

# First-year Programs Division Newsletter Spring 2017 Edition



Editor: Rich Whalen – Northeastern University

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#### Looking Ahead: A Message from the Program Chair

#### From John Estell:

As I write this we're less than a month away from getting together in Columbus, Ohio, for the 2017 ASEE Annual Conference. As the Program Chair for this year's conference, I'd like to take this opportunity to tell members of the Division about some of the new things in store in what is turning out to be an exciting slate of FPD sessions!

Because of the changes this year to the Conference, we have our first cluster of sessions on Sunday morning, beginning with our new "Birds of a Feather" session at 8:00 am. Feel free to come, reacquaint with old friends, and meet new friends at this informal meet up where attendees can get together and discuss shared interests without a pre-designated agenda. This session is followed by two back-to-back sessions on retention issues.

Sunday is also when we'll have the first of three Postcard Sessions featuring many of FPD's Work in Progress (WIP) papers. With this innovative format, each presenter has five minutes and two slides to pitch their work, after which we will break out into small group discussions with the authors. This allows authors of WIP papers to have extended conversations regarding their ongoing research with interested attendees. This year we've limited each postcard session to just six papers to provide more time for interactive discussion.

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#### **Upcoming Events and Dates of Interest**

#### **ASEE 2018 Abstract Submission Open:**

September 2017

**ASEE 2018 Sunday Workshop Applications Accepted** 

September 2017

FYEE: 2017 First year Engineering Experience

Conference: "Enhancing the First Year of Engineering Education"

August 6-8, 2017 Daytona Beach, FL

FIE: 2017 Frontiers in Education Conference:

October 18-21, 2017 Indianapolis, Indiana

**WEEF: World Engineering Education Forum:** 

"The Era of Synergistic Collaboration"

November 13—16, 2017 Kuala Lumpur, Malaysia

**National Effective Teaching Institute** 

NETI 1 -May 21-23, 2017 Philidelphia, PA

NETI 2 - June 23-24, 2017 Columbus, OH

#### Planning Ahead ... Future ASEE Meetings:

2018 – Salt Lake City, UT 2019 – Tampa, FL 2020– Montreal, Quebec 2021 – Long Beach, CA

#### Message from the Chair: (continued)

Among Monday's activities is the Best of First-Year Programs Division Technical Session at 11:30 am. The top five full papers, as determined by the reviewers and the FPD Board, will be presented.

New for this year, a brief ceremony will be held at the end of this session to announce the recipients of the first- and second-place Best Paper Awards, and to award certificates to the authors of all five papers in recognition of their accomplishment.

Tuesday finds our annual Business Meeting moving from its traditional position to its new 5 pm slot. Interested in getting more involved, or at least learning more about the First-Year Programs Division? Then this is the session to attend! Following this session, we'll head over to The Ohio State University for an evening of Buckeye hospitality with our friends from Ohio State's Department of Engineering Education at the inaugural FPD Dinner & Social.

Our event features local brews and BBQ, plus on-campus tours including the Orton Hall Bell Tower and the Department of Engineering Education's facilities. Transportation will be provided.

In all, FPD has a total of 63 papers being presented across all four days of this year's Annual Conference. A total of 119 volunteers assisted in reviewing the abstracts and draft papers submitted to our Division. Reviewers serve a key role in ensuring the quality and appropriateness of the abstracts and papers submitted to the Division. I read all of the reviews for all of the abstract and papers, and it was evident that our reviewers took this responsibility very seriously and provided a lot of constructive feedback in their reviews. At this time, I'd like to thank all of our FPD reviewers for their service!

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## Message from the Chair: (continued)

Also helping out will be a total of 26 FPD volunteers serving as Moderators while we're in Columbus, thereby playing a key role in ensuring productive and rewarding sessions for both presenters and attendees. Please take a moment to thank the moderators at the FPD sessions you attend for their service.

Finally, preparations are already underway for the 2018 ASEE Annual Conference in Salt Lake City. Please stop by our table at Sunday's Division Mixer for a copy of the 2018 Call For Papers. While you're there, feel free to stay and talk with members of the FPD Board. We would love to get to know our members better, and we're always looking for ideas and suggestions for improvements that will make a strong division even better. See you in Columbus!

