



AEESP Newsletter

Published three times yearly by the Association of Environmental Engineering & Science Professors

September 2011

VOLUME 46 • NO. 3

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*Need to renew your
2011 AEESP membership?
Go to "Join > membership renewal"
on the AEESP website:
AEESP.org*

AEESP Newsletter Submissions

*Please send news, conference
announcements, job postings, letters
to the editor, and other contributions
to the newsletter to the editor, Joe
Ryan, at joseph.ryan@colorado.edu.
The next newsletter will appear in
January, 2012.*

President's Letter

Submitted by JOEL BURKEN (MISSOURI S&T
UNIVERSITY)

AEESP and our field overall feel as strong as ever coming off the excitement, energy, and record attendance (and heat!) at the biannual conference in Tampa this July. Our membership is at an all-time high (over 900 members), and as our numbers have grown, the scope and diversity of challenges we face in environmental engineering and science has never been bigger. I look forward to the coming year and humbly hope that as the current president I can continue on the path we have enjoyed since AEESP was formed nearly five decades ago.

While our field still faces some challenges similar to those of five decades ago, we also now face "newborn" issues including climate change, impacts of new energy sources, and health issues in developing nations. We are challenged with engineering for tomorrow when many times "tomorrow" is a moving target. As an example, thinking of the "next generation fuel" is daunting, particularly when looking at the current petroleum-based economy and the resulting environmental footprints in air, land, and water. Remember the Deepwater Horizon, capped less than a year ago? What will constitute the new energy sources? Biofuels? More nuclear? Shale gas? Tar sands? Wind/solar and batteries (made from rare earths and metals)? What will be the impacts of capturing, perhaps transforming or processing, and distributing energy from these sources?

Certainly we face challenges, but they are also opportunities for environmental engineers and scientists. One of my favorite quotes is from Edison: "Opportunity is missed by most people because it is dressed in overalls and looks like work." Having grown up on an Iowa farm, I'm pretty comfortable with the concept of overalls in a literal sense and I am



AEESP President Joel Burken

certain that we as a field are ready to don our overalls in a figurative sense...or perhaps we need a new quote about "opportunity dressed in a lab coat and safety glasses." No matter the quote, I believe our field will "get to work" on the challenges of tomorrow. Through our research and teaching, we have the opportunity to identify, prevent, and minimize some environmental impacts before they ever occur, and also to mitigate those impacts that do come to reality. As a professional organization, AEESP should help ensure we have the necessary tools at our disposal, as hard work alone can't do it.

Over the next year, I hope to maintain the AEESP tradition of assisting our members in facing these challenges through research and instructing the next generation of environmental engineers and scientists. The AEESP strategic plans have been recently articulated to include these main themes:

1. Increase global presence and awareness,
2. Define the scope and direction of environmental engineering curricula,
3. Facilitate expanded research activities, and

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The AEESP Newsletter is published three times a year in January, May, and September by the Association of Environmental Engineering and Science Professors. Issues are published online at:

www.aeesp.org/publications_newsletter

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www.aeesp.org/membership/AEESP_member_app.pdf



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Highlights of the AEESP Board of Directors Summer 2011 Meeting

Submitted by JENNIFER BECKER (MICHIGAN TECHNOLOGICAL UNIVERSITY)

Following the outstanding biannual conference in Tampa, Florida, the AEESP Board of Directors met at the University of South Florida campus on July 13 and 14, 2011. We were joined by Joanne Fetzner, who manages the AEESP Business Office. Some of the highlights of our productive meeting include:

1. The board welcomed aboard the following newly elected members from the 2011 board elections:
 - Sarina Ergas (University of South Florida)
 - John Tobiason (University of Massachusetts)
 - Sharon Walker (University of California–Riverside)
2. The Board welcomes the 113 new individual members (including 52 student members) who joined AEESP in 2011. We encourage them to become involved in the many AEESP committees and activities and to provide us with input as to how we can meet the needs of our growing membership. AEESP membership is currently approximately 900 members!
3. Joel Burken assumed the office of President. Board elections were conducted for the vacant officer positions. The following new officers were installed:
 - President-Elect: Mark Wiesner (Duke University)
 - Vice-President: Jennifer Becker (Michigan Technological University)
 - Treasurer: Robert Arnold (University of Arizona)

Outgoing Board members William Cooper, Margaret Lang, and Nancy Love were recognized for their exceptional service. Each was awarded a distinguished service award at the conference (see the article on the 2011 AEESP awards on pp. 6–9).
4. Michael Selna, President-Elect of the American Academy of Environmental Engineers (AAEE), reported to the Board on issues and activities on potential AAEE initiatives that may be of interest to the AEESP membership including:
 - Development of a internship program for M.S. students that links potential employers (coordinated by AAEE) with potential student interns (coordinated by AEESP)
 - Activities proposed for AAEE student chapters
 - Development of an annual meeting for environmental engineering leaders and administrators (in cooperation with AEESP)

The Board approved formation of an *ad hoc* committee to develop and conduct a “Meeting of Academic Leaders and Administrators for Environmental Engineering” and Science Programs in collaboration with AAEE. The meeting will be held annually (beginning in 2012).



AEESP Board in Tampa, July 2011: (front, left to right) Nancy Love, Bob Arnold, Steve Dentel, and Jennifer Becker; (back, left to right) Joanne Fetzner, Joel Burken, Sarina Ergas, Benito Marinas, and Margaret Lang. Missing were Bill Cooper, Sharon Jones, John Tobiasson, Sharon Walker, and Mark Wiesner.

5. Ching-Hua Huang, past President of the Chinese American Professors of Environmental Engineering and Science (CAPEES) provided an overview of this organization. Several suggestions for joint activities with AEESP were discussed including collaboration on conferences or lectureships in China or other East Asian countries.
6. Jean MacRae reported on the activities of the Internet Resources Committee. Planning is underway for major upgrades to the AEESP web site which will add functionality (including a member services section) and make it more user-friendly. The Board hopes to have the web and social networking (e.g., Facebook and LinkedIn) sites updated in 2012.
7. The Board voted to withdraw the increase in membership dues approved at the Spring 2011 meeting. AEESP is currently financially sound. The Board is exploring other sources of income to maintain a balanced budget in the future so that we can delay dues increases as long as possible.
8. The Board also revised and updated the contract with Joanne Fetzner to maintain operations of the business office into 2013. We appreciate Joanne's efforts and dedication to advancing and improving the operations of AEESP.

We greatly appreciated the continued hospitality provided by the University of South Florida faculty and staff during our meeting, and we look forward to working on the above and other initiatives in the coming months.

Student Services Committee Workshop for Academic Job Seekers

Submitted by DEFNE APUL (UNIVERSITY OF TOLEDO), DAVID LADNER (CLEMSON UNIVERSITY), *and* ANDREW WHELTON (UNIVERSITY OF SOUTH ALABAMA) ON BEHALF OF THE AEESP STUDENT SERVICES COMMITTEE

Thirty-four graduate students and postdoctoral research associates and more than 25 faculty volunteers from across North America participated in AEESP's 2011 Academic Job Search Workshop in Tampa, Florida. During a moderately humid Sunday morning, doctoral and postdoctoral researchers saw a behind-the-scenes view of the environmental engineering and science academic interview and hiring process.

Prior to the workshop, attendees submitted their personal faculty application materials to the Student Services Committee and uploaded faculty application and interview questions to AEESP's unique wiki website (<http://environmentalengineeringscience.wikispaces.com/>). Faculty volunteers reviewed the materials and prepared to interact with the students during the workshop.

The workshop was designed in three sessions: (1) assistant professor perspectives, (2) chair panel wisdom, and (3) targeted small group feedback. For the first session, three recently hired assistant professors—Drs. Shelie Miller (University of Michigan), Andy Whelton (University of Southern Alabama), and David Ladner (Clemson University)—shared useful job search and interviewing techniques and advice on what they might have done differently. Unanimously, they agreed that job seekers should never mention anything during an interview trip that they do not wish the entire search committee to hear!

The second session was highlighted by wisdom from a panel of established department chairs and senior professors. Drs. Nancy Love (University of Michigan), Charlie Werth (University of Illinois), Tom DiStefano (Bucknell University), and John Sutherland (Purdue University) fielded questions from attendees that were either posted on the AEESP wiki website prior to the event or were asked during the session. Dr. Andrew Ramsburg (Tufts University) facilitated the discussion. Panel members provided advice on improving faculty applications. One memorable tip was that an individual's publication record is one of the first qualifications scrutinized for research institutions, so those seeking research faculty positions should focus on publishing their work. Another interesting discussion revolved around professional honesty; it pays to simply tell it like it is both in one's written application and in one's discussions with interviewers.

