### Presentation Sessions

**Thu 4/23/2020**

**8:30-8:45**

*Welcome Talk by Dean Christos Christodoulou*

**Thu 4/23/2020**

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<td>9:00-9:12</td>
<td>Vanessa Svihla, Yan Chen, Chen Qiu, Jordan O. James, Amber Gallup and S. Pil Kang</td>
<td>Tools for measuring design problem framing progress</td>
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<td>9:12-9:24</td>
<td>Andrea Turcatti and Terrell Bennett</td>
<td>The Effectiveness of Service-Learning Based Projects in Improving the Understanding of the Design Process and the Self-Efficacy of Students in Engineering</td>
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<td>9:24-9:36</td>
<td>Alex Nunez-Thompson and Matthew Wettergreen</td>
<td>Implementing Authentic, University-Level Engineering Design Coursework in Pre-College Programs</td>
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<td>9:36-9:48</td>
<td>David Ewing</td>
<td>The Effects of Specialized Section Groupings on Success Rates in a Freshman Problem Solving Course</td>
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<td>9:48-10:00</td>
<td>Tracy L. Mallette, Madalyn Wilson-Fetrow, Jordan O. James, Vanessa Svihla and Abhaya Datye</td>
<td>Bench-scale Testing Enhances Focus on Feasibility of Design Solutions</td>
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<td>10:00-10:12</td>
<td>Roman Taraban, Curtis Craig, Srinivasa Murthy Gunturu and Edward E. Anderson</td>
<td>Machine Analysis of Differences in Statics Problem-Solving Concepts Based on Skill Level</td>
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<td>10:32-10:44</td>
<td>Amir Karimi and Randall Manteufel</td>
<td>Most Recent Updates to ABET-EAC-Criteria 3, 4 and 5</td>
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<td>10:44-10:56</td>
<td>Pasha Hammond and Huda Sarraj</td>
<td>Introducing iCM: Leveraging Tableau for Curriculum Mapping</td>
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<tr>
<td>11:08-11:20</td>
<td>Krista Nicklaus, Daniel Puperi and Patricia Clayton</td>
<td>Perspectives on a Mentored Engineering Graduate Student Teaching Practicum for Faculty Teaching Preparation</td>
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<td>11:20-11:32</td>
<td>Amir Karimi</td>
<td>Instructor Initiated Drop Policy Effect on Student Success</td>
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<td>11:40-12:00pm</td>
<td>Pleanary Presentation</td>
<td>Engineering Education into the Future: What it could look like and the learning spaces needed to support it</td>
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<td>by P.K. Imbrie</td>
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<td>Julie Ford, Robinson Ford, Dominic Gallegos and Casper Huang</td>
<td>Engineering Outreach: Socorro Middle Schoolers and New Mexico Tech Students Design, Build, and Race Gravity-Powered Cars</td>
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<td>12:22-12:34</td>
<td>Abhaya Datye, Jamie Gomez, Marina Miletic, Eva Y. Chi, Sang M. Han, Catherine Anne Hubka, Yan Chen Chen, Vanessa Svihla and Sung Pil Kang</td>
<td>Design Challenges as a Spine to Engineering Courses</td>
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<td>12:34-12:46</td>
<td>Roy Issa and Reinhard Puffing</td>
<td>Design of a Hexadrone for Agricultural Spraying - A Collaboration Project between West Texas A&amp;M University and FH JOANNEUM</td>
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<td>12:46-12:58</td>
<td>Veronica Mitchell, Benjamin Matheson, Tye Martin, Phuong Nguyen, Vanessa Svihla, Eva Chi and Heather Canavan</td>
<td>Diverse by Design: Increasing the Representation of People with Disabilities in STEM through Community Engagement</td>
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<td>1:10-1:22</td>
<td>Matthew Wettergreen</td>
<td>Helping Students Gain Momentum in Prototyping When Transitioning from Low to Medium Fidelity Prototypes</td>
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<td>1:54-2:06</td>
<td>Kristine Denman, Joel Robinson and Tariq Khraishi</td>
<td>A Study of the Impact of a NSF Internship and Conference Participation Program on Student Success</td>
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<td>Martha Mitchell and Paola Bandini</td>
<td>Development of a one-on-one mentoring model for undergraduate students at a Minority Serving Institution</td>
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<td>Olga Lavrova and Satish Ranade</td>
<td>Student Recruitment, Retention and Employment Placement for Future Power Systems Workforce Development at New Mexico State University.</td>
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<td>2:50-3:02</td>
<td>Maryamsadat Shokrekhodaei, Annatoma Arif and Robert Christopher Roberts</td>
<td>Optimizing Laboratory Curriculum to Enhance Students’ Learning Efficiency in Electrical Engineering Department</td>
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<td>3:02-3:14</td>
<td>Kenneth Leitch and Erick Butler</td>
<td>Collaboration between a civil engineering and environmental engineering program: better together</td>
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<td>3:14-3:26</td>
<td>Andrew Grossfield</td>
<td>A Comparison of Differential Calculus and Differential Geometry in Two Dimensions</td>
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<td>3:26-3:38</td>
<td>Ulan Dakeev, Recayi Pecen, Faruk Yildiz and Ali Aljaroudi</td>
<td>A novel Augmented Reality application for a Mobile Renewable Trailer as an Emergency Response</td>
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<td>3:38-3:50</td>
