SECOND CALL FOR PAPERS

ENGINEERING SUSTAINABILITY 2015

APRIL 19–21, 2015

INNOVATION AND THE TRIPLE BOTTOM LINE

DAVID L. LAWRENCE CONVENTION CENTER
PITTSBURGH, PA
Welcome

On behalf of the Mascaro Center for Sustainable Innovation at the University of Pittsburgh and the Steinbrenner Institute for Environmental Education and Research at Carnegie Mellon University, we are pleased to announce Engineering Sustainability 2015: Innovation and the Triple Bottom Line, to be held April 19-21, 2015, in Pittsburgh, Pa. As with our five previous events, this focused conference will bring together engineers and scientists from academia, government, industry, and nonprofits to share results of cutting-edge research and practice directed at development of environmentally sustainable buildings and infrastructure.

The built environment, which includes buildings, energy infrastructure, the transportation grid, water supply systems, and stormwater and wastewater management systems, underpins our economy and way of life, but at the cost of heavy resource use and waste generation. Buildings alone consume a substantial percentage of the materials produced globally each year and require significant amounts of energy for operation. Transportation grids are material-intensive, and the maintenance requirements of aging infrastructure in the developed world are stressing the abilities of municipalities to maintain viable systems.

Renewal of urban water infrastructure with new, more sustainable systems delivering higher performance is a critical need, as failing infrastructure systems in many cities impact economic vitality and quality of life for residents. Stormwater management systems in many cities are inadequate and based on old paradigms, exacerbating flooding problems and leading to sewer overflows. Water also is interlinked with energy production and use, as significant amounts of water are required for energy generation, and production of high purity water with current membrane technologies requires significant amounts of energy. Given the substantial problems that face 21st century infrastructure, this conference aims to highlight recent advances in technologies that can support a more sustainable future.

We look forward to seeing you in Pittsburgh in 2015!
Plenary Speakers

Christopher Flavin
Senior Fellow and President Emeritus of the Worldwatch Institute

Christopher Flavin is a Senior Fellow and President Emeritus of the Worldwatch Institute. He previously served as Vice President for Research and President. Flavin is a well-known expert on strategies for transforming energy systems to reduce dependence on fossil fuels and power a low-carbon future. He advises governments, businesses, and international financial institutions, and lectures widely around the world.

Mr. Flavin has authored three books: Power Surge: Guide to the Coming Energy Revolution, Running on Empty: the Future of the Automobile, and Renewable Energy: the Power to Choose. He has also published scores of articles for popular and scholarly publications. He is a founding member of the Board of Directors of the Business Council for Sustainable Energy and serves on the Advisory Boards of the American Council on Renewable Energy and the Environmental and Energy Study Institute. He has a cum laude degree in economics and biology from Williams College.

Shahzeen Attari
Assistant Professor, School of Public and Environmental Affairs
Indiana University

Shahzeen Attari is currently an assistant professor at the School of Public and Environmental Affairs (SPEA) at Indiana University, Bloomington. She is an Adjunct Research Scientist at the Earth Institute at Columbia University.

Her research focuses on the interactions between natural and social systems, particularly human behavior and climate change. Her previous work investigated preferences for behavior change and perceptions of energy consumption. Her current work investigates effects of real-time energy feedback, how to use games for research and learning, and factors that motivate action in social dilemmas.

Previously, she was a postdoctoral fellow at The Earth Institute and CRED at Columbia University. She holds a PhD in Civil and Environmental Engineering and Engineering and Public Policy from Carnegie Mellon University. She holds a Bachelors of Science in Engineering Physics from The University of Illinois at Urbana-Champaign.

Dr. Richard Luthy
Silas H. Palmer Professor in the Department of Civil and Environmental Engineering at Stanford University
Senior Fellow in the Woods Institute for the Environment

Dick Luthy is the Silas H. Palmer Professor in the Department of Civil and Environmental Engineering at Stanford University, and Senior Fellow in the Woods Institute for the Environment. His area of teaching and research is environmental engineering and water quality. He is the Director of the National Science Foundation’s Engineering Research Center for re-inventing the nation’s urban water infrastructure (renewit.org) that promotes new strategies for urban water systems to achieve more sustainable solutions to urban water challenges – especially in regions experiencing chronic water shortages and vulnerabilities to cycles of very low precipitation like the American west and southwest. In related work, his research investigates cost-effective and natural approaches for sediment restoration.