The final workshop session involved teaming four postdoctoral and graduate student participants with two volunteer faculty. Organized by Drs. Qilin Li (Rice University) and Defne Apul (University of Toledo), faculty volunteers who had read the participants' application materials



Participates in the targeted small group feedback sessions of the 2011 Academic Job Search Workshop.

prior to the workshop provided attendees constructive feedback specific to their situation. These small groups enabled attendees to ask more detailed questions about the academic job search process and develop professional relationships with colleagues.

Thank You To All Workshop Volunteers!

Amy Pruden, Virginia Tech
 Andrea Ferro, Clarkson University
 *Andrew Ramsburg, Tufts University
 *Andrew Whelton, University of Southern Alabama
 Charlie Werth, University of Illinois
 Claudia Gunsch, Duke University
 *Dan Giammar, Washington University of St. Louis
 Daniel Cohan, Rice University
 David Cwiertny, University of Iowa
 *David Lander, Clemson University
 *Defne Apul, University of Toledo
 *Fu Zhao, Purdue University
 *Jason Ren, University of Colorado Denver
 Jennifer Benning, South Dakota State University
 John Sutherland, Purdue University
 Keri Hornbuckle, University of Iowa
 Kimberly Jones, Howard University
 Nancy Love, University of Michigan
 Phil Larese-Casanova, Northeastern University
 *Qilin Li, Rice University
 Ramesh Goel, University of Utah
 Shankar Chellam, University of Houston
 Shelie Miller, University of Michigan
 *Stephanie Boylard, University of Central Florida
 Tom DiStefano, Bucknell University
 Upal Ghosh, University of Maryland-Baltimore County
 *Zhen He, University of Wisconsin-Milwaukee

** Indicates AEESP Student Services Committee Member*

A preliminary review of workshop exit surveys revealed that the event was well-received, greatly appreciated, and likely now a core service of AEESP for years to follow. The most frequent participant and volunteer faculty comment was the request for more time—they wanted more! Another revelation was that the biggest challenge seen in applications was not the applicant's scientific skill or work ethic, but their ability to communicate effectively.

This workshop was the culmination of two years of planning and preparation by the Student Services Committee. The Committee

would like to thank all panelists and faculty who volunteered as their participation truly made the workshop an excellent opportunity for the attendees. Timely submission of application materials and wiki interactions by participants were also critical for success. We look forward to working with you all in organizing the 2013 workshop. Please visit our wiki website, which hosts materials from this year and continues to be updated to serve AEESP members: (<http://environmentalengineeringscience.wikispaces.com/>).

President's Letter, continued from page 1

4. Promote the environmental engineering and science community

Although the Board and committees plan to move forward on these topics for years to come, I would really like to highlight a few specific actions planned for the coming year. In increasing our global presence and awareness, we have very much identified a need to increase the electronic media services to our members. I hope that in the coming year we will improve and expand our internet capabilities to include rapid turn-around of important news items and facilitate bringing important issues to light, including rapidly providing position papers on topics important to our membership. We also plan to use the web to provide teaching and communications resources for our members globally. Many topics in environmental engineering and science are faced globally, and our resources should also be provided just as widely. One aspect of this expanded presence is a potential affiliation with *Environmental Engineering and Science* to become the official journal of AEESP; later this fall, members will have an opportunity to vote whether or not they support the current proposal for this affiliation (see the article on this topic on p. 10).

Curriculum and program development also presents a considerable challenge in our field. The number of accredited BS-granting programs has expanded from 10 to more than 55 in just over a decade. We are therefore starting an Environmental Engineering Program Coordinators' and Chairs' meeting

and communications forum to help address common issues many programs face, such as ABET, curricula reform, and growing needs for educational and course resources. Plans are underway for an inaugural 2012 meeting. The Education Committee has also started to investigate an electronic platform for sharing unique teaching tools. Much like sharing experiments in the AEESP lab manual to use in laboratory classes years ago, we would like to post peer-reviewed course modules that can be shared. The modules could be case studies, approaches to teaching specific material, or portions of unique classes that we have developed at our home institutions. Relating to all these challenges, I am working with a talented group of colleagues to host a workshop called "The Frontiers in Environmental Engineering Education" in spring 2012. The ultimate goal is to provide AEESP members with the resources and tools we need to prepare the next generation of environmental engineers and scientists to tackle some of the most pressing issues we face in society.

Overall our field is among the fastest-growing, most scientifically diverse, and highly recognized in today's world where headlines can't seem to avoid "green" or "energy and environment." However, most research budgets are not expanding to keep pace with the expansion of our field, in magnitude or in the diversity of topics we face. As a profession, we can do better to express the importance of our work and the needs for investing in related research. I'd like to congratulate the

AEESP members and colleagues from Stanford, UC-Berkeley, the Colorado School of Mines, and New Mexico State University who worked to land one of the new NSF Engineering Research Centers, which is the first to be fully dedicated to environmental topics. At a time of shrinking budgets, the investment by NSF is promising and hopefully many more programs will lead to other opportunities. AEESP is also looking at tighter partnerships with organizations like IWA and WEF to help articulate research needs to Washington, DC, and the Government Affairs Committee is doing a great job to develop position papers that would help use the collective strength of AEESP to identify important topics to those making decisions on where research dollars are invested.

Overall, AEESP is a wonderful organization, and I personally feel fortunate that leaders laid a superb foundation that provides a collegial forum for us as professors and students foremost. The "P" in AEESP is really unique. I also hope to continue helping our members to excel not only as instructors and researchers, but also as leaders outside the classroom and laboratory on some of the most pressing issues we'll face as we look forward to engineering for tomorrow.

So in closing I wish you all a successful and enjoyable academic year. And to continue the metaphor from the Tampa meeting concerning the pirate ship, I look forward to a year at the helm of the AEESP ship that has been guided so well over the years.

2011 AEESP Award Recipients

Submitted by LINDA WEAVERS (OHIO STATE UNIVERSITY)

The 2011 AEESP Awards were presented to the award recipients at the 2011 AEESP Business Meeting and Award Ceremony on July 10, 2011, at the 2011 AEESP Education and Research Conference at the University of South Florida in Tampa, Florida. Below is a list of the recipients of these awards. Congratulations to all award winners!

Thank you to the members of the awards committee and sub-committees for thoughtful evaluation of nominations: Bill Arnold, Ali Boehm, Liz Butler, Andrea Ferro, Hector Fuentes, April Gu, Willie Harper, Ray Hozalski, Chad Javfert, Cindy Lee, Qilin Li, Greg Lowry, Cecil Lue-Hing, Jim Mihelcic, Rob Nerenberg, Liz Pohland, Tim Prince, Deb Reinhart, Linda Weavers, and James Young.

CH2M Hill/AEESP Outstanding Doctoral Dissertation Awards

These awards recognize the two most outstanding doctoral dissertations contributing to the advancement of environmental science and engineering.

Manish Kumar (advised by **Julie Zilles** and **Mark Clark**), University of Illinois at Urbana Champaign

Biomimetic Membranes as New Materials for Applications in Environmental Engineering and Biology

Lee D. Bryant, Virginia Polytechnic Institute and State University (advised by **John C. Little**, Virginia Polytechnic Institute and State University and **Alfred Wüest**, EAWAG)

Dynamic forcing of oxygen, iron, and manganese fluxes at the sediment-water interface in lakes and reservoirs



Julie Zilles of University of Illinois at Urbana Champaign (center) accepts the CH2M Hill/AEESP Outstanding Doctoral Dissertation Award on behalf of her student, Manish Kumar, from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).



John Little and Lee Bryant of Virginia Tech (center left and center right, respectively) accept the CH2M Hill/AEESP Outstanding Doctoral Dissertation Award from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).

MWH/AEESP Master's Thesis Award

These awards recognize the two most outstanding Master's theses contributing to the advancement of environmental engineering and science.

First place: Victoria Sacks (advisor: **Rainer Lohmann**), University of Rhode Island

Validation of Polyethylene Passive Samplers for the Detection of Emerging Contaminants

Second place: Cynthia Schafer (advisor: **James Mihelcic**), University of South Florida

The Impact of Tank Material on Water Quality in Household Water Storage Systems in Cochabamba, Bolivia



Victoria Sacks of University of Rhode Island (center) accepts the first-place MWH/AEESP Master's Thesis Award from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).



Cynthia Schafer and Jim Mihelcic of University of South Florida (center left and right, respectively) accept the second-place MWH/AEESP Master's Thesis Award from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).

McGraw-Hill/AEESP Award for Outstanding Teaching in Environmental Engineering & Science

This award is given to recognize excellence in classroom performance and related activities.

