

Newsletter Editor: Mary Katherine Watson, PhD
Associate Professor of Civil & Environmental Engineering, The Citadel – mwatson9@citadel.edu

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Message from the Chair of the Division

Dr. Andrea Welker, P.E., Villanova University

andrea.welker@villanova.edu



I had a great time in Salt Lake City and I hope you did, too! I learned a great deal, caught up with old friends, and made some new ones. The RAP session celebrating 25 years of ExCEED was memorable! I'm always amazed at the passion and expertise we have in our division. I'm looking forward to the incredible program that CJ has planned for Tampa.

Message from the Program Chair

Dr. Charles Riley, Oregon Institute of Technology

charles.riley@oit.edu



Hello all! I would like to offer my sincerest thanks to Andrea Welker for organizing an excellent conference in Salt Lake City. The posters and papers presented in our division were diverse in their coverage and gave me a lot to consider and apply this year. The program for the conference this year in Tampa is set. As usual, our division has produced some excellent papers that run the gamut from rigorously assessed longer-term studies to exciting innovations in all areas of civil engineering education. The 5-minute demo session has ten papers that will provide a lot of excitement in a single session. I look forward to feedback on this experimental approach to publishing and presenting at the conference. I look forward to connecting and reconnecting with everyone.

2019 ASEE Annual Conference

Civil Engineering Division Sessions

U206·SUNDAY WORKSHOP: Integrating United Nations Sustainable Development Goals

*Sun. June 16, 2019 9:00 AM to 12:00 PM
Room 14, Tampa Convention Center*

Organized by the Formal Engineering Education Committee, a subcommittee of the ASCE Committee on Sustainability, this workshop will include, but is not limited to, presentations on curricular content sources for UN SDGs in different engineering disciplines, examples of successful exercises for teaching UN SDGs, a panel discussion of UN SDG case studies, and an active breakout session where workshop participants could develop original ideas for UN SDG lectures, problems, projects, and modules that would be critiqued by others in their breakout group. The workshop will emphasize the integration of societal issues of UN SDGs with technical engineering components. **Ticketed event: \$10.00 advanced registration and \$20.00 on site registration**

U406·Writers, Experts, and the Workforce in Civil Engineering

*Sun. June 16, 2019 1:15 PM to 2:45 PM
Room 31, Tampa Convention Center*

The papers in this session discuss issues at the interface between students, professionals, and researchers, from writing of executive summaries and student research skills, to workforce development in transportation engineering and embedded experts to transform courses in engineering.

1. Strategies to Improve Engineers' Writing of Executive Summaries
2. Workforce Development Needs and Objectives of Today's Transportation Engineering Professional
3. Impact of an Embedded Expert Model on Course Transformation in Engineering

4. Comparison of Mentors' and Mentees' Perceptions of Mentees' Research Skill Gains at The Citadel

U506·Active and Out There: Labs and Active Learning

*Sun. June 16, 2019 3:00 PM to 4:30 PM
Room 31, Tampa Convention Center*

The papers in this session explore active learning in a variety of ways, from using the campus as a laboratory to scavenger hunts in first-year courses, group activity libraries in geotechnical engineering, and hands-on project-based group homework assignments.

1. Student Perceptions of High-Impact Learning Activities and Teaching Strategies
2. Creating a Library of Group Activities that Promote Active Learning in the Undergraduate Soil Mechanics Classroom
3. Learning by Doing: Collaborative Active Learning Hands-On Project-Based Homework for a Large Gateway Engineering Class
4. A Scavenger Hunt Activity to Welcome First-year Students to the Civil Engineering Department
5. Using Your Campus as a Laboratory: An Adaptable Field Trip on Geomorphology for Engineering Geology

M306·Innovation and Fun in the Civil Engineering Classroom

*Mon. June 17, 2019 11:30 AM to 1:00 PM
Room 31, Tampa Convention Center*

The papers in this session will make you smile! They explore active and team-based learning techniques, pop culture references to drive student engagement, open-ended problem solving, assessment of student innovation and creativity, and student self-grading.

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Civil Engineering Division Sessions

1. Assessment of Active and Team-based Learning Techniques in a Transportation Engineering Introductory Course
2. Using Themes and Pop Culture References to Make Introductory Civil Engineering Courses More Engaging
3. Teaching and Assessment of Innovation and Creativity in Civil Engineering: Why? How? Now!
4. Homework Assignment Self-Grading: Perspectives from a Civil Engineering Course
5. Developing a Framework for Approaching Open-ended Problems Across the Civil and Environmental Engineering Curriculum

M406-Key Educational & Professional Issues of Strategic Importance to the Civil Engineering Profession - and ASCE

*Mon. June 17, 2019 1:30 PM to 3:00 PM
Room 32, Tampa Convention Center*

This session explores several of the key educational and professional issues of strategic importance to the civil engineering profession that are being addressed (or should be addressed) by ASCE. These include (1) recommendations for improving the coverage of inclusion and diversity in the ExCEED Teaching Workshop, (2) how different programs are meeting the “new” Civil Engineering Program Criteria, (3) the critical connection between the Civil Engineering Body of Knowledge and the Raise the Bar Initiative, and (4) a bold proposal for a new paradigm for ASCE’s Raise the Bar Initiative using ASCE-administered credentialing.

1. Diversity, Inclusion and the ExCEED Teaching Workshop
2. Civil Engineering Program Criteria: A Snapshot of How Programs Meet the Criteria
3. The Role of the Civil Engineering Body of Knowledge in ASCE's Raise the Bar Effort
4. The ASCE Raise the Bar Initiative: A New Paradigm Based on Credentialing in the Medical Profession

M506-Your Best in 5 Minutes: Demonstrations of Hands-On and Virtual In-Class Teaching Aids

*Mon. June 17, 2019 3:15 PM to 4:45 PM
Room 32, Tampa Convention Center*

Short papers describing impactful classroom moments including demonstrations, student activities, or experiences. In this unique session, papers do not require a research question, data or conclusion. Presentations will be short (5 minutes!) and concise to give attendees many ideas during the presentation period. The demonstration, and their accompanying pedagogy-rich papers, include physical models, virtual reality, in-class physical activities, illustrative experiments, and dynamic feedback mechanisms. The audience will be active participants!

