

The ASEE Environmental Engineering Division Newsletter

Spring 2013

A Message from the Division Chair

Dear Colleagues,

I hope you are all winding down after a busy spring semester and getting ready for another busy summer! We are looking forward to a great turnout at the upcoming ASEE annual conference to be held in Atlanta, Georgia. Our officers especially our Program Chair Junko Munakata-Marr has put in a lot of effort and energy to offer some outstanding sessions on sustainability, teaching pedagogy and teaching innovation.

We have three technical presentation sessions described on Page 3 along with a new Sustainability workshop being offered on Sunday. Our director Angele Bielefeldt has worked hard to get an outstanding group of educators to participate in this workshop. Details of the workshop are provided on Page 2.

The division will also be participating at the ASEE Division Mixer to be held on Sunday from 4:30-6:00 PM. This is a good time to stop by and meet the Division Officers, and pick up the division program brochure.

Please plan on attending the business meeting and learn about the division activities for 2014. We are always seeking new ideas to help our division members be outstanding educators and mentors. We also elect a new Treasurer at this meeting.

Our Division Social and Awards dinner will be held at Max Lagers Wood -Fired Grill and Brewery. Please plan on joining us at this relaxed event as we take time to socialize and recognize the outstanding accomplishments of our peers.

The Division awardees are showcased in this newsletter. These awardees will present their papers during the Division's technical sessions.

It has been a privilege and honor to serve the division for a second time. I am amazed by the passion and energy that members bring to our division to enhance the quality and delivery of environmental education. I look forward to many more years of service to the division.

Sincerely,

Dr. Kauser Jahan, P.E.
2012-2013 Division Chair
Professor
Civil & Environmental Engineering
Rowan University



PROGRAM CHAIR 2012-2013

Dr. Junko Munakata-Marr

Associate Professor

Civil & Environmental Engineering
Colorado School of Mines
Golden, Colorado



SECRETARY 2012-2013

Dr. Stephanie Luster Teasley

Associate Professor

Civil, Architectural & Environmental
Engineering
North Carolina A&T State University
Greensboro, North Carolina



TREASURER 2012-2013

Dr. Allison M. Cupples

Associate Professor

Civil & Environmental Engineering
Michigan State University
East Lansing , Michigan



Newsletter Editor:

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Be sure to check out the Division Web Site:
users.rowan.edu/%7EJahan/asee/Home.html

U264D·WORKSHOP

Engineering Education for a Sustainable Future

Sunday June 23, 2013, 9 AM—4 PM

Georgia World Congress Center, A 315

Free Ticketed Event

Two 3-hour workshops: a “beginners” session and an “advanced” session.

For the “beginners” session (morning):

What is “Education for a Sustainable Future”? What are the unique and important strategies that engineering educators can use regarding sustainability that will also engage students in learning disciplinary content? This workshop will describe national trends and resources that are available for educators. Participants will learn about vetted resources and strategies they can easily use in existing courses to improve student learning while helping students develop needed skills to address urgent societal challenges.

For the “advanced” session (afternoon):

Faculty/practitioners who already have sustainability-focused engineering curricular materials will be invited to participate. They will be introduced to the SERC resource collection and invited to contribute to the starter kit under development. Depending on resources available, they will be invited to upload their materials to the SERC. Finally, participants will be shown how and invited to contribute materials to textbooks and digital collections to support infusion of sustainability into engineering curricula.

Distinguished Panelists

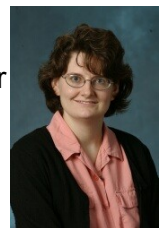
Dr. William E. Kelly P.E.
American Society for Engineering
Education
Director of External Affairs
American Society for Engineering
Education



Dr. Jeffrey R Seay P.E.
University of Kentucky
Assistant Professor of Chemical and
Materials Engineering
University of Kentucky

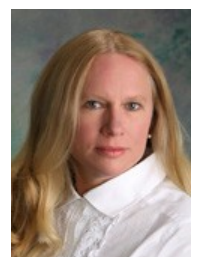


Dr. Angela R Bielefeldt P.E.
University of Colorado, Boulder
Professor
Dept. Civil, Environmental, &
Architectural Engineering
University of Colorado



Dr. Matthew W Roberts P.E.
University of Wisconsin, Platteville
Department of Civil and Environmental Engi-
neering
University of Wisconsin, Platteville

Dr. Liv Haselbach P.E.
Washington State University
Department of Civil and
Environmental Engineering
Washington State University





Division Social

Tuesday, June 25, 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 the **MAX LAGER'S Wood-Fired Grill & Brewery**.

