AEESP Newsletter

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Highlights

Need to renew your 2015 AEESP membership?
Go to "Membership > Online 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 newlsetter to Steve Mylon at mylons@lafayette.edu. The next newsletter will appear in September 2015

President's Letter

by JOHN E. TOBIASON

Dear AEESP Members:

Another academic year is nearing completion for me as I write this third and final letter as your 2014-2015 AEESP President for this May 2015 Newsletter. As I complete my 4th year on the AEESP Board of Directors, I want to thank all AEESP members and especially fellow Board members for the opportunity to work with you in our amazing organization. The work we do in support of each other and the broader community of all educators and students in environmental engineering and science is very important and rewarding. Best wishes to 2015-2016 AEESP President Greg Characklis and the entire Board as they continue to serve AEESP.

Soon, many AEESP members will be together at the biennial AEESP Research and Education Conference, "Environmental Engineering and Science: At the Nexus", at Yale University in New Haven, CT, June 13-16, 2015. Approximately 200 people will participate in the NSF sponsored workshop on Saturday June 13th that addresses grand challenges in environmental engineering and science, while many more will be attending conference workshops on Sunday June 14th and various conference sessions on Monday and Tuesday June 15th and 16th. We will recognize and honor the 2014 and 2015 AEESP Fellows and all the 2015 AEESP award winners. I look forward to meeting old friends, making new friends, and being energized for continued important work in our profession. Thank you to the conference organizers at Yale University for preparing such a great event for AEESP!

I had the opportunity be at the University of Connecticut on April 17th with other UMass, Yale and WPI colleagues to hear 2014-2015 AEESP Distinguished Lecturer Bruce Logan make his final domestic presentation of the lecture series, a captivating look at innovative approaches to energy generation from salinity gradients. I want to thank Bruce for his service as AEESP Lecturer and I look forward to the 2015-2016 lecture series by Nancy Love. The AEESP Distinguished Lecturer series continues to provide excellent learning and networking opportunities for students and faculty while honoring some of our most accomplished members.

One year ago in this letter, Jennifer Becker reported on the establishment and awarding of the first Steven K. Dentel AEESP Award for Global Outreach, presented to Steve at an EWB event at the University of Delaware in April 2014. We look forward to presenting the 2015 Dentel Award at the AEESP Conference in June. As you probably know, Steve finally succumbed to cancer on February 18, 2015; please read the tribute to Steve in this Newsletter. As of this time, AEESP members have contributed approximately 50% of our initial goal of raising $10,000 to be matched by contributions from Carol Post, Steve's wife, and the AEESP, for a $30,000 endowment. It would be so wonderful to reach the fundraising goal by the time of the AEESP Conference in mid-June 2015! Please consider contributing to the Dentel Award endowment – thank you!

A few comments on where we stand relative to my September 2014 letter and the "watershed events" I mentioned. I am pleased to report that AEESP is in a good financial position thanks to continued careful stewardship of funds by the Boards of the AEESP and the AEESP Foundation and sound management by our business office, especially Executive Administrator Brian Schorr. We continue to carefully assess expenses and income to appropriately meet the goals of AEESP. I am pleased to report that AEESP has some new Sustaining Members for 2015 and I encourage all regular members to reach out to additional organizations to encourage similar participation in AEESP. I think we can make more progress in expanding our international interactions and in making full use of our interactions with Environmental Engineering Science, the official journal of AEESP, two other areas that I mentioned in September. I look forward to continued progress in these areas in the years ahead. Again, thank you for the opportunity to serve as President of AEESP, and I look forward to continued work with many of you.

Sincerely,

John E. Tobiason

John E. Tobiason, PhD, PE, BCEE

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www.aeesp.org/news

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REMEMBRANCE

Steven K. Dentel, 1951-2015

Steve Dentel lived a life worth celebrating. He lost that life after fighting a valiant battle with cancer for several years, a battle he largely kept to himself. Many colleagues outside of his home institution of the University of Delaware were not even aware that Steve was ill, because he diligently continued to do the meaningful work that he cared so much about. For AEESP and the AEESP Foundation, this meant that Steve continued to serve as Board Secretary, managing to record the minutes and share his keen observations, diplomacy, and dry sense of humor via teleconference when he was too weakened by treatments to attend meetings in person.

But, Steve would never intentionally draw attention to himself. In this era of relentless self-promotion, Steve was refreshingly unassuming and preferred to quietly work behind the scenes for the betterment of others, especially his students and those living without access to clean and reliable water and basic sanitation. As the faculty advisor to the University of Delaware Engineers Without Borders (UD-EWB) chapter, he was able to serve both groups. Because of these efforts, Steve was designated a "Prince and Village Notable" by the people of Bakang II, Bamendjou, one of two villages in Cameroon that benefited from water systems that Steve constructed with his students. Approximately one year ago, Steve was also presented with the inaugural Steven K. Dentel AEESP Award for Global Outreach during an UD-EWB dinner attended by many of his students and colleagues of 32 years at the University of Delaware. The joy and the respect and admiration for Dr. Steve, as his students called him, were palpable as he was recognized for his outstanding contributions. Although he was genuinely thrilled to be the inaugural recipient of an award given in his name, Steve's thoughtful remarks after receiving the award made it clear that one of his great joys in life was hearing from former students and learning that he had positively impacted their lives.

Although Steve was clearly very committed to his professional endeavors, it is obvious that he was also extremely dedicated to his family. Our hearts especially go out to Steve's wife and partner of 34 years, Carol Post, their sons Aaron Dentel-Post and Colin Dentel-Post, and other family and friends who undoubtedly miss him more than we can ever possibly know.

