

The **CIVIL ENGINEERING (CE) DIVISION** seeks papers for presentation at the 2018 ASEE Annual Conference and Exposition to be held in Salt Lake City, Utah, June 24-27, 2018. Paper submission is a two-step process: (1) Abstract submission, review, and acceptance; followed by (2) Paper submission, review, and acceptance. The submission and review process is double blind; do not include names of authors or institutions within the title or body of the Abstract. Abstracts are limited to 500 words and should provide a clear statement of the objectives of the work, its relevance to the civil engineering community, assessment methods used, and major findings. Authors of accepted Abstracts will be invited to prepare full papers for peer review.

Committee on Professional Practice

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Fostering Business and Professional Skills in the Engineering Classroom

Knowledge of business and possession of strong professional skills are increasingly important for civil engineers. Papers are sought that highlight creative approaches to infusing public policy, business, and public administration into the classroom. In addition, paper describing the assessment of ways for students to demonstrate these skills and mechanisms for the evaluation of these skills are desired.

Industry Partnerships for Academic Resources

We invite papers that explore utilization of professional partnerships for academic resources. Partnerships with academic institutions may include; project and research funding from private sector, project sponsorship and advising, professionals serving as adjunct professors or lecturers, professionals providing curriculum input, internship programs and other similar opportunities. Successful examples and lessons learned from industry/academic partnerships will be presented in this session.

Committee on Instructional Technology

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Benefits to Student Learning of Digital and Collaborative Learning Platforms

Papers are sought that describe the benefits of digital and collaborative learning platforms. Topics of discussion and scholarship may include use of electronic problem sets, ebooks, collaboration tools, and electronic interaction/communication programs. Specific documentation of instructor effectiveness as well as translation of technical knowledge scaffolded through upper level courses and into the profession are of interest.

Student Benefits and Challenges to Electronically Documenting Student Achievement

Digital portfolios and badges are growing in popularity in engineering programs, but have a longer history in the liberal arts. This session will include studies of the benefits and challenges for faculty and students in using digital platforms to capture student achievement of learning outcomes and create a collection of student credentials.

Committee on Educational Policy

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Creating a Culture of Academic Integrity

Although ethical behavior is a key component to being a professional engineer, universities continue to struggle with this issue. Papers are sought that describe the following:

- Creating assignments that encourage ethical behavior
- Developing and implementing effective academic integrity policies
- Teaching practices that link academic and professional ethics
- Detecting violations of and enforcing academic integrity policies

What Counts: How to Manage and Integrate Pre-college Credit

Students are arriving to college with an array of pre-college experiences. Papers are sought that describe the management of AP credit, IB credit, articulation agreements with other schools, and transfer credit from community college.

3Rs for the Future: Raising, Recruiting, and Retaining Civil Engineering Students

Attracting the best and brightest to our profession remains a top priority. Papers are sought that describe ways to create a pipeline of qualified students and keep those students in civil engineering.

Committee on Effective Teaching

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The Evolving Classroom

Effective teachers are constantly evolving their techniques. Scholars are encouraged to submit papers in the following areas of effective teaching:

- Learning styles
- Knowledge domains
- Taxonomies
- Methods and methodologies
- Tools

Course Structuring for Effective Student Engagement

It is generally accepted that increased student engagement leads to increased effectiveness in the learning environment. Previous work has identified numerous techniques related to active learning, delivery methods, and other classroom interventions. However, how do instructors intentionally design a course and classroom activities to optimize student engagement? Further, what lessons have been learned; what successes, failures, and challenges have been identified; and what tools and/or frameworks have been developed and applied to address the effective learning-centric classroom? Paper addressing these topics are sought.

Ready-Set-Play!

This will be an interactive session whereby the techniques described in the papers are implemented. Each author will be given 5 minutes to describe or demonstrate their favorite toy, technique, or in-class activity. Time for questions will be provided at the end.

ASCE Liaison Committee

Tom Lenox, tlenox@asce.org, 703.887.3320

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

Significant changes ARE occurring in the professional practice of civil engineering and the education of future civil engineers. ASCE has been working proactively to address those educational and professional issues of greatest strategic importance to the future of the civil engineering profession. To this end, there are several groups of future-focused civil engineering educators and practitioners working to define and analyze the strategic issues. Many civil engineering professionals are unaware of educational and professional issues being addressed by ASCE's volunteers and staff.

The purpose of this session is to explore 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. This might include, but is not limited to, the following areas:

- The "Raise the Bar" initiative – Where is ASCE going? Where should ASCE be going?
- A progress report on the new Civil Engineering Body of Knowledge
- A progress report on the new Civil Engineering Technologist Body of Knowledge
- The roles and recognition of the Civil Engineering Technologist
- The sociology of professions for the Civil Engineering Technologist
- Should ASCE promote discipline specific licensure of engineers?
- The proposed changes to Criterion 3 and Criterion 5 of the EAC/ABET General Criteria
- A business case for Raise the Bar based upon workforce structure/organization
- An assessment of the ExCEEEd Teaching Workshop and its impact on civil engineering education
- ABET accreditation - neither necessary nor sufficient for ASCE strategic interests?
- How can the ASCE/department head connection be strengthened?
- Issues related to faculty licensure
- Leveraging the ASCE report card

Open Session

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Applications of the Envision Rating System in Engineering Courses and Curricula

The Formal Engineering Education Committee, a subcommittee of the American Society of Civil Engineers (ASCE) Committee on Sustainability, proposes to organize a session on applications of Envision in engineering courses and curriculum. Specifically, this session will provide an opportunity for faculty to share curricular materials, lessons learned, or related ideas pertaining

to Envision, a rating system administered by the Institute for Sustainable Infrastructure (ISI). Envision provides a comprehensive framework of 60 criteria to address environmental, social, and economic impacts of project design, construction, and operation. It offers a holistic framework for evaluating and rating the community, environmental, and economic benefits of all types and sizes of infrastructure projects. We hope for this session to be co-sponsored by Civil Engineering, Environmental Engineering, and other disciplinary divisions of ASEE.

The **CE Division** is a publish-to-present division. At least one author for each paper is expected to register for, and present at, the Annual Conference. All papers are expected to demonstrate an appropriate level of originality and scholarship. Accepted papers will also be considered for appropriate award recognition within the Division.

Please forward this Call for Papers to all interested parties. Questions regarding the 2018 CE Division program may be directed to the Program Chair, Andrea Welker, PhD, PE, at andrea.welker@villanova.edu.