

# The ASEE Environmental Engineering Division Newsletter

Spring 2016

## A Message from the Division Chair

Dear Colleagues:

We are very excited about the 2016 ASEE Annual Conference in New Orleans, Louisiana. The Environmental Engineering Division has a wonderful program this year featuring a variety of engineering education pedagogy models, classroom innovations, hands-on activities, and learning ideas to help improve how we educate our students.

We will start the conference with a workshop on Sunday entitled Developing Assessment Activities for “Wicked Sustainability Problems”- Literacy in Engineering Education. This workshop will focus on the need to train students to deal with complex and contested problems that lack single right solutions.

On Monday, we will have a full day with two sessions. We will start with the Sustainability and Hands-on Engineering Education Session (11:30 AM). This will involve four technical talks discussing concept maps, sustainability education in a global era, the impacts of sustainability on student attitudes and the use of 3D visualization in design courses. On Monday afternoon (3:00 PM), the Engagement, Experiential Learning and Balance in Educational Experiences Session will feature research addressing innovative approaches to increase student engagement and learning.

On Tuesday, between 11:30 AM and 1:00 PM, presenters will be by their posters to discuss their work on novel approaches for teaching sustainable urban planning and for optimizing senior design projects. Later on Tuesday, at our business meeting (4:45-6:15 PM), we will discuss ideas for the 2017 ASEE Conference and elect new officers. We always welcome our colleagues interested in Environmental Engineering to join our Division and become actively involved at a national level. If you are interested in leadership and learning more about our Division, please plan to join us. We will end the day with our Social and Awards Dinner on at Mulate’s Restaurant. Each year during the social, we enjoy relaxing with new and returning colleagues. During the social, we will award the Best Early Faculty Award and the Best Paper Award.

We end our technical sessions on Wednesday morning (9:45 AM), with the Curricula, Criteria, Student Performance and Growth Session. During this session we will hear papers related to incorporating risk into the curricula, predicting student performance, satisfying ABET’s program criteria, and the lessons gained from teaching a multidisciplinary technology course.

It has been my pleasure to serve as the 2015 – 2016 Environmental Engineering Division Chair and working with the Environmental Division for the last four years. Our wonderful officers and executive board are passionate about promoting engineering education and make being part of the Environmental Engineering Division rewarding each year. We all look forward to seeing you in Columbus!

Sincerely,  
Alison M. Cupples  
**2015-2016 Environmental Engineering Division Chair**  
Department of Civil and Environmental Engineering  
Michigan State University



**PROGRAM CHAIR  
2015-2016**

**Dr. Mary Cardenas  
Associate Professor**

Mechanical and  
Environmental  
Engineering

Harvey Mudd College  
Claremont, CA



**Secretary 2015-2016**

**Dr. Stephanie Butler  
Velegol  
Instructor**

Civil & Environmental  
Engineering

Penn State University  
University Park, PA



**Treasurer 2015-2016**

**Dr. Monica Palomo  
Associate Professor**

Engineering

Cal Poly Pomona  
Pomona, CA



## Summary of all EED Sessions

### **U271F: Sunday workshop**

Developing assessment activities for “wicked sustainability problem” literacy in engineering education.

Sun. June 26, 2016 9:00 AM to 12:00 PM  
New Orleans Convention Center, 243

### **M325·Environmental Engineering Division:** Sustainability and Hands-on Engineering Education

Mon. June 27, 2016 11:30 AM to 1:00 PM New Orleans Convention Center, 274

### **M525·Environmental Engineering Division:** Engagement, Experiential Learning, and Balance

Mon. June 27, 2016 3:00 PM to 4:30 PM New Orleans Convention Center, 281

### **T325·Environmental Engineering Division:** Poster Session

Tue. June 28, 2016 11:30 AM to 1:00 PM New Orleans Convention Center, Exhibit Hall F

### **T625·Environmental Engineering Division** Business Meeting Business

Tue. June 28, 2016 4:45 PM to 6:15 PM New Orleans Convention Center, 254

### **T725·Environmental Engineering Division** Social and Awards Dinner Social

Tue. June 28, 2016 7:00 PM to 9:00 PM Mulate's Restaurant 201 Julia Street New Orleans LA 70130

### **W225·Environmental Engineering Division** Curricula, criteria, student performance and growth

Wed. June 29, 2016 9:45 AM to 11:15 AM  
New Orleans Convention Center, 346

## EED Business Meeting

This year our annual Business Meeting will be held on Tuesday, June 28 from 4:45 PM to 6:15 PM (Room 254). Members are strongly encouraged to attend to provide the Division with enriching feedback for improvements and input for the 2017 conference.

**Division Social**  
**Tuesday, June 28, 2016**  
**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 **Mulate's Restaurant 201 Julia Street.**

*Details of the dinner are presented on page 6.*

# DIVISION AWARDS

## BEST FACULTY PAPER AWARD 2016

"Making the Case: Adding case studies to an Environmental Engineering Laboratory to increase student engagement, learning, and data analysis"

**Stephanie Luster-Teasley**  
(NC State)



**Dr. Luster-Teasley** is an Associate Professor in Civil, Architectural and Environmental Engineering at North Carolina State. Her research interests include Chemical oxidation, water and wastewater treatment, physical/chemical/microbial remediation, green engineering and sustainability, water recycling/water reuse, homeland security and engineering education. In addition she was the Environmental engineering division chair from 2014 – 2015.