Shannon L. Bartelt-Hunt, University of Nebraska-Lincoln

Wiley/AEESP Award for Outstanding Contribution to Environmental Engineering & Science Education

This award is given for excellence in teaching scholarship and/or professional society educational initiatives.

Linda Phillips, University of South Florida

AEESP Outstanding Publication Award

This award recognizes the author(s) of a landmark environmental engineering paper that has withstood the test of time and significantly influenced the practice of environmental engineering and science.

Leah J. Matheson and **Paul G. Tratnyek**, Oregon Health & Science University

"Reductive dehalogenation of chlorinated methanes by iron metal," *Environmental Science & Technology*, 28:2045-2053, 1994.

AEESP Founders' Award

This award recognizes a member of AEESP who has made sustained and outstanding contributions to environmental engineering education and practice.

Francis A. DiGiano, University of North Carolina

Malcolm Pirnie/AEESP Frontier in Research Award

This award recognizes an individual who has advanced the environmental engineering and science field through recognized research leadership and pioneering efforts in a new and innovative research area.

Danny D. Reible, University of Texas, Austin

Frederick George Pohland Medal

This award honors a member of AEESP or the American Academy of Environmental Engineers (AAEE) who has made sustained and outstanding efforts to bridging environmental engineering research, education, and practice.

John T. Novak, Virginia Polytechnic Institute and State University



Shannon Bartelt-Hunt of University of Nebraska-Lincoln (center) accepts the McGraw-Hill/AEESP Award for Outstanding Teaching in Environmental Engineering & Science from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).



Paul Tratnyek of Oregon Health & Science University (center), accepts the AEESP Outstanding Publication Award from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).



Danny Reible of University of Texas (center) accepts the Malcolm Pirnie/AEESP Frontier in Research Award from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).



Linda Phillips of University of South Florida (right), accepts the Wiley/AEESP Award for Outstanding Contribution to Environmental Engineering & Science Education from graduate student, Heather Wright Wendel (left).



Fran DiGiano of University of North Carolina (center) accepts the AEESP Founders' Award from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).



John Novak of Virginia Tech (center left) accepts the Frederick George Pohland Medal from incoming president, Joel Burken of Missouri S&T (left), awards committee chair, Linda Weavers of Ohio State University (center right), and Michael Selna of AAEE (right).

Request for Proposals for the 2013 AEESP 50th Anniversary Conference

Proposals are solicited from universities to host the 50th Anniversary AEESP biannual conference to be held in 2013. Because most of the recent conferences have been held in the eastern half of the United States, only proposals from west of the Mississippi River will be considered for the 2013 conference.

The AEESP Conference is the flagship event for members to exchange information on novel research and educational activities. It serves as a venue for the exchange of information between the academic and practitioner communities, particularly relating to the advancement of innovative research and the preparation of students for professional practice in environmental engineering and science. AEESP conferences are intended to be balanced with respect to content on research and education.

Responders to the RFP should do so with the intent to host the conference in 2013. Responses should include a projected budget and narrative responses to enable the selection committee to evaluate the attributes detailed in the next section. The responses should be transmitted to the Conference Site Selection Committee chair, Rick Diz (Gannon University), as a single pdf file sent to diz@gannon.edu.

The proposals must be submitted no later than January 31, 2012. The complete request for proposals is available for download from the AEESP website (www.aeesp.org/node/993).

Special AEESP Award for 1979 AEESP Archiving System That Has Stood the Test of Time

Kurt Keeley, AWWA

Distinguished Service Award for Outstanding Service as AEESP Liaison to AAEE

Hector R. Fuentes, Florida International University

Distinguished Service Award for Outstanding Service as Chair of the AEESP Lecturers Committee

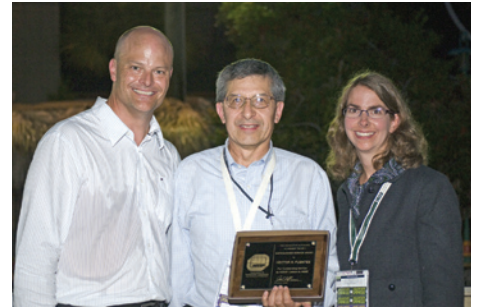
Sarina J. Ergas, University of South Florida

Distinguished Service Award for Outstanding Service as Chair of the Dissertation Award Sub-Committee

Elizabeth C. Butler, Oklahoma University

Distinguished Service Award for Outstanding Service as Chair of the AEESP Membership Committee

Cyndee L. Gruden, University of Toledo



Hector Fuentes of Florida International University (center) accepts the Distinguished Service Award for Outstanding Service as AEESP Liaison to the American Academy of Environmental Engineers (AAEE) from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).



Nancy Love of University of Michigan (center) accepts the Distinguished Service Award for Outstanding Service as AEESP President and Board Member from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).



Margaret Lang of Humboldt State University (center) accepts the Distinguished Service Award for Outstanding Service as AEESP Treasurer and Board Member from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).

Distinguished Service Award for Outstanding Service as AEESP President and Board Member

Nancy G. Love, University of Michigan

Distinguished Service Award for Outstanding Service as AEESP Treasurer and Board Member

Margaret M. Lang, Humboldt State University

Distinguished Service Award Outstanding Service as AEESP Chief Information Officer and Board Member

William J. Cooper, University of California, Irvine

Distinguished Service Award for Outstanding Service as Co-Chair of the 2011 AEESP Research and Education Conference Organizing Committee

Maya A. Trotz, University of South Florida

Jeffrey A. Cunningham, University of South Florida

Distinguished Service Award for Outstanding Service as a Member of the 2011 AEESP Research and Education Conference Organizing Committee

Sarina J. Ergas, University of South Florida



Bill Cooper of University of California, Irvine (center) accepts the Distinguished Service Award for Outstanding Service as AEESP Chief Information Officer and Board Member from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).



Sarina Ergas (second from left), Jeff Cunningham (center), and Maya Trotz (second from right) of University of South Florida accept Distinguished Service Awards for Outstanding Service in organizing the 2011 AEESP Research and Education Conference from incoming president, Joel Burken of Missouri S&T (left), and awards committee chair, Linda Weavers of Ohio State University (right).

AEESP: Affiliate with a Journal or Not?

Submitted by JOEL BURKEN (MISSOURI S&T UNIVERSITY)

Over the past year and a half, the AEESP Board of Directors has been considering the long-term outlook of our organization and what we might be looking to do on a strategic basis. Environmental Engineering Science are rapidly expanding fields, with considerable changes in the workplace, and certainly in our instruction methods, education, and research. In our efforts to look forward strategically for our organization, we identified and disseminated many topics and a top theme area was to “expand AEESP’s global presence.” The profession of Environmental Engineering Science has expanded significantly, and the expansion is not driven solely by regulations and actions in the United States. Environmental challenges and research areas are global in scope, and global interactions are increasingly important to the field.

One of the strategic planning action items related to this “global presence” theme was to investigate an international journal affiliation. We have reviewed and discussed several options, and from these options we selected to investigate an affiliation with *Environmental Engineering Science* published by Mary Ann Liebert Publishers (www.liebertpub.com/products/product.aspx?pid=15).

The Board members voted to form an *ad hoc* committee to develop a draft memorandum of understanding (MOU) with Liebert Publishers. The Board also sought input from selected AEESP members outside the Board to help evaluate the consideration of *Environmental Engineering Science* as the AEESP journal and review the MOU. The draft MOU will be available on the home page of the AEESP website (www.aeesp.org) for comment and consideration as we move to fully consider affiliating with *Environmental Engineering Science*. What the journal would provide to AEESP is specifically spelled out in the draft MOU. The value of that affiliation certainly rings differently with each member of AEESP. Careful review of the draft MOU is certainly warranted as we consider this affiliation.

We look at this potential endeavor of a journal affiliation, and specifically the potential adoption of *Environmental Engineering Science* as the AEESP journal, with great scrutiny and deliberation. This topic has fueled considerable discussion among the Board. Previously the AEESP Board considered adopting an official journal (including *Environmental Engineering Science*), but ultimately decided not to pursue such an affiliation at that time. Any commitment of this nature deserves full consideration by the entire AEESP membership and later this fall, members will have an opportunity to vote whether or not they support the current proposal for this affiliation. Below are commentaries on the rationale in support of and against an affiliation with *Environmental Engineering Science*.

I hope AEESP members will give sincere consideration of the pros and cons of adopting an AEESP journal.

Why affiliate with *Environmental Engineering Science*?

