 Break

11:00-12:00 Workshop: **Social Justice & Higher Ed: Good partnership or mutually exclusive?**
Caroline BAILLIE (University of Western Australia)
George CATALANO (State University of New York at Binghamton)

12:00 noon Lunch on site

1:00pm-2:30 Session: **Student-Led Initiatives**
"Risks and Rewards of Student-led Engineering for Development"
Erin LENNOX (RPI & ESW Projects Director)
Brittany BENNETT (Smith & ESW Chapter Relations Director)
Alex ALLEN (RPI & ESW-RPI Project Leader)
"A Non-Linear Systems Approach to Sustainable Rural Water Services in Developing Countries"
Jeff WALTERS and *Bernard* ***AMADEI*** (University of Colorado Boulder)

2:30-3:00 Break

3:00-4:00 Session: **Community Participation**
"Engenharia dos Oprimidos: A model of participatory engineering project for sustainable community development"
Andrea MAZZURCO (Purdue University)
"Preparing Engineers for the Challenges of Community Engagement: A short training course approach"
Matthew HARSH (Concordia University), *Susan* ***COZZENS*** (Georgia Institute of Technology), *Jameson* ***WETMORE*** (Arizona State University), *Rafeal* ***CASTILLO*** (Georgia Institute of Technology), *Rodrigo* ***CORTES-LOBOS*** (Universidad de Talca), *Diran* ***SOUMONNI*** (University of Witwatersrand), *Thomas* ***WOODSON*** (Georgia Institute of Technology)

4:15 Shuttle departs Pat's Barn for West Hall Auditorium, RPI main campus

5:00-6:00 Shadow Theater Performance: **My Revolutionary Dream Toilet!** (West Hall Aud.)
J. Scott JIUSTO (Worcester Polytechnic Institute)
Robert HERSH (Worcester Polytechnic Institute)
Andrea CASPARI (Firefly Shadow Theater, Princeton, Mass.)

6:00-9:00 Reception and dinner (West Hall, 1st Floor)

THURSDAY, 15 AUGUST

8:30am Coffee and snacks

9:00-10:30 Session: **ESJP Cases**

"Assumptions, Diverse Realities, and Promises: Understanding power relations in Waste Management in Sri Lanka"

Randika JAYASINGHE (University of Western Australia)
Caroline BAILLIE (University of Western Australia)

"A Fine Balance between Engineer and Local Community: The case for local building materials and practices"

Sarah SEITZ and *Darko MATOVIC* (Queen's University)

"The Power and Framing of Professional Knowledge in Development: The case of engineering in Greenland under self-rule"

Ulrik JØRGENSEN (Aalborg University Copenhagen)
Birgitte HOFFMANN (Aalborg University Copenhagen)

10:30-11:00 Break

11:00-12:00 Session: **EJSP in Education: Issues**

"Increasing STS Content in Engineering, and Social Justice for Non-Traditional Students"

Lisa MCLOUGHLIN (Greenfield Community College, Greenfield, Mass.)

"Subverting the Engineering Sacred Cow: How to redefine what engineers are supposed to be and know in the engineering sciences"

Juan LUCENA (Colorado School of Mines)

12:00 noon Lunch on site

1:00pm-2:00 Workshop: **Design with People**

Andrés VALDERAMMA, *Søsser BRODERSEN*, ***Ulrik JØRGENSEN***, ***Signe PEDERSEN***
(Aalborg University Copenhagen)

2:00-2:30 Break

2:30-4:00 Session: **ESJP in Education: Approaches**

"A New Vision for Mining Education: First Steps"

Anne JOHNSON (Queen's University, Kingston, Ontario)

"Generative Justice versus Distributive Justice: A crucial distinction for guiding engineering towards a more peaceful and democratic world"

Ron EGLASH (RPI)

"Guidelines for Integrating Social Justice in Engineering Education to Circumvent Common Barriers to Entry"

Jon LEYDENS (Colorado School of Mines)

4:00-4:30 Break

4:30-6:00 Workshop: **Fishing Together: What does it take?**

Roger BURTON (Sino-US Strategic Alliance for Sustainability)
Lizabeth SCHLEMER, ***Trevor HARDING***, ***Linda VANASUPA***
(California Polytechnic State University)

6:00-7:00 Open Discussion and Reflections

7:00 Dinner on Your Own

FRIDAY, 16 AUGUST

8:30am Coffee and snacks

9:00-9:30 Workshop: **Dialogues on Development: Engaging engineers with community development**

Julian O'SHEA (University of Western Australia)

9:30-11:00 Workshop: **Creating Communities of Praxis and Solidarity from Communities of Good Intentions and Charity: Learning from the successes and failures of the Critical Development Forum**

Dean CHAHIM (Critical Development Forum & GeoEngineers, Inc.)

11:00-12:00 Session: Culture Change

"Contexts of Conflict"

Robert MUSCAT (Global Peace Services)

"Developing a Community of Peace on a College Campus"

George CATALANO (State University of New York at Binghamton)

12:00 noon Lunch on site

12:30pm Lunchtime presentation:

"Community Participation in Engineering Projects: Colombian and Chilean cases"

María C. RAMÍREZ, ***Astrid BEJARANO***, *Diana M. DUARTE*, *Juan P. SANABRIA*

1:00pm-2:30 Session: **ESJP Resources**

ESJP Educational Models

Xiaofeng TANG (RPI)

ESJP Research Funding

Linda LAYNE (RPI & US National Science Foundation)

ESJP Careers

Donna RILEY (Smith & US National Science Foundation)

2:30-3:00 Break

3:00-4:00 Wrap-Up Discussion and Reflections

4:00pm Adjourn

EJSP 2013 Participants and affiliations (estimation as of 29 July 2013)

Alex ALLEN, Rensselaer Polytechnic Institute
Caroline BAILLIE, University of Western Australia
David BANKS, Rensselaer Polytechnic Institute
Astrid BEJARANO, Ingenieros sin Fronteras Colombia
Brittany BENNETT, Smith College
Roger BURTON, Sino-US Strategic Alliance for Sustainability
Chris BYRNE, Cascadia Community College
George CATALANO, State University of New York at Binghamton
Andrea CASPAI, Firefly Shadow Theater, Princeton, Mass.
Dean CHAHIM, Critical Development Forum & GeoEngineers, Inc.
Ron EGLASH, Rensselaer Polytechnic Institute
Trevor HARDING, California Polytechnic State University
Matthew HARSH, Concordia University
Robert HERSH, Worchester Polytechnic Institute
Kirk JALBERT, Rensselaer Polytechnic Institute
Randika JAYASINGHE, University of Western Australia
J. Scott JIUSTO, Worchester Polytechnic Institute
Anne JOHNSON, Queen's University, Kingston, Ontario
Ulrik JØRGENSEN, Aalborg University Copenhagen
Jens KABO, Chalmers University
Linda LAYNE, Rensselaer Polytechnic Institute and National Science Foundation
Erin LENNOX, Rensselaer Polytechnic Institute
Jon LEYDENS, Colorado School of Mines
Juan LUCENA, Colorado School of Mines
Darko MATOVIC, Queen's University, Kingston, Ontario
Emily MATTIUSSI, Engineers Without Borders UK
Andrea MAZZURCO, Purdue Univesity
Lisa MCLOUGHLIN, Greenfield Community College, Greenfield, Massachusetts
Robert MUSCAT, Global Peace Services
Dean NIEUSMA, Rensselaer Polytechnic Institute
Julian O'SHEA, University of Western Australia
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