Many individuals in our field devote a great deal of effort to the betterment of others, and now we look to the example Steve set to the very end of his days on earth. Steve lived the life that many of us hope for. He was a man of unerring integrity, he did work that really mattered, and he earned everyone's respect. Despite his earnestness, he was also funny, and it was a joy to work with him. Thus, while our hearts are heavy with the loss of our friend and colleague, we find inspiration and some comfort in knowing that our profession, and indeed the world, are better because of Steve's work and commitment to teaching and serving others. In the words of Henry Brooks Adams, "A teacher affects eternity; he can never tell where his influence stops."

In celebration of the good life and memory of Steve.

FRIENDS OF STEVEN K. DENTEL

Editors note: For more details on Steve's many professional and personal accomplishments, please see Steve's memorial in the UDaily newsletter or the President's letter in the May, 2014 AEESP newsletter.

Highlights of the AEESP Board of Directors Spring 2015 Meeting and 2015 Election Results

Submitted by PETER VIKESLAND, AEESP VICE-PRESIDENT

The AEESP Board of Directors met at the University of South Florida on February 2 & 3. Brian Schorr of the AEESP Business Office joined the Board at this meeting. The following briefly summarizes the meeting highlights:

The Board discussed a request to endow the Dentel Global Outreach Award. After a brief discussion the Board unanimously approved the motion to provide up to $10,000 in matching funds in 2015 for contributions to the Award endowment. Matching in subsequent years will be decided by future Board votes.

The Board also discussed the activities of numerous AEESP committees (Thanks as always to our dedicated volunteers!). Of immediate interest to the AEESP membership were the plans of the Conference Planning committee led by Jaehong Kim of Yale University. Jaehong and his colleagues have developed a promising agenda for this meeting and the Board encourages everyone to attend.

Much of the remainder of the meeting was focused on financial planning and further formalizing the relationship between AEESP and the AEESP Foundation Board.

Tampa Bay Desalination Plant Tour, February 2, 2015

AEESP 2014-2015 Board of Directors, Tampa Florida

The next meeting of the AEESP Board of Directors will be held in June at Yale University following the conclusion of the 2015 AEESP Research and Education Conference. At that meeting, the Board will be joined by three new members: Greg Lowry (Carnegie Mellon), Jeanine Plummer (Worcester Polytechnic Institute) and Maya Trotz (U. South Florida). Greg, Jeanine, and Maya were elected to the board in the Spring 2015 election. Thanks to each of them and the other Board of Directors candidates for their willingness to support AEESP!

AEESP Distinguished Lecture Tour 2014-2015

by BRUCE LOGAN

It was my great honor and pleasure to visit so many different universities during this past year as a part of the AEESP Distinguished Lecturer Tour. I visited 13 universities in the US, and (for the first time by an AEESP Lecturer, I believe) 2 universities outside the US: Nankai University, in China (close to Beijing); and KAUST, in Saudi Arabia. Back in the mid 90's when I was on the AEESP board, two important changes were made to our bylaws: we included the "S" in our name, to reflect the relatively large number of science-trained people in our organization; and we opened membership to those living outside North America. Today we have AEESP members all over the world, and it was therefore my special honor to travel and meet our fellow AEESP-ers living outside the US, as a part of this lecture series. This tour gave me opportunities to meet students from many different environmental engineering programs, and to informally poll these students and faculty at each location, over a relatively short period of time, on a few specific topics. I wanted to share a few of the things I learned during my discussions with these faculty and students.

Paths not pipelines. We have incredibly diverse students in environmental engineering, likely more so than in any other engineering field. You probably can see that in your own program, but traveling around to all the different universities I could see that this was true almost everywhere. We are encouraged to "keep students in the pipeline" of STEM in middle and high school, and then engineering or other STEM fields in college, so that they are on track to enter their chosen fields. Some go this direct route, but not all follow a single path into or out of engineering. A large number of our students obtain degrees in different, and sometimes non-engineering, fields as diverse as liberal arts or aligned science fields, and only later take the path leading to an engineering degree. There are students that graduated with an engineering degree and worked for a few years, but found their "chosen" field or job not sufficiently challenging (boring?), uninspiring, or just not the right match to their skills and desires. Some had great jobs in the peace core or in the military, and then decided the time was right for the next phase of their career. All these people came back to the university with greater maturity and a passion for their work compared to when they graduated. I could see that these people were leaders, and that they inspired others around them. I was truly fascinated by hearing all the different paths by which students come to pursue their degrees.

Just how tough is the funding situation these days, and how is it affecting young (non-tenured) faculty? If there was one thing that everyone agreed on, it was that getting funding was getting really hard. That was no surprise. So the real question was whether challenging times were affecting young faculty in tenure tracks. Surprise: the answer was usually "No". I could see that these tenure track faculty were working hard, but I saw lots of evidence they were being mentored and getting good advice from colleagues, and good support from the university. Many departments give their new faculty light teaching loads for the first few years, and provide great startup packages that include funding for a couple of students, materials, and equipment they need for their lab. As new faculty were usually selected for their current and cutting edge research areas and abilities, they were finding success in getting funding agencies to support their work. Still, I heard from all the assistant professors that they felt it was particularly challenging, even though

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Bruce Logan with Lut Raskin in front of *Logan* in Michigan.

they were finding ways to be successful. In a few cases, they were very concerned and time was running out. All these young faculty felt stressed about the tenure deadlines, but I suspect that has always been true and not unique to current funding challenges.