As professors, we look at journals as a key method to disseminate knowledge, ideas, and information to our peers and to archive these communications. We look to expand the impact of our research and education through publishing in international archival journals with a rigorous peer-review process. As an association, AEESP should strive to provide the same broad global dissemination for and to its membership. The platform of an established international journal would provide that dissemination with minimal effort from our volunteer organization as the publisher and editorial board are in place and already populated with many AEESP members. Coordination between our newsletter and *Environmental Engineering Science* would provide AEESP members an avenue for articles including teaching methods papers and others that benefit our members. Currently, such articles, if published, are spread widely among other journals. Finally, *Environmental Engineering Science* is a broad journal that covers the breadth of “Environmental Engineering Science,” which is the core of “AEESP.” This breadth can continue to expand and match our organization as our official publication.

Why Not Affiliate with *Environmental Engineering Science*?

AEESP is a well-established professional society; thus, an official journal is not needed to launch AEESP. Nor is there a shortage of peer-reviewed research and education journals in which AEESP members and other environmental engineers and scientists can publish. Indeed, an affiliation between AEESP and *Environmental Engineering Science* will not create a new publication forum for AEESP members. Management of AEESP and implementation of most AEESP-sponsored activities is undertaken through the volunteer efforts of its members. It could be argued that adoption of *Environmental Engineering Science* as the official journal of AEESP could result in significant growth of the organization, and such growth could lead to changes to and expansion of AEESP’s management structure. The journal *Environmental Engineering Science* is not among the journals with a high impact factor in our field (the impact factor is 0.89). *Environmental Engineering Science* is also not universally disseminated—only about 50% of the schools listed on the AEESP website currently subscribe to *Environmental Engineering Science*. Finally, it is conceivable that identification of *Environmental Engineering Science* as our official journal could have a negative effect on other journals and jeopardize the willingness of publishers other than Mary Ann Liebert to provide financial and other support as Sustaining Members of AEESP.

Frontiers in Environmental Engineering Education

Submitted by JOEL BURKEN (MISSOURI S&T UNIVERSITY)

On a hot and steamy Florida afternoon this past July, roughly forty professors, students, and practitioners hid from the heat and took part in a workshop titled “Frontiers in Environmental Engineering Education” to address some of the topics we face in environmental engineering and science education. Workshop activities focused upon changes and growth in the field that have occurred concurrently, and how these “frontier topics” can be worked into current environmental engineering programs and at the same time meet accreditation needs. Bringing a number of concerned, even passionate, educators into the same room was a step to get some action going to improve educational programs in environmental engineering and science internationally. The topics and presenters at the workshop are listed below:

- State of the Field of Environmental Engineering, Joel Burken (Missouri S&T University)
- Body of Knowledge (BOK) and Accreditation Board for Engineering and Technology (ABET) Discussion, Debra Reinhart (University of Central Florida, National Science Foundation)
- Accreditation Review and Sustainability Education, Angela Bielefeldt (University of Colorado Boulder)

The changes and challenges we face are in part due to the rapid boom of environmental engineering bachelor of science degree programs, which have increased by about 4-fold to almost 60 in just over a decade. We discussed topics that not only technologically challenge us, but also pose challenges educationally as we strive to prepare students to enter the profession ready to tackle the problems of the 21st century. The concurrent growth in education programs and

changes in our profession pose challenges to many new programs facing ABET accreditation or preparing for re-accreditation. ABET accreditation processes are also rapidly evolving with the publication of the environmental engineering Body of Knowledge (BOK). The American Academy of Environmental Engineers (AAEE) developed an initial BOK, which was discussed at length in the workshop. Debra and Angela did a great job of highlighting what the BOK is (and is not) and how to utilize it in setting up programs and for accreditation purposes.

We concluded the workshop with a discussion on how to address these and many other issues in the long term. We set the foundation for having an annual meeting of environmental engineering chairs and program coordinators. Along with Mike Selna (President-Elect of AAEE) and others at the meeting, we plan to host the initial meeting in spring 2012. The meetings are posed to be collaborative with AAEE and to address the needs of our field from a practitioner’s and academic viewpoint concurrently.

This one-day workshop was initially intended to discuss specific challenges faced in many environmental engineering programs, like how to teach traditional environmental engineering topics as well as sustainability, climate change science and mitigation, and public health, which would have required a two-day workshop; however, the two-day workshop was delayed owing to funding decisions in Washington, DC. We hope to have the workshop in spring 2012, likely in conjunction with the chairs meeting noted above, and to pick up the conversation with an even broader audience. For more information and to be included in the future discussions as a program chair or coordinator, please contact Joel Burken (burken@mst.edu).

2011 AEESP Education and Research Conference on Global Sustainability Recap

Submitted by MAYA TROTZ (UNIVERSITY OF SOUTH FLORIDA)

More than 400 attendees gathered at the University of South Florida (USF) in July for the 2011 Association of Environmental Engineering and Science Professors Education and Research conference, the AEESP's flagship event for discussion of novel research and educational activities. The conference theme was "Global Sustainability: Implications for Research, Education, & Practice." The conference featured thirteen pre-conference workshops, three presentations from invited keynote speakers, 140 poster presentations, more than 100 oral presentations, and a session on integrating sustainability into engineering practice co-organized with the American Academy of Environmental Engineers. A salient goal of the gathering was for integrated participation of all attendees in order to encourage and facilitate discussion within and between academic and practitioner communities.

The record-breaking attendance guaranteed that the workshops, programs, and social events were well attended. The attendance numbers (coupled with unbridled enthusiasm from the participants) signified the commitment of the AEESP membership to the continued development of a community built on respect and a determination to see rapid growth in the environmental field.

Pre-conference workshops were held on Sunday, July 10, at the USF Marshall Center, the main conference venue. Workshop topics included "Integrating Sustainable Development into Engineering Courses," "Service Learning Projects and Sustainability," and "Frontiers in Environmental Education." Assistant professors and postdoctoral researchers packed the workshop on the NSF CAREER award. Sixty graduate students and postdoctoral researchers participated in the Academic Job Search workshop (see the article on p. 4). The "How do I teach?" workshops ranged from "Engaging Students in the Classroom" to "Environmental Chemistry Software." The



Winning images from the photo competition: Mobile market (popular vote), Bike storage (1st place), Men with panel (2nd place), Women at well (3rd place).

workshop leaders did a great job of presenting information, theories, and strategies, and also embraced a strategic goal of encouraging interaction between all participants. Conference co-chair Dr. Jeff Cunningham (USF) said participants were eager to engage in every aspect of the conference and showed keen interest in each other's work. "It's an indication that those in our field are really supportive of this organization and are looking for ways to grow their knowledge and build their abilities to be effective in building a more sustainable world," said Dr. Cunningham.

Attendees were welcomed to USF by Provost Ralph Wilcox (USF), Dean of the College of Engineering John Wiencek, and Director of the Patel School of Global Sustainability Kala Vairavamoorthy. Keynote speakers were Dr. Paul Anastas, Assistant Administrator for EPA's Office of Research and Development and the Science Advisor



Pioneers at the 2011 AEESP conference, from left to right: Lutgarde Raskin, Terese Olson, Lilia Abron, Avery Demond, Robin Autenrieth, Debra Reinhart, Britt Holmen, Sarina Ergas, Margaret Lang, Susan Powers, Susan Matsen, Keri Hornbuckle, Linda Figueroa, Nancy Love, and Catherine Peters. Sonia Manuel-Dupont and Barbara Minsker were not present for the photograph.



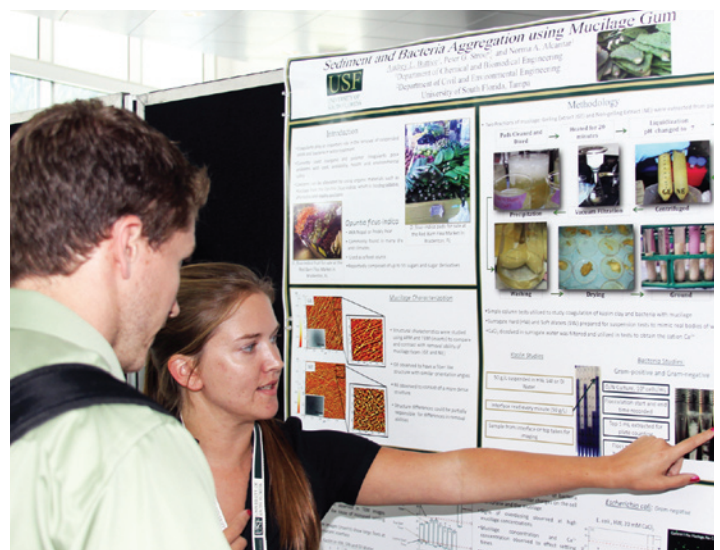
Legacy Celebration: Round 2 at the 2011 AEESP conference, from left to right: Fran DiGiano, Richard Conway, Phil Singer, James Heaney, Lilia Abron, Tom Theis, Ronald Neufeld, Herb Ward, Wayne Echelberger, Bruce Hanes, Patrick Brezonik, James Symons, Paul Bishop, Ken Williamson, Walt Weber, and Richard Luthy. John Novak was not present for the photograph.

to the Agency; Dr. Rosina Bierbaum, Dean of the School of Natural Resources and Environment at the University of Michigan; and Dr. James Mihelcic, Professor of Civil and Environmental Engineering and a State of Florida 21st Century World Class Scholar at USF.

