

# The ASEE Environmental Engineering and Science Division Newsletter

Spring 2019

## A Message from the Division Chair

Dear Colleagues,

The Environmental Engineering Division (EED) is **“charged up for the ASEE Annual Conference in Tampa Florida”**. The spring newsletter brings you all the details of the wonderful program that features assessment of students’ learning, pedagogy with research and hands-on projects, and environmental engineering activities used beyond the classroom that have impacted the learning of students.

I personally would like to invite you to all of the Environmental Engineering Division events. All EED officers are looking forward to meeting you during the workshops, technical sessions, business meeting, or at the division social. The program chair, Dr. Veera Ganeswar Gude, has organized four technical sessions, a panel and a poster session that will provide you with professional development and networking opportunities.

The Environmental Engineering Division activities will start on Sunday June 16 with a Technical Session titled “Teaching effectiveness and student learning assessment”. Later, EED will have a table at the Sunday evening ASEE Division mixer; please stop by to get the EED green environmental engineering ribbon and enjoy the drinks, food and music provided by ASEE. On Monday June 17 two technical sessions are scheduled from 11:30 am to 3:00 pm, one on “Teaching through research and hands-on projects” and one on “Environmental engineering education and professional development”. The day ends with the panel titled “More than Goal Six: Integrating Multiple Sustainable Development Goals into Classroom Teaching and Student Learning” from 3:15 to 4:45 pm.

The EED posters will be displayed at the ASEE Engineering poster session scheduled on Tuesday June 18 from 11:30 to 1:00 pm, where lunch is provided. Please come, support our authors, and find ideas and collaborators for your next year’s papers. Right after the poster session the last EED technical session is scheduled from 1:30 to 3:00 pm. The session is titled “Environmental Engineering beyond the classroom”.

In our effort to bring opportunities for collaboration and professional development to members, EED is co-sponsoring two panels, the “Energy Innovation and Environmental Impact” scheduled on Sunday at 3:00 pm and the “Community Engagement Ethics: First Steps in a Conversation with Affected Communities” on Wednesday at 9:45 am. Both panels will provide global perspectives on different topics relevant to the environmental engineering education.

Finally, the EED activities conclude with two evening events on Tuesday June 18. The EED business meeting is at 5 pm, followed by our division social at 7 pm, where we will recognize EED award winners (ticketed event). At the EED business meeting, we will select the new treasurer, will hear reports from our officers and PIC II chair, and discuss the 2020 conference. There are plenty of opportunities to get involved, so please join us at any of our events or contact any of the officers.

It has been an honor to serve as the 2018-2019 Environmental Engineering Division chair. The last four years as an EED officer have provided me with the great opportunity of meeting many of you. Our officers and executive board members are passionate about promoting engineering education and have made the experience rewarding each year.

Finally, I want to thank all authors for their contributions, and all reviewers and moderators for their service work that makes our division stronger. I look forward to seeing you in Montréal, Québec, Canada.

Sincerely,  
Dr. Mónica Palomo

### **2018-2019 Environmental Engineering Division Chair**

Associate Professor  
Civil Engineering

Cal Poly Pomona  
Pomona, CA

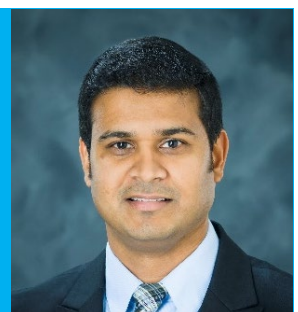


### **Program Chair 2018-2019**

Dr. Veera Ganeswar Gude

Associate Professor  
Department of Civil and  
Environmental Engineering

Mississippi State University  
Mississippi State, MS



### **Secretary 2018-2019**

Dr. Michelle K. Marincel Payne

Assistant Professor  
Department of Civil and  
Environmental Engineering

Rose-Hulman Institute of  
Technology  
Terre Haute, IN



### **Treasurer 2018-2019**

Dr. Fethiye Ozis

Lecturer  
Department of Civil and  
Environmental Engineering

Northern Arizona University



## Meetings, Panels and Sessions

### U425-Environmental Engineering Division Technical Session 3

Sun. June 16, 2019 1:45-2:45 PM  
Room 17, Tampa Convention Center

### U545-Energy Innovation and Environmental Impact

Co-sponsored Panel Sun. June 16, 2019 3-4 PM  
Room 10, Tampa Convention Center

### M325-Environmental Engineering Division Technical Session 1

Mon. June 17, 2019 11:30-1:00 PM  
Room 17, Tampa Convention Center

### M425-Environmental Engineering Division Technical Session 2

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

### M525-More than Goal Six: Integrating Multiple Sustainable Development Goals into Classroom Teaching and Student Learning

