Conference Program 2019

ITEEA 81st Annual Conference
Kansas City, Missouri
March 27-30, 2019

Technology and Engineering Bring STEM to Life!

For up-to-the-minute programming and full details, use our mobile app. See page 2 for instructions.

ITEEA 81st Annual Conference
Kansas City, Missouri
Technology and Engineering Bring STEM to Life!
ITEEA MOBILE APP
STEP-BY-STEP INSTRUCTIONS

Go to Apple’s App Store or Google Play and search for “CrowdCompass AttendeeHub.” Download and install the app.

Once downloaded, you’ll be prompted to find the event.

Type “iteea” in the search field. Be sure “Current & Upcoming” is selected. Download “ITEEA 81st Annual Conference”

When prompted for password, enter iteeakc19

The event information will load and be accessible.

Once the app is downloaded, attendees have the option of creating an account, which will allow access to additional features like taking notes, sharing photos, rating sessions, etc. YOU ARE NOT REQUIRED TO CREATE AN ACCOUNT.

Log in by clicking the three bars at the top left corner of the app and selecting “log in.” Complete the requested information and then click to send a verification code to your listed email address. Fill in the verification code and you’re logged in!

Questions? Get immediate support by calling 844-215-9037 or complete a request for support at www.crowdcompass.com/contact-support.shtml.
Welcome from ITEEA’s President

On behalf of the ITEEA Board of Directors, Conference Planning Committee, and the ITEEA Headquarters staff, it is both my honor and privilege to welcome you to Kansas City, Missouri and the 81st Annual ITEEA Conference.

The theme for ITEEA’s 81st Annual Conference is "Technology and Engineering Bring STEM to Life!” STEM education is the very foundation of life. As we educate, we nurture the life of our students and their dreams. We help them to grow into a space where the world around them, whether it’s digital or virtual reality, prepares them for the next chapter.

Since its inception in 1939, ITEEA has been an important part of a mission to promote technological literacy through the application of science, technology, engineering, and math (STEM). This year, as we focus on new ideas and challenges in the STEM field, the ITEEA conference provides an opportunity for us to share our collective knowledge, explore innovative ideas, and build collaborative partnerships.

This year’s conference strands are:

**Strand 1:** Demonstrating best practice through classroom instruction PreK-12 and beyond.

**Strand 2:** Identifying and discussing research that supports best practices in technology and engineering education.

**Strand 3:** Showcasing partnerships that support and strengthen technology and engineering education through Integrative STEM Education approaches.

**Strand 4:** Preparing preservice and inservice technology and engineering teachers to deliver effective I-STEM Education.

Technology is forever changing, and the demand to challenge ourselves starts in the classrooms across America. As a 33-year technology educator and administrator, I have always challenged my students to bring the best of themselves to everything and to commit to excellence. Now, as Mayor of the great City of Framingham, Massachusetts, I still can create excellence and shift the dynamic of how we view STEM-related opportunities. In my city, I am working closely with our leadership team to ensure that our nearly ten thousand students are scientifically and technologically literate. It’s all deliberate, to create program initiatives to encourage my residents to build bridges that all our very diverse residents can cross over.

My experience over the years at the ITEEA conferences has helped me to develop relationships and have access to resources that have provided fresh perspectives and outlooks on my work in the STEM field and beyond. This year’s conference will be filled with many opportunities to get involved and stay engaged. Your attendance will allow you to meet professionals and educators from across the country who, like you, are on a mission to educate, coach, and promote the finest minds in our field.

Nelson Mandela sums up my beliefs about this year’s conference and ITEEA: “Education is the most powerful weapon which you can use to change the world!” See you at the conference, and let’s change the world together!

Yvonne M. Spicer, Ed.D, DTE
ITEEA President, 2018-2019
February 22, 2019

Dear Conference Attendees,

It is my great pleasure to welcome you to the International Technology and Engineering Educators Association’s 81st Annual Conference: Technology and Engineering Bring STEM to Life. Your presence at this event demonstrates that you are committed to supporting and strengthening STEM education! I am pleased that Kansas City is able to host an event to advance the work of STEM. Your work is critical to developing a workforce that will meet the needs of the future.

While you are with us, we invite you to enjoy every district in our city. Regardless of what area of Kansas City you find yourself, you won’t be far away from great restaurants, retail establishments, and cultural events. With attractions ranging from the Sprint Center to the Nelson-Atkins Museum of Art, the 18th & Vine Jazz District and a number of award-winning barbeque restaurants all around, Kansas City has something for everyone.

Again, I welcome you to Kansas City and hope you enjoy your time here!

Sincerely,

Sylvester “Sly” James, Jr.
Mayor of Kansas City, Missouri
## Conference at a Glance

**81st ANNUAL CONFERENCE**

Technology and Engineering Bring STEM to Life!

**Kansas City, Missouri**  
March 27-30, 2019

### Wednesday, March 27, 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>8:00am-11:00am</td>
<td>ITEEA Preregistration packet pickup</td>
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<tr>
<td>11:00am-5:00pm</td>
<td>ITEEA Registration, EbD™ Learning Lounge open</td>
</tr>
<tr>
<td>9:00am-4:00pm</td>
<td>EbD™ Consortium Workshops (by invitation)</td>
</tr>
<tr>
<td>9:00am-7:00pm</td>
<td>Preconference Specialized STEM Workshops</td>
</tr>
<tr>
<td>1:00pm-4:30pm</td>
<td>ITEEA Board of Directors Meeting</td>
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<tr>
<td>5:00pm-7:00pm</td>
<td>Panel Session and Reception – STEM4: The Power of Collaboration for Change</td>
</tr>
<tr>
<td>8:00pm-10:00pm</td>
<td>TEECA Welcome Session</td>
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### Thursday, March 28, 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00am-8:30am</td>
<td>ITEEA President’s Roundtable Breakfast</td>
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<tr>
<td>8:00am-9:00am</td>
<td>Professional Development STEM Learning Sessions</td>
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<tr>
<td>8:00am-4:00pm</td>
<td>STEM PreK-12 Administrator Strand</td>
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<tr>
<td>8:00am-5:00pm</td>
<td>ITEEA Registration, EbD™ Learning Lounge open</td>
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<tr>
<td>9:00am-10:50am</td>
<td>Program Excellence General Session</td>
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<tr>
<td>11:00am-4:50pm</td>
<td>Professional Development STEM Learning Sessions, EbDLabs™, Exhibitor Action Labs</td>
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<tr>
<td>11:00am-6:00pm</td>
<td>Exhibits Area open (dedicated hours 11-1)</td>
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<tr>
<td>12:00pm-1:30pm</td>
<td>International/PATT Luncheon</td>
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<tr>
<td>4:00pm-5:30pm</td>
<td>ITEEA STEM Showcase and CTETE Poster Sessions</td>
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<td>5:30pm-6:30pm</td>
<td>ITEEA Opening Reception</td>
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### Friday, March 29, 2019