Details of the dinner are presented on page 6.

DIVISION AWARDS

BEST FACULTY PAPER AWARD 2013

"Development of a Concept Inventory for Introductory Environmental Engineering Courses"

Session: M541

Jeffrey A. Cunningham, Ph.D. (The University of South Florida) is an associate professor of Environmental and Water Resources Engineering in the Department of Civil and Environmental Engineering



at the University of South Florida. Jeffrey received his B.S. in Chemical Engineering from Rice University, and his M.S. and Ph.D. in Civil and Environmental Engineering from Stanford University. Jeffrey's research interests include contaminant fate and transport in the aqueous environment, water resources and water reuse, and contaminant behavior in groundwater.

The co-authors of this paper are: **Dr. Sukalyan Sengupta**, professor of Civil and Environmental Engineering at the University of Massachusetts, Dartmouth; **Dr. Sarina Ergas, P.E.**, professor of Civil and Environmental Engineering at the Uni-

Session M541: Environmental Engineering Pedagogy and Innovation

Mon., June 24, 2013, 2:15 PM to 3:45 PM

Omni CNN Center Hotel, Omni - Grand Ballroom A

Session T241: Problem- and Project-Based Learning in Environmental Engineering

Tue., June 25, 2013, 8:45 AM to 10:15 AM

Omni CNN Center Hotel, Omni - Grand Ballroom A

Session W241: Sustainability and Engineering Education

Wed., June 26, 2013, 8:45 AM to 10:15 AM

Omni CNN Center Hotel, Omni - Cypress

Session T641: Environmental Engineering Division Business Meeting

Tue., June 25, 2013, 4:00 PM to 5:30 PM

Georgia World Congress Center, A308 A

Session T741: Environmental Engineering Awards Dinner Social

Tue., June 25, 2013, 7:00 PM to 9:00 PM

Max Lager's Wood-Fried Grill & Brewery

This year our annual Business Meeting will be held on Tuesday, June 25th from 4:00 PM to 5:30 PM. Members are strongly encouraged to attend to provide the Division with enriching feedback for improvements and input for the 2014 conference.

professor of Civil and Environmental Engineering at the University of Utah; **Dr. Dilek Ozalp**, professor of Education at the University of South Florida; and **Dr. Teri Reed-Rhoads**, professor of Engineering Education at Purdue University, West Lafayette.

EARLY CAREER AWARD 2013

“Interdisciplinary Approach to Address the Dynamics of Water Distribution Systems for Engineering Student Education”

Session: T241

Youngwoo (Young) Seo, Ph.D. (The University of Toledo) is an assistant professor of Environmental Engineering in the Department of Civil Engineering at the University of Toledo.



Young received his B.S. in Civil Engineering and his M.S. in Environmental Engineering from Sungkyunkwan University in South Korea. He received his Ph.D. in Environmental Engineering from the University of Cincinnati. Before becoming a professor, Young worked as a Project Engineer at Camp, Dresser & McKee in Cincinnati, OH. Young’s research interests include molecular scale analysis of bioadhesion and Biofilm formation, biofouling and its control in water and wastewater systems, and membrane processes for water and wastewater treatment.

The co-authors of this paper are: **Kimberly M. Coburn**, master’s student of Civil Engineering at the University of Toledo, studying biofilm and pathogen interaction; and **Dr. Donald V. Chase**, chairperson of the Department of Civil and Environmental Engineering and Engineering Mechanics at the University of Dayton at Ohio.

BEST GRADUATE STUDENT PAPER AWARD 2013

“Sustainable Water: Development, Delivery and Assessment of K-5 Modules”

Session: W241

Alexandre D. Wing (Colorado School of Mines) is a master’s student of Environmental Science and Engineering and a Graduate Research Assistant at AQWATEC, the Advanced Water Technology Center, at the Colorado School of Mines.

Alexandre received his B.S. in Biological Science from Montana State University. At the Colorado School of Mines, Alexandre is currently working on analyzing the degradation of trace organic chemicals such as pharmaceutical compounds during riverbank filtration, a sustainable water pretreatment method.

The co-authors of this paper are: **Cristal Hibbard**, master’s student of Environmental Science and Engineering at the Colorado School of Mines; **Jennifer Strong**, teaching professor of the Department of Applied Mathematics and Statistics at the Colorado School of Mines; **Dr. Jörg Drewes**, professor of Civil and Environmental Engineering and the Advanced Water Technology Center (AQWATEC) at the Colorado School of Mines; and **Dr. Junko Munakata Marr**, associate professor of Civil and Environmental Engineering at the Colorado School of Mines.