Panel Mon. June 17, 2019 3:15-4:45 PM  
Room 17, Tampa Convention Center

### M504B-2019 ASEE Interdivisional Town Hall Meeting

Mon. June 17, 2019 3:15-4:45 pm  
Grand Ballroom A, Tampa Convention Center

### T325-Environmental Engineering Division Poster Session

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

### T425- Environmental Engineering Division Technical Session 4

Tue. June 18, 2019 1:30-3:00 PM  
Room 17, Tampa Convention Center

### T625-Environmental Engineering Division Business Meeting

Tue. June 18, 2019 5:00-6:00 PM  
Meeting Room 12, Tampa Marriott Waterside - HQ Hotel

### T725-Environmental Engineering Division Social

Tue. June 18, 2019 7:00-9:00 PM  
American Social  
601 S. Harbour Island Blvd. #107, Tampa FI 33602  
Five min walk (0.3 mi) from Tampa Convention Ctr.

### W252-Distinguished Lecture: Community Engagement: First Steps in a Conversation with Affected Communities

Co-sponsored, Wed. June 19, 2019 9:45-11:15 AM  
Room 19, Tampa Convention Center

## EED Business Meeting

This year our annual Business Meeting will be held on **Tuesday, June 18 from 5:00 PM to 6:00 PM in Meeting Room 12, Tampa Marriott Waterside – HQ Hotel**. Members are strongly encouraged to attend to provide the Division with enriching feedback for improvements and input for the 2020 conference.

## Division Social Tuesday, June 18, 2019 7:00-9:00 PM



This social event is open to all division members, prospective members, families and friends. The event provides a relaxed atmosphere to socialize and honor the Division Award recipients and the Outgoing Division Chair. The division honors the awardees with a plaque, honorarium and a free invitation for the dinner. This year the dinner will be held at **American Social**, 601 S. Harbour Island Blvd. #107, Tampa FI 33602, *Phone: 813.605.3333*. All dinners tickets need to be bought online through the ASEE registration website or at the registration counter during the ASEE conference prior to the event. Unfortunately, no cash payment will be accepted at the event.

More dinner details are presented on page 6.

# DIVISION AWARDS

## 2019 Best Paper Award

### Life cycle thinking and engineering in developing communities: addressing international sustainability challenges in the classroom

Authors: Pablo K Cornejo  
*California State University, Chico*

Kevin Orner  
*University of South Florida*



Dr. Pablo K Cornejo, California State University, Chico Dr. Pablo K. Cornejo is an Assistant Professor in the Department of Civil Engineering at California State University, Chico. Dr. Cornejo received his Ph.D. and Master's degree in Environmental Engineering from the University of South Florida (USF) and B.S. in Civil Engineering from the University of

Colorado at Boulder. His research focused on the sustainability of water, wastewater, and integrated resource recovery systems; water and sanitation issues in the developing world; and sustainability in engineering education. Pablo is passionate about teaching and increasing the participation of underrepresented students in STEM.



Mr. Kevin Orner, University of South Florida Kevin Orner is a Ph.D. Candidate in Environmental Engineering at the University of South Florida, where he studies nutrient management of wastewater. Kevin was a Teaching Assistant and course instructor for the Sustainable Development Engineering course in Fall 2014. After obtaining a B.S. in Civil and Environmental Engineering with a certificate in Technical

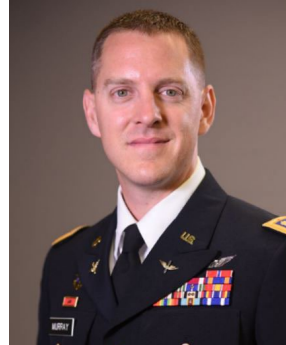
Communication from the University of WisconsinMadison, Kevin served for two years as a Peace Corps Volunteer in Panama. In December 2011, he completed his M.S. in Civil and Environmental Engineering at the University of South Florida. Kevin is an E.I.T. with engineering consulting experience.