One full professor summed up a challenge in getting funding with the statement: "I just don't know where to send a proposal to anymore". Many federal agencies that used to fund research no longer have programs to do that, or they have reduced them to the point that no "new" people can get in. Program managers used to hear a talk or find your work interesting, and they were approachable and open to new directions of funding, oftentimes based on just a short proposal. Now there seem to be few such opportunities and all funding is through highly advertised and competitive projects. Who funds truly innovative work? NSF does, but many faculty said that they considered NSF a lottery even among great proposals, and the limited funding (if you were to get it) was a challenge for supporting even one student as the amount per year on a project hasn't really changed in decades. With tuition increasing at a rate above inflation, student salaries going up each year, and the cost of research supplies and travel also increasing, it is tough to fund even a single student on an NSF grant … and don't even think there is room for a month of summer or academic year salary! Is this NSF's fault? No, they are constrained by funding and trying to do what they can. Their choice is to either keep funding levels flat, or to raise the amount per grant, and give out fewer grants. Most people prefer the "more grants" option (higher success rates). Many of the people I talked with did have NSF funding, and several young faculty had NSF Career grants, and so they were happy and feeling quite fortunate. But perhaps my sample size was limited as I visited only programs that could find funding to support the AEESP lecture series?

A few lucky programs that have large, multi-investigator grants that span 5 years at a time, and these people seemed the most content, as they had project that offered stable funding. These large projects were typically from the NIH or EPA, with some from state agencies, and one from the NSF. We would all love to get an NSF STC or ERC, but those are extremely difficult to get and they require enormous effort and great leadership. Still, it is nice to see our environmental engineering programs sustained by such projects in a few cases, as much of these funds could have gone outside our field.

Is funding truly more difficult to get? While everyone said yes, and my survey was definitely not statistically valid, there are other indicators. Most universities aren't advertising it but many of them are for the first time experiencing a decline in extramural funding, and the signs are that funding could continue to decrease. A decrease in actual dollars, coupled with inflation, will translate eventually to fewer graduate students at a university, and make it more difficult to maintain our infrastructure, which for many of us means our laboratory equipment. Universities that are fortunate to have sufficient internal funds to use for maintaining their equipment and infrastructure, and funding for large startup packages, will have an advantage compared to universities with smaller endowments. Certainly funding for endowed chairs, particularly positions with discretionary funds, can enhance the viability of a program and help attract or keep the very best faculty.

What are the environmental topics of most interest? Many people are finding success in research on emerging chemicals in the environment, and tracking the fate of these in engineered and environmental systems. A couple of universities had long-term funding in air pollutants, although many environmental programs did not include air in their programs. It seemed that projects related to remediation of groundwater pollutants were much decreased compared to past years, and that water treatment projects were quite applied.

Research Challenges and Opportunities for the Future. We certainly have funding challenges, but really the good news is that these environmental engineering programs are still thriving. There are great minds and talented faculty that continue to come into our field and make it vital and strong. There are still many important and emerging research areas that can sustain our programs. Society needs the things that environmental engineers provide: strategies to improve our life and well-being, and solutions to help protect the environment … among many others! Bill Cooper at NSF and I are chairing a workshop at the AEESP conference in June 2015 to discuss Grand Challenges in Environmental Engineering as a way of continuing the dialog on what the exciting topics are in our field. This won't be a one-time discussion, as Bill has plans to continue the conversation, so opportunities to participate won't end there. Still, I hope to see you there, or at another venue in the near future to hear your thoughts on these emerging research opportunities.

Thanks to all of you that hosted my visit. I'll end with a few short memorable notes/awards:

Best path story: Chapel Hill, several students including one US student that spent time in Poland.

Coolest cars from the airport: Tie between UC Boulder (Porsche) and UT Austin (Electric BMW).

Best restaurant: Michigan wins this one, if only because of the restaurant name (Logan!)

Largest number of different universities attending: U Conn (Yale, U Mass, Worchester Poly Tech)

Most challenging travel: Clarkson (Surprise! It was international, via Canada, with a snowstorm)

Most presentations: Tie between USC and Nankai (2 talks each; did you know you could ask for that?)

University with the Best Dean of the College (that I met): Drexel (Joe Hughes)

Most impressive infrastructure and facilities: KAUST

BRUCE LOGAN
2014-2015 AEESP Distinguished Lecturer

AEESP Foundation Distinguished Lecturer: 2015-2016

Dr. Nancy G. Love, Ph.D., P.E., BCEE, Department of Civil and Environmental Engineering, University of Michigan, Ann Arbor, MI, USA.

Professor Love is a Fellow of the Water Environment Federation and the International Water Association. Her research focuses on environmental biotechnology and water quality with an emphasis on: the interplay between chemicals of concern and microbial community structure and function in engineered treatment systems; nutrient management; and resource recovery from wastewater.

Prof. Love will offer the following lectures during her tour:

Lecture 1: The interplay between chemicals and microbiomes; an environmental biotechnology perspective

Lecture 2: At the confluence: nutrients, trace chemicals, and sustainability in the urban water sector

Application to host the Distinguished Lecturer is now open through May 14, 2015

http://www.aeespfoundation.org/content/2015-2016-application-host-distinguished-lecturer

Contact: Karl Linden (karl.linden@colorado.edu)

AEESP Lecturers Committee: Upcoming Events

The AEESP Lecturers Committee has been hard at work this year and is coordinating the following upcoming lectures – Hope to see you there!

AEESP Lecture at AWWA ACE 2015
Anaheim, California, sponsored by Black & Veatch

Monday, June 8, 2015. 11:30–12:15 PM

A meet-and-greet with the presenter will follow at 12:15 PM

Dr. Jeanne VanBriesen
Duquesne Light Company Professor of Civil and Environmental Engineering
Director, Center for Water Quality in Urban Environmental Systems (Water QUEST)
Carnegie Mellon University
"Effects of fossil fuel extraction and utilization wastewaters on drinking water treatment processes"

Contact: Detlef Knappe (knappe@ncsu.edu)

AEESP-AAEES-A&WMA Meet and Greet Lecture and Breakfast
Air & Waste Management Association Conference

Raleigh Convention Center, Raleigh, NC

Wednesday, June 24, 2015. 7:30 - 8:30 AM

Dr. Viney Aneja
Professor, Department of Marine, Earth and Atmospheric Sciences at North Carolina State University
"Air Quality in North Carolina: A Changing Atmosphere"