1. Improving Student Writing Outcomes Through Dynamic Feedback, Design Oriented Projects and Curriculum Modification
2. A Simple Physical Model to Assist in Fluid Mechanics Calculations
3. Work in Progress: Moving from Outside to Inside - Traffic Engineering Field Exercises through Virtual Reality
4. Bringing Graphs Alive in Structural Dynamics
5. Fighting “Plug and Chug” Structural Design through Effective and Experiential Demonstrations
6. Pushing and Shoving: Improving Student Understanding of Support Reactions with Hands-on Demonstrations
7. The Critical Pick: A Crane Rigging Demonstration
8. Monitoring and Controlling a Construction Project in the Classroom
9. Experiencing Failure - Recreating the Hyatt Regency Collapse to Teach Statics, Ethics, and Lifelong Learning
10. Interactive Physical Experiments in an Advanced Undergraduate Structural Dynamics Course

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M706·Civil Engineering RAP Session

Mon. June 17, 2019 7:00 PM to 9:00 PM

*TAPS Restaurant Bar & Grill
777 N. Ashley Drive, Tampa, FL*

The annual RAP Session of the Civil Engineering Division provides members and guests of the division a chance to interact in an informal setting to discuss current and emerging topics. **Free ticketed event.**

T106·Civil Engineering Division Planning Meeting

*Tue. June 18, 2019 7:00 AM to 7:45 AM
Meeting Room 8, Tampa Marriott Waterside - HQ*

Planning meeting to develop session ideas and draft the call for papers for the 2020 Annual Conference.

T106B·It's All About the Student: Integration, Problem-Solving, Critical Thinking, and Self-Efficacy

*Tue. June 18, 2019 8:00 AM to 9:30 AM
Room 32, Tampa Convention Center*

Papers in this session explore diverse ideas with the student ultimately at the center: Student problem-solving heuristics; Design self-efficacy; Critical thinking by student-facilitated online discussion; E-learning to support a large enrollment structural engineering course; Integration of design software into the curriculum.

1. Factors Contributing to the Problem-Solving Heuristics of Civil Engineering Students
2. Measuring Undergraduate Student Design Self-Efficacy within an Undergraduate Civil Engineering Curriculum
3. Student-Facilitated Online Discussions to Encourage Critical Thinking in Civil Engineering
4. Work in Progress: Integrating Civil Engineering Design Software into the Curriculum to Enhance Career Readiness Skills

5. E-Learning Tools to Facilitate Instruction of a Large Enrollment Structural Engineering Course

T306·Civil Engineering Division Poster Session

*Tue. June 18, 2019 11:30 AM to 1:00 PM
Exhibit Hall, Tampa Convention Center*

Posters will display the work of teaching infrastructure resilience concepts and case studies in the freshman year and beyond. Papers will also be presented describing an implementation of 3-D printed base isolators and the RePicture app that can be used to introduce K-12 and college freshmen students to engineering.

1. Design and Small-Scale Testing of 3D Printed Seismic Isolators
2. Introducing Students to Engineering by Helping Them RePicture Their World
3. Work in Progress: Design of “Risk and Resilience” Focused Courses for Undergraduate Engineering Education Towards a Hazard-Resilient Built Environment

T419·56-Year Love Affair Revelations

*Tue. June 18, 2019 1:30 PM to 3:00 PM
Room 12, Tampa Convention Center*

Speaker: Dr. John A. White, PE - Drawing on his 56-year career in higher education, Professor White shares his “Keys to ‘A’s in Teaching.” Having taught more than 4,000 engineering students at Arkansas, Georgia Tech, Ohio State, and Virginia Tech, his lecture includes “lessons learned” and “decision points” throughout his journey, as well as the role “luck” played in taking him from being a practicing engineer in industry to being the chancellor at his undergraduate alma mater.

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T506·Tales from the Flip Side

Tue. June 18, 2019 3:15 PM to 4:45 PM
Room 32, Tampa Convention Center

Papers describe flipped, partially flipped, and project-based blended classes in geotechnical, structural, and foundational courses. One paper describes the relationship of gender to performance and perception of flipped classroom pedagogy.

1. Call It What You Want: Blending Project-based Learning and the Flipped Classroom Model in a Civil Engineering Course
2. Design and Preliminary Data from a Partially Flipped Classroom (PFC) Study in a Geotechnical Engineering Course
3. Flipping the Classroom - Do Student Learning Gains and Perceptions Vary Based on Gender?
4. Evaluation of a Flipped Classroom in Structural Steel Design

T509·Construction Industry/Teaching Apps - PechaKucha

Tue. June 18, 2019 3:15 PM to 4:45 PM
Room 22, Tampa Convention Center

A PechaKucha presentation on mobile/online apps that educators and industry are utilizing to better engage/prepare students and provide continuing education to industry. Such presentations, which originated in Japan, feature a “talk less, show more” format, with rapid display of slides and brief commentary. **Panel · Construction Engineering Division and Civil Engineering Division**

T606·Civil Engineering Division Business Meeting

Tue. June 18, 2019 5:00 PM to 6:00 PM
Meeting Room 8 , Tampa Marriott Waterside – HQ

Annual business meeting of the Civil Engineering Division.