Sincerely,

John K. Estell

## **2016-2017 First-Year Programs Division Program Chair**



## **Looking Ahead: New FPD: Social at ASEE:**







## FPD Social on Tuesday, June 27. 2017

Join up with your fellow First-Year Programs division members as we head over to The Ohio State University for an evening of Buckeye hospitality with our friends from Ohio State's Department of Engineering Education. Our event includes local brews and BBQ, plus on-campus tours including the Orton Hall Bell Tower and the Department of Engineering Education's facilities. Transportation will be provided at 6:30 pm from the Convention Center to the Ohio State campus, with the return trip planned for around 9:00-9:15 pm. Feel free to stay later and enjoy the After Party at the Varsity Club (note: after-party attendees need to arrange for transportation back to the Convention Center). For more information or if you have any questions, please contact:

Rick Freuler, freuler.1@osu.edu

Some additional details: Drinks and an informal dinner will occur in the Atrium space at the Physics Research Building (PRB), adjacent to the Vernier Lounge, from 7 to ~8pm with food provided by City Barbeque. There will be live music and lots of time for sharing tales and catching up with old friends and new.

For the tour choices after dinner:

- 1. Tour of Orton Hall Bell Tower (OSU Chimes), limited to 8 people at time. Professor Catherine Montalto and some Ohio Staters responsible for the Chimes will provide the tours. A famous and fun place to see!
- 2. Tour of the Department of Engineering Education (Hitchcock Hall). This tour will feature the First-year Engineering Program and the Fundamentals of Engineering for Honors (FEH) Robot Design Project 2017 competition course with robot demonstrations.
  - 3. Tour of Thompson Library. Tour the library with its 11th floor vista view of central campus.

Varsity Club After Party (Down stairs reserved) from 9:00pm till? A great chance for further social time with adult beverages. No more technical sessions until tomorrow!

Your contact point for questions or other information: Rick Freuler, freuler, freuler, @osu.edu



#### **2016 Best Paper Awards**

- 1st Place (\$250): "Connections Among University Faculty Engaged in the First Two Years of Engineering and Their Impact on Faculty Attitudes and Practice", James Middleton, Stephen Krause, Eugene Judson, Robert Culbertson, Lydia Ross, Keith Hjelmstad, Yong-Seok Park, James Collofello, and Bethany Smith.
- 2nd Place(\$125): "Can a Five-Minute, Three-Question Survey Foretell First-Year Engineering Student Performance and Retention?", Stephanie Gratiano and William Palm IV.

#### 2016 Distinguished Service Award

• Jean Kampe, (Michigan Tech) for outstanding leadership of the First-Year Programs Division.

#### **2015 Best Presentation Awards**

- Best Presentation(\$250): (a two way tie)
  - 1. "Improving engineering student preparedness, persistence, and diversity through conative understanding by Elizabeth Adams, Claire Dancz, and Amy Landis.
  - 2. "Integration of academic advising into a first-year engineering design course and its impact on psychological constructs" by William Guilford, Anna Blazier, and Alyssa Becker

#### Who's Who on the Board and Committees for 2016-2017:

**P.K. Imbrie**, University of Cincinnati Division Chair

John Estell, Ohio Northern University Vice Chair, Program Chair

**Sue Freeman,** Northeastern University Past Chair, Nominating Committee Chair

**Kerry Meyers,** University of Notre Dame Vice Chair Elect, Program Chair-Elect

**Rachel McCord**, University of Tennessee Executive Board Member-at-Large

Mara Knott, Virginia Tech Treasurer

**Scott Moor,** Indiana University, Fort Wayne Historian

**S. Patrick Walton**, Michigan State University Executive Board Member-at-Large

**Jean Kampe,** Michigan Technological University Executive Board Member-at-Large

**Kaitlin Mallouk,** Rowan University Secretary

Please contact Sue Freeman if you are interested in getting involved!
We are electing 2 E-Board Membersat-Large, Secretary / Treasurer, & 2
FYEE Program Chairs 2019 & 2020.

**Robin Hensel**, West Virginia University Executive Board Member-at-Large

**Rich Whalen**, Northeastern University Newsletter Editor

**Jack Bringardner**, New York University Division Webmaster

**Patricia Ralston,** University of Louisville Executive Board Member-at-Large

## **FPD Conference Program**

## U127A-First-Year Programs Division Executive Board Business Meeting

Sun. June 25, 2017 8:00 AM to 9:30 AM Harrison, Hyatt Regency Columbus

A convening of the First-Year Programs Division Executive Board to conduct board business.