Contact: David Ramirez (david.ramirez@tamuk.edu)

WEF/AEESP Scientists Luncheon
WEFTEC, McCormick Place, Chicago, IL

Monday, September 28, 2015. 12:00 – 1:30 PM

Peter Vanrolleghem, Ph.D.
Canada Research Chair on Water Quality Modeling
Professor, University of Laval
"Integrated Modelling of the Urban Wastewater System: Back to the Future"

Contact: Wayne Parker (wjparker@uwaterloo.ca)

19th Annual WEF/AEESP Lecture and Utility Considerations
Monday, September 28, 2015 1:30-3:00

Session 201 | Room S504d

Dr. Mark van Loosdrecht, Professor
Delft University of Technology, The Netherlands
"Aerobic Granular Sludge: Development and Experiences"

Contact: Wayne Parker (wjparker@uwaterloo.ca)

AEESP-AAAR Plenary Lecture at AAAR
Hyatt Regency, Minneapolis, MN

Wednesday, October 14, 2015. 8:00-9:15 AM

Dr. Linsey Marr, Ph.D.
Professor, Civil and Environmental Engineering, Virginia Tech
"Application of Aerosol Science to Engineered Nanomaterials"

Contact: Rob Griffin (rob.griffin@rice.edu)

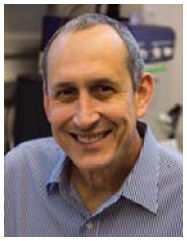
Third Class Of AEESP Fellows Chosen, 2015

Submitted by STEVE CHAPRA (Tufts University), AEESP Fellow Class of 2013, Chair AEESP Fellow Selection Committee

On behalf of the other members of the AEESP Fellow Selection Committee (Paul Bishop, Bill Cooper, Dave Dzombak, Meny Elimelech, Chuck Haas, Bruce Logan, Gene Parkin, and Sue Powers), I am pleased to announce that we have selected the third class of AEESP Fellows. The Fellows membership classification is intended to recognize members who have served AEESP and our profession with distinction for a period of at least 15 years. As exemplified by the current AEESP Fellows, the individuals who receive this honor may include members who have exhibited exceptional long-term excellence in environmental research, teaching, and/or service to the environmental engineering and science community. The five individuals honored as members of the 2015 class of AEESP Fellows are:

Dr. Pedro J. Alvarez, Rice University
Dr. Cliff I. Davidson, Syracuse University
Dr. Nancy G. Love, University of Michigan
Dr. Debra R. Reinhart, University of Central Florida
Dr. Mark R. Wiesner, Duke University

The below citations were adapted from the letters of nomination submitted for each Fellow.



Pedro J. Alvarez. Pedro has made numerous important and sustained contributions to the environmental engineering and science community and to AEESP. A world-renowned leader in the fields of bioremediation and environmental nanotechnology, Dr. Alvarez' work has shown remarkable versatility in spanning a broad range of scales and scopes - from providing fundamental insight into microbial and nanomaterial behavior and effects, to enhancing process understanding and performance at the reactor and field scales, to discerning the water

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footprint of biofuel policies at regional scales. Dr. Alvarez was the 2012 Clarke Prize recipient and he is a Fellow of AAAS, ASCE, IWA, the Leopold Leadership Foundation, and WEF. As a member of AEESP, Dr. Alvarez served as President from 2005-2006 and as a member of the board of directors from 2003-2007. Pedro was nominated by Peter Vikesland.

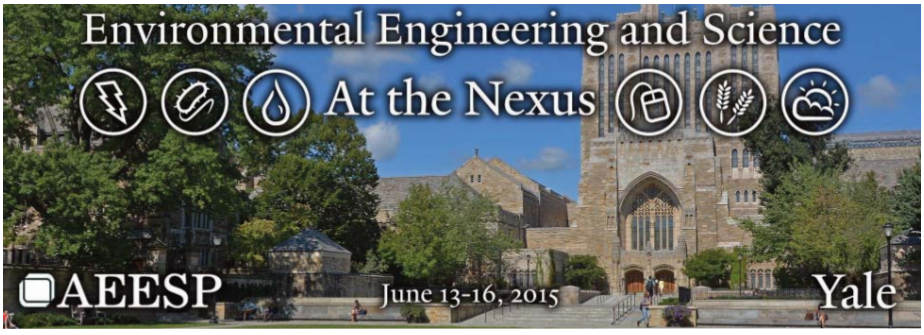
Cliff I. Davidson. Cliff is the Thomas and Colleen Wilmot Professor of Engineering at Syracuse University in Syracuse, NY. He currently holds appointments in the Civil and Environmental Engineering Department and at the Syracuse Center of Excellence in Environmental and Energy Systems, and he is the Program Director for Environmental Engineering. He received his B.S. in Electrical Engineering from Carnegie Mellon University, and his M.S. and Ph.D. degrees in Environmental Engineering Science from California Institute of Technology. Following his PhD, he joined the Carnegie Mellon faculty in the Department of Civil and Environmental Engineering and the Department of Engineering and Public Policy where he served for 33 years. He joined Syracuse University in 2010. Davidson has written and edited a number of books, has over 100 articles in refereed journals, and was President of the American Association for Aerosol Research during 1999-2000. He is the Founding Director of the Center for Sustainable Engineering, a partnership among several universities led by Syracuse University. He has conducted environmental research in the Arctic, the Himalayas, and other remote sites. Since the 1990s, he has studied the role of engineers in sustainable development as well as lay people's perceptions of technology and their understanding of the environmental impact of their daily activities. Cliff was nominated by Dave Dzombak.