T706·Annual Awards Banquet

Tue. June 18, 2019 7:00 PM to 9:00 PM

Watervue Grille
700 Harbour Post Drive; Tampa, FL

The annual awards banquet of the Civil Engineering Division celebrates the achievements of members of the division. **Ticketed event: \$75.00 advanced registration and \$85.00 on site registration**

W106·High-Impact Teaching and Learning

Wed. June 19, 2019 8:00 AM to 9:30 AM
Room 31, Tampa Convention Center

These papers explore diverse efforts to incorporate and measure high impact practices both broadly and specifically, including integration of a single design project in multiple courses and incorporating design, fabrication, and large-scale experimentation in structural steel design. One paper explores grading bias in the use of a concept inventory.

1. Bias and Precision in Instructor Grading of Concept Inventories in Geotechnical Engineering Courses
2. Exposing Undergraduates to Design, Fabrication, and Large-Scale Experimentation in a Structural Steel Design Course
3. Longitudinal Integration of the Same Design Project in Multiple Structural Engineering Courses

W211·DISTINGUISHED LECTURE: Social Disruption of Emerging Technologies & Implications for Engineering Education

Wed. June 19, 2019 9:45 AM to 11:15 AM
Room 13, Tampa Convention Center

Speaker: Barry Einsig - Given the recent focus on emerging technologies, the anticipated shift in engineering education is toward more socially-relevant,

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Civil Engineering Division Sessions

outward-facing engineering curricula. Such curricula emphasize multidisciplinary learning, societal impact, experiential learning (within and outside the traditional classroom), and a global mindset. The discussion will introduce the ethical, legal, and social impacts of autonomous vehicles and include an overview of some of the following topics: privacy, security, licensing, infrastructure, mixed automation, workforce disruption, economic impact, failure with human takeover, safety, and ethical deployment of automated vehicles.

The session will focus on the values of a liberal arts education in developing solutions for 21st century emerging technologies, particularly the implications associated with a driverless future. Relevant topics, including but not limited to the following, will be addressed:

- Growth in driverless technologies
- Explosion of data-driven software development
- Innovation in vehicle design (electric, composite bodies that are 3D printed) Societal disruption involving vehicle ownership/parking, auto industry employment, privacy, and business models.

W292·DISTINGUISHED LECTURE: Alternate-Universe ASEE: An Engineering Education Conference Session from a World Where the Majority of Engineers Are Deaf

*Wed. June 19, 2019 9:45 AM to 11:15 AM
Room 21, Tampa Convention Center*

Speakers: Mel Chua and Ian Smith - Via the medium of interactive theater, experience a culturally deaf engineering education space conducted primarily in American Sign Language (ASL). What might engineering look like if deafness and signing were the norm - i.e., what different insights or approaches might deaf engineers have taken in developing it as a field? What would it be like if hearing/speech was an exception to be “accommodated”

in engineering classrooms built for visual communication?

Participants will experience firsthand how cultural assumptions, communication mediation, and other factors impact the conference for them. The audience will then have the opportunity to reflect on and discuss that experience together. The audience will explore our own habits and assumptions around what engineering education is, who is able to participate, and in what ways participation is enabled, extending the conversation beyond deafness/disability to broader issues of representation and engineering culture.

W306·Thinking Outside the BOKs: ABET, Ethics, Civil Engineering as Liberal Education, and 3-Year Degrees

*Wed. June 19, 2019 11:30 AM to 1:00 PM
Room 7, Tampa Convention Center*

As a prelude to discussions of the ASCE Body of Knowledge 3 in the following session, these papers explore broader, but related, topics including the adoption of BOK3 while honoring ABET, cognitive and affective domains of ethics, and ideas about a three-year curriculum and civil engineering as the liberal arts degree of today.

1. A Collaborative Process Leading to Adoption of ASCE BOK3 Consistent with ABET
2. Addressing the Cognitive and Affective Domain of Ethics Across the Civil and Environmental Engineering Curriculum
3. Civil Engineering: A Liberal Education Degree of the 21st Century
4. Is it Time for a Three-Year Accredited Civil Engineering Degree in the United States? A Critical Review

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W406·The Civil Engineering Body of Knowledge, 3rd Edition: Preparing the Future Civil Engineer

Wed. June 19, 2019 1:30 PM to 3:00 PM
Room 31, Tampa Convention Center

By attending this session, you will learn everything you need to know about the most important ASCE educational initiative of the last couple of years – the Third Edition of the Civil Engineering Body of Knowledge (CEBOK3). The session will include seven short presentations on several different facets of the CEBOK3, followed by a 35-minute panel session with several of the CEBOK3's key contributors.

1. The Evolution of the Civil Engineering Body of Knowledge: From the First Edition to the Third Edition
2. The 5Ws of the Third Edition of the Civil Engineering Body of Knowledge
3. Constituent Input in the Process of Developing the Third Edition of the Civil Engineering Body of Knowledge (CEBOK3)
4. Achieving the Civil Engineering Body of Knowledge in the Affective Domain
5. The CEBOK3 and ABET Accreditation Criteria: A Gap Analysis
6. Curricular Changes Needed to Conform to the CEBOK3 – Three Case Studies
7. Department Head Perspectives on the Current CEPC and the BOK3

W506·Sustainability in Civil Engineering Education: Service Learning, Capstone Integration, Student Affect and Rating Systems

Wed. June 19, 2019 3:15 PM to 4:45 PM
Room 31, Tampa Convention Center

With a theme of sustainability, the papers in this session examine different aspects of, and approaches to, teaching sustainability, from the use of rating systems, capstone integration, and service

learning opportunities to the consideration of learning outcomes in the affective domain.