Paul Anastas gave the plenary session keynote on the second day of the conference. In a speech titled “Designing Tomorrow,” he charged attendees with approaching their work in ways that realistically contribute to plans for a more sustainable world. Jim Mihelcic gave a plenary lunch keynote titled “The Day After Tomorrow: Changing our View of Education” and Rosina Bierbaum’s closing day plenary address was titled “Climate Change and Development: Avoiding the Unmanageable and Managing the Unavoidable.” The speeches were highly regarded. “The keynote speakers provided great motivating factors for us to really get to work and redesign our world,” said conference co-chair Jeff Cunningham.

Other activities included networking sessions at Clearwater Beach and the Florida Aquarium, a student poster presentation, and a photography exhibition. After the aquarium tour, outgoing AEESP President Nancy Love and President-Elect Joel Burken hosted the AEESP business meeting and awards ceremony (see article on p. 6). The conference also hosted a working lunch that solicited feedback for the Strategic Planning Committee and the Government Affairs Committee. The tables were mixed with students and faculty all participating and contributing. The committee leaders, Joel Burken and Patrick Gurian, have summarized the feedback and this will hopefully influence the way we move forward as an organization.

Organizing committee member Dr. Sarina Ergas reported that eighty-six students participated in the poster presentations and were judged by more than fifty local professionals and non-student conference attendees. The poster presentations were judged on the quality of submitted abstract as well as visuals and a three-minute oral presentation. Eleven students from nine universities won \$200 prizes provided by conference sponsors.



USF graduate student Audrey Buttice presents her research at the poster session for which she was awarded one of the 11 poster awards worth \$200.

The photography competition was aimed at discovering and awarding images that would inspire people to learn about and commit to global sustainability. Conference attendees submitted pictures that were judged by peers in a popular vote category and from which three other winners were chosen by a three-member judging panel. Dee Dee DeVuyst won the popular vote for her image of ripe pomegranates being distributed by bicycle. Ivy Cormier was judged as the first place winner for her battalion of bicycles parked in a city square as if in a war against fossil-fuel consumption. The photo choices spurred a lot of discussion, proving that pictures can indeed be a catalyst for dialogue and action.

A special feature at this year’s conference was a revival of the celebration of “legacy members” of AEESP. These members, defined by AEESP as members who received Ph.D. degrees before 1976, were

continued on page 22

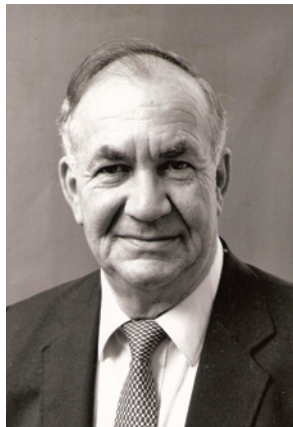
John F. Andrews, Ph.D., P.E.

July 10, 1930–April 10, 2011

Submitted by MICHAEL STENSTROM, UCLA

Our profession has lost many of its pioneers this year and it is with sadness that I report the passing of John Andrews. He was my Ph.D. advisor at Clemson University; he advised fifteen other Ph.D. students as well.

John was a 1963 graduate of the sanitary engineering program at the University of California–Berkeley. He spent his professional career at Clemson (1963–1974), the University of Houston (1974–1981), and Rice University (1982–1991). He retired in 1991 and lived in his native state of Arkansas until his death. He is survived by three children, Pat, Carol, and Laurie, and four grandchildren. He was preceded in death by his wife, Margery Ann Andrews.



John represented a new way of thinking in environmental engineering. He pioneered dynamic modeling of the major biological treatment processes. He produced seminal papers in the modeling and control of anaerobic digestion, trickling filters, rotating biological contactors, the activated sludge process, structured biomass and nitrification dynamics, and sedimentation. Two particularly noteworthy contributions were his use of Haldane kinetics, a first in the environmental engineering field, to describe inhibition in anaerobic digestion, and his use of dynamic process models. He is widely recognized as the “father” of anaerobic digestion modeling. Gustaf Olsson (Lund University) recently described him as the “father” of the research community that forms the Instrumentation, Automation, and Control specialty within the International Water Association (IWA).

John also made important contributions to AEESP, the American Society of Civil Engineers (ASCE), and the Water Environment Federation (WEF). He was president of AEESP in 1985–1986, chaired four specialty conferences and workshops, and received the AEESP Founders Award in 2006. He was a life member of ASCE, WEF, and the American Water Works Association, and an honorary member of the IWA. He received WEF’s Eddy Medal in 1975 for his paper on the dynamics of anaerobic digestion (with Dr. Steve Graef) and was the North American editor for *Water Research* from 1974 to 1984.

AEESP Events Coming This Fall

WEFTEC Events

Los Angeles, California

ALL EVENTS ARE MONDAY, OCTOBER 17, 2011

AEESP/WEF Lecture

10:30 a.m.–Noon, Los Angeles Convention Center

Dr. Perry L. McCarty

Silas H. Palmer Professor Emeritus of Civil and Environmental Engineering, Stanford University

Back to the Future—Seeking Sustainability in Water Resources

Sponsored by Camp, Dresser, & McKee

AEESP/WEF Scientist’s Luncheon

12:00–1:30 p.m., Los Angeles Convention Center

Dr. Michael K. Stenstrom

Distinguished Professor of Civil and Environmental Engineering, University of California, Los Angeles

Wastewater Reclamation: Past Successes, Future Challenges, and How to Meet the Needs of the Next Decades

Sponsored by Brown & Caldwell

AEESP Meet and Greet

5:00–7:00 pm

JW Marriott at L.A. LIVE

900 W. Olympic Blvd, Los Angeles, CA 90015

Sponsored by Carollo Engineers P.C.

The American Association for Aerosol Research (AAAR)

AEESP Plenary Lecture

Tuesday, October 4

8:00–9:00 a.m.

Lynn Hildemann

Department of Civil and Environmental Engineering
Stanford University

Indoor Exposure to Aerosols: the Interplay between Source Type, Room Characteristics, and Proximity

Rosen Shingle Creek Resort
Orlando, FL

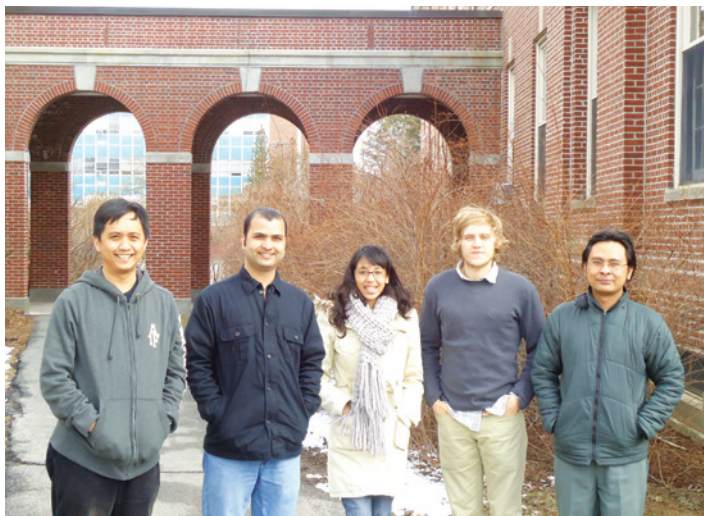
Anthony Halog's Work on Life Cycle Assessments

Dr. Anthony Halog, a new member of AEESP and an assistant professor in industrial ecology and life cycle assessment at the University of Maine, has recently published an open-access article in the journal *Sustainability* called "Advancing Integrated Systems Modeling Framework for Life Cycle Sustainability Assessment." A copy of this article can be freely downloaded at www.mdpi.com/2071-1050/3/2/469/.

Dr. Halog also received the Organization for Economic Cooperation Development (OECD) Research Fellowship to conduct a research project on sustainable forest bioenergy at the Finnish Forest Research Institute during the summer of 2011.