## U127B-First-Year Programs "Birds of a Feather" Session

Sun. June 25, 2017 8:00 AM to 9:30 AM Room A211, Columbus Convention Center Moderated by Dr. Cory Brozina and Dr. Jessica A Kuczenski

A "Birds of a Feather" session is an informal meet up or discussion where attendees can get together and discuss shared interests without a pre-designated agenda or formal program. Feel free to come, break the ice and meet new people, and get energized for an exciting group of First-Year Programs sessions at this year's Annual Conference!

## U227A-First-Year Programs: Paying Attention to Retention

Sun. June 25, 2017 9:45 AM to 11:15 AM
Room A211, Columbus Convention Center
Moderated by Dr. Kaitlin Mallouk and Dr. Deborah M. Grzybowski

Retention is one of the major issues we face as first-year engineering educators. What steps can we take to prevent our students from losing confidence in their ability to succeed as engineers? This is the first of two sessions that will examine this topic.

- A Multi-Program Approach to Student Retention and Success Dr. Paige E Smith (University of Maryland, College Park), Ms. Elizabeth R. Kurban (Affiliation unknown), and Dr. Catherine T. Amelink (Virginia Tech)
- 2. Improving Student Success and Retention Rates in Engineering: A Four-Year Longitudinal Assessment of the DYP Program Dr. Steffen Peuker (California Polytechnic State University, San Luis Obispo)
- 3. An Active Learning Environment to Improve First-Year Mechanical Engineering Retention Rates and Software Skills Benjamin B Wheatley (COLORADO STATE UNIVERSITY), Dr. Tammy Lynn Haut Donahue (Colorado State University), and Dr. Kimberly Catton P.E. (Colorado State University)
- 4. Integrating Humanitarian Engineering Design Projects to Increase Retention of Underrepresented Minority Students and to Achieve Interpersonal Skill Related Learning Outcomes Dr. Elizabeth A Adams (Chandler Gilbert Community College) and Mary Beth Burgoyne (Affiliation unknown)
- Re-Inventing the First Year Seminar and Student Support Programs to Decrease the Number of Failed Grades the First Semester and to Reach a 90% First Year Retention Rate Dr. Mary E. Goodwin (University of South Florida)
- Q: Where can I find a listing of all FPD Papers that were presented at past ASEE Conferences?
- **A:** Head to ASEE web site and search by Division: http://www.asee.org/papers-and-publications/papers

## U227B-First-Year Programs: Sunday 5 Minute WIP Postcard Session

Sun. June 25, 2017 9:45 AM to 11:15 AM Room A212, Columbus Convention Center Moderated by Dr. Richard Whalen and Mrs. Natalie C.T. Van Tyne P.E.

This special format session gives authors of Work-in-Progress (WIP) papers the opportunity to pitch their work with a two-slide (back and front of a postcard) overview of their work in five minutes or less. After all pitches are made, attendees will have the opportunity to visit with the authors, thereby allowing those authors to receive feedback and to discuss aspects of their work in greater detail.

- 1. Work in Progress: The Impact of a Self-Guided Assessment Tool on Success and Retention of At-Risk Students Ms. Julie Chiki (Ohio University) and Braden Vale Jay Robinson (Ohio University)
- 2. Work in Progress: Increasing Interest in STEM and Improving Retention for At-Risk Students: Two Year Study Dr. Melissa Danforth (California State University, Bakersfield) and Dr. Charles Lam (California State University, Bakersfield)
- 3. Work in Progress: LINKING CLEMSON UNIVERSITY GENERAL ENGINEERING AND SOUTH CAROLINA HIGH SCHOOLS Dr. Sarah Corinne Rowlinson (University of Florida), Dr. Elizabeth Anne Stephan (Clemson University), and Dr. Jonathan R. A. Maier (Clemson University)
- 4. Work in Progress: Expanding the professional formation of engineers through a cross cultural communication workshop for first-year students Ms. Susan Arnold-Christian (Virginia Tech), Dr. Walter C. Lee (Virginia Polytechnic Institute and State University), Mr. Adrien DeLoach (Virginia Tech), Ms. Ashley R Taylor (Virginia Polytechnic Institute and State University), and Dr. Christian Matheis (Virginia Tech)
- 5. Work in Progress: An Interdisciplinary Course Designed to Assist First Year Students in Planning and Preparing for Success in the NAE Grand Challenge Scholars Program Amy Trowbridge (Arizona State University) and Dr. Haolin Zhu (Arizona State University)
- 6. Work In Progress: From Scratch, The Design of a First-Year Engineering Programming Course Dr. Philip Reid Brown (Rutgers, The State University of New Jersey)

## U327-First-Year Programs: Paying More Attention to Retention

Sun. June 25, 2017 11:30 AM to 1:00 PM Room A211, Columbus Convention Center Moderated by Dr. Robin A.M Hensel and Dr. Cynthia Helen Carlson P.E.