1. Education for Sustainable Civil Engineering: A Case Study of Affective Outcomes among Students
2. Sustainability Service Learning as a Mechanism for Acquiring New Knowledge
3. A Real-World Approach to Introducing Sustainability in Civil Engineering Capstone Design
4. Lessons Learned: Applications of Sustainability Rating Systems in Civil Engineering Capstone Design Courses
5. Advancing Freshmen Engineering Education by Utilizing the Impact of 2017 Storms on U.S. Infrastructure

Civil Engineering Division Awards

Presented at the 2018 Division Banquet

Stephen J. Ressler Best Paper Award

Angela Bielefeldt, PhD, University of Colorado

The Stephen J. Ressler Best Paper Award is given for the best paper on a topic in civil engineering education, presented at the ASCE annual conference and published in the Proceedings in the year prior to the award. Each co-author is awarded an engraved plaque and one complimentary ticket to all CE Division social events at the ASCE annual conference at which the award is presented. The winning paper this year was entitled “Challenges of a Professional Issues Course in Civil Engineering: Comparison Across Two Years.”

Glen L. Martin Practitioner Service Award

Phillip E. Borrowman, PE, F.ABET, F.ASCE, Senior Vice President (ret.) of Hanson Professional Services, Inc., Past President of ABET

The Glen L. Martin Practitioner Service Award is awarded to an engineering practitioner for distinguished service to or support of civil engineering education. While the recipient can be a former faculty member, the distinguished service must occur over a period of time when the recipient served as an engineering practitioner in a position not normally held by an engineering educator.

George K. Wadlin Distinguished Service Award

Kevin G. Sutterer, PhD, PE, Rose-Hulman Institute of Technology

The George K. Wadlin Distinguished Service Award is given to a member of the Division for outstanding service in support of civil engineering education and the Civil Engineering Division of ASCE. The recipient is awarded an engraved plaque and a complimentary ticket to all CE Division social events at the ASCE annual conference.

ExCEED New Faculty Teaching Awards

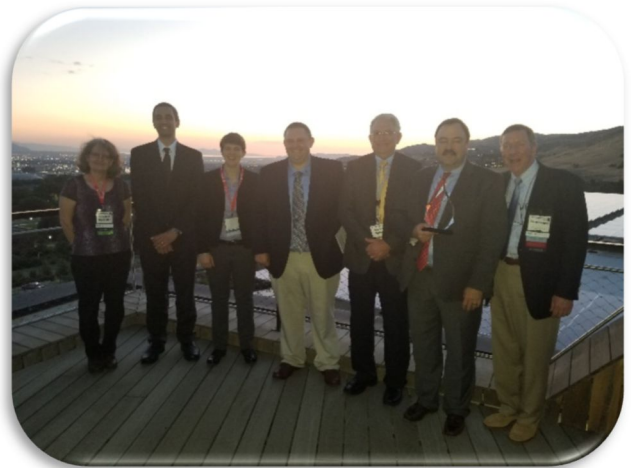
Patricia Clayton, PhD, A.M.ASCE, The University of Texas at Austin
Michael Gangone, PhD, A.M.ASCE, The University of Texas at Tyler

The award was established by ASCE’s Project ExCEED and the Committee on Faculty development to recognize and reward outstanding new faculty. Nominees are judged based on a Letter of Endorsement from their current Department Chair/Dean, Curriculum Vitae, and Teaching Portfolio.

ExCEED Leadership Award

Blaine D. Leonard, PhD, D.GE, F.ASCE, Past President of ASCE

The award honors an ASCE member who has shown exceptional leadership and dedication to educational activities within the organization and is presented at the American Society for Engineering Education Annual Conference.



Above: 2018 Civil Engineering Division Award Recipients.

Civil Engineering Division Awards

Previous Award Winners

George K. Wadlin Distinguished Service Award

The George K. Wadlin Distinguished Service Award is given for [*outstanding service in support of civil engineering education*](#). This award often goes to the most senior past division chair who has maintained strong contact with the division and provided strong support over the years. Sometimes, ASCE will have a candidate they would like to have considered because of their strong service to civil engineering education. Past award winners are displayed below.

2017	Norm Dennis	2001	Richard O. Anderson
2016	Dennis Fallon	2000	William E. Kelly
2015	Ronald W. Welch	1999	Donn E. Hancher
2014	Kristen L. Sanford	1998	William J. Wilhelm
2013	Jim Hanson	1997	Gerald R. Seeley
2012	Wilfred Nixon	1996	Daniel J. McGinley
2011	J.P. Mohsen	1995	E. Walter LeFevre
2010	Jeffrey S. Russell	1994	Frederick W. Beaufait
2009	Stewart G. Walesh	1993	James F. McDonough
2008	James J. O'Brien	1992	Colby V. Ardis
2007	Stephen J. Ressler	1991	Marvin E. Criswell
2006	James M. Nau	1990	Ronald W. Eck
2005	Alan L. Prasuhn	1989	Glen L. Martin
2004	Howard C. Dunn, Jr.	1988	Peter G. Hoadley
2003	Thomas A. Lenox	1987	George K. Wadlin
2002	Vincent P. Drnevich		

Gerald R. Seeley Award

The Gerald R. Seeley Award is awarded to a civil engineering faculty member with five or fewer years of teaching experience. The basis for selection is the quality of a paper submitted for presentation in a CE Divisions session at the ASEE Annual Conference. Past award winners are displayed below.