## 2019 Early Career Award

### Beer Brewing and the Environmental Engineer: "Tapping" into Experiential Learning

Authors: Kyle Murray, Instructor  
Benjamin Michael Wallen, Assistant Professor  
Luke Plante, Assistant Professor  
Kimberly Quell, Laboratory Technician  
Michael Butkus, Professor  
*United States Military Academy*

#### Early Career Awardees:



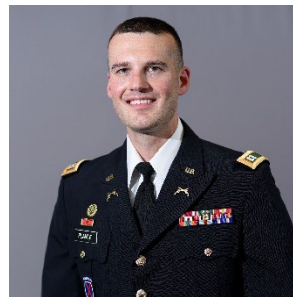
Major Kyle Murray is a Major and an Aviation Officer in the United States Army and an Instructor in the Department of Geography and Environmental Engineering at the United States Military Academy. He is a 2007 graduate of the United States Military Academy with a B.S. in Civil Engineering and graduated from the University of California – Los Angeles (UCLA) with an M.S. in Environmental Engineering in 2017. His research interests

include wastewater treatment technologies and microbiology as well as air pollution mitigation and control technologies. His current research focuses on engineering education in the field of environmental engineering. He teaches courses in Environmental Biological Systems, Environmental Science, Environmental Engineering Technologies, and Environmental Chemistry. He is also a licensed Professional Engineer in the state of Delaware.



Dr. Benjamin Wallen is a Lieutenant Colonel in the United States Army and an Assistant Professor in the Department of Geography and Environmental Engineering at the United States Military Academy. He is a 1996 graduate of the United States Military Academy with a B.S. in Environmental Engineering, and he obtained an M.S. from the University of Missouri at Rolla in

Geological Engineering in 2000, an M.S. from the University of Texas at Austin in Environmental Engineering in 2005, and a Ph.D. from the Colorado School of Mines in Civil and Environmental Engineering in 2016. He course directs and teaches Environmental Science for Engineers and Scientists, Environmental Engineering Technologies, and Advanced Individual Study I-II.



Capt. Luke Plante is a Captain in the United States Army and an Assistant Professor in the Department of Geography and Environmental Engineering at the United States Military Academy. He is a 2008 graduate of the United States Military Academy with a B.S. in Environmental Engineering and graduated from Columbia University with an M.S.



in Environmental Engineering in 2016. He teaches Environmental Biological Systems, Environmental Science, Environmental Engineering Technologies, Introduction to Environmental Engineering, Advanced Individual Study I-II, Biochemical Treatment, and Officership.

## OFFICERS: July 2019-June 2020

**Outgoing Division Chair:** Dr. Mónica Palomo  
Cal Poly Pomona  
[mpalomo@cpp.edu](mailto:mpalomo@cpp.edu)

**Division Chair:** Dr. Veera Gnanaswar Gude  
Mississippi State University  
[gude@cee.msstate.edu](mailto:gude@cee.msstate.edu)

**Program Chair:** Dr. Michelle K. Marincel Payne  
Rose-Hulman Institute Of Technology  
[marincel@rose-hulman.edu](mailto:marincel@rose-hulman.edu)

**Secretary:** Dr. Fethiye Ozis  
Northern Arizona University  
[fethiye.ozis@nau.edu](mailto:fethiye.ozis@nau.edu)

**Treasurer:** *To be elected at the business meeting. If you are interested in the position please contact Dr. Veera Gnanaswar Gude [gude@cee.msstate.edu](mailto:gude@cee.msstate.edu), or be present at the Division business meeting.*

## BEST FACULTY PAPER AWARD

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.

## EARLY CAREER AWARD

This award recognizes the best paper written by an early career EED member. The award decision is made by the EED Awards Committee formed by division officers and/or division directors and/or invited external judges, and the paper is judged based on its ability to positively impact environmental engineering education.

