

**2023 ASEE 130<sup>th</sup> Annual Conference and Exposition**  
**Baltimore, MD**  
**June 25-28, 2023**

## **ENVIRONMENTAL ENGINEERING DIVISION CALL FOR PAPERS**

The Environmental Engineering Division (EED) of ASEE invites papers for the 2023 Annual Conference to be held in Baltimore, MD. All oral and poster presenters are required to publish their papers in the ASEE conference proceedings. Paper publication is a two-step process:

- (Step 1) Abstract submission, review, and acceptance; and
- (Step 2) Paper submission, review, and acceptance.

The submission and the review process are double blind; **do not include names of authors or institutions within the title or body of the abstract or paper.** Papers and presentations must contain assessment methods and results. Works in progress or papers without assessment may be considered for poster presentations. Abstracts are limited to 500 words and should provide a clear statement of the objectives of the work, its relevance to the environmental engineering community, assessment methods used, and major findings.

The EED invites papers on the following topics:

### TEACHING AND ENGAGEMENT\*

- Integration of sustainability in courses, across curricula, across disciplines, in collaboration with industry, and in communities
- Demonstrations<sup>^</sup> of interactive and effective teaching activities in five minutes or less
- Ongoing effects of COVID-19 on education: approaches, challenges, successes with the impacts and changes to Environmental Engineering education during and after a global pandemic.
- Use of effective pedagogical methods (e.g., active learning, hybrid courses, flipped classrooms, service-learning, etc.) in teaching environmental engineering courses
- Innovative uses of current and emerging technologies (e.g., online case studies, light board, social media) in teaching environmental engineering courses
- Development of new, or cross-disciplinary, hybrid, hyflex, lab, study away, or study abroad courses in environmental engineering, e.g., environmental biology, environmental security, environmental public health, environmental engineering in Island Nations.
- Interdisciplinary approaches to addressing Grand Challenges such as climate change, food-water-energy nexus:  
UN Sustainable Development Goals (<https://sdgs.un.org/goals>)  
National Academy Grand Challenges (<http://www.engineeringchallenges.org/>)  
Environ. Engineering for the 21<sup>st</sup> Century (<https://www.nap.edu/read/25121/chapter/1#xi>)

\*Sessions may be organized to allow for substantial discussions by limiting presentation time and facilitating round-table or full-room discussion.

<sup>^</sup>Session may be organized to highlight multiple in-class demonstrations by limiting presentation time.

- The experiences and learning resulting from extracurricular student projects/contests in environmental engineering, e.g., people, prosperity and planet (P3), Engineering without Borders, etc.
- Benefits and case studies of undergraduate environmental engineering research or capstone projects with community and/or industry engagement

#### ASSESSMENT and ABET ACCREDITATION

- Ability to engage students in environmental lifelong learning
- Recruitment and retention of diverse students in environmental engineering
- Use of the American Academy of Environmental Engineers and Scientists Body of Knowledge at the course and/or curriculum level (<http://www.aaees.org/publications/eebodyofknowledge.php>);
- Experiences with accreditation and assessment, e.g., ABET, graduate program accreditation, etc.

#### FACULTY/CAREER

- Learnings from various career paths of environmental engineering faculty and effective resources that support professional development, e.g., training, mentorship, industry-academia transition
- Innovative development for tenured/tenure-track faculty and professional faculty (adjunct, non-tenure track such as teaching and research faculty)

*Please note that some of the topics in our call may be selected for a joint session.*

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#### PANELS OR WORKSHOP PROPOSALS

The EED invites **panel and/or workshop proposals** on any of the topics described in the call for papers above, or other topics aligned with the paper call.

A “Sabbaticals” Panel is planned as a joint session with the New Engineering Educators Division for the 2023 Annual Conference. Panelists are invited to describe sabbatical projects in environmental engineering and/or engineering education, the sabbatical process, and requirements. Email the 2022-2023 Program Chair, Dr. Shannon Parks at [shannon.parks@pitt.edu](mailto:shannon.parks@pitt.edu) if you are interested in serving as a panelist.

#### EED AWARDS

The Environmental Engineering Division awards a **Best Faculty Paper, Early Career, Best Student Paper, and Best Diversity Paper Award** every year. All full paper submissions are eligible (Work in Progress is not). The following criteria will be used by reviewers to evaluate papers, and to determine the EED paper awards on a 5-point scale: (1 = Poor; 3 = Good; 5 = Excellent)

- Significance and or importance to environmental engineering education (5 points)

- Potential impact, applicability, and reproducibility of the proposed educational tools and methods (5 points)
- Research quality, organization, and structure of content, and scholarly presentation (5 points)
- Quality of assessments of student learning, data processing and statistical methods (5 points)

### **EED Best Faculty Paper**

- This award recognizes the best paper submitted to the Division. The author must be a current member of ASEE and of the Environmental Engineering Division. The author (not a graduate student or colleague) must present the paper. For multiple authors, at least one author must be a division member, and the presentation at the conference must be made by a division member.
- The prize for winning Best Faculty Paper Award is dinner for the winner(s) up to three authors, recognition at the Division dinner, and one plaque.

### **EED Early Career Award**

- Eligibility Criteria: The applicant will be within the first four years of academic experience as a non-tenure and/or tenure-track position, and un-tenured as of August 31, 2023. All years of academic experience count towards the time constraint. The applicant must teach at a four-year university that offers at least one environmental engineering course. Collaboration with senior or tenured faculty members is encouraged as long as the eligible faculty member(s) hold(s) the intellectual merit for the educational research or activity. In addition, the eligible faculty member(s) should be the lead author(s) and submit the manuscript to the division. Single authored papers are also accepted.
- Application Process: To apply, the last line of the abstract must read: "I am an untenured faculty member within the first four years of total academic experience, lead author of the paper, and eligible for the Environmental Engineering Division Early Career Award". In addition, potential candidates should contact the Program Chair, Dr. Shannon Parks at [shannon.parks@pitt.edu](mailto:shannon.parks@pitt.edu), to confirm their tenure-track position status at their institution.
- The prize for winning the Early Career Award is dinner for the winner(s) up to three authors, recognition at the Division dinner, and one plaque.

### **Best Student Paper**

- This award recognizes the best paper written by a student. The first author of the paper must be an undergraduate or graduate student, must be an EED member, and must present the paper at the Annual Conference. Faculty may be co-authors. The paper must focus on pedagogical issues.
- The Division will award a \$500 travel award to the presenting student-author, recognition at the Division dinner, and one plaque.

### **Best Diversity Paper**

- This award recognizes the best paper submitted to the Division highlighting diversity. The author must be a current member of the ASEE Environmental Engineering Division and must present the paper at the Annual Conference. For multiple authors, at least one author must be a division member, and the presentation at the conference must be made by a division member. To apply, the last line of the abstract must read: "This paper highlights

diversity in environmental engineering, and is eligible for the Environmental Engineering best diversity paper award”.

- The prize for winning Best Diversity Paper Award is dinner for the winner(s) up to three authors, recognition at the Division dinner, and one plaque.

Questions may be addressed to the Environmental Engineering Division 2022-2023 Division Chair, Dr. David Sanchez at [david.sanchez@pitt.edu](mailto:david.sanchez@pitt.edu) or the 2022-2023 Program Chair, Dr. Shannon Parks at [shannon.parks@pitt.edu](mailto:shannon.parks@pitt.edu).