With his students, Dr. Halog organized an Environmental Life Cycle Assessment Event at the University of Maine, Orono, on April 15, 2011. Life cycle assessment is a robust, standardized method for evaluating the "greenness" of a product. It is the accounting of resource consumptions and environmental emissions to effect environmental performance improvement throughout the product supply chain.

Dr. Halog's research group for Industrial Ecology, Life Cycle Assessment, and Systems Sustainability (IELCASS) at the University of Maine has been successful in securing small grants to support the participation of his students in conferences, symposia, training and summer school on life cycle assessment, industrial ecology, and sustainability assessment both nationally and internationally. Two of his graduate students (Yosef Manik and Mason Earles) received National Science Foundation-supported travel grants to present their research projects at the 15th Annual Green Chemistry & Engineering Conference and 5th International Conference on Green and Sustainable Chemistry held June 21–23, 2011, in Washington, DC.



Members of IELCASS at the University of Maine Orono (from left to right): Dr. Anthony Halog, Binod Neupane, Najet Bichraoui, Mason Earles, and Yosef Manik.

AEESP Members Elected Fellows of the Water Environment Foundation

Submitted by BRUCE LOGAN (PENN STATE UNIVERSITY)

The Water Environment Foundation (WEF) announced the first recipients of the newly established Fellows Recognition Program. Fellows are recognized for their distinguished accomplishments and contributions, and having made an impact in the global water environment. The inaugural class of seventeen Fellows included the following AEESP members:

- Pedro Alvarez, Rice University
- Paul Bishop, National Science Foundation
- Bruce E. Logan, Penn State University
- Nancy G. Love, University of Michigan
- John T. Novak, Virginia Polytechnic Institute & State University
- Krishna R. Pagilla, Illinois Institute of Technology
- Spyros Pavlostathis, Georgia Institute of Technology

University of New Mexico Capstone Design Class Wins NCEES Grand Prize

Submitted by ANDREW SCHULER (UNIVERSITY OF NEW MEXICO)

The University of New Mexico's Department of Civil Engineering was recently named the grand prize winner of the 2011 National Council of Examiners for Engineering and Surveying (NCEES) Engineering Award for Connecting Professional Practice and Education. NCEES granted this honor to the Civil Engineering Department's Capstone Design Course, taught by Dr. Andrew Schuler and mentored by several Albuquerque professional engineers. The winning project consisted of infrastructure improvements to New Mexico's Gorham Boy Scout Ranch, including drinking water, wastewater, drainage, and structural improvements. The project was praised for its incorporation of various sub-disciplines of civil engineering and for providing students with a "practical understanding of the routine work environment of practicing professional engineers." The award included a \$25,000 cash prize.



Participants in the Civil Engineering Capstone Design Course at the University of New Mexico, which was awarded a NCEES Engineering Award for Connecting Professional Practice and Education for the design of infrastructure improvements at the Gorham Boy Scout Ranch in New Mexico.

Lindsay Shuller-Nickles joins Clemson University

Dr. Lindsay Shuller-Nickles is a new assistant professor in Environmental Engineering and Earth Sciences (EEES) at Clemson University. Dr. Schuller-Nickles received her Ph.D. in Materials Science and Engineering at the University of Michigan in 2010. She worked in the Glenn T. Seaborg Institute at Lawrence Livermore National Laboratory and in Civil Engineering and Geological Sciences at the University of Notre Dame. Lindsay was a postdoctoral research fellow in Geological Sciences at the University of Michigan.



Lindsay Shuller-Nickles

In Environmental Engineering and Earth Sciences, Dr. Shuller-Nickles will participate in the Nuclear Environmental Engineering program, a unique program at Clemson University that combines radiochemistry with environmental chemistry. Lindsay's research integrates computational and experimental techniques to better understand the thermodynamic stability and kinetics that control the behavior of radionuclides in the environment. A primary focus is to understand the immobilization of radionuclides in the environment via sorption onto mineral surfaces, incorporation into rock-forming or uranyl minerals, or precipitation as solid phases.

The environmental engineering graduate program of Environmental Engineering and Earth Sciences (EEES) performs research in process engineering (targeted at water, wastewater and air treatment, and soil and groundwater remediation), environmental health physics (ABET- and ASAC-accredited), environmental chemistry, environmental fate and transport, sustainable systems and environmental assessment, environmental radiochemistry, and hydrogeology. The department has a new undergraduate degree in environmental engineering that began in the fall of 2010 and attracted about 45 students. The Department has 20 full-time faculty members, more than 20 adjunct faculty, and about 100 graduate students.

New NSF Engineering Research Center on Urban Water (ReNUWIt)

Submitted by RICHARD LUTHY (STANFORD UNIVERSITY)

In mid-July, 2011, the National Science Foundation (NSF) announced an award to Stanford University and its partners at the University of California–Berkeley, the Colorado School of Mines, and New Mexico State University to establish a new NSF Engineering Research Center (ERC), the “ERC for Re-inventing the Nation’s Urban Water Infrastructure,” or ReNUWIt (<http://urbanwatererc.org>). The ERC researchers will conduct interdisciplinary research to transform the ways in which cities obtain drinking water, treat wastewater, and manage urban aquatic habitat. NSF will invest \$18.5 million in the ERC over the next five years with the possibility of an additional five years of funding.

According to Director Richard G. Luthy and Co-Director David Sedlak, “The ERC for Re-inventing the Nation’s Urban Water Infrastructure aims to create water systems that will require far fewer resources while continuing to meet the needs of urban users and improving the quality of aquatic ecosystems. With new knowledge and technological advances, the ERC will design new strategies for more sustainable solutions to urban water challenges.”

The ERC will focus its research on engineered treatment systems, managed natural systems, and decision-support tools that incorporate economic, environmental, and social factors into the planning process. The new approaches developed in the center will allow communities to increase the efficiency of water systems and usage, while protecting aquatic habitat.

The ERC will work in close partnership with approximately twenty-four partners—including multinational corporations, utilities, and start-up firms—to spur innovation and provide university students with first-hand experience in entrepreneurship. As stated by Jörg Drewes, the ERC Director of Research, “The various test platforms in California, Colorado, and New Mexico allow evaluation of new ideas at realistic scale and in a manner that will assure their rapid adoption by water providers.”

An additional mission of the Urban Water ERC is to inspire future engineers through an extensive education program at all of the participating institutions. According to Nirmala Khandan, the ERC Education Co-Director, “The education program will yield a pipeline of well-prepared students of diverse backgrounds who are ready and eager to pursue water-related degrees at the undergraduate and graduate level. The goal, ultimately, is a new cohort of leaders who are more creative, adaptable, and able to compete in a global economy.” This effort also includes important outreach programs aimed at students of all ages, from kindergarteners through adults and with special outreach to under-represented children in Native American, Latino, Pacific Islander, and African American communities.



Salim Bawazir (New Mexico State University) and Dick Luthy (Stanford University) visit a test bed site near Las Cruces, New Mexico, where the ERC researchers study management of riparian zones and habitat restoration to conserve and improve water quality in urban streams and enhance the urban aesthetic.

Caitlyn Butler Joins the University of Massachusetts at Amherst

Dr. Caitlyn Butler will join the Civil and Environmental Engineering Department at the University of Massachusetts at Amherst this September as an assistant professor.

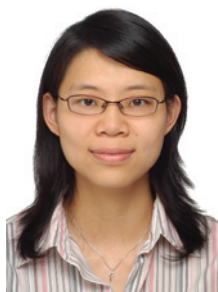


Caitlyn Butler

She previously served as an assistant professor at Arizona State University in the Department of Engineering on the Polytechnic campus. Dr. Butler received her B.S. degree at Smith College and completed her graduate work at the University of Notre Dame. Her research area is the development of energy-efficient treatment strategies for both water and wastewater treatment. She examines bioelectrochemical systems in which biofilms remediate environmental pollutants and concurrently produce electricity. She is also interested in developing scalable process designs that can be easily integrated into existing treatment infrastructure as well as the ecology and function of the microorganisms that facilitate electricity production.

Weile Yan Joins Texas Tech University

Weile Yan was appointed as an assistant professor in the Department of Civil and Environmental Engineering at Texas Tech University in August 2011. Yan received her Ph.D. in Environmental Engineering from Lehigh University, her M.S. in Molecular Engineering for Biological and Chemical Systems from Singapore-MIT Alliance, and her B. Eng. in Environmental Engineering from the National University of Singapore. Prior to joining Texas Tech University, she served briefly as a postdoctoral researcher at Princeton University. Her research interests include characterizing interactions at surfaces and interfaces of environmental interest and developing advanced materials for environmental separation and catalysis. She is also interested in promoting environmental engineering and science curriculum to students from diverse disciplines.