Retention is one of the major issues we face as first-year engineering educators. What steps can we take to prevent our students from losing confidence in their ability to succeed as engineers? This is the second of two sessions that will examine this topic.

- Relationship Between The Number of Reasons Students Cited To Study Engineering and Their Retention and Graduation Rates Mr. Paa Kwasi Adusei (University of Cincinnati), Dr. Nora Honken (University of Cincinnati), and Dr. Patricia A Ralston (University of Louisville)
- Classroom Belonging and Student Performance in the Introductory Engineering Classroom Dr. Mark Schar (Stanford University), Sophia Lerner Pink (Stanford University), Kayla Powers (Stanford University), Mr. Adrian Piedra (Stanford University), Ms. Shivani Alexandra Torres (Stanford University), Mr. Kai Jun Chew (Stanford University), and Dr. Sheri Sheppard (Stanford University)
- 3. Exploring Engineering Identity in a Common Introduction to Engineering Course to Improve Retention Dr. Michele Yatchmeneff (University of Alaska Anchorage) and Dr. Matthew Calhoun (University of Alaska, Anchorage)

- 4. **Effect of cohorts on student retention in engineering** Dr. Patricia R Backer (San Jose State University) and Ms. Cindy Kato (Affiliation unknown)
- 5. First-Year Engineering Students' Perceptions of their Abilities to Succeed Dr. Tanya Dugat Wickliff (Texas A&M University), Dr. Noemi V Mendoza Diaz (Texas A&M University), Dr. Jacques C. Richard (Texas A&M University), and Dr. So Yoon Yoon (Texas A&M University)

## M327-The Best of First-Year Programs Division

Mon. June 26, 2017 11:30 AM to 1:00 PM Room A211, Columbus Convention Center Moderated by Dr. John K. Estell and Dr. Victoria E. Goodrich

These papers were selected by reviewers and the FPD Executive Board as the best papers submitted in the division for the 2017 Annual Conference. The Division's Best Paper Awards will be presented at the end of the session.

- Are Students Overworked? Understanding the Workload Expectations and Realities of First-Year Engineering Ms. Darlee Gerrard (University of Toronto), Ms. Kirstin Newfield (University of Toronto), Mrs. Narges Balouchestani Asli (University of Toronto), and Prof. Chirag Variawa (University of Toronto)
- 2. Creating a Psychological Profile of Successful First-Year Engineering Students Dr. Danielle D Gagne (Alfred University), Dr. Bethany C. Johnson (Alfred University), and Dr. Steven M. Pilgrim (Alfred University)
- 3. Development and Application of a Questionnaire to measure Student Attitudes Toward and Understanding of Engineering Dr. Jan DeWaters (Clarkson University), Dr. John C. Moosbrugger (Clarkson University), and Mr. Pankaj Sharma (Clarkson University)
- 4. Incorporation of Ethics and Societal Impact Issues into First Year Engineering Courses: Results of a National Survey Dr. Angela R Bielefeldt (University of Colorado, Boulder), Ms. Madeline Polmear (Affiliation unknown), Dr. Daniel Knight (University of Colorado, Boulder), Dr. Nathan E Canney P.E. (Seattle University), and Dr. Chris Swan (Tufts University)
- 5. Integrating Theory and Hands-On Practice using Underwater Robotics in a Multidisciplinary Introductory Engineering Course Dr. Nancy K Lape (Harvey Mudd College), Prof. Lori Bassman (Harvey Mudd College), Prof. Christopher Clark (Harvey Mudd College), Prof. Albert Dato (Harvey Mudd College), Dr. Angela M Lee (Harvey Mudd College), Matthew Spencer (Harvey Mudd College), Dr. Erik Spjut (Harvey Mudd College), and Dr. Laura Palucki Blake (Harvey Mudd College)

#### M427A-First-Year Programs: Monday Potpourri

Mon. June 26, 2017 1:30 PM to 3:00 PM Room A211, Columbus Convention Center Moderated by Prof. Ruth Wertz P.E. and Dr. Jack Bringardner

Enjoy a nice variety of first-year related topics in our Monday potpourri session!

