



Council on Technology and Engineering Teacher Education

### 2016 Conference Schedule

#### Tuesday, March 1<sup>st</sup>

4:00 pm - 6:00 pm in Azalea 1 **CTETE Executive Committee Meeting**

8:00 pm - 11:00 pm in Azalea 1 **CTETE Yearbook Committee Meeting**

#### Wednesday, March 2<sup>nd</sup>

1:00 pm - 1:50 pm in Azalea 3 **CTETE Presentation**

**Title:** Integrative-STEM FocalPoints™ Changing the Way We Think About Technology and Engineering

**Description:** Learn how FocalPoints™ define STEM and ways they will change the classroom, and implications for inclusion in Technology and Engineering teacher education programs and classrooms.

**Presenter:** Roger Skophammer

2:00 pm - 2:50 pm in Azalea 3 **CTETE Research Presentations**

**Title:** Summer Camp Participation & Future Education in Technology & Engineering

**Description:** This study will investigate the relationship between primary school technology & engineering extracurricular camp participation and the selection of future education in technology & engineering related subjects.

**Presenter:** Len Litowitz

**Title:** STEM Stakeholder Perceptions of EbD and PLTW

**Description:** A comparative analysis of Engineering by Design and Project Lead the Way as perceived by Administrators, Teachers, and Students in Middle Grades and High schools.

**Presenters:** David Rouch, Richard Miller, and Trevor Robinson

3:00 pm - 3:50 pm in Azalea 3 **CTETE Teacher Preparation Presentations**

**Title:** Integrative STEM for Early Childhood Education Majors

**Description:** Learn about a new minor in Integrative STEM for early childhood education majors. The rationale, program of study, example curricula, and more will be shared.

**Presenters:** Sharon Brusic, Scott Warner, and Len Litowitz

**Title:** MonarchTeach: A Model Program for Preparing Teachers

**Description:** UTeach from University of Texas, Austin is replicated in over 35 universities for mathematics and science education. Come learn about the first technology teacher program that uses this model.

**Presenter:** Philip A. Reed and Diana V. Cantu

**Wednesday, March 2<sup>nd</sup> (continued)**

4:00 pm - 4:50 pm in Azalea 3 **CTETE Teacher Preparation Presentation**

**Title:** *Status of Elementary Teacher Development: Preparing Elementary Teachers for Technology and Engineering Experiences*

**Description:** *The CTETE Teacher Preparation Committee will present their findings of teacher preparation programs in the U.S. that prepare pre-service elementary teachers to deliver technology and engineering experiences within elementary classrooms*

**Presenters:** Vinson Carter, Annette Rose, Steve Shumway, Josh Brown, Scott Warner, Lidia Haughey, and Peter Lund

4:00 pm - 6:00 pm in the Exhibit Hall

### **CTETE Poster Session at the Technology and Engineering STEM Showcase**

- **Title:** Cleaning Water: A Model Integrative STEM Lesson  
**Description:** Deconstructing one example of an integrative STEM exemplar lesson focusing on the NAE Grand Challenge of providing clean water.  
**Presenter:** Sharon Bowers
- **Title:** Cleaning Water: I-STEM ED through Engage and Elicit  
**Description:** Deconstructing the ENGAGE and ELICIT stages of an integrative STEM exemplar lesson focusing on the NAE Grand Challenge of providing clean water.  
**Presenter:** Keith Basterman
- **Title:** Cleaning Water: I-STEM ED through Explore and Explain  
**Description:** Deconstructing the Explore and Explain stages of an integrative STEM exemplar lesson focusing on the NAE Grand Challenge of providing clean water.  
**Presenter:** Lisa Moyer
- **Title:** Cleaning Water: I-STEM ED through Elaborate and Evaluate  
**Description:** Deconstructing the Elaborate and Evaluate stages of an integrative STEM exemplar lesson focusing on the NAE Grand Challenge of providing clean water.  
**Presenter:** Barry Potter
- **Title:** Cleaning Water: I-STEM ED through Extend and Resources  
**Description:** Deconstructing the Extend and Resources stages of an integrative STEM exemplar lesson focusing on the NAE Grand Challenge of providing clean water.  
**Presenter:** Michael Grubbs
- **Title:** From Empty Lab to STEM Lab  
**Description:** Practical and low-cost tips for elementary schools that can help transform an empty classroom into a thriving STEM lab.  
**Presenters:** Sharon Bowers, Songze Li, Barry Potter, Jeremy Ernst, and Aaron Clark
- **Title:** Lesson Learned – Transforming Teaching Through Implementing Inquiry (T2I2)  
**Description:** T2I2 provides flexible, web-based, easily accessible and practical teacher professional development for technology education teachers, refined through 4 years of development and research.  
**Presenters:** Sharon Bowers, Songze Li, Barry Potter, Jeremy Ernst, and Aaron Clark