2017	Mary Katherine Watson	2009	Brock E. Barry
2016	Simon T. Ghanat	2008	Tanya Kunberger & Diane Bondehagen
2015	Nicole Leo Braxtan & Goli Nossoni	2007	Decker Hains
2014	Matthew D. Lovell	2006	Andrea Surovek
2013	Berndt Spittka	2005	Scott R. Hamilton
2012	Michelle Oswald	2004	Andrew T. Rose
2011	Ellie Fini	2003	Tonya Emerson (Nilsson)
2010	Steve Hart		

Civil Engineering Division Officers 2018-2019



Immediate Past Chair
Dr. Sean St. Clair, PE
Associate Professor & Chair
Oregon Institute of Technology
sean.stclair@oit.edu
(541) 885-1602



Freshman Director
Dr. Tonya Nilsson, PE
Lecturer
Santa Clara University
tnilsson@scu.edu
(408) 554-6867



Chair
Dr. Andrea L. Welker, PE
Assoc. Dean; Professor
Villanova University
andrea.welker@villanova.edu
(610) 519-4959



Secretary-Treasurer
Dr. David A. Saftner
Associate Professor
University of Minnesota, Duluth
dsaftner@d.umn.edu
(218) 726-6458



Program Chair
Dr. Charles E. Riley, PE
Associate Professor
Oregon Institute of Technology
charles.riley@oit.edu
(541) 885-1922



Newsletter Editor
Dr. Mary Katherine Watson
Associate Professor
The Citadel
mwatson9@citadel.edu
(843) 953-7686



Senior Director
Dr. Steven J. Burian, PE
Associate Professor
University of Utah
burian@eng.utah.edu
(801) 585-5721



Historian
Dr. Ronald W. Welch, PE,
COL (Retired)
Dean of Engineering
The Citadel
ronald.welch@citadel.edu
(843) 953-6588



Midterm Director
Dr. Matthew D. Lovell, PE
Assistant Professor
Rose Hulman Inst of Technology
lovellmd@rose-hulman.edu
(812) 877-8318



Awards Chair
Dr. Kevin D. Hall
Professor
University of Arkansas
kdhall@uark.edu
(479) 575-8695

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Session Summaries

M306·Creating a Positive Environment for Learning

Moderators: Dr. Derek Guthrie Williamson and Dr. Matthew Sleep

An Investigation of the Effect of Curriculum-embedded Peer Mentoring on Student Learning in Two Undergraduate Mechanics Courses by Dr. Molly McVey (University of Kansas), Dr. Caroline R. Bennett P.E. (University of Kansas), Dr. Carl W. Luchies (University of Kansas), and Prof. Rémy Lequesne (Affiliation unknown)

Peer-Led-Team-Learning in a Mechanics I: Statics Course by Dr. James E. Lewis (University of Louisville), Dr. Thomas D. Rockaway (University of Louisville), and Dr. Gerold Willing (University of Louisville)

Evaluating the Use of Peer Instruction in Civil Engineering Courses by Dr. Shannon Bartelt-Hunt (University of Nebraska, Lincoln), Dr. Elizabeth G. Jones (University of Nebraska, Lincoln), Dr. Richard L. Wood (University of Nebraska, Lincoln), Dr. Robert M. Erdmann (University of Nebraska, Lincoln), and Marilyne Stains (University of Nebraska, Lincoln)

Enhancing Student Learning by Providing a Failure Risk-free Environment and Experiential Learning Opportunities by Stephen J. Phillips (University of Waterloo), Kayleanna Giesinger (University of Waterloo), Dr. Rania Al-Hammoud P.Eng. (University of Waterloo), Prof. Scott Walbridge (Affiliation unknown), and Dr. Chris Carroll (Saint Louis University)

Keeping a Prospect on the Line and Then in the Boat: Recruitment and Retention Efforts that Make a Difference by Dr. Ronald W. Welch (The Citadel), Dr. Kevin C. Bower P.E. (The Citadel), Dr. Robert J. Rabb P.E. (The Citadel), and Ally Kindel Martin (The Citadel)



Above: Session M306 presenters.

M406·The Evolving Classroom

Moderators: Miss Meg West and Dr. Zhaoshuo Jiang P.E.

An Institutional Excellence in Teaching Workshop Adapted from the ExCEED Model by Dr. Charles Riley P.E. (Oregon Institute of Technology), Dr. Sharon L. Beaudry (Oregon Institute of Technology), and Aja Bettencourt-McCarthy (Oregon Institute of Technology)

Civil Engineering Students' Views on Infrastructure in the U.S. by Dr. Carol Haden (Magnolia Consulting, LLC) and Dr. Matthew W. Roberts (Southern Utah University)

Developing an Effective and Engaging Concept-driven Approach to Teaching Structural Design by Dr. Joel Lanning P.E. (University of California, Irvine)

Assessing the Influence of Lecture/Laboratory Instructor Pairings on Student Perception and Learning Outcomes by Dr. Simon Thomas Ghanat P.E. (The Citadel), Dr. J. Michael Grayson (The Citadel), Dr. Monika Bubacz (The Citadel), and Dr. Kevin Skenes (The Citadel)

2018 Annual Conference

Session Summaries

Assessing the Impact of Educational Factors on Conceptual Understanding of Geotechnical Engineering Topics by Dr. Simon Thomas Ghanat P.E. (The Citadel), Dr. James Kaklamanos (Merrimack College), Dr. Corrie Walton-Macaulay (Bucknell University), Dr. Suresh Immanuel Selvaraj (University of Evansville), Dr. David A. Saftner (University of Minnesota, Duluth), Dr. Chris Swan (Tufts University), and Dr. Tanya Kunberger P.E. (Florida Gulf Coast University)



Above: Session M406 presenters.

M506·Sustainability in Civil Engineering

Moderators: Dr. Claire L. A. Dancz and Dr. Steven J. Burian P.E.

Development and Assessment of Three Envision Case Study Modules Connecting Behavioral Decision Science to Sustainable Infrastructure by Mr. Nathan McWhirter (Virginia Tech) and Dr. Tripp Shealy (Virginia Tech)

Exploring Gender Differences in Students' Sustainability Beliefs in Upper-level Engineering Courses by Ms. Marisa Swift (Purdue University, West Lafayette), Dr. Allison Godwin (Purdue University-Main Campus, West Lafayette), and Dr. Tripp Shealy (Virginia Tech)

Measuring Misconceptions About Climate Change Between Freshmen and Senior Civil Engineering Students by Dr. Tripp Shealy (Virginia Tech)

Senior Civil Engineering Students' Views on Sustainability and Resiliency by Dr. Noah Salzman (Boise State University), Prof. Bhaskar C. S. Chittoori (Boise State University), Dr. Sondra M. Miller (Boise State University), and Mr. Thomas A. Robbins (Affiliation unknown)

Methods for Measuring Systems Thinking: Differences Between Student Self-assessment, Concept Map Scores, and Cortical Activation During Tasks About Sustainability by Mo Hu (Virginia Tech) and Dr. Tripp Shealy (Virginia Tech)



Above: Session M506 presenters.