- 1. **Helping First-Year Engineering Students Select a Major** Dr. Tammy VanDeGrift (University of Portland) and Miss Sherry Liao (University of Portland Alumni)
- 2. Assessing the Impact of an Interdisciplinary First-Year Experience Program Amelia Chesley (Purdue University), Prof. Nathan Mentzer (Purdue University, West Lafayette (College of Engineering)), Dr. Dawn Laux (Purdue Polytechnic Institute), Mr. Tejasvi Parupudi (Purdue University), Asefeh Kardgar (Purdue Polytechnic Institute, West Lafayette), and Sarah Knapp (Purdue University)

- 3. **Supporting an Informed Selection of an Engineering Major** Dr. Kerry Meyers (University of Notre Dame) and Dr. Cory Brozina (Youngstown State University)
- 4. Forget Diversity, Our Project is Due Mr. Hector Enrique Rodriguez-Simmonds (Purdue Engineering Education), Mr. Nelson S Pearson (University of Nevada, Reno), Ms. Jacqueline Ann Rohde (Clemson University), Dr. Kyle Patrick Vealey (Affiliation unknown), Dr. Adam Kirn (University of Nevada, Reno), and Dr. Allison Godwin (Purdue University, West Lafayette (College of Engineering))
- 5. An Integrated First-Year Experience at ECST (FYrE@ECST) Dr. Gustavo B Menezes (California State University, Los Angeles), Dr. Deborah Won (California State University, Los Angeles), Dr. Mark Tufenkjian (California State University, Los Angeles), Dr. Emily L. Allen (California State University, Los Angeles), and Eva Schiorring (Research and Planning Group for California Community Colleges)

M427B-First-Year Programs: Monday 5 Minute WIP Postcard Session

Mon. June 26, 2017 1:30 PM to 3:00 PM Room A212, Columbus Convention Center Moderated by Dr. Susan F. Freeman and Dr. Noah Salzman

This special format session gives authors of Work-in-Progress (WIP) papers the opportunity to pitch their work with a two-slide (back and front of a postcard) overview of their work in five minutes or less. After all pitches are made, attendees will have the opportunity to visit with the authors, thereby allowing those authors to receive feedback and to discuss aspects of their work in greater detail.

- Work in Progress: Living with the Lab: Building a New Implementation of the LWTL Project-Based First-Year Engineering Curriculum at Campbell University Dr. Jenna P. Carpenter (Campbell University) and Dr. Lee Kemp Rynearson (Campbell University)
- 2. Work In Progress: Designing for First-Year Student Success: Understanding the Effects of Co-Curricular Programming on Feelings of Belonging Emily A. Bovee (Michigan State University), Dr. Daina Briedis (Michigan State University), Dr. S. Patrick Walton (Michigan State University), and Lisa Linnenbrink-Garcia (Michigan State University)
- 3. Work in Progress: Analyzing Student Outcomes to Inform First-year Advising Practices & Policies at Northwestern University's McCormick School of Engineering Dr. Emma Tevaarwerk DeCosta (Northwestern University), Dr. J. Alex Birdwell (Northwestern University), Dr. Ken Gentry (Northwestern University), Prof. Richard Wayne Freeman P.E. (Northwestern University), and Dr. Alan R Wolff (McCormick School of Engineering and Applied Science)
- 4. Work In Progress: First-Year Student Signature Project Design an Infographic on "What is Technical Communication" Dr. Jessica A Kuczenski (Santa Clara University) and Tricia Serviss (Santa Clara University)
- 5. Work in progress: First-Year students definitions of engineering practice Mrs. Teresa Lee Tinnell (University of Louisville) and Dr. J. C. McNeil (University of Louisville)
- 6. Work In Progress: Incorporation of the Entrepreneurial Mindset into the Introduction to Engineering Course Dr. Haolin Zhu (Arizona State University) and Dr. Benjamin Emery Mertz (Arizona State University)

M527-First-Year Programs: Design in the First Year

Mon. June 26, 2017 3:15 PM to 4:45 PM Room A211, Columbus Convention Center Moderated by Dr. Patricia A. Ralston and Dr. Gregory Warren Bucks

Many programs have been incorporating design projects into their first-year engineering courses, thereby providing opportunities for hands-on learning. This session explores recent developments in this increasingly critical area.