<td>Jalal Rastegary, Patricia Sullivan, Stephanie Lloyd, Jason Dana, Catrina Damrell and Peter Cooke</td>
<td>Efficient Operation of Independent Grocery Stores in New Mexico</td>
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<td>3:50-4:02</td>
<td>Matthias Pleil</td>
<td>Foundations in Microsystems Fabrication Course for Engineering Students</td>
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<td>4:02-4:14</td>
<td>Aleksandr Sergeyev, John Irwin and Adrienne Minerick</td>
<td>Pioneering Approach for Offering the Convergence MS Degree in Mechatronics and Associate Graduate Certificate</td>
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<td>9:44-9:56</td>
<td>Julia N. Savoy, Mia K. Markey and H. Grady Rylander III</td>
<td>Enhancing Predoctoral Biomedical Engineering Ethics Education</td>
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<td>9:56-10:08</td>
<td>Matthew Alexander</td>
<td>Teaching professional skills in chemical engineering courses - critical thinking, creativity, communication, and collaboration skills</td>
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<td>10:08-10:20</td>
<td>Marina Miletic, Vanessa Sviha, Eva Chi, Jamie Gomez, Abhaya Datye, Pil Kang, Yan Chen and Sang Han</td>
<td>The design of digital badges to certify professional skills in engineering</td>
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<td>10:20-10:32</td>
<td>Elsa Castillo, Joel Robinson, Kristine Denman, Anyssa Choy and Tariq Khraishi</td>
<td>Results of a Scholarship Program on Engineering/Computer Science Undergraduate Students Success</td>
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<td>Diana de la Rosa-Pohl and Catherine Horn</td>
<td>Endeavour S-STEM: Supporting High-Achieving Underserved Students in STEM</td>
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<td>10:44-10:56</td>
<td>Cody Crosby, Anita Patrick, Margo Cousins, Laura Suggs and Mia Markey</td>
<td>Scientific Skill Acquisition and Identity of Visiting Scholars in a Research Experience for Undergraduates (REU) Site</td>
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<td>10:56-11:08</td>
<td>Tamara Stimatze, Jacqueline Zeiber, Patricia Sullivan, Steven Stochaj and Luis Vázquez</td>
<td>New Mexico PREP Academy: Improve STEM Knowledge for Underrepresented Middle and High School Students</td>
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<td>Kenneth Van Treuren</td>
<td>Helping iGen Engineering Students Prepare for the Real World</td>
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<td>11:42-11:54</td>
<td>Yu-Lin Shen</td>
<td>Meeting the Standards for Online Teaching: Some Strategies for “Dry” Engineering Courses</td>
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<td>11:54-12:06</td>
<td>Jeff Cunion and Brigitte Barbier</td>
<td>Integrating SAP into an Online Engineering Technology Class: Issues and Outcomes</td>
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<td>12:06-12:18</td>
<td>Chadia Affane Aji and M. Javed Khan</td>
<td>Simulation Technology and Student Engagement</td>
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<td>12:18-12:30</td>
<td>Cynthia Fry and Zachary Steudel</td>
<td>DEVELOPMENT OF A REVERSE SOFTWARE ENGINEERING PROJECT</td>
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<td>Cynthia Fry, Gennie Mansi and Kevin Kulda</td>
<td>A SOPHOMORE-LEVEL REVERSE SOFTWARE ENGINEERING PROJECT IN COMPUTER SYSTEMS</td>
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<td>12:42-12:54</td>
<td>Roli Varma</td>
<td>Indian Perspective on Women in Computing</td>
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<td>12:54-1:06</td>
<td>Randall Manteufel and Amir Karimi</td>
<td>Use of phones and online tutors to cheat on engineering exams</td>
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<td>1:06-1:18</td>
<td>Roli Varma and Meghna Sabharwal</td>
<td>Asian Indian Engineers on H-1B Visas in the United States</td>
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<td>Chadia Affane Aji and M. Javed Khan</td>
<td>Effective Instructional Strategies for Deeper Learning</td>
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<td>1:50-2:02</td>
<td>Ryan Campbell, Danny Reible, Roman Taraban and Jeong-Hee Kim</td>
<td>More than a Dream: The Developing Reflective Engineers through Artful Methods (DREAM) Project</td>
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<td>Julia N. Savoy, Mia K. Markey and H. Grady Rylander III</td>
<td>Using Reflective Tools to Enhance the Value of Externships for Predoctoral Biomedical Engineering Students</td>
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<td>Vanessa Svihla</td>
<td>Making Ideation Authentic and Useful in Course-Based Design</td>
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<td>2:26-2:38</td>
<td>Jamie Gomez, Catherine Hubka, Yan Chen, Vanessa Svihla, Eva Chi and Abhaya Datye</td>
<td>Do I have to teach writing?</td>
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<td>Enhancing student learning with a community-based design challenge in a transport course</td>
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<td>Sheima Khatib, Roman Taraban and William Lawson</td>
<td>Changes in Student Confidence, Strategies, and Reflection in a FE Review Course in Chemical Engineering</td>
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<td>M. Javed Khan and Chadia Affane Aji</td>
<td>Development of Engineering Identity</td>
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<td>John Carrell, Joshua Cruz and Stephanie Kuzmack</td>
<td>Using Humanities as Context for STEM Empathy Development: A Discourse Analysis</td>
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