The ASEE Environmental Engineering Division Newsletter

Spring 2015

A Message from the Division Chair

Dear Colleagues:

We are very excited about the 2015 ASEE Annual Conference in Seattle, Washington. The Environmental Engineering Division has a wonderful program this year featuring a variety of engineering education pedagogy models, classroom innovations, hands-on activities, and problem-based learning ideas to help improve how we educate our students.

We will kick off the Environmental Engineering Sessions on Monday with our Environmental Engineering Pedagogy and Innovation Session. This session will feature papers addressing innovative classroom practices, on-line learning, and assessment.

On Tuesday, we will have a full day with technical talks addressing Problem-Project-Case-based Learning Session and seven authors presenting during the poster session. Our business meeting will begin at 4:00 PM where we discuss ideas for the 2016 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 Icon Grill. Each year during the social, we enjoy relaxing with new and returning colleagues. During the social, we will award the Best Student Paper, Best Early Faculty Award and Best Paper Awards.

We end our technical sessions on Wednesday, with the Sustainability and Hands-on Engineering Education Session. During this session we will hear papers related methods to incorporate sustainability into your courses institutional practices, and globally.

It has been my pleasure to serve as the 2014 – 2015 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 Seattle!

Sincerely, Stephanie Luster-Teasley 2014-2015 Environmental Engineering Division Chair North Carolina A&T State University Civil, Architectural, and Environmental Engineering Greensboro, NC 27411



PROGRAM CHAIR 2014-2015

Dr. Alison M. Cupples

Associate Professor

Civil & Environmental Engineering

Michigan State University

East Lansing, Michigan

Secretary 2014-2015

Dr. Mary Cardenas

Associate Professor

Mechanical and Environmental Engineering

Harvey Mudd College

Claremont, California

Treasurer 2014-2015

Dr. Stephanie Butler Velegol

Instructor

Civil and Environmental Engineering

Pennsylvania State University

University Park, Pennsylvania





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Summary of all EED Sessions

Session M525: Environmental Engineering Pedagogy and Innovation

Mon. June 15, 2015 2:15 PM to 3:45 PM **Washington State Convention Center, Room 307**

Session T225: Problem- Project- and Case-based Learning in Environmental Engineering Tue. June 16, 2015 8:45 AM to 10:15 AM **Washington State Convention Center, Room 307**

Session T425: Environmental Engineering Division **Poster Session**

Tue. June 16, 2015 12:30 PM to 2:00 PM Washington State Convention Center, Exhibit Hall 4 ABC

Session T625: Environmental Engineering Division **Business Meeting**

Tue. June 16, 2015 4:00 PM to 5:30 PM **Washington State Convention Center, Room 205**

Session T725: Environmental Engineering Division Social and Awards Dinner Tue. June 16, 2015 7:00 PM to 9:00 PM Icon Grill 1933 5th Ave, Seattle, WA 98101

Session W225: Sustainability and Hands-on Engineering Education

Wed. June 17, 2015 8:45 AM to 10:15 AM **Washington State Convention Center, Room 309**

EED Business Meeting

This year our annual Business Meeting will be held on Tuesday, June 16 from 4:00 PM to 5:30 PM (Room 205). Members are strongly encouraged to attend to provide the Division with enriching feedback for improvements and input for the 2016 conference.



Division Social Tuesday, June 16, 2015 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 plague, honorarium and a free invitation for the dinner. This year the dinner will be held at **Icon Grill** at 1933 5th Avenue.

Details of the dinner are presented on page 6.

DIVISION AWARDS

BEST FACULTY PAPER AWARD 2015

"Sustainable, Global, Interdisciplinary and Concerned for Others? Trends in Environmental Engineering Students"

Angie Bielefeldt (University of Colorado, Boulder) is Professor and Associate Chair for Undergraduate Education



at the Department of Civil, Environmental, and Architectural Engineering at Boulder. Angie received a B.S. in Civil Engineering from Iowa State, and earned both a Master's Degree and a Ph.D. from the University of Washington in Civil Engineering.

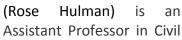
Dr. Bielefeldt's interests include engineering education: sustainability, service learning, ethics, social responsibility, recruiting and retention, diversity; biodegradation and biotransformation; and Sustainable water and wastewater treatment for developing communities. Her graduate thesis examined the biotreatment of contaminated gases in a sparged suspended-growth bioreactor.

She was recognized for another Best Paper Award in 2009, and won the Early Career Award in 2003.

EARLY CAREER AWARD 2015

"Providing Students with Hands-on Experiences through the Construction of a Treatment Wetland"

Jennifer Mueller Price





Engineering at Rose Hulman. Jennifer received a B.S. in Civil Engineering from Northwestern, and her M.S. and Ph.D. in Civil Engineering from Colorado State.

Her research interests include environmental river mechanics/eco-hydraulics; water resources engineering; surface water quality; and ecological engineering.

BEST GRADUATE STUDENT PAPER AWARD 2015

"Assessing 'Wicked
Sustainability Problems':
Literacy in Engineering
Education"

Johanna Lonngren

(Chalmers University of Technology) is a Ph.D. student in the field of engineering education research, with a background in engineering nanotechnology.



Johanna is advised by Dr. Svanstrom.

OFFICERS July 2015-June 2016

Outgoing Division Chair: Dr. Stephanie Luster-Teasley North Carolina A&T State University luster@ncat.edu

Division Chair: Dr. Alison M. Cupples. Michigan State University cupplesa@msu.edu

Program Chair: Dr. Mary Cardenas

Harvey Mudd College mary_cardenas@hmc.edu

Secretary: Dr. Stephanie Butler Velegol

Pennsylvania State University sbvelegol@engr.psu.edu

Treasurer: To be elected at the business meeting

Please note that we will be electing a Treasurer for 2015-2016. If you are interested in the position please contact Alison Cupples at cupplesa@msu.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, 2015. Applicant will be un-tenured as of August 30, 2015. 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 2015 (Alison M. Cupples) at cupplesa@msu.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 1st 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 coauthors. 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 2016 New Orleans, LA, USA June 26-29, 2016

CALL FOR PAPERS 2016

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

- Innovative pedagogical methods (social media, flipped classrooms, etc.) in teaching environmental engineering courses;
- Integrating sustainability in courses, across disciplines, 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 or capstone experiences;
- Accreditation and assessment, e.g. ABET, graduate program accreditation, assessment, etc.
- Other suitable topics will be considered

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

Questions may be addressed to the Environmental Engineering Division 2015-2016 Division Chair, Dr. Alison M. Cupples of Michigan State University at cupplesa@msu.edu or the 2015-2016 Program Chair, Dr. Mary Cardenas at mary_cardenas@hmc.edu.

ENVIRONMENTAL ENGINEERING DIVISION ANNUAL SOCIAL AND AWARDS DINNER

Tuesday June 16, 2015 7:00-9:00 PM



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



1933 5th Avenue Seattle WA

Phone Tel: (206) 441-6330 9594

http://icongrill.com/index. html

Costs are \$25/person if you register online and \$35 on-site.

Register for Session

T725-Environmental Engineering Division Awards
Dinner