- 1. Impact of Various Pedagogies on Design Confidence, Motivation, and Anxiety of First-Year Engineering Students Dr. James Blake Hylton (Ohio Northern University), Dr. Todd France (Ohio Northern University), and Dr. Louis A DiBerardino III (Ohio Northern University)
- Asset-based design projects in a freshman level course Dr. Vanessa Svihla (University of New Mexico), Dr. Jamie Gomez R (University of New Mexico), Ms. Sophia Bowers (University of New Mexico), Prof. Abhaya K. Datye (University of New Mexico), Paige Prescott (University of New Mexico), Mr. James Scacco (University of New Mexico), Mr. Jordan Orion James (The University of New Mexico Department of Organization, Information and Learning Sciences), and Mr. Nicolai Loner (University of New Mexico)
- 3. Implementing an Entrepreneurial Mindset Design Project in an Introductory Engineering Course Dr. Matthew James Jensen (Florida Institute of Technology) and Dr. Jennifer Lynn Schlegel (Florida Institute of Technology)
- 4. Developing and Improving a Multi-Element First-Year Engineering Cornerstone Autonomous Robotics Design Project Mr. David Joseph Frank (Ohio State University), Ms. Kelly Lynn Kolotka (Ohio State University), Mr. Andrew H. Phillips (The Ohio State University), Mr. Michael Schulz (The Ohio State University), Ms. Clare Rigney (The Ohio State University, Engineering Education Department), Mr. Allen Benjamin Drown (The Ohio State University), Robert G. Stricko III (Ohio State University), Dr. Kathleen A Harper (The Ohio State University), and Dr. Richard J. Freuler (The Ohio State University)

#### T327-First-Year Programs Division Poster Session

Tue. June 27, 2017 11:30 AM to 1:00 PM Exhibit Hall A & B, Columbus Convention Center Moderated by Dr. J. C. McNeil

This is another opportunity to see Work-in-Progress submissions to the First-Year Programs Division.

- 1. A Sea of Variations: Lessons Learned from Student Feedback about the Role of Trust in First Year Design Teams Ms. Natalie C.T. Van Tyne (Virginia Tech)
- 2. Assistive Technology for Freshmen Design and K-12 Outreach Dr. Devin R. Berg (University of Wisconsin, Stout), Mr. Matthew Wigdahl (Oaklawn Elementary School), and Ms. Charis Dawn Collins (Oaklawn Elementary School)
- 3. Evaluating the Success of Peer Led Student Interventions in a Freshman Year Experience Program Ms. Elizabeth Ann Howard (New Mexico State University)
- 4. High Risk, High Reward: Investing in Student Environment to Cultivate the Next Generation of Engineers Noel Hennessey (University of Arizona) and Rebecca Primeau (University of Arizona)
- 5. Work in Progress: Development of Optional Summer Video Content for Preparation to Sophomore Year with Initial Findings Dr. Victoria E Goodrich (University of Notre Dame), Dr. Leo H McWilliams (University of Notre Dame), and Dr. Yih-Fang Huang (University of Notre Dame)

#### T527A-First-Year Programs: Tuesday 5 Minute WIP Postcard Session

Tue. June 27, 2017 3:15 PM to 4:45 PM
Room A212, Columbus Convention Center
Moderated by Dr. Kathryn Schulte Grahame, Dr. Kerry Meyers, and Prof. James Blake Hylton

This special format session gives authors of Work-in-Progress (WIP) papers the opportunity to pitch their work with a two-slide (back and front of a postcard) overview of their work in five minutes or less. After all pitches are made, attendees will have the opportunity to visit with the authors, thereby allowing those authors to receive feedback and to discuss aspects of their work in greater detail.