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<th>Time</th>
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<tr>
<td>7:00am-8:45am</td>
<td>FTEE Spirit of Excellence Breakfast</td>
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<td>8:00am-9:00am</td>
<td>Professional Development STEM Learning Sessions</td>
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<td>8:00am-3:00pm</td>
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<td>8:00am-5:00pm</td>
<td>STEM PreK-12 Administrator Strand</td>
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<td>9:00am-10:50am</td>
<td>Teacher Excellence General Session</td>
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<tr>
<td>11:00am-2:00pm</td>
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<tr>
<td>11:00am-4:50pm</td>
<td>Professional Development STEM Learning Sessions, EbDLabs™, Exhibitor Action Labs</td>
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<tr>
<td>12:15pm-1:00pm</td>
<td>Go Baby Go! Car Presentations and ITEEA Sweet Treats Celebration</td>
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<tr>
<td>5:30pm-6:30pm</td>
<td>PATT/International/21st Century Leaders Reception</td>
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<tr>
<td>6:00pm-8:00pm</td>
<td>TEECA Awards Dinner/Closing Ceremony</td>
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### Saturday, March 30, 2019

<table>
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<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00am-8:45am</td>
<td>EPT Breakfast</td>
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<tr>
<td>7:45am-8:45am</td>
<td>Program Excellence Breakfast</td>
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<tr>
<td>8:00am-9:50am</td>
<td>Professional Development STEM Learning Sessions</td>
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<tr>
<td>10:15am-11:45am</td>
<td>ITEEA Awards and Recognition Brunch</td>
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<tr>
<td>12:00pm-3:00pm</td>
<td>ITEEA Board of Directors Meeting</td>
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### Exhibits, exhibits, exhibits...

**Thursday**

<table>
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<tr>
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<td>Dedicated exhibit hours 11:00am-1:00pm</td>
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**Friday**

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<tr>
<td>11:00am-2:00pm</td>
<td>Exhibits Area Open</td>
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<tr>
<td></td>
<td>Dedicated exhibit hours 11:00am-1:00pm</td>
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ITEEA Conference Badges
Please be sure to wear your ITEEA conference badge at all times, as it is required for admittance to the Exhibit Hall and all sessions, workshops, field trips, Action Labs, social events, and meal functions.

Session Presenters
Session presenters may pick up their preregistration packets (badges included) at ITEEA Registration. Presenter profile information is available via ITEEA's mobile conference app (see download instructions on page 2).

Specialized STEM Leadership Workshops
Specialized STEM Leadership Workshops will be held on Wednesday, March 27 and Saturday, March 30 and carry a $95 registration fee (the Elementary workshop on Wednesday afternoon is $50). You must be registered for the conference and pay the workshop fee in order to attend. Descriptions are in ITEEA's Mobile App.

Professional Development STEM Learning Sessions
Sessions are scheduled at regular intervals and generally last 45-50 minutes. All ITEEA Professional Development STEM Learning Sessions will take place at the Sheraton and Westin at Crown Center. Please refer to pages 12-22 of this program or ITEEA's Mobile App (see page 2 for app instructions) for further details.

Educational Field Trips
Friday, March 29, 2019
Field trip programs are described in ITEEA's Mobile App. Due to the limited availability of these educational field trips, you must be a fully registered conference attendee in order to participate. Participation is limited on each field trip, first-come, first-served, so check ITEEA Registration ASAP for availability. All field trips require a separate ticket purchase. Tickets are available for purchase at ITEEA Registration until they are sold out.

PATT/International
PATT is an international series of technological literacy conferences held within the framework of the ITEEA conference. PATT sessions are open to all those who are interested in learning about international developments. The PATT registration fee includes: ITEEA conference registration, International Luncheon, and PATT Reception.
General Conference Information and Services

On-Site Registration, EbD™ Learning Lounge, and Exhibit Hall Hours

ITEEA Registration and EbD™ Learning Lounge:
Wednesday, March 27, 11:00am-5:00pm
Thursday, March 28, 8:00am-5:00pm
Friday, March 29, 8:00am-3:00pm

ITEEA Preregistration pickup only:
Wednesday, March 27, 8:00am–11:00am

Registration and the EbD™ Learning Lounge are both located in the Crown Center Exhibit Hall B, located at the Sheraton.

Exhibits Open:
Thursday, March 28: 11:00am-6:00pm
Friday, March 29: 11:00am-2:00pm

Dedicated Exhibit Hours
Thursday, March 28: 11:00am-1:00pm
Friday, March 29: 11:00am-1:00pm

Connecting to the WiFi Network
Connect to network/SSID: ITEEA19
Input the password when requested: iteeakc19

Limitations and Liability
The International Technology and Engineering Educators Association, its directors, employees, contractors, consultants, committees, and hosting organizations are not responsible for any personal injury, loss, or damages resulting from travel to, from, during, or as a result of attendance at the 81st Annual ITEEA Conference, nor for any expenses incurred as a result of travel arrangement changes for any reason, including strikes, illness, weather, acts of God, national security breaches, or other causes.

Make the Most of Your Conference Experience with the ITEEA Mobile App!
Download the official ITEEA mobile app to access events, speaker information, exhibitors, and much more! The updated 2019 app will guarantee less walking and keep your day structured—all from the palm of your hand:
• Detailed agenda at your fingertips
• Meeting room and exhibit floor maps
• Cyber networking – including speakers and exhibitors
• Polls, surveys, and more
• Browse exhibitors, mark your favorites, route to various booths, take notes on them, and more!
• Interactively add sessions from the app to your custom app schedule, then sync across your multiple devices!
• Stay up to date with real-time alerts
• Follow the social media buzz; even tweet from the app #iteea2019!
• Browse local Kansas City restaurants, things to do, and sights to see and reference helpful travel information and much more!

See page 2 for download instructions.
Meeting Space: Ballroom Level

BALLROOM LEVEL
1. Boardroom
2. The Grand Office
3. Atlanta
4. New York
5. San Francisco
6. Chicago
7. The Grand Ballroom

Exhibit Hall and Mezzanine Level

EXHIBIT HALL AND MEZZANINE LEVEL
1. Exhibit Hall A
2. Exhibit Hall B
3. Northrup
4. Fremont
5. Benton
6. Van Horn
7. The Terrace
8. Chouteau
9. Empire
Meeting Space: Lobby Level

Meeting Space: Ballroom Level
2019 Administrator Strand
ITEEA’s Council for Supervision and Leadership I-STEM PreK-12 Administrator Strand

ITEEA’s 81st Annual Conference
Sheraton and Westin Kansas City at Crown Center Hotels

Kansas City, Missouri March 27-30, 2019

STRAND THEME – Integrative STEM Education: Leadership Through Implementation

Wednesday, March 27, 2019
11:00am–3:30pm
Meet in Sheraton Lobby
Preconference Field Trip
General Motors Fairfax Assembly Plant
Visit the assembly plant where General Motors produces the Chevrolet Malibu. This is a walking tour of the assembly floor, so please plan your attire accordingly. Full length pants and close-toed shoes are strongly encouraged. The tour is not suitable for persons with limited mobility or needing assistance to walk. Transportation is provided both ways, and the field trip will depart the conference hotel at 11:30am.

5:00pm–7:00pm
Pershing North, Westin
SPECIAL PANEL SESSION AND RECEPTION – STEM4: The Power of Collaboration for Change
Followed by a reception for STEM4, Administrator Strand, and CSL attendees
Listen, learn, and interact with leaders across all the STEM disciplines who have collaborated, at the federal, state and district level, to support policy and effective implementation to advance STEM education. Panel presentation to be followed by a reception and an opportunity for informal discussion. Stay to enjoy hors d’oeuvres, beverages, and networking with leading STEM educators from around the country. Sponsored by Texas Instruments.