Weile Yan

Debra Reinhart to Direct NSF Environmental Engineering Program

Submitted by DEBRA REINHART (UNIVERSITY OF CENTRAL FLORIDA)

Dr. Debra Reinhart joined the National Science Foundation's Chemical, Bioengineering, Environmental, and Transport (CBET) Systems Division as the Environmental Engineering Program Director on September 12, 2011. She succeeds Dr. Paul Bishop, who served in the position for three years. Dr. Bishop will be joining the University of Rhode Island as Associate Dean for Research in the College of Engineering.

Debbie is the Pegasus Professor in the Civil, Environmental, and Construction Engineering Department and Assistant Vice President for Research and Commercialization at the University of Central Florida. She was previously the Executive Associate Dean for the College of Engineering and Computer Science. Debbie received her B.S. degree in Environmental Engineering from the University

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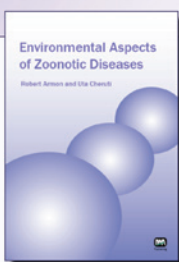
Publishing

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Robert Armon and Uta Cheruti

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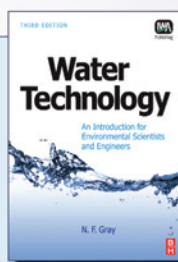


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N. F. Gray

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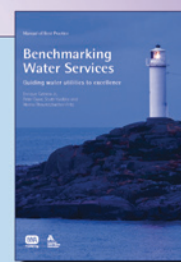


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Review of “Sludge Engineering: The Treatment and Disposal of Wastewater Sludges” by F. Dilek Sanin, William W. Clarkson, and P. Aarne Vesilind

Submitted by STEVE DENTEL (UNIVERSITY OF DELAWARE)

“Sludge Engineering: The Treatment and Disposal of Wastewater Sludges” is essentially the third edition of the original “Treatment and Disposal of Wastewater Sludges” by Aarne Vesilind, first published by Ann Arbor Science in 1974. Even though the management of wastewater sludges and biosolids may represent half of the overall cost of wastewater treatment, many texts on wastewater treatment neglect these important issues. Vesilind’s text was a landmark in choosing to address solely these topics.

Sanin, Clarkson, and Vesilind have finally given this work a well-deserved update. But the book went for over 30 years without a new edition. It lacked incremental updates; thus, the update required a complete facelift—a huge task. The authors made a determined attempt at this. Especially useful are new sections covering land application practices and sludge/biosolids regulations. These additions alone make the new book worthwhile. However, a few of the original chapters remain largely unchanged. For example, reference lists for the chapters on sludge conditioning and dewatering have median publication years of 1992 and 1980, respectively.

Admittedly, some aspects of sludge treatment remain relatively unchanged. But some have changed. Newer models of anaerobic digestion, thickening, and dewatering of sludge are important developments that are not covered. Nor are advances in understanding

odor generation. New treatment methods for conditioning and enhanced digestion, such as thermal hydrolysis, warranted greater attention.

The book contains one unsupportable hypothesis: that maintaining a level of pathogens in sludge may actually benefit public health by offering a “sufficient challenge” to our immune systems. This suggestion ignores the cost to individuals who may fail this challenge. Humans do not acquire immunity to parasites that may be in sludges if inadequately treated, especially in lesser developed areas of the globe. The unsubstantiated hypothesis in this section has no place in an otherwise well-grounded text.

A book concerned with any evolving topic should be updated regularly, rather than waiting over three decades between editions, and the update should be integrated into any original material that can still be used. Where the authors succeeded, the book is invaluable, such as the new sections on land application practices and sludge/biosolids regulations. Sludge issues are truly international in scope and this is also reflected in the new edition, covering both policies and practices with a global perspective.

Overall, this is the best available text for any course on sludge and biosolids management. But there’s not a lot of competition, at least until these authors complete their next update of this book.

Debra Reinhart, continued from page 18

of Central Florida and M.S. and Ph.D. degrees in Environmental Engineering from the Georgia Institute of Technology. During the past twenty-two years, she has been teaching and researching solid and hazardous waste management.

Debbie served as president of the American Academy of Environmental Engineers in 2009. She is on the board of the Environmental Research and Education Foundation. She is a registered professional engineer in Florida and Georgia, a Board Certified Environmental Engineer, a Fellow of the American Society of Civil Engineers, and a Fellow of the American Association for the Advancement of Science. She has been on the editorial board for four journals and is currently an associate editor for *Waste Management*. She is an ABET environmental engineering program evaluator.

AEESP e-Newsletters

Want to go paperless for the AEESP Newsletter? If you wish to receive only the link for obtaining an electronic copy of the Newsletter, send a brief message to Joanne Fetzner at joanne@aeesp.org and we will remove you from the mailing list beginning with the January 2012 issue.

AAEE's New Board Composition

SUBMITTED BY CECIL LUE-HING, D.SC., P.E., DEE, HON. M.ASCE, NAE

The inaugural core business of the American Academy of Environmental Engineers (AAEE) at its founding in the mid 1950s was the certification of licensed sanitary engineers, now known as environmental engineers. As a consequence, the governance structure required a Board composed of “certified” individuals, which meant professional engineers certified by the newly minted Academy as Diplomates (DEEs). Today, the requirement of the AAEE Board is a majority of certified individuals. While the core business of the Academy has remained unchanged, the face of sanitary engineering has changed significantly both in scope and complexity. These changes were evident in university curricula, in engineering field practice, and in the shift from the single engineer as the master environmental problem solver to the more diverse collaborative teams of engineers, chemists, ecologists, biologists, and economists. The Academy has interpreted this shift to be permanent and has decided that it may be useful to reassess its operations with respect to relevance in this changing professional environment.

As part of its reassessment, the Academy examined the skill levels embedded in mature, senior-level professionals engaged in the practice of environmental engineering in academia, consulting, government, industry, research, and the military. The Academy concluded that the skill levels possessed by individuals in “senior positions” in these vocational settings were very high and compared favorably with those of their professional engineer colleagues. The Academy decided to explore the idea of recognizing the skills of these mature and otherwise suitably qualified professionals through an appropriate process of certification that did not require a professional engineer license. This issue was extensively debated by the Academy’s Board. It was concluded that the issue has merit and the decision was made to develop a program to recognize the skill levels of these individuals within the confines of the Academy’s by-laws and other relevant regulatory constraints. During the debates, it was also reasoned that this program would be particularly attractive for members of the academic community.

The program was designed, reviewed, and approved by The Council of Engineering and Scientific Specialty Boards (CESB), the authority

that approves the Academy’s Certification Program. The program went into effect on January 1, 2006. However, because of the legal implications of the word “engineer” expressed in state statutes, the Academy’s certification nomenclature cannot include the word engineer; thus, the certification title of non-PE engineers is “Board Certified Environmental Engineering Member of the Academy” (BCEEM). With BCEEMs now firmly among the Academy’s certified members, the next obvious question was how should the BCEEMs be treated with respect to governance? The Academy explored the models of governance of CESB and the various State Boards of Licensure for Professional Engineers which it reasoned were compatible with its needs.

The enabling legislations which create Boards of Licensure for professional engineers in most states require that the composition of these boards include non-engineers. The number of non-engineers or public members varies and depends on the State jurisdictions and size of the Boards of Licensure. The numbers range from one member in Illinois, the District of Columbia, and Maine, to two in Florida and Delaware, to three in Texas and Colorado, to five in Minnesota, and seven in California. In 2010, the Chairs of the Minnesota and Colorado Boards were non-engineers. The language defining public members in the state statutes generally expresses the requirement that “...they can have nothing to do with engineering, except as consumers.” For example, for the State of California, “... and seven shall be public members who are not registered under this act or licensed under the Land Surveyor’s Act,” and for the State of Florida “The Board shall consist of 11 members, nine of whom shall be licensed engineers and two of whom shall be laypersons who are not and have never been engineers or members of any closely related profession or occupation.” The rationale for including non-engineers is that, while the Boards’ core business is the licensing of professional engineers, this action is also simply part and parcel of Licensure Boards conducting the public’s business. The Academy believes that this rationale also holds true for its operation that certifies engineers to serve and protect the public good. Therefore, the Academy believes that BCEEMs who are Board-Certified should be appropriately represented.

Today, there is room on the Academy’s Board for five BCEEMs—a new Board composition!

American Society of Engineering Education's Environmental Engineering Division

Submitted by ANGELA BIELEFELDT (UNIVERSITY OF COLORADO BOULDER)

If you are passionate about educating future environmental engineers, we would like to encourage you to become active in the Environmental Engineering Division of the American Society for Engineering Education (ASEE). Please make sure you indicate your preference when you renew your ASEE membership. We currently have 356 members.