OFFICERS July 2013-June 2014

Outgoing Division Chair: Kauser Jahan
Rowan University
jahan@rowan.edu

Division Chair: Dr. Junko Munakata-Marr
Colorado School of Mines
junko@mines.edu

Program Chair: Stephanie Luster Teasley
North Carolina A&T State University
luster@ncat.edu

Secretary: Alison M. Cupples, Ph.D.
Michigan State University
cupplesa@msu.edu

Treasurer: To be elected

Please note that we will be electing a Treasurer for 2013-2014. If you are interested in the position please contact Kauser Jahan at jahan@rowan.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, a plaque, and an honorarium of \$200.

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, 2013. Applicant will be untenured as of August 30, 2013. 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 2014 (Stephanie Luster Teasley) at luster@ncat.edu.

MERITORIOUS SERVICE AWARD

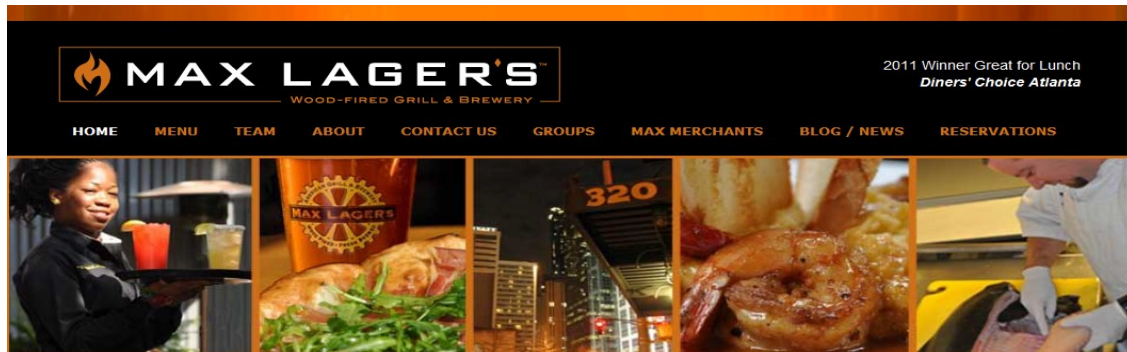
Members of the ASEE Environmental Engineering Division who, in the opinion of the reviewing officers, have performed activities or provided services to the Division benefiting the Division and deserving of special recognition are eligible for this award. For example, a member who provides sustained active 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 co-authors. Paper must focus on pedagogical issues.

The Division will award up to three awards each year with the awardees receiving \$1,000 each with a plaque. Awardees will be guests at the Environmental Engineering Division Dinner.

ENVIRONMENTAL ENGINEERING DIVISION ANNUAL SOCIAL AND AWARDS DINNER Tuesday June 25, 2013 7-9 PM



Please join us for our annual division social and awards dinner at
Max Lager's Wood-Fired Grill & Brewery.

320 Peachtree Street NE, Atlanta, GA 30308
Phone (404) 525-4400 <http://maxlagers.com/>



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

Register for Session

T741-Environmental Engineering Division
Awards Dinner Social



ASEE Annual Conference 2014

Indianapolis, Indiana, USA

June 15-18, 2014



CALL FOR PAPERS 2014

The Environmental Engineering Division of ASEE invites papers for the Annual Meeting to be held in Indianapolis, Indiana, June 15-18, 2014. 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, WERC, Solar Scholars, 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 experiences; and,
- Accreditation and assessment, e.g. BOK, graduate program accreditation, assessment, etc.
- Other suitable topics will be considered.

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 2013-2014 Division Chair, Dr. Junko Munakata-Marr of the Colorado School of Mines at junko@mines.edu or the 2013-2014 Program Chair, Dr. Stephanie Luster Teasley of North Carolina A&T University at luster@ncat.edu

DIVISION AWARDS BANQUET 2012

San Antonio, Texas



Best Faculty Paper Award Recipients Andrew Pfluger (Middle Right) and Michael Butkus (Right) with Division Chair Sharon Jones (Left) and Program Chair Kauser Jahan (Middle Left)



Best Student Paper Award Recipients Sarah Bauer (Middle Right) and Andrea McFarland (Right) with Division Chair Sharon Jones (Left) and Program Chair Kauser Jahan (Middle Left)



Early Career Award Sudarshan Kurwadkar from Tarleton State University (Right) with Division Chair Sharon Jones (Left) and Program Chair Kauser Jahan (Middle)



2011-2012 Program Chair Kauser Jahan thanking outgoing Division Chair Sharon Jones for her dedication and support for the Environmental Engineering Division Activities