Engineering Ethics Division Program for ASEE 2020 Annual Conference

Monday, June 22, 2020

M320·New Media for Ethics Education
Mon. June 22, 2020 11:40 AM to 12:00 PM

Moderated by
Buse Aktas and Dr. Hamid Khan P.E.

Papers Presented

1. Science Fiction as an Entry Point for Ethical Frameworks in Engineering and Computer Science Education
   Dr. Valerie H. Summet (Rollins College) and Prof. Rebecca A. Bates (Minnesota State University, Mankato)

2. Let's Get Ethical: Incorporating "The Office" and Engaging Practices into an Ethics Module for Capstone Students
   Dr. Joshua Gargac (University of Mount Union)

3. A Simulation for Exploring Ethical Situations that Arise from Conflicting Product Goals
   Prof. Allen R. White (Rose-Hulman Institute of Technology)

ASEE Division Mixer
Mon. June 22, 2020 4:30PM to 5:30PM

Tuesday, June 23, 2020

T220·Research on Engineering Ethics Education and Practice
Tue. June 23, 2020 10:20 AM to 10:40 AM

Moderated by
Alison J Kerr

Papers Presented

1. Health Stress and Support System Narratives of Engineering Students
   Dr. Greg Rulifson P.E. (U.S. Agency for International Development) and Dr. Angela R. Bielefeldt (University of Colorado Boulder)

2. Mapping Concepts Engineering Students in China Use to Think about Ethics
   Dr. Rockwell Franklin Clancy III (University of Michigan-Shanghai Jiao Tong University Joint Institute), Dr. Charlemagne Manuel (University of Michigan Shanghai Jiao Tong University Joint Institute), and Richard James Clancy (University of Colorado Boulder)

3. Student Perceptions of an Ethics Intervention: Exploration Across Three Course Types
   Dr. Madeline Polmear (University of Florida), Dr. Angela R. Bielefeldt (University of Colorado Boulder), Dr. Nathan E. Canney (CYS Structural Engineers Inc.), Dr. Chris Swan (Tufts University), and Dr. Daniel Knight (University of Colorado Boulder)
4. **Experiencing Ethical Engineering Practice**  
   Ms. Dayoung Kim (Purdue University, West Lafayette), Dr. Justin L. Hess (Purdue University, West Lafayette), and Dr. Nicholas D. Fila (Iowa State University)

**T320·Assessing Ethics Learning**  
Tue. June 23, 2020 11:20 AM to 11:40 AM

**Moderated by**  
Dick Apronti and Dr. Hamid Khan P.E.

**Papers Presented**

1. **Using Qualitative Data to Further Examine Flagged Items from the Engineering Ethics Reasoning Instrument (EERI)**  
   Peter Wesley Odom (Purdue University, West Lafayette)

2. **Assessment of the Impact of Civil Engineering Design Problems for Promoting Ethical Decisions**  
   Dr. Jagadish Torlapati (Rowan University), Dr. Sarah K. Bauer (Rowan University), and Prof. Cheng Zhu (Rowan University)

3. **Measuring Curriculum Effectiveness for Developing Principled Leaders in an Undergraduate Engineering Program**  
   Dr. David S. Greenburg (The Citadel) and Dr. Robert J. Rabb P.E. (The Citadel)

4. **Variations in Reflections as a Method for Teaching and Assessment of Engineering Ethics**  
   Dr. Angela R. Bielefeldt (University of Colorado, Boulder), Dr. Madeline Polmear (University of Florida), Dr. Chris Swan (Tufts University), Dr. Daniel Knight (University of Colorado Boulder), and Dr. Nathan E. Canney

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**Wednesday, June 24, 2020**

**W220·Ethical Reasoning and Decision Making**  
Wed. June 24, 2020 10:20 AM to 10:40 AM

**Moderated by**  
Dr. Alexa N. Rihana Abdallah and Dr. Joshua Gargac

**Papers Presented**

1. **Ethical Reasoning and Moral Foundations among Engineering Students in China**  
   Dr. Rockwell Franklin Clancy III (University of Michigan-Shanghai Jiao Tong University Joint Institute)

2. **WIP: How Should We Decide? The Application of Ethical Reasoning to Decision Making in Difficult Cases**  
   Mrs. Natalie C.T. Van Tyne P.E. (Virginia Tech)

3. **Piloting an Adaptive Ethical Decision-Making Tool for Engineering Students**  
   Dr. Vignesh Subbian (University of Arizona) and Dr. Linda R Shaw (University of Arizona)

**W320A·Innovating Ethics Curriculum and Instruction**  
Wed. June 24, 2020 11:00 AM to 11:20 AM

**Moderated by**  
Alison J Kerr and Joel Schneider
Papers Presented

1. **Ethical Development Through the Use of Fiction in a Project Based Engineering Program**
   Dr. Rob Sleezer (Minnesota State University, Mankato) and Dr. Rebecca A Bates (Minnesota State University, Mankato)