Professor Luthy is a past chair of the National Research Council’s Water Science and Technology Board and he has served on various NRC committees. He is a former President of the Association of Environmental Engineering and Science Professors. He is a member of the National Academy of Engineering, a registered professional engineer, a board certified environmental engineer, and Water Environment Federation Fellow.
Invited Speakers

As of 9/22/14

JOULE BERGERSON
Assistant Professor, Department of Chemical and Petroleum Engineering
University of Calgary
“Energy Systems Sustainability Analysis”

MATTHEW ECKELMAN
Assistant Professor, Department of Civil and Environmental Engineering
Northeastern University
“Modeling the Non-energy Benefits of Residential Energy Efficiency Measures”

SHELI MILLER
Associate Professor, School of Natural Resources and the Environment
University of Michigan
“Avoiding the Unintended Consequences of Transformative Technologies”

KRISTEN PARRISH
Assistant Professor, School of Sustainability and the Built Environment
Arizona State University

MIKE STENSTROM
Distinguished Professor in the Civil and Environmental Engineering
UCLA
“Sustainable Water Supplies: Options for Better Stormwater Management”
Instructions for Authors

Submission of Abstracts – Due: October 27, 2014

ES15 welcomes submissions from academia, industry, nonprofit organizations, government institutions, and other interested parties. Papers may be contributed in all subject areas dealing with green construction and the sustainable use of water. We are especially interested in contributions in the following areas:

- Green building design and construction; greening the indoor environment
- Sustainable distributed power for the built environment
- Sustainable urban drinking water, stormwater, and wastewater infrastructure
- Water availability and use
- Innovative energy conservation in the built environment
- Using principles of sustainability to foster innovation and economic development

To qualify for acceptance, you must submit a one-page abstract (200 words maximum) electronically at https://eswpregpage.com/ESCFP.aspx on or before October 27, 2014. Abstracts must contain sufficient content and information for adequate evaluation by the program committee.

Notification of Abstracts

By December 5, 2014, the Program Committee will inform all submitting authors if their papers have been accepted for oral or poster presentations. If accepted, an extended abstract of 1500 words must be provided by e-mail to mcsi@pitt.edu utilizing the template provided on or before February 9, 2015.

Oral Presentations

Each author will be allocated 20 minutes for presentation plus a five-minute discussion period. The conference will provide the following media equipment free of charge: laptop computer, LCD projector, laser point, podium, and microphone.

Poster Presentations

The conference will provide the poster boards and easels for presentation setup. Posters should be a maximum size of 4 foot high by 6 foot wide.

Proceedings

Conference proceedings with all extended abstracts will be published in a CD-ROM format that will be available to all paid registrants at the conference.

Accommodations

A block of rooms has been reserved at the Westin Convention Center, Pittsburgh and the Courtyard by Marriott Pittsburgh Downtown. Mention Engineering Sustainability 2015 at either hotel to receive the conference rate.

The Westin Convention Center
1000 Penn Avenue
Pittsburgh, PA 15222
Phone: 412-281-3700
The conference rate is $169/night and the cutoff date is March 27, 2015.

The Courtyard by Marriott- Pittsburgh Downtown
945 Penn Avenue
Pittsburgh, PA 15222
Phone: 412-454-5551
The conference rate is $142/night and the cutoff date is March 29, 2015.

Sponsorship Opportunities

Government and Industry will play a major part in engineering solutions for a sustainable future. Organizations with an interest are actively encouraged to take part in the conference. If you are interested in sponsorship opportunities, please contact Gena Kovalcik at 412-624-9698 or gmk9@pitt.edu.
The University of Pittsburgh is an affirmative action, equal opportunity institution.

Registration Fees

*Registration opens October 2014 - Early registration deadline is March 20, 2015*

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Students & Junior Faculty

Visit [www.engineering.pitt.edu/MCSI/conference/](http://www.engineering.pitt.edu/MCSI/conference/) in November for opportunities to apply for registration and travel grants to the conference.

Continuing Education

Green Building Alliance (GBA) will offer Green Building Certification Institute (GBCI) continuing education (CE) hours* to LEED professionals for green building-related conference sessions. GBA members will receive automatic reporting of CE hours to GBCI; others will receive certificates documenting attendance for professional engineer or geologist state registration board continuing education purposes.

*Sponsored by the Green Building Alliance

Sponsors

Emerald

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PPG

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MBA

Partners

Engineers’ Society of Western PA, EPA’s Office of Research and Development, Green Building Alliance, Phipps Conservatory and Botanical Gardens, Pittsburgh Green Innovators, Sustainable Pittsburgh

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