- 1. Work in Progress: Understanding how Action Modes® can help or hinder students in self-paced courses Khushikumari Patel (Clemson University), Dr. Claire L. A. Dancz (Clemson University), Dr. Eliza Gallagher (Clemson University), and Dr. Charity Watson (Affiliation unknown)
- 2. Work in Progress: Curriculum Revision and Classroom Environment Restructuring to Support Blended Project-Based Learning in First-Year General Engineering Laboratory Courses Prof. Brandon B. Terranova (Drexel University), Prof. Christopher M Weyant (Drexel University (Eng. & Eng. Tech.)), Prof. Steven Wrenn (Drexel University, Chemical & Biological Engineering Department), Prof. Youngmoo Kim (Drexel University, ExCITe Center), Dr. Lunal Khuon (Drexel University), Miss Kristin Imhoff (Drexel University (Eng. & Eng. Tech.)), Mr. Kevin Ayers (Drexel University (Eng. & Eng. Tech.)), Dr. Antonios Kontsos (Affiliation unknown), Leonid Hrebien (Drexel University (Eng. & Eng. Tech.))
- 3. Work in Progress: Oh ... The Irony (A Six Section Rube Goldberg Machine for Freshman Engineering Design) Dr. Julian Ly Davis (University of Southern Indiana), Dr. Arthur L Chlebowski (University of Southern Indiana), and David J Ellert PE (University of Southern Indiana)
- 4. Work in Progress: Improving First-Year Retention Through Support and Engagement Prof. Petra Bonfert-Taylor (Dartmouth College), Prof. Vicki V. May (Dartmouth College), Ms. Holly Wilkinson P.E. (Dartmouth College), and Dr. Alicia Betsinger (Dartmouth College)
- 5. Work in Progress The Construction of a New FYE Program Dr. George D. Ricco (University of Kentucky) and Dr. Janet K. Lumpp (University of Kentucky)
- 6. Work in Progress: Design of a First-Year Rhetoric Course for Engineering Students Mr. Mohammad Usama Zahid (University of Illinois at Urbana-Champaign), Mr. Evin Scott Groundwater (University of Illinois, Urbana-Champaign), Mrs. Yanfen Li (University of Illinois, Urbana-Champaign), Celia Mathews Elliott (University of Illinois at Urbana-Champaign), Prof. Andrew Michael Smith (University of Illinois at Urbana-Champaign), Prof. Dallas R Trinkle (University of Illinois, Urbana-Champaign), Prof. Kelly Ritter (University of Illinois Urbana-Champaign), P. Scott Carney (Affiliation unknown), Dr. Marcia Pool (University of Illinois, Urbana-Champaign), and Prof. Karin Jensen (University of Illinois, Urbana-Champaign)

T527B·First-Year Programs: Tuesday Potpourri Tue. June 27, 2017 3:15 PM to 4:45 PM Room A213, Columbus Convention Center Moderated by Dr. S. Patrick Walton and Todd France

Enjoy a nice variety of first-year related topics in our Tuesday potpourri session!

- Complete Research Paper: Implementation of an Introductory Module on Biogeotechnics in a Freshman Engineering Course Dr. Jean S Larson (Arizona State University), Medha Dalal (Arizona State University), Dr. Wilhelmina C. Savenye (Arizona State University), Dr. Claudia Elena Zapata (Arizona State University), Dr. Nasser Hamdan (Center for Bio-mediated & Bio-inspired Geotechnics), and Prof. Edward Kavazanjian Jr. (Arizona State University)
- 2. Longitudinal Effects of the Foundation Coalition Curriculum on Chemical and Petroleum Engineering Student Performance Dr. So Yoon Yoon (Texas A&M University), Dr. Mark T. Holtzapple (Texas A&M University), and Dr. Bonnie J Dunbar PhD (Texas A&M University)
- 3. The Artistic Identities of First-Year Engineering Students Desen Sevi Ozkan (Virginia Tech Department of Engineering Education) and Dr. Diana Bairaktarova (Virginia Tech)
- 4. How First-Year Engineering Students Develop Visualizations for Mathematical Models Dr. Kelsey Joy Rodgers (Embry-Riddle Aeronautical University, Daytona Beach, FL), Mr. Nanmwa Jeremiah Dala (Embry-Riddle Aeronautical University), and Dr. Krishna Madhavan (Purdue University, West Lafayette (College of Engineering))

- 5. How Well Do They Match? Does High Confidence in Selection of Major Translate to High Graduation Rates in a Major? Ms. Norma L Veurink (Michigan Technological University) and Justin Foley (University of Michigan)
- 6. A learning trajectory for developing computational thinking and programming Dr. Sean P Brophy (Purdue University, West Lafayette (College of Engineering)) and Prof. Tony Andrew Lowe (Purdue University, West Lafayette (College of Engineering))

## T627-First-Year Programs Division Business Meeting

Tue. June 27, 2017 5:00 PM to 6:00 PM Hayes, Hyatt Regency Columbus

This is the First-Year Programs Division (FPD) business meeting; all FPD members are encouraged to attend. Division business (e.g. elections) occurs during this session and opportunities to become more involved in the division are provided.

#### T727-First-Year Programs Division Dinner & Social

Tue. June 27, 2017 6:30 PM to 9:00 PM

The Ohio State University

Ticketed event: \$30.00 advanced registration and \$40.00 on site registration

Join up with your fellow First-Year Programs division members as we head over to The Ohio State University for an evening of Buckeye hospitality with our friends from Ohio State's Department of Engineering Education. Our event features local brews and BBQ, plus on-campus tours including the Orton Hall Bell Tower and the Department of Engineering Education's facilities. Transportation will be provided at 6:30 pm from the Convention Center to the Ohio State campus, with the return trip planned for around 9:00-9:15 pm. Feel free to stay later and enjoy the After Party at the Varsity Club (note: afterparty attendees will need to arrange for transportation back to the Convention Center). For more information or if you have any questions, please contact Rick Freuler, freuler.1@osu.edu.