Panel Speakers:
Ron DeChristofo, State Policy Director/ Education Technology, Texas Instruments;
Peter MacLaren, Executive Director, Next Gen Education, LLC; Jeff Weld, Executive Director, Iowa Governor’s STEM Advisory Council and STEM Education Policy Consultant, Office of Science and Technology Policy, White House; David Barnes, Associate Director for Research, Learning, and Development, NCTM; Steven Barbato, Executive Director/CEO, ITEEA; Kanika Carver, Strategic Alliance Director, Texas Instruments

Thursday, March 28, 2019
7:30am
Gillham Hall, Sheraton
CSL Awards Breakfast and Business Meeting
CSL Members and Administrator Strand Registrants are invited to attend.

9:00am
Atlanta/New York/San Francisco, Sheraton
Program Excellence General Session

11:00am
Exhibit Hall
Exhibits Open

11:00am–1:00pm
Lunch on your own
Multiple options available in the Exhibit Hall

1:00pm
Gillham Hall, Sheraton
Welcome!
Introductions, Goals, Anticipated Outcomes

Part I: edTPA: What is This All About?
Part II: Teacher Recruitment: Alternate Certification

Part I: Presenters: Jennifer Buelin, Ed.D., Director, ITEEA’s STEM Center for Teaching and Learning™; Doug Livingston, President CSL and Technology and Engineering Education Specialist, Utah State Board of Education

Part II: Participants will be given a brief overview of edTPA, a performance-based, subject-specific assessment and support system used by teacher preparation programs to meet state requirements for teacher certification.

Part II Presenters: Gregory Kane, Adjunct, Central Connecticut State University School of Engineering and Technology Education; Dr. Patrick Foster, Professor, Central Connecticut State University School of Technology and Engineering Education

2:00pm
Gillham Hall, Sheraton
Part I: edTPA: What is This All About?
Part II: Teacher Recruitment: Alternate Certification

Part I: Participants will be given a brief overview of edTPA, a performance-based, subject-specific assessment and support system used by teacher preparation programs to meet state requirements for teacher certification.

Part II: A panel of national leaders in Technology and Engineering Education will share what their states are doing to facilitate alternate routes to teacher certification.
2019 Administrator Strand

Friday, March 29, 2019
8:00am
Gillham Hall, Sheraton
Breakfast
CSL members and Administrator Strand registrants are invited to attend. Sponsored by TSA-TEAMS.

9:00am
Atlanta/NewYork/SanFrancisco, Sheraton
Teacher Excellence General Session

11:00am
Exhibits Open

11:00am–1:00pm
Lunch on your own
Multiple options available in the Exhibit Hall

1:00pm
Gillham Hall, Sheraton
I-STEM Ed Share
Share your experiences and knowledge acquired during your attendance and participation of selected I-STEM Ed conference sessions.
Facilitators™: Doug Livingston, President CSL and Technology and Engineering Education Specialist, Utah State Board of Education; Anita Deck, Director of Innovation, Assessment, and Research, ITEEA’s STEM Center for Teaching and Learning™

1:30pm
Gillham Hall, Sheraton
Flexibility, Affordability, Accountability: The EbD Nitty Gritty
Engineering byDesign™ - What is it? Using a standards-based approach, this model provides an overview of how to bring STEM to elementary, middle, and high schools. Using the FAA approach (Flexibility, Affordability, and Accountability), the program is suitable for any school or district seeking to implement an Integrative STEM system. 
Presenter: Joanna Papadopoulos, Special Projects Associate, Virginia Tech

1:30pm
Gillham Hall, Sheraton
EbDLabs™
Participants will visit hands-on sessions that provide an overview of the course and a sampling of Integrative STEM lessons. Administrators are encouraged to visit one or all three EbDLabs™ depending on their interests.

3:00pm
Gillham Hall, Sheraton
Closure: Opportunities and Next Steps
Integrative STEM provides many opportunities for moving forward. During the two days, information has been provided that will help frame how STEM can be implemented. This session will build upon that information to offer opportunities that are available to make STEM a reality in any school or district.
Presenters: Anita Deck, Ed.D., Director of Innovation, Assessment, and Research, ITEEA’s STEM Center for Teaching and Learning™; Doug Livingston, President CSL and Technology and Engineering Education Specialist, Utah State Board of Education

3:45pm
Empire A, Sheraton
Advanced Design Applications (Grades 10/11)

Empire B, Sheraton
Technological Systems (Grade 8)

Empire A, Sheraton
EbD-TEEMS (Grades PreK-2)

Part II Panelists: Justin Touchstone, Senior Program Quality Manager – Engineering and Technology Education, Idaho Career and Technical Education; Don Fischer, Technology and Engineering Education Supervisor, North Dakota Department of Career and Technical Education; Doug Livingston, Career and Technical Education Specialist Technology Education, Utah State Board of Education.

2:50pm
Gillham Hall, Sheraton
I-STEM Education in Action
Attend sessions chosen by CSL members that feature strategies and best practices of Integrative STEM Education. Be ready to share your experiences and knowledge acquisition during the I-STEM Ed Share session on Friday, March 29 at 2:00pm.
Presenter: Anita Deck, Director of Innovation, Assessment, and Research, ITEEA’s STEM Center for Teaching and Learning™

3:00pm
Gillham Hall, Sheraton
Industry Certification Pathway
To encourage more students to work toward a selected industry credential while in high school, the Engineering byDesign™ Industry Certification Pathway was developed by ITEEA’s STEM Center for Teaching and Learning™. By following the suggested pathway, educators can prepare students for a successful attempt at an industry certification through Certiport for the Autodesk software packages of AutoCAD, Revit, and Inventor.
Presenter: Douglas Lecorchick III, Ed.D., Teaching Assistant Professor, College of Education, North Carolina State University

4:00pm
Exhibit Hall B
ITEEA STEM Showcase
Visit with teachers and professionals in the field who are implementing innovative concepts in I-STEM Education. Pick up or download samples of lessons to bring back to your school or district!

5:30pm–6:30pm
Exhibit Hall
Exhibits Open
ITEEA Welcome Reception
All are welcome to attend! Come for a chance to win prizes and other giveaways.

2:00pm
Gillham Hall, Sheraton
Makerspaces and Labs: Designs and Safety Considerations
Does your school have a makerspace or STEM lab? Are you interested in converting an existing space into one of these?
### Wednesday Conference Programming