Nancy G. Love. Nancy is a professor of Civil and Environmental Engineering at the University Michigan. She has B.S. and M.S. degrees in Civil Engineering from the University of Illinois, a Ph.D. in Environmental Systems Engineering from Clemson University, and is a licensed professional engineer (P.E.). She served as chair of the department at UM from January 2008 – August 2011, and Associate Dean for Academic Programs and Initiatives in the Rackham School of Graduate Studies from 2011 through December 2012. Prior to 2008, Dr. Love was a faculty member in the Departments of Civil and Environmental Engineering and Biological Sciences at Virginia Tech. Her research focuses on environmental biotechnology and water quality with an emphasis on the fate of chemicals of concern and nutrients in engineered treatment systems, as well as resource recovery from wastes. Over the years she has served as major advisor for 55 graduate students with thesis, including 16 Ph.D. students, and 7 post-doctoral research associates. She routinely advises 2 to 4 undergraduate research assistants in her lab per year. With her students and collaborators, she has published extensively including 80 peer-reviewed journal articles and over 250 conference papers, abstracts, presentations, invited lectures and editorials. In 2011 she co-authored the third edition of the textbook Biological Wastewater Treatment with Grady, Daigger and Filipe. She has been very active in professional society activities and leadership, and her research and contributions have been widely recognized with a number of awards. For AEESP, she served on the Board of Directors from 2007 to 2011 and was president from 2010-2011. In 2015 she will serve as the AEESP Distinguished Lecturer. Nancy was nominated by Chuck Haas.

Debra R. Reinhart. Debra is a Pegasus Professor in Environmental Engineering and Assistant Vice President for Research at the University of Central Florida where she has worked since completing her PhD at Georgia Tech in 1989. Dr. Reinhart has published 63 journal articles, 4 books, and has 150 conference presentations. She is part of 5 patents and has been a PI or Co-PI on 78 research grants totaling nearly 8 million dollars of funding, including grants from the USEPA, NSF, and NASA. She received the AAEES Kappe Award in 2014, and is a Fellow of both the ASCE and the AAAS. She has supervised 14 PhD students and 50 MS students, and had 10 years of non-academic Environmental Engineering experience prior to obtaining her PhD. She is a registered Professional Engineer in both Florida and Georgia. Debra was nominated by Andrew Randall.

Mark R. Wiesner. Mark holds the James L. Meriam Chair in Civil and Environmental Engineering at Duke University. Mark was the President of AEESP from 2012 – 2013 and received the Frontiers in Research Award in 2004. He was named a "de Fermat Laureate" in 2004 and was awarded an International Chair of Excellence at the Chemical Engineering Lab of the French Polytechnic Institute and National Institute for Applied Sciences in Toulouse, France. Wiesner was the 2011 recipient of the Clarke Water Prize and was elected to the National Academy of Engineers in 2015. Before joining the Duke University faculty in 2006, Professor Wiesner served on the Rice University faculty in the Departments of Civil and Environmental Engineering and Chemical Engineering and served as Associate Dean of Engineering, and Director of the Environmental and Energy Systems Institute. Prior to working in academia, Dr. Wiesner was a Research Engineer with the French company Lyonnaise des Eaux, and a Principal Engineer with the Environmental Engineering Consulting firm of Malcolm Pirnie, Inc. Mark was nominated by Bill Cooper.

The above distinguished members of the 2015 class of AEESP Fellows, and the distinguished members of the 2014 class of AEESP Fellows (Paul Bishop, Bill Cooper, Meny Elimelech and Gene Parkin; see September 2014 AEESP Newsletter), will be publicly recognized and presented their Fellow Medals on Sunday June 14, 2015 at the AEESP Research and Education Conference at Yale University in New Haven, CT.



New Faculty Appointments

Aarne Vesilind has been appointed Adjunct Professor of Music at Colby-Sawyer College in New London, NH. He is the music director of the Kearsarge Community Band at Colby-Sawyer College.

Johns Hopkins University Hires Microbial Ecologist Sarah Preheim

Dr. Sarah Preheim joined the Department of Geography and Environmental Engineering at Johns Hopkins University as an Assistant Professor in January 2015. Her interests in aquatic microbial ecology complement the existing strengths in water science and engineering at Hopkins. She received a BS in Biological Sciences from Carnegie Mellon University and a PhD in Biological Oceanography from the Woods Hole Oceanographic Institution and Massachusetts Institute of Technology under the direction of Martin Polz. During her post-doctoral research with Eric Alm at MIT, she developed bioinformatics tools to improve microbial community analysis and used a biogeochemical model to study microbial community function and dynamics in an urban, eutrophic lake. At Hopkins, Sarah will continue to measure and model microbial community function and dynamics to predict and engineer processes driven by driven by microbial communities.

Glen Daigger joins the faculty at University of Michigan

Dr. Glen Daigger will be joining the faculty at the University of Michigan Department of Civil and Environmental Engineering as a Professor of Engineering Practice starting in July 2015. A recognized expert in wastewater treatment, especially the use of biological processes, Daigger joins U-M after being employed for more than 3 decades by CH2M Hill, serving most recently as a Senior Vice President and Chief Technology Officer. He is a member of the National Academy of Engineering and the immediate past president of the International Water Association.

As a faculty member at U-M, Daigger will contribute to the teaching of practice-oriented courses and provide leadership in the pursuit of Center-scale national and international research and education initiatives, while also maintaining strong ties with professional practice.

Meagan Mauter joins faculty at Carnegie Mellon University

Professor Meagan Mauter has joined the faculty at Carnegie Mellon University. She is jointly appointed in Civil & Environmental Engineering and Engineering & Public Policy. She also holds courtesy appointments in Chemical Engineering and Materials Science & Engineering. Professor Mauter holds bachelors degrees in Civil & Environmental Engineering and

History from Rice University, a Masters of Environmental Engineering from Rice University, and a PhD in Chemical and Environmental Engineering from Yale University. She completed post-doctoral training in the Belfer Center for Science and International Affairs and the Mossavar Rahmani Center for Business and Government at the Harvard Kennedy School of Government, where she was an Energy Technology Innovation Policy Fellow.