T106B·Educational & Professional Issues of Strategic Importance to the Civil Engineering Profession and ASCE

Moderators: Dr. Thomas A. Lenox, Dist.M.ASCE, F.ASEE and Mr. James J O'Brien Jr.

Celebrating 20 Years of the ExCEE'd Teaching Workshop by Dr. Allen C. Estes (California Polytechnic State University, San Luis Obispo), Dr. Stephen J. Ressler P.E. (United States Military Academy), Dr. Camilla M. Saviz P.E. (University of the Pacific), Dr. Brock E. Barry (United States Military Academy), Ms. Carol L. Considine (Old Dominion University), Mr. Dion Coward (American Society of Civil Engineers), Dr. Norman D. Dennis Jr. P.E. (University of Arkansas), Dr. Scott R. Hamilton P.E. (York College of Pennsylvania), Dr. David S. Hurwitz (Oregon State University), Dr. Tanya Kunberger P.E. (Florida Gulf Coast University), Dr.

2018 Annual Conference

Session Summaries

Thomas A. Lenox (American Society of Civil Engineers (Retired)), Dr. Tonya Lynn Nilsson P.E. (Santa Clara University), Ms. Leslie Nolen CAE (American Society of Civil Engineers), Mr. James J. O'Brien Jr. (American Society of Civil Engineers), Dr. Robert James O'Neill (Florida Gulf Coast University), Dr. David A. Saftner (University of Minnesota, Duluth), Dr. Kelly Salyards P.E. (Bucknell University), and Dr. Ronald W. Welch P.E. (The Citadel)

Implementing Civil Engineering-specific Requirements for Professional Licensure by Dr. Matthew Swenty P.E. (Virginia Military Institute), Craig N. Musselman (A & E Consulting), Dr. Monte L. Phillips P.E. (University of North Dakota), and L. Robert Smith P.E. (American Society of Civil Engineers)

Specialization Within the Civil Engineering Profession: Issues, Analysis, and Recommendations by Dr. Stephen J. Ressler P.E. (United States Military Academy) and Dr. Thomas A. Lenox (American Society of Civil Engineers (Retired))

Adjusting to the New ABET Criteria 3 and 5: It's Really Not Very Hard by Dr. Allen C. Estes (California Polytechnic State University, San Luis Obispo), Dr. Pamalee A. Brady (California Polytechnic State University, San Luis Obispo), and Dr. Peter Laursen (Affiliation unknown)

The Third Edition of the Civil Engineering Body of Knowledge: An Update and Overview by Dr. Kenneth J. Fridley (University of Alabama), Dr. Decker B. Hains (Western Michigan University), Dr. Brock E. Barry P.E. (United States Military Academy), Dr. Kristen L. Sanford Bernhardt (Lafayette College), and Ms. Leslie Nolen CAE (American Society of Civil Engineers)



Above: Session T106B presenters.

T506·Educational & Professional Issues of Strategic Importance to the Civil Engineering Profession and ASCE II

Moderators: Dr. Thomas A. Lenox , Dist.M.ASCE, F.ASEE and Mr. James J O'Brien Jr.

Revising the Civil Engineering Body of Knowledge (BOK): The Application of the Cognitive Domain of Bloom's Taxonomy by Dr. Decker B. Hains (Western Michigan University), Dr. Kenneth J. Fridley (University of Alabama), Ms. Leslie Nolen CAE (American Society of Civil Engineers), and Dr. Brock E. Barry P.E. (United States Military Academy)

Assessing the Civil Engineering Body of Knowledge in the Affective Domain by Dr. Norman D. Dennis Jr. P.E. (University of Arkansas), Dr. Decker B. Hains (Western Michigan University), and Prof. Horst Brandes P.E. (University of Hawaii)

The Practitioners' Point of View of the ASCE Body of Knowledge by Dr. Muthusamy Krishnamurthy P.E. (Hydro Modeling Inc), Dr. David Anthony Pezza P.E. (Old Dominion University), Dr. Kenneth J. Fridley (University of Alabama), and Dr. Decker B. Hains (Western Michigan University)

2018 Annual Conference

Session Summaries

The Civil Engineering Body of Knowledge: Supporting ASCE's Grand Challenge by Dr. Decker B. Hains (Western Michigan University) and Mr. Michael O'Connor P.E. (New York University)

Comparison Between the New Bodies of Knowledge for the Civil Engineering Professional and the Civil Engineering Technologist by Prof. Horst Brandes P.E. (University of Hawaii), Dr. Joe D. Manous Jr (U.S. Army Corps of Engineers), and Dr. Kenneth J. Fridley (University of Alabama)



Above: Session T506 presenters.