**March 27, 2019**

**For session descriptions, view the ITEEA mobile app. Download instructions are on page 2.**

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>8:00am–11:00am</td>
<td>Exhibit Hall Foyer - Sheraton</td>
<td>ITEEA Preregistration Pickup</td>
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<tr>
<td>11:00am–5:00pm</td>
<td>Exhibit Hall Foyer - Sheraton</td>
<td>ITEEA Registration and EbD™ Learning Lounge</td>
</tr>
<tr>
<td>8:00am–11:30am</td>
<td>Van Horn A - Sheraton</td>
<td>ITEEA Executive Committee Meeting</td>
</tr>
<tr>
<td>9:00am–12:00pm</td>
<td>Pershing East - Westin</td>
<td>Preconference Workshop: Design Thinking in Integrative STEM Education (Secondary)</td>
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<tr>
<td>11:00am–11:30am</td>
<td>Sheraton Pool</td>
<td>Remote Operation Vehicle (ROV) Demonstration</td>
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<tr>
<td>11:30am–3:30pm</td>
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<td>Meet in the Sheraton Lobby</td>
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<tr>
<td>1:00pm–3:00pm</td>
<td>Pershing East - Westin</td>
<td>Administrator Strand Field Trip</td>
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<tr>
<td>1:00pm–5:00pm</td>
<td>Empire A - Sheraton</td>
<td>General Motors Fairfax Assembly Plant</td>
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<tr>
<td>1:00pm–5:00pm</td>
<td>Van Horn A - Sheraton</td>
<td>ITEEA Board of Directors Meeting</td>
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<tr>
<td>4:00pm–6:00pm</td>
<td>Benton B - Sheraton</td>
<td>CTETE Executive Team Meeting</td>
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<tr>
<td>4:00pm–7:00pm</td>
<td>Pershing East - Westin</td>
<td>Preconference Workshop: STEM Strategies for the Elementary Classroom</td>
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<tr>
<td>5:00pm–6:00pm</td>
<td>Chouteau A - Sheraton</td>
<td>TEECA Management Board Meeting</td>
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<tr>
<td>6:00pm–7:30pm</td>
<td>Chouteau A - Sheraton</td>
<td>TEECA Advisors Meeting</td>
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<td>6:30pm–8:00pm</td>
<td>Union Hill West - Westin</td>
<td>ITEEA STEM CTL EbD™ National Teacher Effectiveness Coaches Celebration Dinner</td>
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<td>8:00pm–8:30pm</td>
<td>Chicago - Sheraton</td>
<td>TEECA Opening Session</td>
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<td>8:00pm–10:00pm</td>
<td>Benton B - Sheraton</td>
<td>CTETE Yearbook Meeting</td>
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<td>8:30pm–10:00pm</td>
<td>Chicago - Sheraton</td>
<td>TEECA Technology Challenge</td>
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**5:00pm–7:00pm**

Pershing North - Westin

**SPECIAL PRESENTATION PANEL SESSION AND RECEPTION**

**STEM*: The Power of Collaboration for Change**

Followed by a Reception for STEM*, Administrator Strand, and CSL attendees

Listen, learn, and interact with leaders across all the STEM disciplines who have collaborated, at the federal, state and district level, to support policy and effective implementation to advance STEM education. Panel presentation to be followed by a reception and an opportunity for informal discussion. Stay to enjoy hors d’oeuvres, beverages, and networking with leading STEM educators from around the country.

**Sponsored by Texas Instruments.**

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- **Ron DeChristoforo**, State Policy Director/Education Technology, Texas Instruments
- **Peter MacLaren**, Executive Director, Next Gen Education, LLC
- **Jeff Weld**, Executive Director, Iowa Governor’s STEM Advisory Council and STEM Education Policy Consultant, Office of Science and Technology Policy, White House
- **David Barnes**, Associate Director for Research, Learning, and Development, NCTM
- **Steven Barbato**, Executive Director/CEO, ITEEA
- **Kanika Carver**, Strategic Alliance Director, Texas Instruments
Thursday Conference Programming

11:00am–12:00pm
Mission - Westin
21st Century Leadership Academy Networking and Stimulating Research

11:00am–2:00pm
Exhibit Hall - Sheraton
Lunch and Learn
Lunch concessions will be available in the Exhibits area—if they wish, attendees can use the $5 coupon in their registration packets towards concession purchases.

12:00pm–1:30pm
Chicago - Sheraton
PATT/International Luncheon Engineering Associations and Technology Education: A Tribute to William E. Dugger as a Bridge Builder Presenters: Marc de Vries, Philip A. Reed, DTE, Jie Wang

1:00pm–1:10pm
Gillham Hall - Sheraton
CSL/Admin Strand Welcome! Introductions, Goals, Anticipated Outcomes Presenter: Anita Deck

1:00pm–1:50pm
Benton A - Sheraton
CTETE RI Mobile Maker Lab - Innovation on Wheels Presenter: Charlie McLaughlin, DTE

1:00pm–1:50pm
Chouteau A - Sheraton
CTETE Navigating Design: Strategies for Responding to Failure Presenters: Andrew Jackson, Nathan Mentzer

1:00pm–1:50pm
Chouteau B - Sheraton
ACTION LAB: Texas Instruments Come on Over and Code a Rover

1:00pm–1:50pm
Exhibit Hall B, Red Theatre
TEAMS: Problem Solving With Real-World Scenarios Presenters: Ken Reid, Sandy Honour

1:00pm–1:50pm
Mission - Westin
Creating a Vetting Process for STEM Products Presenter: Donna Jagielski

1:00pm–1:50pm
Pershing East - Westin
STEM*: The Power of Collaboration for Change Presenters: Ron DeChristoforo, Peter MacLaren, Jeff Weld, David Barnes, Steven Barbato, Kanika Carver

1:00pm–1:50pm
Pershing North - Westin
PANEL: Robotics Moderator: Tyler Love
   Bringing Together STEM Through Robotics Presenter: Christine Guseman
   Teaching Design Through Lego Robotics Presenter: Frank Caccavale

1:00pm–1:50pm
Pershing South - Westin
Unmanned Aircraft Systems: Easier Than You Think! Presenter: Michael Walach

1:00pm–1:50pm
Shawnee - Westin
Engineering Notebooks: No Paper Needed Presenter: Jeffrey Rosen

1:00pm–1:50pm
Van Horn A - Sheraton
PANEL: STEAM and Collaboration Moderator: Scott Warner
   Teaming up - STEAM Communal Engagement Initiatives Presenters: Gila Stein, Reyce Krause
   Developing STEAM Programs for MS Girls Through Community Collaborations Presenter: Ray Wu-Rorrer

1:00pm–2:00pm
Pershing West - Westin
Elementary STEM Council General Meeting

1:00pm–2:45pm
Empire A - Sheraton
EgLab*: TEEMS PreK-2 (Elementary School Grades PreK-2)

1:00pm–4:50pm
Empire B - Sheraton
EgLab*: Technological Systems (Middle School Grade 8)

1:00pm–4:50pm
Empire C - Sheraton
EgLab*: Advanced Design Applications (High School Grades 10/11)

1:10pm–2:00pm
Gillham Hall - Sheraton
CSL/Admin Strand ITEEA 101 and CSL Forum Presenters: Jennifer Buelin, Doug Livingston

2:00pm–2:50pm
Benton A - Sheraton
CTETE Our Curriculum: What Exactly Do We Teach? Presenters: Scott Bartholomew, Scott Warner, Jim Flowers, Mark Mahoney, Steve Shumway, Douglas Lecorchick

2:00pm–2:50pm
Benton B - Sheraton
International/PATT Fulbright Specialist Program - Firsthand Experience Presenter: Tatiana Goris
Thursday Conference Programming

2:00pm–2:50pm
Chouteau A - Sheraton
**CTETE**

Sponsored Research: How to Get Funded
Presenters: Aaron Clark, DTE, Jeremy Ernst

2:00pm–2:50pm
Chouteau B - Sheraton

ACTION LAB: Texas Instruments
Come on Over and Code a Rover

2:00pm–2:50pm
Exhibit Hall B, Blue Theatre

STEM Resources and Opportunities
Through CAP Aerospace Education
Presenter: Julie Sicks-Panus