At Carnegie Mellon, Professor Mauter runs the Water and Energy Efficiency for the Environment (WE3) Lab. Her present research seeks novel approaches to sustainably meet water supply in an energy constrained world by re-thinking the policies surrounding water treatment, re-defining the inputs to the treatment process, and re-envisioning the membranes in membrane-based water treatment processes.

Texas A&M University Welcomes Dr. Xingmao Ma to the Faculty

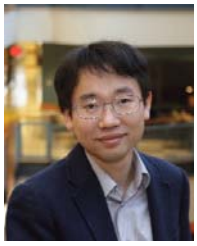
The Zachry Department of Civil Engineering at Texas A&M University (TAMU) welcomed **Dr. Xingmao (Samuel) Ma** who joined the faculty as an associate professor in January 2015. Prior to joining TAMU, Dr. Ma was an associate professor in the Department of Civil and Environmental Engineering at Southern Illinois University Carbondale. Dr. Ma earned his B.S. and M.S. in Environmental Engineering from Taiyuan University of Technology and Tongji University, respectively. He received his Ph.D. from Missouri University of Science & Technology, focusing on elucidating the fate and transport of volatile organic compounds in phytoremediation systems. His current research interests center on the fate and transport of engineered nanomaterials and their interactions with co-existing environmental chemicals in the food water and energy systems. His other research interests include environmental health and safety of engineered nanomaterials, phytoremediation and ecosystem restoration and water reuse. He is a leading figure in identify the phytotoxicity, fate, and accumulation of engineered nanoparticles by agricultural plants. His research has been funded by several state and federal agencies and he is a recipient of the "Green Talents Award" from German Federal Ministry of Research and Education in 2009.

Gregory LeFevre joins Civil and Environmental Engineering at The University of Iowa

Dr. Gregory LeFevre has accepted a faculty position in the Department of Civil and Environmental Engineering at The University of Iowa as an assistant professor starting in January. Dr. LeFevre is currently a Postdoctoral Scholar in Environmental Engineering and Sciences at Stanford University working at the ReNUWIt Engineering Research Center with Richard Luthy as his advisor. He holds a PhD and MS from the University of Minnesota where he

worked with Paige Novak and Raymond Hozalski. His BS is in Environmental Engineering from Michigan Tech. Dr. LeFevre's research focuses on the fundamental mechanisms related to the fate, transport, and transformation of emerging contaminants in aquatic environments, particularly microbial and vegetative processes. His work informs the optimization of sustainable natural systems-based treatment technologies to improve water quality for ecosystem and human health. Among other honors, Dr. LeFevre is the recipient of the 2013 AEESP Paul V. Roberts Outstanding Doctoral Dissertation Award and an NSF Graduate Research Fellowship.

Shihong Lin joins the faculty of Vanderbilt University



Dr. Shihong Lin joined the faculty of Vanderbilt University as an assistant professor in the Department of Civil and Environmental Engineering in January 2015. He is also appointed as a courtesy assistant professor in the Department of Chemical and Biomolecular Engineering. Dr. Lin received his Ph.D. (2012) in environmental engineering from Duke University where, under the direction of Prof. Mark Wiesner, he worked on elucidating the fundamental aspects of colloidal interaction between nanoparticles and environmental surfaces. Before joining Vanderbilt, Dr. Lin worked as a postdoctoral fellow in Prof. Menachem Elimelech's research group at Yale University, with his research effort focused on membrane system at the water-energy nexus. Dr. Lin obtained his B.S. (2006), also in environmental engineering, from Harbin Institute of Technology, China. Being broadly interested in environmental physiochemical processes, his current research areas include membrane processes at water-energy nexus, environmental applications and implications of nanotechnology, and environmental surface phenomena.

Colorado School of Mines Welcomes Two New Environmental Engineering Faculty

The Department of Civil and Environmental Engineering at Colorado School of Mines is pleased to announce two new faculty hires in environmental engineering and science.

Dr. Timothy Strathmann joined Colorado School of Mines as a Professor of Civil and Environmental Engineering in January 2015. Prior to joining Mines, Dr. Strathmann was on the faculty at the University of Illinois at Urbana-Champaign. He also currently holds at Collaborative Research Appointment at the nearby National Renewable Energy Laboratory (NREL) in Golden CO. Timm received B.S. and M.S. degrees in Civil Engineering from Purdue University, and a Ph.D. in Environmental Engineering from the Johns Hopkins University.

Dr. Strathmann's research group focuses on the development of sustainable catalytic technologies for water treatment and waste valorization, and the study of redox transformation mechanisms for contaminants of emerging concern (CEC). Current projects include efforts to integrate aqueous catalytic technologies with upstream biological conversion processes to produce renewable chemicals and fuels from low-value waste organic carbon sources. Among other honors, Dr. Strathmann is the recipient of a National Science Foundation CAREER Award and an Honorary Professorship from Tongji University in Shanghai, China. In January 2015, he was named associate editor of Environmental Science and Technology. Timm's teaching interests are in water quality engineering and environmental engineering chemistry.

Dr. Christopher Bellona will join the faculty as an Assistant Professor in Fall 2015. Dr. Bellona has been serving as an Assistant Professor in the Department of Civil and Environmental Engineering at Clarkson University for the past four years. Chris will be returning to his alma mater having received his M.S. and Ph.D. in Environmental Science and Engineering from the Colorado School of Mines in 2003 and 2007, respectively. He earned his BS degree from Western Washington University.