## EARLY CAREER AWARD 2016

"Scientific Thinking and the Logic of Environmental Engineering Experiments"

**Veera Ganeswar Gude**  
(Mississippi State)



**Dr. Gude** is an assistant Professor of Civil and Environmental Engineering at Mississippi State University. He received his PhD at New Mexico State in 2007. His research focuses on developing sustainable technologies for water and energy production, especially in low temperature desalination, microbial desalination, biodiesel production.

## OFFICERS July 2016-June 2017

**Outgoing Division Chair:** Dr. Alison M. Cupples.  
Michigan State University  
[cupplesa@msu.edu](mailto:cupplesa@msu.edu)

**Division Chair:** Dr. Mary Cardenas  
Harvey Mudd College  
[mary\\_cardenas@hmc.edu](mailto:mary_cardenas@hmc.edu)

**Program Chair:** Dr. Stephanie Butler Velegol  
Pennsylvania State University  
[sbv1@psu.edu](mailto:sbv1@psu.edu)

**Secretary:** Dr. Monica Palomo  
Cal Poly Pomona  
[mpalomo@cpp.edu](mailto:mpalomo@cpp.edu)

**Treasurer: To be elected at the business meeting**

**Please note that we will be electing a Treasurer for 2016-2017. If you are interested in the position please contact Dr. Mary Cardenas [mary\\_cardenas@hmc.edu](mailto:mary_cardenas@hmc.edu) or be present at the Division business meeting.**

## BEST FACULTY PAPER AWARD

The author must be a current member of ASEE and of the Environmental Engineering Division. The paper must be submitted to the proceedings. **The author (not a graduate student or colleague) must present the paper.** For multiple authors, at least one paper author must be a division member, and the presentation at the conference must be made by a division member. In cases of multiple qualified authors, the prize will be split.

**Prize is dinner for winner + 1 guest and recognition at the Division dinner, and a plaque.**

## EARLY CAREER AWARD

The Environmental Engineering Division of ASEE is pleased to announce the Early Career Grant. Recipients of this grant will receive an honorarium to cover a portion of the travel expenses, and will be guests at the Environmental Engineering Division Dinner.

### Eligibility Criteria

Applicant will be in a tenure-track position as of August 30, 2016. Applicant will be un-tenured as of August 30, 2016. Applicant teaches at any 2- or 4-year University that offers at least one environmental engineering course.

## Selection Criteria

A single recipient will be selected based on the paper submitted. A selection committee will judge the paper based on its ability to positively impact environmental engineering education.

## Application Process

To apply, simply ensure that the last line of the abstract contains the following sentence:

***"I am eligible for the Environmental Engineering Division Early Faculty Grant."***

If you have any questions, please feel free to contact the Environmental Engineering Division Program Chair for 2016 (Mary Cardenas) at [mary\\_cardenas@hmc.edu](mailto:mary_cardenas@hmc.edu).

## MERITORIOUS SERVICE AWARD

Members of the ASEE 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, fax, or email, with a deadline of March 1<sup>st</sup> of the year in which the award is to be presented. The division officers will receive nominations and select an award winner.

## BEST STUDENT PAPER AWARD

The Environmental Engineering Division of ASEE is pleased to announce the Best Student Paper Award. The first author of the paper must be an undergraduate or graduate student and they must present the paper at the Annual Conference. Faculty are allowed to be co-authors. 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 2017 Columbus, OH

## CALL FOR PAPERS 2017

The Environmental Engineering Division of ASEE invites papers for the Annual Meeting to be held in Columbus, OH, USA. 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, in communities, especially as it relates to new ABET criteria.
- 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 or capstone experiences;
- Accreditation and assessment, e.g. ABET, graduate program accreditation, assessment, etc.
- Community engagement through research or capstone experiences.

The Environmental Engineering Division now requires that presenters publish their papers in the ASEE conference proceedings.

Questions may be addressed to the Environmental Engineering Division 2016-2017 Division Chair, Dr. Mary Cardenas at [mary\\_cardenas@hmc.edu](mailto:mary_cardenas@hmc.edu) or the 2016-2017 Program Chair, Dr. Stephanie Butler Velegol at [sbv1@psu.edu](mailto:sbv1@psu.edu).

# ENVIRONMENTAL ENGINEERING DIVISION ANNUAL SOCIAL AND AWARDS DINNER

Tuesday, June 28, 2016  
7:00-9:00 PM



Please join us for our annual division social and awards dinner at  
**Mulate's Restaurant**  
201 Julia Street  
New Orleans, LA 70130

**Mulates.com**  
**(504) 522 - 1492**

**Costs are \$35/person if you register online and  
\$45 on-site.**

## **Register for Session**

**T725·Environmental Engineering Division Social and Awards Dinner Social**