2:00pm–2:50pm
Exhibit Hall B, Red Theatre

LAUNCHing K-8 STEM into the Stars
Presenter: William Heisler

2:00pm–2:50pm
Gillham Hall - Sheraton

CSL/Admin Strand
Part 1: edTPA: What is This All About?
Part 2: Teacher Recruitment - Alternate Certification
Presenters: Patrick Foster, Doug Livingston, Gregory Kane, Justin Touchstone, Don Fischer

2:00pm–2:50pm
Mission - Westin

Learn Better by Doing Study: Now What?
Presenter: Johnny Moye, DTE

2:00pm–2:50pm
Pershing South - Westin

Integrating Grid Modernization
Presenters: Erik Schettig, Megan Morin

2:00pm–2:50pm
Pershing West - Westin

Elementary STEM

Digital Communication Strategies for Elementary Students
Presenter: Aaron R. Gierhart

2:00pm–2:50pm
Shawnee - Westin

Validating “Industry-Recognized Credentials”
Presenters: Dan Trent, Virginia R. Jones, DTE

2:00pm–2:50pm
Van Horn A - Sheraton

Preparing Students for TSA Systems Control MS/HS
Presenters: Joe Busby, Brent Curran

2:50pm–3:00pm
Gillham Hall - Sheraton

CSL/Admin Strand

I-STEM Education in Action
Presenter: Anita Deck

3:00pm–3:50pm
Benton A - Sheraton

CTETE

Graduate Research: 125 Years of Trends and Issues
Presenter: Philip A. Reed, DTE

3:00pm–3:50pm
Benton B - Sheraton

International/PATT

Towards a Design Thinking Culture
Presenters: Soo Chin Chia, Seng Chong (Jason) Tan

3:00pm–3:50pm
Chouteau A - Sheraton

CTETE

Advancing School Leadership for Integrative STEM
Presenters: Krista Stith, Rachel Geesa

3:00pm–3:50pm
Exhibit Hall B, Blue Theatre

Engineered Pop-Up Cards That Light Up
Presenter: Debra E. Shapiro, DTE

3:00pm–3:50pm
Exhibit Hall B, Red Theatre

Integrating TSA Activities into the Classroom
Presenter: Jerianne Taylor, DTE

3:00pm–3:50pm
Mission - Westin

Rhode Island Mobile Maker Lab - New Partnerships
Presenter: Charlie McLaughlin, DTE

3:00pm–3:50pm
Pershing East - Westin

Microcontrollers in the Classroom
Presenters: Len Litowitz, DTE, Joseph McCabe

3:00pm–3:50pm
Pershing North - Westin

PANEL: Collaboration
Moderator: Susheela Shanta

Elementary STEM Outreach Programs
Presenters: Rich Reynolds
Partnerships ARE POWERFUL!
Presenter: Joyce Matthews
Promoting Industry and Teacher Integrated STEM Partnerships
Presenter: Todd Kelley, DTE

3:00pm–3:50pm
Pershing South - Westin

Gamification and Engagement Strategies for Student Learning and Instruction
Presenter: Carl Blue

3:00pm–3:50pm
Pershing West - Westin

Elementary STEM
Primary STEM is Elementary
Presenter: Michael Daugherty

3:00pm–3:50pm
Shawnee - Westin

Makerspaces and Labs: Designs and Safety Considerations
Presenter: Tyler Love
Thursday Conference Programming

3:00pm–3:50pm
Van Horn A - Sheraton
*Elementary STEM*
**Getting a Head Start on Integrative STEM**
Presenters: Sharon Brusic, Angelina DeLima-Diaz, Brooke Martin, Hannah Newman, Katelyn Williams

3:00pm–4:00pm
Gillham Hall - Sheraton
*CSL/Admin Strand*
**Industry Certification Pathway**
Presenter: Douglas Lecorchick III

4:00pm–4:50pm
Mission - Westin
**Developing Creativity in Native Hawaiian Adolescents: Year 3**
Presenter: Toni Marie Kaui

4:00pm–4:50pm
Pershing East - Westin
**Increasing STEM With Toys**
Presenter: Kevin Jensen

4:00pm–4:50pm
Pershing South - Westin
**STEM-Based Model-Eliciting Activity and Its Effects**
Presenter: Kuen-Yi Lin

4:00pm–5:30pm
Exhibit Hall B - Sheraton
**ITEEA’s STEM Showcase**
(See table listing on page 17.)