W106·Fostering Business and Professional Skills in the Engineering Classroom

Moderators: Dr. Mohammad Moin Uddin P.E. and Dr. Matthew D. Lovell

Developing an Understanding of Civil Engineering Practitioner Problem-solving Rationale Using Multiple Contextual Representations by Mr. Sean Lyle Gestson (Oregon State University), Dr. Benjamin David Lutz (Oregon State University), Dr. Shane A. Brown P.E. (Oregon State University), Mr. Matthew Stephen Barner (Oregon State University), Dr. David S. Hurwitz (Oregon State University), and Mr. Masoud Ghodrat Abadi (Oregon State University)

Leadership for Engineers: A Course for Developing Professional and Business Skills for Engineers by Dr. Decker B. Hains (Western Michigan

University) and Dr. Bret J. Wagner (Western Michigan University)

Contributions of the Industry Involvement in Civil and Environmental Engineering Capstone Design Projects by Dr. Ashraf Badir P.E. (Florida Gulf Coast University), Dr. Long Duy Nguyen P.E. (Florida Gulf Coast University), Dr. Robert O'Neill P.E. (Florida Gulf Coast University), Prof. Kristoph-Dietrich Kinzli (Colorado School of Mines), Dr. Simeon J. Komisar (Florida Gulf Coast University), and Dr. Jong-Yeop Kim (Florida Gulf Coast University)

Understanding the Expectations of Writing Skills in Engineering Design Courses and Professional Practice by Dr. Veera Gnanaswar Gude P.E. (Mississippi State University)

Utilizing Reflective Practice to Develop Agency in Goal Setting and Achievement in Workplace Learning Environments by Dr. Andrea Goncher (Charles Sturt University)



Above: Session W106 presenters.

W406·Course Structuring for Effective Student Engagement

Moderators: Dr. David A Saftner and Dr. Jennifer Retherford P.E.

Possibilities for Technology-enhanced Active Learning of Structural Steel Design by Dr. Ryan L. Solonsky P.E. (Pennsylvania State University, University Park)

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Where Grammar, Content, and Professional Practice Meet: The Case of the Passive Voice by Dr. Susan Conrad (Portland State University), Kenneth Lamb (California State Polytechnic University, Pomona), and Mr. Timothy James Pfeiffer P.E. (Foundation Engineering, Inc.)

The Use of GeoGebra Virtual Interactives in Statics to Increase Conceptual Understanding by Mr. Daniel W. Baker Ph.D., P.E. (Colorado State University)

Strategies for Flipping Geology for Engineers with Limited Time and Resources by Dr. Kristin M. Sample-Lord P.E. (Villanova University), Dr. Andrea L. Welker (Villanova University), and Prof. Patricia M. Gallagher P.E. (Drexel University)

The Influence of Grading Bias on Reinforced Concrete Exam Scores at Three Different Universities by Dr. Benjamin Z. Dymond (University of Minnesota, Duluth), Dr. Matthew Swenty P.E. (Virginia Military Institute), and Dr. Chris Carroll (Saint Louis University)



Above: Session W406 presenters.

W506: Accreditation and the BOK

Moderators: Dr. Norman D. Dennis Jr. P.E. and Dr. Allen C Estes P.E.

Lessons Learned from the First Round of Course Assessments After Curriculum Restructure Based on ASCE BOK2 by Dr. Kelly Brumbelow (Texas A&M University), Dr. Luciana R.

Barroso (Texas A&M University), Dr. Debra Fowler (Texas A&M University), Dr. James Michael Kaihatu (Texas A&M University), and Miss Veronica S. Rodriguez Chavarria (Affiliation unknown)

The Impact of EAC-ABET Program Criteria on Civil Engineering Curricula by Dr. Brian J. Swenty P.E. (University of Evansville) and Dr. Matthew K. Swenty (Virginia Military Institute)

Enhancing Student Learning Through Accreditation by Dr. Ronald W. Welch (The Citadel), Dr. Tara Hornor (The Citadel), Dr. Robert J. Rabb P.E. (The Citadel), and Dr. Kevin C. Bower P.E. (The Citadel)

Industry Partnerships Assist Programs for Accreditation by Dr. Ronald W. Welch (The Citadel), Dr. Robert J. Rabb P.E. (The Citadel), and Dr. Kevin C. Bower P.E. (The Citadel)

Perceptions of the Civil Engineering Body of Knowledge Outcomes by Senior Students: Effect of Activities, Internships, and Career Goals by Dr. Angela R. Bielefeldt (University of Colorado, Boulder)

What Do First-year and Senior Civil Engineering Students Think About Raising the Bar on the Education Requirements for Professional Licensure? by Dr. Angela R. Bielefeldt (University of Colorado, Boulder)



Above: Session W506 presenters.

Historian's Report

Salt Lake City, UT

CE Division's Historical Files

The Historian maintains many administrative documents (agendas, minutes, and treasurer reports), past newsletters, and approximately 30 hard copies of the booklet *ASEE Civil Engineering Division – Divisions Chairs 1935-1993*. These files are fairly complete for the period from 1975 to the present. There are no documents on file for any date prior to 1975. And the Historian maintains a database of Division Officers and award winners between 1975 and the present – available upon request. The newest Award winners will be added to the CE Division web site every other year. So **CHECK IT OUT!**

Inventory of Division Newsletters

Our semiannual newsletters are a valuable source of historical information. In 2006, we scanned our entire inventory of past newsletters into PDF files. This inventory has been continually updated since 2006, and was maintained on a website by our past Webmaster, but has been moved to the ASEE website.

ASEE Civil Engineering Division – Divisions Chairs 1935-1993 and Beyond

Single copies of *ASEE Civil Engineering Division, Division Chairs, 1935-1993* will be distributed free of charge to any Division member upon request. I have 10 copies set aside for historical purposes. To supplement *Division Chairs, 1935-1993*, The Historian has been collecting the pictures and biographies of all Division Chairs for the years since 1993. We have obtained a short biographical sketch and an acceptable head-and-shoulders color picture from all of our Past Chairs between 1993 and 2016. This document has been posted as a more “dynamic – i.e., COLOR” Division Chairs document to the Division web site. So **CHECK IT OUT!**

Special Thanks to our Division members!