2. **WIP: A One-Page Ethical Checklist for Engineers**
   Dr. Elizabeth A. DeBartolo (Rochester Institute of Technology (COE)), Prof. Wade L. Robison (Rochester Institute of Technology), and Sarah Aileen Brownell (Rochester Institute of Technology (COE))

3. **Equity, Inclusion and Ethics: Adapting a Mentoring Curriculum to Develop an Ethics Workshop for Engineering Students**
   Dr. Katy Luchini-Colbry (Michigan State University) and Dr. Melissa McDaniels (Michigan State University)

4. **An investigation of when and where ethics appears in undergraduate engineering curricula**
   Dr. Andrew Katz (Virginia Tech) and Mr. Umair Shakir (Virginia Tech)

**W320B·Ethical Design**

Wed. June 24, 2020 11:40 AM to 12:00 PM

Moderated by
Mr. Jonathan Aurand and Dr. Basel Alsayyed Ahmad P.Eng.

Papers Presented

1. **Integrating Ethics into the Curriculum through Design Courses**
   Prof. Scott A Civjan P.E. (University of Massachusetts, Amherst) and Prof. Nicholas Tooker (University of Massachusetts Amherst)

2. **Building Better Worlds: An Interdisciplinary Approach to Engineering Ethics Pedagogy**
   Dr. Amy Schroeder (University of Southern California)

3. **Developing and Applying Knowledge and Skills in Ethics and Professional Morality: An Evidence-Based Practice Paper**
   Dr. Donald Winiecki (Boise State University), Mr. Lynn Catlin P.E. (Boise State University), and Dr. Harold Ackler (Boise State University)

**W477B·DISTINGUISHED LECTURE: Indigeneering Engineering Education: Welcoming Indigenous Knowledge and Wisdom with Integrity**

Dist. Lecture ASEE Committee on Diversity, Equity & Inclusion, Engineering Ethics Division, International Division, Liberal Education/Engineering & Society Division, Minorities in Engineering Division, and Engineering Technology Council

Wed. June 24, 2020 2:00 PM to 2:30 PM

Moderated by
Dr. Susan E. Walden

Speakers

1. **Deanna Burgart**
   Schulich School of Engineering, University of Calgary

2. **Dr. Susan E. Walden**
   University of Oklahoma
Thursday, June 25, 2020

R320·New Areas of Ethical Inquiry
Thu. June 25, 2020 10:40 AM to 11:00 AM

Moderated by
Dr. Nebojsa Sebastijanovic P.E.

Papers Presented

1. **Ethics in Undergraduate Construction Curricula: A Two-Stage Exploratory Sequential Approach to Developing and Piloting the HETC Survey**
   Dr. Kenneth Stafford Sands II (Florida Gulf Coast University), Dr. Annie R Pearce (Virginia Polytechnic Institute and State University), Dr. Denise Rutledge Simmons P.E. (University of Florida), Dr. Min Jae Suh (Sam Houston State University), and Dr. Christine Marie Fiori (Drexel University)

2. **Curriculum Development for Cyber Ethics with a Focus on Law Enforcement**
   Dr. Joseph Benin (U.S. Coast Guard Academy) and Mr. William Randall (US Coast Guard Academy)

3. **Ethics in Data Science Education**
   Dr. Karen C. Davis (Miami University)

4. **WIP: Ethical Responsibility Formation of Students in a Nuclear Engineering Course through Inquiry Learning**
   Ms. Minha R. Ha (Lassonde School of Engineering, York University), Mr. Joshua Racette (Department of Engineering Physics, McMaster University), and Prof. Shinya Nagasaki (Affiliation unknown)
Santos (Wake Forest University), Dr. Michael D. Gross (Wake Forest University), and Mr. Dylan Franklin Brown (Wake Forest University)

   Mr. Yousef Jalali (Virginia Tech) and Prof. Scott A. Civjan (University of Massachusetts Amherst)

F477·Expanding Resources that Connect Diversity, Equity, Access, and Inclusion with Ethics Education
Special ASEE Committee on Diversity, Equity & Inclusion, Engineering Ethics Division, Liberal Education/Engineering & Society Division, Engineering Technology Council, and Minorities in Engineering Division
Fri. June 26, 2020 2:00 PM to 3:00 PM

Moderated by
Dr. Elizabeth Cady and Jean Sanders

Speakers

1. Dr. Rosalyn W. Berne
   National Academy of Engineering

2. Prof. Rebecca A Bates
   Minnesota State University, Mankato

3. Dr. Michael C. Loui
   University of Illinois at Urbana - Champaign