#### W127-First-Year Programs: Assessment

Wed. June 28, 2017 8:00 AM to 9:30 AM Room A211, Columbus Convention Center Moderated by Dr. Rachel McCord and Mr. Timothy J. Hinds

How do we know if our educational practices are successful? We perform assessment and evaluate the results. This session features various assessment methodologies being employed in the first-year engineering experience.

- 1. Assessment of Peer Mentoring of Teams in a First Year Design-Build-Test-Communicate Class Mr. James A. Coller (University of Michigan), Mr. Magel Su (University of Michigan), Dr. Laura K Alford (University of Michigan), Dr. Stephanie Sheffield (University of Michigan), and Dr. Robin Fowler (University of Michigan)
- 2. **Grade-a-thons and Divide-and-Conquer: Effective Assessment at Scale** Ms. Brittany Ann Kos (University of Colorado, Boulder) and Dr. Sarah Miller (University of Colorado, Boulder)
- 3. Assessment of Supplemental Instruction Programming on First Year Academic Success Jenell Wilmot (The University of Texas at Austin) and Dr. Nina Kamath Telang (University of Texas, Austin)
- 4. Developing an Instrument to Assess the Effects of Pre-College Engineering Participation on the Experiences of First-Year Engineering Students Fundamental Dr. Noah Salzman (Boise State University), Dr. Matthew W. Ohland (Purdue University, West Lafayette (College of Engineering)), and Dr. Monica E Cardella (Purdue University, West Lafayette (College of Engineering))

 An Assessment Framework for First-Year Introduction to Engineering Courses Dr. Senay Purzer (Purdue University, West Lafayette (College of Engineering)), Dr. Kerrie Anna Douglas (Purdue University, West Lafayette (College of Engineering)), Jill Anne Folkerts (Purdue University), and Mr. Taylor V. Williams (Purdue University, West Lafayette (College of Engineering))

W427A-First-Year Programs: Wednesday Potpourri

Wed. June 28, 2017 1:30 PM to 3:00 PM Room A112, Columbus Convention Center

Moderated by Dr. Sandra Soto-Caban and Dr. Benjamin Emery Mertz

Enjoy a nice variety of first-year related topics in our Wednesday potpourri session!

- 1. **Determination of Success in the Calculus Sequence Based on Method of Placement** Mrs. Leslie Bartsch Massey (University of Arkansas), Dr. Candace Auburn Rainwater (University of Arkansas), Dr. Heath Aren Schluterman (University of Arkansas), and Mrs. Adrienne Gaines (University of Arkansas)
- Assessment of Supplemental Instruction Programming and Continued Academic Success Jenell Wilmot (University of Texas at Austin) and Dr. Nina Kamath Telang (University of Texas, Austin)
- 3. Evaluating a Flipped Lab Approach in a First-Year Engineering Design Course Dr. Jack Bringardner (NYU Tandon School of Engineering) and Ms. Yona Jean-Pierre (New York University)
- 4. First Year Engineering Student Perspectives Of Google Docs For Online Collaboration Ms. Natasha Perova-Mello (Oregon State University) and Dr. Sean P Brophy (Purdue University, West Lafayette (College of Engineering))
- 5. English background of Eastern-Asian students in the College of Engineering Dr. Isabel Cristina Jimenez-Useche (Purdue University, West Lafayette (College of Engineering)) and Dr. Stephen R Hoffmann (Purdue University, West Lafayette (College of Engineering))
- 6. Flipping the Foundation: A Multi-Year Flipped Classroom Study for a Large-Scale Introductory Programming Course \_Ms. Emily Ann Marasco (University of Calgary), Dr. Mohammad Moshirpour (University of Calgary), and Dr. Mahmood Moussavi (University of Calgary)

W527-First-Year Programs: It's a Celebration "Birds of a Feather" Session

Wed. June 28, 2017 3:15 PM to 4:45 PM Room A112, Columbus Convention Center Moderated by Dr. John K. Estell

Another ASEE Annual Conference is in the books. Come and gather one last time in 2017 and say farewell to your First-Year Program Division friends, until we meet again next year in Salt Lake City.

Q: What does it take to earn a Best Paper or Best Presentation Award?

A: Refer to past FPD Newsletters for Guidelines: http://www.asee.org/member-resources/groups/divisions