Our primary activity is hosting technical sessions at the Annual Conference held every June. These sessions include presentations on current issues for environmental engineering education as well as research papers on engineering education. Such a venue provides an annual opportunity to highlight and share innovative ideas on how to better educate future environmental engineers. The conference is publish-to-present, so all papers go through a multiple peer-review process: abstract submission, draft papers, and final papers. At the conference in Vancouver, British Columbia, this past June, twelve papers were presented. The following awards were made:

- Best Paper to Stephanie Luster-Teasley and Cindy Waters (North Carolina A&T University)
- Early Career to Isaac Wait (Marshall University at West Virginia)
- Best Student Paper to Jonathan Wiggins (University of Colorado Boulder)
- Meritorious Service to Kevin Bower (The Citadel)

We also encourage you to submit an abstract in October describing your teaching or educational research activities for the upcoming conference in San Antonio, TX, June 10–13, 2012—please see the accompanying call for abstracts on this page. Because the AEESP conference is only held every two years (with the next one in 2013), the 2012 ASEE Environmental Engineering Division conference is a good opportunity to discuss educational issues.

You can read more about the activities of the ASEE Environmental Engineering Division via our website and newsletter, which is available at http://users.rowan.edu/~jahan/asee/env_asee09/New%20Folder/Index.htm

The current officers of the Environmental Division (2011–2012) are Division Chair Sharon Jones (Dean, University of Portland); Program Chair Kauser Jahan (Rowan University); Secretary Junko Munaka Marr (Colorado School of Mines); Treasurer Stephanie Luster-Teasley (North Carolina A&T University), and Directors Ken Brannan (The Citadel), Angela Bielefeldt (University of Colorado Boulder), Kevin Bower (The Citadel), and Francis Hopcroft (Wentworth Institute of Technology).

The Environmental Engineering Division of the American Society for Engineering Education (ASEE) invites abstracts for the Annual Meeting to be held in San Antonio, Texas June 10–13, 2012.

The division invites papers on the following topics:

- Innovative pedagogical methods
- Integrating sustainability across the curriculum
- Innovative uses of current and emerging technologies
- Service-learning courses in environmental engineering
- Extracurricular student projects and contests
- Green campuses involving faculty and student initiatives
- Development of new or hybrid courses
- Incorporating environmental issues across curricula
- Environmental engineering courses for non-engineers
- Recruitment and retention of diverse students
- Undergraduate research experiences
- Accreditation and assessment

The Environmental Engineering Division requires that presenters publish their papers in the ASEE conference proceedings. Please indicate if you are interested in a poster presentation. Poster presentations also require a full paper submission.

The Early Career Award, Best Paper, and Student Awards are selected based on the papers accepted for the conference. Please send an email to Kauser Jahan at Rowan University (jahan@rowan.edu) if you are interested in the Early Career Award.

Please submit a 200–300 word abstract electronically through the ASEE webpage https://www.asee.org/public/person_sessions/new as soon as the submission date is posted.

Abstracts submitted not later than the closing dates announced by ASEE (typically October 7) will be evaluated and ranked. Papers selected for presentation must be submitted in accordance with ASEE requirements. Be sure to indicate that your paper is for the Environmental Engineering Division and provide requested contact information.

IGERT Opportunities at University of Puerto Rico–Rio Piedras

The Integrative Graduate Education and Research Traineeship (IGERT) program at the University of Puerto Rico, Rio Piedras Campus (UPRRP), is recruiting Ph.D. candidates for the 2012–2013 academic year. IGERT is a National Science Foundation-wide program intended to catalyze a cultural change in graduate education by establishing innovative new models for graduate education and training in a fertile environment for collaborative research that transcends traditional disciplinary boundaries. Its main theme at UPRRP is “Natural-Human Systems in the Urbanizing Tropics” and its goal is to train students to apply an interdisciplinary and collaborative approach to environmental problems in urbanizing tropical landscapes. The interdisciplinary feature is the research and training focus on interactions between human activity and ecological systems.

We are particularly interested in students whose background includes both the natural and social sciences. The application deadline is February 27, 2012. Further information is available at http://envsci.uprrp.edu/index.php?page=igert&hl=en_US or from the principal investigator, Prof. Rafael A. Rios (rafaelrios00936@yahoo.com).

Faculty Position at Marquette University

The Department of Civil, Construction, and Environmental Engineering at Marquette University invites applications for a full-time, tenure-track position in environmental engineering starting in August 2012. The position is expected to be at the assistant professor level; however, exceptional candidates for higher ranks will also be considered. Candidates in the areas of fresh water treatment, distribution, and management will be considered with particular emphasis in one or more of the following areas: physical and chemical treatment, drinking water quality, water chemistry, risk assessment, and public health.

Applicants must have an earned doctorate in civil engineering, environmental engineering, or a related area. Professional registration or ability to become a registered professional engineer is highly desirable. Knowledge of sustainable engineering, life cycle assessment, and international service learning is desirable. The successful candidate must develop and direct a strong, nationally visible, externally funded research program, demonstrate excellence in teaching undergraduate and graduate (M.S./Ph.D.) courses in his/her area of specialization, and be committed to student mentoring.

Applicants should submit their curriculum vita, statement of teaching philosophy, research plan, and a list of three references including addresses, phone numbers, and e-mail addresses. For more information and to apply, see http://marquette.edu/engineering/civil_environmental/facultyopening.shtml or contact Dr. Daniel Zitomer, Chair of the Search Committee, at daniel.zitomer@mu.edu or (414) 288-5733.

The deadline for applications is February 15, 2012. Review of applications will begin December 1, 2011.

Education and Research Conference, continued from page 13

first recognized at the conference hosted by Clarkson University in 2005. The “Legacy Celebration: Round 2” was hosted by USF Professor Emeritus Wayne Echelberger and University of North Carolina Professor Phil Singer. This closing night festivity recognized the seventeen legacy members in attendance, including James Symons, who earned his Ph.D. in 1957. They and other members were also interviewed to document the history, challenges, and advances during the early days of environmental and sustainability scholarship. These videos will be released through Youtube and the USF iTunesU site.

In the weeks after the conference, we have heard from many attendees who have been generous with praise. We heard from “a pioneer” (a female attendee who received her Ph.D. degree before 1996) who praised the conference and its organizers and expressed gratefulness

about being part of the AEESP community. I think that captures how we feel about our professional organization and reflects the type of conference we wished to host. We have available many ways to engage with each other and the greater public through social media like Facebook, Twitter, and Youtube, and we hope to post as much from the conference as we can so that we continue to interact with each other and correspond about the sustainability issues that are important to us.

The conference web site (<http://aeesp2011.com>) has been updated with links to presentations given during the workshops, photographs from all of the events, videos, summaries from the lunch activities, and much more.

Synergy at the Interface **OU International WaTER Conference**

October 24-25, 2011

Norman, Okla.

University of Oklahoma International WaTER Conference and International Water Prize Award Ceremony

The conference theme "***Synergy at the Interface: Integrating Technology, Social Entrepreneurship and Behavior Change***" is designed to bring together participants from multiple disciplines responding to the UN Millennium Development Goals of bringing water and sanitation to developing countries.

Registration now open at
<http://WaTER.ou.edu>

Early Bird Registration ends Aug. 24, 2011

Conference highlights include:

✓ Plenary lecture by, and presentation of the second OU International Water Prize to, Mr. Ben Fawcett, environmental health engineer and book author. His impact has been felt in countries throughout Africa, Asia, and Latin America. During his tenure at Southampton University from 1996-2006 he mentored 130 MSc and Ph.D. students who have continued through their work to impact over 60 countries.



✓ Keynote speakers from the fields of behavior change, social entrepreneurship, water technologies, climate change, and hydro-philanthropy in the developing world

• Ned Breslin, Water for People – Hydrophilanthropy

• Annette Johnson, Swiss Federal Institute of Aquatic Science and Technology – Water Technologies

• Dennis Lettenmaier, University of Washington – Water Resources/Climate Variability

• John Oldfield, WASH Advocacy Initiative – Legislative Update

• Kurt Soderlund, Safe Water Network – Social Entrepreneurship

• Peter Winch, Director, Social and Behavioral Interventions Program, Johns Hopkins Bloomberg School of Public Health – Behavior Change

✓ Oral presentations and posters from experts around the world

✓ Post-conference workshop on well drilling, biosand filters and eco-latrines construction



<http://WaTER.ou.edu>



Association of Environmental Engineering and Science Professors Newsletter

Joe Ryan, Editor

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