## Wednesday, March 2<sup>nd</sup> (continued)

4:00 pm - 6:00 pm in the Exhibit Hall

### CTETE Poster Session at the Technology and Engineering STEM Showcase

- **Title:** Developing Lessons for 3D Printing  
**Description:** This poster describes lessons that have been developed using 3D printing technology at both the elementary and secondary level.  
**Presenter:** Fred Figliano
- **Title:** Administrator Perceptions of STEM Curriculum Types  
**Description:** An analysis of Engineering by Design and Project Lead the Way as perceived by middle and high school administrators.  
**Presenters:** Richard Miller, Brandon Ike, Rachel Kerber, and Braydon Focht
- **Title:** Student Perceptions of STEM Curriculum Types  
**Description:** An analysis of Engineering by Design and Project Lead the Way as perceived by middle and high school students.  
**Presenters:** Trevor Robinson, Ben Freer, Andrew Grose, and Zane Cottingim
- **Title:** Teacher Perceptions of STEM Curriculum Types  
**Description:** An analysis of Engineering by Design and Project Lead the Way as perceived by middle and high school STEM program teachers.  
**Presenters:** David Rouch, Ben Somsak, Michael James, and Maxwell Steck
- **Title:** Mathematical Thinking in Engineering Design  
**Description:** This poster will show how students use mathematical thinking to solve engineering design problems in an effective and precise way.  
**Presenters:** Euisuk Sung and Todd Kelley
- **Title:** Engineering and Education Partnership: Preparing the Next Generation of Cross Disciplinary Trained STEM Teachers  
**Description:** Preparing engineering and technology teachers through an engineering degree pathway and cross-training STEM teachers opens a whole new perspective to STEM teaching, learning, and research.  
**Presenters:** Thomas J. Siller and Michael A. de Miranda

6:15 pm - 7:45 pm in Woodrow Wilson Ballroom B      **CTETE Yearbook and Awards Dinner**

This dinner is a tradition honoring the individuals and initiatives that represent the best of the technology and engineering teacher education profession (ticket required).

## Thursday, March 3<sup>rd</sup>

1:00 pm - 1:50 pm in Azalea 3      **CTETE Research Presentation**

**Title:** Graduate Student Forum

**Description:** Graduate students and early career researchers describe their Technology and Engineering Education research efforts at a roundtable setting. Presentations are made concurrently and will rotate at 20 minutes.

**Presenters:** CTETE Research and Scholarship Committee

## Thursday, March 3<sup>rd</sup> (continued)

2:00 pm - 2:50 pm in Azalea 3 **CTETE Business Meeting (open to all)**

3:00 pm - 3:50 pm in Azalea 3 **CTETE Committee Work Sessions (open to all)**

4:00 pm - 4:50 pm in Azalea 3 **CTETE Presentation**

**Title:** STEM Research Informs Technology Education Practice

**Description:** This presentation features five years of findings from an NSF MSP project studying think-aloud protocols from grades 3-6 with insight in how students conceptualize design.

**Presenters:** Todd Kelley and Euisuk Sung

4:00 pm in the Hospitality Suite **CTETE Executive Committee and Journal of Technology Education (JTE) Management Board Meeting**

## Friday, March 4<sup>th</sup>

8:00 am - 8:50 am in Annapolis 4 **CTETE Presentation**

**Title:** Collaborating to address STEM careers in manufacturing

**Description:** A description of a collaborative approach to identify competencies for critical job areas in manufacturing in north central Idaho.

**Presenters:** Raymond Dixon

8:00 am - 8:50 am in Baltimore 1 **CTETE Presentation**

**Title:** Development of Safety and Health Education in Technology Education

**Description:** The program and contents of "Safety and Health Education in Technology Education" are shown according to many results for the classroom and students.

**Presenter:** Hidetoshi Miyakawa

9:00 am - 9:50 am in Annapolis 4 **CTETE Presentation**

**Title:** *STEM Teacher Efficacy in Flipped Classrooms*

**Description:** *An overview of the results of a qualitative investigation into the impact of flipped classrooms on the teacher efficacy of STEM educators.*

**Presenter:** Daniel Kelly

9:00 am - 9:50 am in Baltimore 1 **CTETE Presentation**

**Title:** Curriculum Research Projects' Impact on Teacher Preparation

**Description:** *Which technology and engineering education curriculum project content are found in the curriculum for the preparation of today's teachers?*

**Presenters:** John Ritz and Gene Martin

10:30 am in Camellia 1 **CTETE Executive Committee Meeting**