5:30pm–6:30pm
Exhibit Hall A - Sheraton
**ITEEA Opening Celebration Reception**

6:00pm–9:00pm
Chicago - Sheraton
**TEECA Manufacturing Challenge**

6:15pm–7:45pm
Pershing North - Westin
**CTETE Yearbook and Awards Reception**

7:00pm
Union Hill - Westin
**SEPA Dinner**
# Thursday STEM Showcase

## ITEEA STEM Showcase Tables

| 1.  | Twenty-First Century Leadership Academy |
| 2.  | STEM Day: Bring STEM to ALL Students |
| 3.  | Using Technology to Create Authentic Literacy Instruction |
| 4.  | Bristlebot Invasion! |
| 5.  | Using Content Stations in Engineering Units |
| 6.  | Connecting Outstanding STEM Books With Design Process |
| 7.  | Supporting STEM Through Interdisciplinary Instruction |
| 8.  | STARS in the NIGHT SKY/Telescope Building Fair |
| 9.  | Useful Magnet Tools |
| 10. | Lit Pop-Up Cards |
| 11. | Altoids to Electricity, a STEM Student Project |
| 12. | Consumption to Creation: Coding VR/AR |
| 13. | Tests of Engineering Aptitude, Mathematics, and Science |
| 14. | Navigating Mars |
| 15. | Digital Tools for Integration into Middle Level Science |
| 16. | TBA |
| 17. | Asking Questions and Defining Problems |
| 18. | Honeybees and Hammers: Tech/Tools for Primary Learners |
| 19. | Computational Biology/Chemistry on Chocolate Science |
| 20. | Apply Physics on Playing Video Games |
| 21. | Statistical JAVA Gaming STEM Simulation |
| 22. | 360° Photography: A How To |
| 23. | Schoolyard STEM: Engineering with Time Capsules |
| 24. | Celebrate 50 Years Since the Moon Landing! |
| 25. | Exploring STEM through Literacy |
| 26. | Preservice Teacher Person of the Day |
| 27. | Mathemon! Catch ‘em All! |
| 28. | High School Technology Education in Taiwan |
| 29. | Meaningful Making Throughout the Middle School Curriculum |
| 30. | Architectural Drafting for Student Success and Engagement |
| 31. | Middle School and Engineering: Future City’s Winning Combination |
| 32. | Needed Math: Closing the Gap between the Math that’s Taught, Learned, and Needed |
| 33. | ADA EbD Course as Dual Credit |
| 34. | Engineering Design Challenges for the Physics Classroom |
| 35. | Students With Knowledge vs. Students Given Knowledge |
| 36. | Global, Online, Research University-Based STEM PhD |
| 37. | Student-Designed Model Dam and Fish Ladder |
| 38. | A Day in "STEM" |
| 39. | Group Work that Works: Let’s Talk Scrum! |
| 40. | STEM in Finance: Community Credit Union Partnership |
| 41. | Wind Energy Experiments |
| 42. | Designing and Testing Underwater Sensors to Assist in Coral Restoration |
| 43. | Making a "CASE" For STEM Education |
| 44. | Fostering STEM Interest through MPuzzle |
| 45. | STEM Comes Alive Through History! IEEE REACH |
| 46. | Partnership Supports High School Engineering Program |
| 47. | Marine Technology Creates an Interest in STEM |
| 48. | Nautilus: Local Museum Bringing STEM to Life |
| 49. | Libraries: Bringing STEM to All through Collaborations |
| 50. | Elementary Engineers Now...Future Leaders Tomorrow |
| 51. | Digital Communication Strategies for Elementary Students |
| 52. | Using Children’s Literature to Prepare Elementary Students for Engineering Design Work and Habits of Mind |
| 53. | Translating Engineering Research to K-8 (TEK8) |
| 54. | PowerTech: On-site Making Robot Contest |
| 55. | A PBL-STEAM Project Based on Design Thinking: Traffic and Transportation |
| 56. | eSports and STEAM |
| 57. | STEAM Programs for Middle School Female Students |
| 58. | STEAM Classroom |
| 59. | ITEEA’s The Elementary STEM Journal |
| 60. | ITEEA’s Elementary STEM Council |
| 61. | Introducing Coding and Robotics in Primary Grade Classrooms |
| 62. | Trash to Treasure - Recycling HDPE in Manufacturing |
| 63. | Re-purposing Frankenstein: Integrative Approaches for the Freshman Composition Classroom |
| 64. | STEAM Night: Our Journey |
| 65. | Playing Around with the T in STEM |
| 66. | Teaching Innovation through Household Product Modification |
| 67. | Active Games with Micro:Bits |
| 68. | Influencing Perceptions of STEM Careers Through Literature |
| 69. | Teaching Computational Thinking through Active Game Design |
| 70. | Incorporating Data Visualization in Secondary Engineering Education |
| 71. | Integrating Math and Science into Engineering Classrooms |
| 72. | Girl Powered Changing the Face of STEM |
| 73. | EbD Certificaiton Pathways |
| 74. | ITEEA Dream Ride...Go Baby Go Style |
| 75. | Wind Tubes Moving Objects with Air |
| 76. | Your IdeaGarden Grows |
| 77. | Community-Oriented Authentic Engineering Design Projects in the Classroom |
| 78. | Becoming an Educational Designer |
| 79. | Gravity eRacer |
| 80. | TBA |
| 81. | Designing and Engineering Wheelchair Costumes |
| 82. | EbD TEEMS PreK-5 2019 Revision |
| 83. | EbD Foundations of Technology (Grade 9) 2019 Revision |
| 84. | Integrated STEM: Epidemiology and Research in the Classroom |
| 85. | Teaching Students it’s Okay to Fail |
| 86. | Soft Robotics as an Innovation in STEM Learning |
| 87. | Using Robotics to Expand Your Program |
| 88. | LEGO EV3 or VEX IQ? Best Fit |
| 89. | TBA |
| 90. | TBA |

## CTETE POSTER SESSIONS
- Proposed Standards for a STEM Teacher Licensure Endorsement
- Analysis of Spencer’s Basic Technical Drawing, 1956-2004
Friday Conference Programming

March 29, 2019

For session descriptions, view the ITEEA mobile app. Download instructions are on page 2.

8:00am–3:00pm
Exhibit Hall
ITEEA Registration and EbD™ Learning Lounge

9:00am–10:50pm
Atlanta/NewYork/SanFrancisco - Sheraton
Teacher Excellence General Session
Presenter: Travis McCready

7:00am–8:45am
Chicago - Sheraton
FTEE Maley “Spirit of Excellence” Breakfast
Speaker: Thomas P. Bell, DTE

8:00am–8:45am
Gillham Hall - Sheraton
CSL/Administrator Breakfast
Sponsored by TSA-TEAMS.

8:00am–8:50am
Benton A - Sheraton
CTETE
Importance and Method of Investigating Rubric Reliability
Presenters: Aaron Clark, DTE, Cameron Denson

8:00am–8:50am
Benton B - Sheraton
International/PATT
The T and E in Integrated STEM: International Challenges and Opportunities
Presenter: Marc J. de Vries

8:00am–8:50am
Chouteau A - Sheraton
A Framework for P-12 Engineering Education
Presenter: Greg Strimel

8:00am–8:50am
Empire C - Sheraton
New Technology in the Engineering Educator’s Toolbox
Presenters: Benjamin Williamson, Richard Scott, Kara Reeh

8:00am–8:50am
Mission - Westin
Instilling Critical Thinking in Technology and Engineering
Presenter: Thomas Loveland, DTE

8:00am–8:50am
Pershing East - Westin
360° Photography: A How To
Presenter: Brad Fessler

8:00am–8:50am
Pershing North - Westin
PANEL: Underrepresented Populations
Moderator: Molly Miller
Increasing STEM Awareness in Underserved Communities
Presenter: Dan Trent
Incorporating STEM in Middle School Intervention Courses
Presenter: Jay Bradley
STEM Success in a Rural Remote School
Presenter: Mary Baird

8:00am–8:50am
Pershing South - Westin
Elementary STEM
Bringing Engineering to Life in K-2 Classrooms
Presenters: Cathi Cox-Boniol, Missy Wooley

8:00am–8:50am
Pershing West - Westin
PANEL: Elementary STEM - Coding: It’s Elementary!
Moderator: Ray Wu-Rorrer
Hello Ruby - Let’s Code!
Presenters: Bryanne Peterson, Virginia R. Jones, DTE
Computer Science for Young Learners
Presenter: Mary Ann Bliss

8:00am–8:50am
Shawnee - Westin
Nanotechnology Can Impact Just About Everything!
Presenter: Chuck Goodwin, DTE

8:00am–8:50am
Van Horn A – Sheraton
STEAM
Seamless Collaboration: STEM+Art in Action
Presenters: Lorraine Downes, John Diego Arango

8:00am–9:00am
Ballroom Foyer - Sheraton
Tech Talk Café

8:00am–11:50am
Van Horn C - Sheraton
EPT Board of Directors Meeting

9:00am–10:50pm
Atlanta/NewYork/SanFrancisco - Sheraton
Teacher Excellence General Session
Presenter: Travis McCready
Sponsored by Goodheart-Willcox.

9:30am–12:30pm
Educational Field Trip: TierPoint Data Security Center
Bus departs from Sheraton main lobby at 9:30am.

10:00am–10:10am
Exhibit Hall
TEECA Communication Contest Turn-In

11:00am–2:00pm
Exhibit Hall A - Sheraton
Exhibits Open
Dedicated Exhibit Hours: 11:00am-1:00pm

Download instructions are on page 2.
Friday Conference Programming

11:00am–11:30am
Sheraton Pool
Remote Operation Vehicle (ROV) Demonstration

11:00am–11:50am
Chouteau B - Sheraton
ACTION LAB: Solidworks
What We Have and What You Need

11:00am–11:50am
Exhibit Hall B, Blue Theatre
Establishing Community STEM Partnerships Through ROAVcopters
Presenters: Cory Ortiz, Gary Stewardson

11:00am–12:15pm
Pershing South - Westin
ITEEA Committee and Review Board Meeting

11:00am–12:30pm
Exhibit Hall
TEECA Problem-Solving Competition

11:00am–2:00pm
Exhibit Hall - Sheraton
Lunch and Learn
Lunch concessions will be available in the Exhibits area—if they wish, attendees can use the $5 coupon in their registration packets towards concession purchases.