Dr. Bellona's research interests are focused on the application of treatment technologies for the practice of water and wastewater treatment, and potable water reuse. His research has largely focused on various aspects of membrane-based technologies including modeling contaminant removal, understanding membrane fouling and conducting pilot-scale feasibility studies. Recent and current research projects include mitigating disinfection byproduct formation using various pretreatment methods, non-thermal plasma for the degradation of organic contaminants, and the extraction of valuable commodities from waste streams. Chris teaches courses in water treatment engineering, treatment plant design, hazardous site remediation, and chemical fate and transport.

SenGupta Recognized by the National Academy of Inventors (NAI) and the US Chamber of Commerce

Arup K. SenGupta, the P.C. Rossin Professor of Environmental Engineering at Lehigh University, was officially recognized as the 2014 Fellow of the National Academy of Inventors (NAI) on 20th March 2015. The event was organized in concert with the United States Patent and Trademark Office (USPTO). Election to NAI Fellow status is a distinction *"accorded to academic inventors who have demonstrated a prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development, and the welfare of society."*

SenGupta was recognized for the invention and commercialization of the hybrid anion exchanger or HAIX-NanoFe for arsenic mitigation. Currently Layne Christensen Inc. and Purolite Co., produce HAIX-NanoFe sorbents and over two million pounds are currently in use in six countries including the US providing arsenic-safe water to more than one million people. The same material is also being used to treat radioactive cooling water in the condemned nuclear power plant in Fukushima, Japan destroyed by 2011 tsunami.

On April 20, 2015, SenGupta received the 2015 IP Champion Award at the US Chamber of Commerce in an event commemorating *World IP Day* celebrating economic growth through innovation. SenGupta is the recipient of eight US Patents and co-founded two not-for-profit organizations.

SenGupta has been a member of AEESP since 1985 and he served as the chair of the department of civil and environmental engineering at Lehigh from 1998 to 2005. SenGupta has received several national and international accolades including 2012 Intel Environmental Tech Award and 2007 Grainger Challenge Award from the National Academy of Engineering.

Raghava Rao Kommalapati Elected ASCE Fellow

Raghava Rao Kommalapati, Ph.D., P.E., BCEE, F.ASCE, is director of the National Science Foundation CREST Center for Energy and Environmental Sustainability, and professor of civil and environmental engineering at the Roy G. Perry College of Engineering, at Prairie View A&M University.

Kommalapati joined Prairie View A&M University in 1998 as assistant professor and has been working there since in various roles. He served as interim department head for the Civil and Environmental Engineering Department from January 2010 until August 2013.

His areas of expertise include air quality modeling, fog-air interactions, remediation of contaminated soils, and design and optimization of wind turbine design. Kommalapati, who has received grant funding in excess of $10 million, has published more than 125 peer-reviewed journal articles, conference proceedings, and presentations.

Kommalapati received his bachelor's degree in civil engineering from Nagarjuna University and his master's degree in engineering structures from Regional Engineering College (now known as the National Institute of Technology). A registered professional engineer in Texas, he obtained his master's and Ph.D. in civil and environmental engineering from Louisiana State University.

Steve E. Hrudey is President-Elect of APEGA

Professor Emeritus Steve E. Hrudey, AEESP Life Member, was elected as President-Elect of the Association of Professional Engineers and Geoscientists of Alberta (APEGA) in April after 3 previous years serving on the governing Council of APEGA. He will serve in that capacity this year and become President in April 2016. APEGA, with 75,000 members, is the self-regulating agency for the professions of engineering and geosciences in Alberta.

News from American Academy of Environmental Engineers and Scientists (http://www.aaees.org/)

Submitted by JAMES R. MIHELCIC (AEESP Board Trustee)

Many AEESP members serve on AAEES committees. Some of your academic colleagues who were at the spring AAEES Board of Trustees meeting were Jeanette Brown, James Mihelcic, Daniel Oerther, James Patterson, and David Vaccari. Dion Dionysiou is the AEESP Board member who liaisons with the Academy. Contact any of us if you want to become more engaged with the Academy and learn how to achieve recognition as a Board Certified engineer or scientist.

Kappe Lecture. The 2015 Kappe Lecture will be given by Professor Jay Banner. Dr. Banner is a Professor and Director of the Environmental Science Institute at the University of Texas-Austin. His two talks are: 1) Fast, Present, and Future Climate Change Impacts on Water in a Semi-Arid Region: Science and Policy, 2) Cave Mineral Deposits as Proxies for Past Climate Change (more information at: http://www.aaees.org/kappelecturer.php)

Other AAEES Awards. Besides several awards made to students and faculty, university faculty should consider applying next year for the Academy's **University Research Awards** (see other article for this year's winner). These projects can be a basic or applied nature under the direction of a full-time faculty member. In addition, third parties can nominate another for this award. Faculty may also have a project that would be applicable for the **Industrial Waste Practice Award** that includes the **W. Wesley Eckenfelder Industrial Waste Management Medal.** This award and medal recognizes outstanding projects that incorporate innovative management and technological approaches to industrial water and waste management issues at pilot or full scale in: 1) treatment of water for industrial uses; 2) reclamation of industrial liquid, solid, toxic and hazardous wastes; 3) integrated waste management and industrial process modifications to achieve waste minimization and pollution prevention, 4) management of air emissions; 5) remediation of groundwater and riverine, lake, estuarine, and marine water; 6) brownfields restoration; and 7) management of radioactive waste materials. Look for information on the Academy website (http://www.aaees.org/aaeesawards.php).

NSPE Engineering Body of Knowledge. This new document defines knowledge, skills and attitudes required to practice engineering as a professional engineer. http://www.nspe.org/sites/default/files/resources/nspe-body-of-knowledge.pdf

WEF Webcasts are now Free. WEF webcasts are now offered at no charge and are archived; example topics include water-energy, waste to energy, disinfection, laboratory practices, stormwater, water reuse, watershed management, and nutrient management. See http://www.wef.org/webcasts/.