As you will note from the trivia questions, many of our past leaders have retired or stopped participating in our annual conference. Please help me congratulate all of our long-standing members who were part of division activities prior to 2007! Let's celebrate our future by asking those that have been participating since 2007 to be recognized! All of us must reach out to our CE faculty peers and get them involved both at the regional and national level of ASEE! We must mentor others as they have mentored so many of us to ensure we have a terrific Division with great programs, engaged members, and outstanding leaders. May we all continue to “Raise the Bar!” There is still much work to be done to continually produce the civil engineering leaders of tomorrow.

Ronald W. Welch
The Historian (2011-)
Dean of Engineering, The Citadel
Phone: (843) 953-6588
Email: ronald.welch@citadel.edu

Historian's Report

Civil Engineering Division Trivia

30 Years Ago (AY 1986-87)

- The Division Chair was _____ of Iowa State University.
- The Program Chair was _____ of Tennessee Technological University.
- The annual conference was held in Portland, Oregon.
- A banquet was held on Tuesday evening – George Wadlin entertained the attendees with several quasi-politically-incor-rect jokes.
- _____, who retired as ASCE Director of Education Services, authored the newsletter's guest editorial

25 Years Ago (AY 1991-1992)

- The Division Chair was _____ of Wayne State University.
- The Program Chair was _____ of the University of New Hampshire.
- The annual conference was held at the University of Illinois at Urbana-Champaign -- the last time that the annual confer-ence was held on a college campus.
- As its special project for the big centennial celebration year for ASEE, the Division published *ASEE Civil Engineering Division – Divisions Chairs 1935-1993*.
- As was traditional at the time, the Division had a total of _____ technical sessions.

20 Years Ago (AY 1996-97)

- The Division Chair was _____ of the US Military Academy.
- The Program Chair was _____ of Lawrence Technological University.
- The annual conference was held in Seattle, Washington.
- A banquet was held on Tuesday evening – Bill Wilhelm entertained the attendees with several quasi-politically-incor-rect jokes.
- The “hot” topic was the new civil engineering _____ for 1998-1999.

15 Years Ago (AY 2001-2002)

- The Division Chair was _____ of the US Military Academy.
- The Program Chair was _____ of Purdue University.
- The annual conference was held in Montreal, Canada.
- A banquet was held on Tuesday evening – Bill Wilhelm entertained the attendees with several quasi-politically-incor-rect jokes.
- The first Gerald A. Seeley Awards were presented to faculty members _____ of CSU-Chico and _____ of the US Military Academy.

10 Years Ago (AY 2006-2007)

- The Division Chair was _____ of the US Military Academy.
- The Program Chair was _____ of The Citadel.
- The annual conference was held in Pittsburgh, PA.
- A banquet was held on Tuesday evening – Bill Wilhelm entertained the attendees with several quasi-politically-incor-rect jokes.
- The “hot” topic was implementation of the _____ and the associated new ABET Civil Engineering _____.

5 Years Ago (AY 2011-2012)

- The Division Chair was _____ of the University of Iowa.
- The Program Chair was _____ of Univ. of Wis., Platteville.
- The annual conference was held in Atlanta, GA.
- A new award was discussed and approved to recognize _____.

Historian's Report

Past Conferences

Year	Annual Meeting	Chair
2017-2018	Salt Lake City, UT	Sean St. Clair
2016-2017	Columbus, OH	Brock Barry
2015-2016	New Orleans, LA	Kevin Hall
2014-2015	Seattle, WA	Yusuf Mehta
2013-2014	Indianapolis, IN	Matthew Roberts
2012-2013	Atlanta, GA	M. Asghar Bhatti
2011-2012	San Antonio, TX	Shashi Nambisan
2010-2011	Vancouver, BC, CAN	Kevin Sutterer
2009-2010	Louisville, KY	Norm Dennis
2008-2009	Austin, TX	Dennis Fallon
2007-2008	Pittsburgh, PA	Ron Welch
2006-2007	Honolulu, HI	Kristen Sanford Bernhardt
2005-2006	Chicago, IL	Jim Hanson
2004-2005	Portland, OR	Wilf Nixon
2003-2004	Salt Lake City, UT	Vince Drnevich
2002-2003	Nashville, TN	Steve Ressler
2001-2002	Montreal, Quebec, CAN	J. P. Mohsen
2000-2001	Albuquerque, NM	Sam Clemence
1999-2000	St. Louis, MO	Jim Nau
1998-1999	Charlotte, NC	Alan Prasuhn
1997-1998	Seattle, WA	Tom Lenox
1996-1997	Milwaukee, WI	Howard Dunn
1995-1996	Washington, DC	William Kelly
1994-1995	Anaheim, CA	Tom Mulinazzi
1993-1994	Edmonton, Alberta, CAN	Bob Henry
1992-1993	University of Illinois at Urbana-Champaign, IL	Fred Beaufait
1991-1992	Toledo, OH	Edward Reitz
1990-1991	New Orleans, LA	M. Dean Parsons
1989-1990	Toronto, Ontario, CAN	William Highter

Historian's Report

Past Conferences

Year	Annual Meeting	Chair
1988-1989	Lincoln, NE	Noel Tolbert
1987-1988	Portland, OR	Mardith Thomas
1986-1987	Reno, NV	Gerald Seeley
1985-1986	Cincinnati, OH	Colby Ardis
1984-1985	Atlanta, GA	Roger Seals
1983-1984	Salt Lake City, UT	Ron Eck
1982-1983	Rochester Institute of Technology, Rochester, NY	Jim McDonough
1981-1982	Texas A&M University, College Station, TX	Marvin Criswell
1980-1981	University of Southern California, Los Angeles, CA	Gordon Batson
1979-1980	University of Massachusetts, Amherst, MA	Eugene Chesson
1978-1979	Louisiana State University, Baton Rouge, LA	Donald L. Bender
1977-1978	University of British Columbia, Vancouver, CAN	William J. Wilhelm