12:00pm–1:15pm
Exhibit Hall A - Sheraton
ITEEA Dream Ride - GoBabyGo! Style - Presentation of Cars

12:15pm–1:15pm
ITEEA Exhibit Hall A - Sheraton
ITEEA Sweet Treats Celebration

1:00pm–1:50pm
Benton B - Sheraton
International/PATT
PATT Roundtable 1
Presenter: Marc de Vries

1:00pm–1:50pm
Chouteau B - Sheraton
Elementary STEM
From Robots to Rockets in K-5 STEM
Presenters: Roger Hill, Amy Tinnell

1:00pm–1:50pm
Mission - Westin
Making to Make a Difference With Microcontrollers
Presenter: Mel Goodwin

1:00pm–1:50pm
Pershing East - Westin
Elementary STEM
Affordance of Virtual Reality in STEM Classrooms
Presenter: Paul Munshower

1:00pm–1:50pm
Pershing North - Westin
PANEL: Teacher Success/Survival
Moderator: Sharon Brusic
The Journey: An Anthropological Reflection of Three TE Teachers
Presenters: James Novotny, Dan Chapin, Tricia Jacobs
Strategies to Help You Survive
Presenter: James Hemming

1:00pm–1:50pm
Pershing South - Westin
Funding Your TSA Chapter Activities and Robotics Program
Presenter: Bob Behnke, DTE

1:00pm–1:50pm
Pershing West - Westin
Visuacy, Value in STEM Creative Work
Presenters: Seng Chong (Jason) Tan, Soo Chin Chia

1:00pm–1:50pm
Shawnee - Westin
Overarching Themes and Authentic Contexts - Not Standards!
Presenter: Michael Hacker, DTE

1:00pm–1:50pm
Van Horn A - Sheraton
STEAM
Urban Core STEAM Empowering Minorities With Certifications
Presenters: Mauricio Castillo, DTE, Yusuf Al-Hassan

1:00pm–4:00pm
Educational Field Trip: Union Station, Science City, and Planetarium
Meet in Westin main Lobby at 12:40pm.

1:00pm–4:00pm
Chicago - Sheraton
CTETE Business Meeting

1:00pm–4:50pm
Pershing A - Sheraton
Ebd™ Consortium State Directors Meeting
Presenter: Jennifer Buelin

1:00pm–4:50pm
Empire A – Sheraton
Ebd™: TEEMS 3-5 (Elementary School Grades 3-6)

1:00pm–4:50pm
Empire B - Sheraton
Ebd™: Exploring Technology (Middle School Grade 6)

1:00pm–4:50pm
Empire C - Sheraton
Ebd™: Advanced Technological Applications (High School Grades 10/11)

1:30pm–2:00pm
Gillham Hall - Sheraton
CSL/Admin Strand
Flexibility, Affordability, Accountability: The Ebd Nitty Gritty
Presenter: Joanna Papadopoulos

2:00pm–2:50pm
Benton A - Sheraton
CTETE
Educational Theories of Technology and Engineering Education
Presenter: Patrick Foster
<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Event</th>
<th>Presenter(s)</th>
</tr>
</thead>
</table>
| 2:00pm–2:50pm       | Benton B - Sheraton       | *International/PATT*  
  *PATT Roundtable 2*  
  *Presenter: Marc de Vries* |                                                                           |
| 2:00pm–2:50pm       | Chouteau B - Sheraton     | *Aquaculture to Aquaponics - STEM in School Cafeterias*  
  *Presenter: Peter Mecca* |                                                                           |
| 2:00pm–2:50pm       | Mission - Westin          | *Teaching Innovation Around the World and Back*  
  *Presenters: Matthew Jones, Geoffrey Wright* |                                                                           |
| 2:00pm–2:50pm       | Pershing East - Westin    | *Biomedical Engineering: Inspiring All Through Social Responsibility*  
  *Presenter: Liesl Krause* |                                                                           |
| 2:00pm–2:50pm       | Pershing North - Westin   | *PANEL: Literacy*  
  *Moderator: Leanna Carstetter-Blandford*  
  *Elementary Literature as a Context for Design*  
  *Presenters: Tanisha Floyd, Nathan Mentzer*  
  *Influencing Perceptions of STEM Careers Through Literature*  
  *Presenter: Vanessa Santana*  
  *Using Technology in Literacy*  
  *Instruction Authentically and Effectively*  
  *Presenter: Christy Velasquez* |                                                                           |
| 2:00pm–2:50pm       | Pershing South - Westin   | *STEAM*  
  *Using SCRATCH for STEaM Problem-Based Learning*  
  *Presenters: Pamela K. Speelman, Phillip Cardon* |                                                                           |
| 2:00pm–2:50pm       | Pershing West, Westin     | *Elementary STEM*  
  *STEM in Urban Schools Through Classroom Gardens*  
  *Presenters: Kimberly Clay, Melanie Taylor* |                                                                           |
| 2:00pm–2:50pm       | Shawnee - Westin          | *Creating STEM Inspiration in Teen Technologists*  
  *Presenters: Eric Larson, Sandy Honour, Henry Mann, Amy Cliett* |                                                                           |
| 2:00pm–2:50pm       | Van Horn A - Sheraton     | *STEAM*  
  *A Tiny Home, But a BIG Challenge!*  
  *Presenter: Brent Hollers* |                                                                           |
| 2:00pm–3:00pm       | Gillham Hall - Sheraton   | *CSL/Admin Strand Makerspaces and Labs: Designs and Safety Considerations*  
  *Presenter: Tyler Love* |                                                                           |
| 2:00pm–3:45pm       | Gillham Hall - Sheraton   | *CSL/Admin Strand Closure: Opportunities and Next Steps*  
  *Presenter: Anita Deck* |                                                                           |
| 2:00pm–3:50pm       | Benton A - Sheraton       | *CTETE*  
  *CTETE Accreditation Standards Draft Presentation and Discussion*  
  *Presenter: Paul E. Post* |                                                                           |
| 2:00pm–3:50pm       | Benton B - Sheraton       | *International/PATT*  
  *Technology Education in a German Summer School Project*  
  *Presenter: Martin Fislake* |                                                                           |
| 2:00pm–3:50pm       | Chouteau B - Sheraton     | *Recruitment Methods in Indiana*  
  *Presenters: Megan McManus, Kara Harris* |                                                                           |
| 2:00pm–3:50pm       | Mission - Westin          | *Integrative STEM: Self-Efficacy of VEX Robotics Participants*  
  *Presenters: Joseph Furse, Gary Stewardson, Trevor Robinson* |                                                                           |
| 3:00pm–3:50pm       | Pershing East - Westin    | *Supporting New Technology and Engineering Teachers*  
  *Presenters: Melvin Gill, Jack Heinz* |                                                                           |
| 3:00pm–3:50pm       | Pershing North - Westin   | *Integrating Manufacturing and Industry Certification Into CTE*  
  *Presenters: John Crow, Dallas Bergstrom* |                                                                           |
| 3:00pm–3:50pm       | Pershing South - Westin   | *GoBabyGo! Using STEM Skills to Change Lives*  
  *Presenters: Gavin Wood, Kendra Gagnon* |                                                                           |
| 3:00pm–3:50pm       | Pershing West - Westin    | *The Elementary STEM Journal: Authors and Updates*  
  *Presenters: Thomas Roberts, Virginia R. Jones, DTE* |                                                                           |
| 3:00pm–3:50pm       | Shawnee - Westin          | *Bringing Power to the Classroom Through Project-Based Learning*  
  *Presenters: Megan Morin, Eric Schettig* |                                                                           |
| 3:00pm–3:50pm       | Van Horn A - Sheraton     | *STEAM*  
  *STEAM’in it Up!*  
  *Presenters: Alissa Abercrombie, Mary Cheairs, Linda Patterson, Kim Moon* |                                                                           |
| 3:00pm–4:00pm       | Atlanta/NewYork/SanFrancisco - Sheraton | *ITEEA Task Force Work Session* |                                                                          |
| 4:00pm–4:30pm       | Van Horn C - Sheraton     | *EPT Reception* |                                                                           |
| 4:00pm–4:50pm       | Atlanta/NewYork/SanFrancisco - Sheraton | *ITEEA Governance Session* |                                                                          |
Friday Conference Programming