Eligibility Criteria: The applicant(s) will be within the first four years of academic experience as a non-tenure track

or tenure-track faculty member, and un-tenured as of August 31, 2020. All full-time 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, authors must add the following sentence to the last line of the abstract: "I(We), am(are) an untenured faculty member(s) within the first four years of total academic experience, lead author(s) of this paper, and eligible for the Environmental Engineering Division Early Faculty Paper Award." In addition, potential candidates must contact the program chair, Dr. Michelle Marincel Payne, [marincel@rose-hulman.edu](mailto:marincel@rose-hulman.edu), to confirm years of academic experience, EED membership, and for papers with multiple authors, the degree of intellectual merit in their paper.

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.

## MERITORIOUS SERVICE AWARD

Members of the Environmental Engineering Division who, in the opinion of the reviewing officers, have performed activities or provided services to the Division benefiting the Division and deserving of special recognition are eligible for this award. For example, a member who provides sustained active contributions of major tasks over many years might be eligible for this award. The current Division Chair and Program Chair are ineligible to receive this award. Nominations should document these contributions. A call for nominations will be published in electronic and/or other publications for the Division. **Nominations may be submitted to the Division Chair by letter or email, with a deadline of March 1<sup>st</sup> of the year in which the award is to be presented.**

## BEST STUDENT PAPER AWARD

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 up to three awards each year with the awardees receiving \$500 each, with a plaque.

**ASEE Annual Conference 2020**  
**Montréal, Québec, Canada**  
**June 21-24**

**CALL FOR PAPERS 2020**

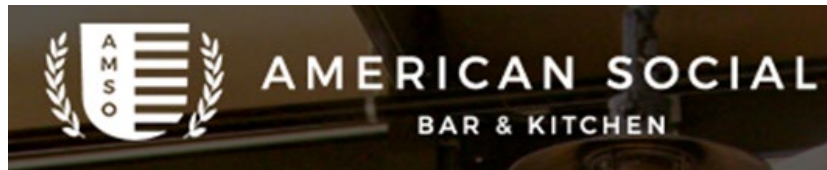
The Environmental Engineering Division of ASEE invites papers for the Annual Meeting to be held in Montréal, Québec, Canada. The division will offer sessions that include papers on the following topics:

- Innovative pedagogical methods (social media, flipped classrooms, active learning etc.) in teaching environmental engineering courses;
- Integrating sustainability in courses, across disciplines, and in communities.
- Innovative uses of current and emerging technologies in teaching environmental engineering courses;
- Extracurricular student projects/contests in environmental engineering, e.g. P3, EWB, IEDC, etc.;
- Development of new or hybrid courses in environmental engineering, e.g. Environmental Biology, Environmental Security, Environmental and Public Health;
- Interdisciplinary approaches to addressing major (e.g. Grand) challenges such as climate change, food, water;
- Engaging students in environmental lifelong learning;
- Educational resources such as online case studies, web-based course modules for teaching environmental engineering topics;
- Recruitment and retention of diverse students in environmental engineering;
- Undergraduate environmental engineering research, citizen science projects, or capstone experiences;
- Accreditation and assessment, e.g. ABET, graduate program accreditation, assessment, etc.
- Community engagement through research or capstone experiences (e.g. service learning experiences).

Please note that the Environmental Engineering Division now requires that oral and poster presenters publish their papers in the ASEE conference proceedings. Additionally, the papers and presentations are expected to contain assessment methods and results. Works in progress or papers without assessment will be considered for poster presentations.

Questions may be addressed to the Environmental Engineering Division 2019-2020 Division Chair, Dr, Veera Ganeswar Gude [gude@cee.msstate.edu](mailto:gude@cee.msstate.edu) or the 2019-2020 Program Chair, Dr. Michelle Marincel Payne [marincel@rose-hulman.edu](mailto:marincel@rose-hulman.edu).

**ENVIRONMENTAL ENGINEERING AND  
SCIENCE DIVISION  
ANNUAL SOCIAL AND AWARDS DINNER  
Tuesday, June 18, 2019  
7:00-9:00 PM**



Please join us for our annual division social and awards dinner at

**American Social**

601 S. Harbour Island Blvd. #107, Tampa FL 33602  
Phone: 813.605.3333  
<https://americansocialbar.com/about/>

**Cost is \$35/person when purchased online**

***Tickets are required and must be purchased online (\$35) or at the 2018 ASEE registration counter (\$45) before the event.***

**Register for the EED Social and Awards Session  
T725-Environmental Engineering Division Social & Awards Dinner  
Tuesday, June 18, 2019 7:00 PM to 9:00 PM**