4:00pm–4:50pm
Benton A - Sheraton
CTETE
**Effectiveness of Drafting Models for Technology Students**
Presenter: Petros Katsioloudis, DTE

4:00pm–4:50pm
Benton B - Sheraton
International/PATT
**Evolution of Technology Education in Mainland China**
Presenter: Jie Wang

4:00pm–4:50pm
Chouteau B - Sheraton
Expert/Novice Learners Utilizing PCK and Metacognition in T&EE
Presenters: Andrew Hughes, Chris Merrill, DTE

4:00pm–4:50pm
Mission - Westin
The Engineering byDesign™ Industry Certification Pathway
Presenter: Douglas Lecorchick III

4:00pm–4:50pm
Pershing East - Westin
**Programming For the CTE Classroom**
Presenters: Morgan Jones, Ethan Applegate

4:00pm–4:50pm
Pershing North - Westin
**How Do YOU Show Mastery in STEM?**
Presenters: Bryanne Peterson, Teena Coats, Virginia R. Jones, DTE

4:00pm–4:50pm
Pershing South - Westin
**STEM Day: Bring STEM to ALL Students**
Presenter: Jacki Daymut

4:00pm–4:50pm
Pershing West - Westin
**Elementary STEM**
**Let’s Go Out on a STEM**
Presenter: Sarah Haskins

4:00pm–4:50pm
Shawnee - Westin
**Soft Robotics in the Classroom**
Presenters: Andrew Jackson, Nathan Mentzer

4:00pm–4:50pm
Van Horn A - Sheraton
STEAM
**STEAM for Younger Grades Engineering and Design**
Presenter: Lori Barker

5:00pm–6:00pm
Chouteau A - Sheraton
EPT Exemplary Initiation

5:30pm–6:30pm
Liberty - Westin
PATT/International/21st Century/CSL Admin Reception

5:30pm–7:00pm
Pershing West - Westin
Elementary STEM Council (ESC) Post-Conference Board Meeting

6:00pm–8:00pm
Chicago - Sheraton
TEECA Awards Dinner and Closing Ceremony
Saturday Conference Programming

For session descriptions, view the ITEEA mobile app.
Download instructions are on page 2.

7:00am–8:45am
Liberty - Westin
EPT Breakfast

7:45am–8:45am
Shawnee - Westin
Program Excellence Breakfast
By invitation only.
Sponsored by Paxton-Patterson.

8:00am–8:50am
Benton A - Sheraton
Evolution of the Engineering Design Process - Part II
Presenters: Bryanne Peterson, Emily Ruesch, Julie Maynard, Douglas Lecorchick III, Megan Morin

8:00am–8:50am
Benton B - Sheraton
Designing Assistive Technology for People with Disabilities
Presenter: Jordan Estock

8:00am–8:50am
Chouteau A - Sheraton
Raspberry Pi Robotics
Presenter: Mark Evans

8:00am–8:50am
Empire A - Sheraton
How Can I? STEM Mobile App Development
Presenter: Mauricio Castillo, DTE

8:00am–8:50am
Empire B - Sheraton
WTF? What The Forensics? - MS/HS TSA Event
and
Kids Teaching Kids: A Guide to Chapter Team
Presenter: Joe Busby

8:00am–8:50am
Empire C - Sheraton
No Debate About It: Addressing Socio-Technological Issues
Presenters: Philip A. Reed, DTE, Kathleen M. Ferguson

8:00am–8:50am
Van Horn A - Sheraton
Using Robots to Build STEM-Loving Students
Presenter: Gavin Wood

9:00am–9:50am
Benton A - Sheraton
Bristlebots in the I-STEM ED Classroom
Presenter: Joanna Papadopoulos

9:00am–9:50am
Benton B - Sheraton
Solar-Powered Town: Sustainability at Its Finest
Presenters: Betsy Lawrence, Katherine Mangum, Amber Boyington, John Sheets

9:00am–9:50am
Empire B - Sheraton
Construction, Coding, and Control for ALL, WOW!
Presenters: Ronald Todd, Darren Coon, Joseph Birks, Tyler Love

9:00am–9:50am
Empire C - Sheraton
Autonomously Navigating Mars
Presenter: Naveen Cunha

9:00am–9:50am
Van Horn A - Sheraton
Teacher Shortages and Alternative Licensure Solutions for STEM Educators
Presenters: Britton Devier, Kurt Michael

9:00am–10:00am
Chouteau B - Sheraton
CTETE Executive Board Meeting

10:15am–11:45am
Pershing North - Westin
ITEEA Awards and Recognition Brunch

10:15am–11:45am
Chouteau B - Sheraton
ITEEA Board of Directors Meeting

12:00pm–3:00pm
Empire A - Sheraton
Post-Conference Workshop: PowerTech: Make Robots to Imitate Animals

12:00pm–3:00pm
Chouteau B - Sheraton
ITEEA Board of Directors Meeting
Texas Instruments
Thursday, March 28, 2019
Chouteau B
1:00pm-1:50pm and
2:00pm-2:50pm
Come on Over and Code a Rover
This hands-on session will give you a taste of how much fun coding can be. Using a TI-Innovator Rover robotic vehicle, you will write programs (no experience required) that control the speed, direction, and sensing of the rover. This is a great way to get students excited about robotics and coding. Appropriate for Grades 4 through college.
Presenter: Erick Archer

Solidworks
Thursday, March 28, 2019
Chouteau B
11:00am-11:50am and
Friday, March 29, 2019
Chouteau B
11:00am-11:50am
What We Have and What You Need
Presenters: Ryan Koehler and Mike Leary
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Due to circumstances beyond its control, ITEEA has announced a change of venue for its 82nd Annual Conference to be held March 11-14, 2020.

ITEEA learned that the previous 2020 venue, the Memphis Convention Center, is undergoing an extensive renovation during the conference’s prescheduled dates, necessitating the move.

The new 2020 venue will be Baltimore’s Inner Harbor, which has been a popular conference location for past ITEEA conferences. Baltimore provides an easily accessible location, offering a wide range of accommodations. The nearby Inner Harbor provides an unforgettable panorama of sights, sounds, and world-renowned Chesapeake Bay cuisine. Baltimore is also family friendly, with nearby access to the National Aquarium, Maryland Science Center, Discovery Children’s Museum, and the Maryland Zoo.

The Baltimore 2020 Local Planning Team is already hard at work, planning an outstanding conference experience for all attendees.

We look forward to seeing all Technology and Engineering Education professionals in Baltimore on March 11-14, 2020!

See you there!

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