Environmental Engineering Magazine. The magazine of the Academy is available online,

http://www.aaees.org/publications-environmentalengineerandscientist-online.php

There was a recent article (Winter 2015) about our colleague, Professor George Tchobanoglous, that AEESP members will enjoy and can be found here: http://www.nxtbook.com/ygsreprints/AAEE/g48567_aaee_winter2015/

A recent historic article that will interest AEESP members was also titled "Environmental Research in Cincinnati; A Century of Federal Partnership."

Job postings. The Academy continues to post job opportunities for academic and practitioner orientated positions at: http://careers.aaees.org/jobseekers/

Recognition of Excellence for Environmental Engineers and Scientists. The BCEE, BCEEM, and BCES titles are internationally recognized as premium credentials of excellence that are awarded to professionals who have demonstrated expertise in one or more areas of specialization. All three designations of excellence can be made by eminence to those with over 20 years of experience and high level achievements.

Licensed Environmental Engineers with at least eight years of full-time engineering experience can obtain certification (BCEE) in one or more of the following areas: 1) Air Pollution Control, 2) Environmental Sustainability, 3) General Environmental Engineering, 4) Hazardous Waste Management, 5) Industrial Hygiene Engineering, 6) Radiation Protection Engineering, 7) Solid Waste Management, and 8) Water Supply/Wastewater Engineering. Environmental engineers without a P.E. License (BCEEM) may be certified through Eminence. The Academy is now exploring creation of certification in the specialty of Hazardous Waste and Site Remediation.

The Board Certified Environmental Scientist (BCES) recognizes work done by environmental scientists and offers assurance to the public of the superior qualifications of scientists who become Board Certified by the Academy. The BCES Certification has the same levels of education, years of experience, and written/oral exam requirements as the existing environmental engineering certification.

Environmental Scientists with at least eight years of full-time experience can obtain certification (BCES) in one or more of the following areas: 1) Air Resources, 2) Environmental Biology, 3) Environmental Chemistry, 4) Environmental Microbiology, 5) Environmental Toxicology, 6) Groundwater and the Subsurface Environment, 7) Solid Waste Management, 8) Surface Water Resources, and 8) Sustainability Science.

Officers & Upcoming Board Meeting. James Stahl is the President, Howard LaFever is President-Elect, Robert Williams is Vice President, and Daniel Oerther is Treasurer. Burk Kalweit is the Executive Director. The 2015 Spring Board of Trustees meeting was held April 24 in Washington, D.C. The Fall 2015 Board of Trustees meeting will be held in Los Angeles on October 23.

2015 American Academy of Environmental Engineers and Scientists (AAEES) Awards

Submitted by JAMES R. MIHELCIC

The Academy's Awards Luncheon and Conference was held at the National Press Club in Washington, DC, on April 23, 2015. The event includes presentation of the Excellence in Environmental Engineering and Science (E3S) and Environmental Communications awards, an all-day technical conference, and several student and faculty awards, some which are judged by a team of AAEES and AEESP members. The following describes student and faculty award winners.

Bryan Cody, with his advisor Professor Tzahi Cath, received the W. Wesley Eckenfelder Graduate Research Award.

Mr. Bryan Cody received the **W. Wesley Eckenfelder Graduate Research Award.** The award is cosponsored by HDR and recognizes a student whose research contributes to the knowledge pool of wastewater management. Bryan is a PhD student in Civil & Environmental Engineering at the Colorado School of Mines and is advised by Professor Tzahi Cath. Bryan's research interests are in advanced treatment technologies applied to water and wastewater management. He submitted a paper in his nomination package titled "Forward Osmosis Desalination of Oil and Gas Wastewater: Impacts of Membrane Selection and Operating Conditions on Process Performance" that is currently in review with the Journal of Membrane Science.

Amy Dale received the Innovyze Excellence in Computational Hydraulics/Hydrology Award.

Ms. Amy Dale received the inaugural **Innovyze Excellence in Computational Hydraulics/Hydrology Award**. The award is cosponsored by Innovyze to recognize a student whose research contributes to the knowledge pool of in the area of computational hydraulics and hydrology. Ms. Dale is a PhD student pursuing a joint degree in Engineering and Public Policy and Civil and Environmental Engineering at Carnegie Mellon University. She is co-advised by Professors Elizabeth Casman and Gregory Lowry. Her thesis research focuses on understanding the connections between watershed hydrology, water quality, and the environmental fate of engineered nanoparticles comprised of metals and metal oxides. She submitted a paper in her nomination package titled "Stream dynamics and chemical transformations control the environmental fate of silver and zinc oxide engineered nanoparticles" that is currently in review with the Proceedings of the National Academy of Sciences of the United States of America (PNAS).

John Trimmer thanking the Academy for the William Brewster Snow Award he just received from Board Trustee James Patterson.

Mr. John Trimmer received the **William Brewster Snow Award.** The award is made to an outstanding Master's degree environmental engineering student to recognize talented and dedicated environmental engineers as practice and technical leaders of the future. John just completed his MS degree in Environmental Engineering from the University of South Florida. His graduate advisor was Professor Sarina Ergas. John combined his graduate education with service in the Peace Corps as a water/sanitation engineer through the Peace Corps Master's International program, serving three years in Uganda where he helped construct fifty water storage tanks, improved the learning environment of six schools, and introduced sanitation systems to two schools. His thesis research took place in Uganda and employed field studies and laboratory measurements to investigate the potential improvement of pathogen inactivation in urine diverting dry toilets by mixing separated urine with fecal products.

Professor Loring Nies receives the Excellence in Environmental Engineering Education (E4) Award from Board Trustee James R. Mihelcic

Professor Loring (Larry) Nies received the E**xcellence in Environmental Engineering Education (E4) Award.** This award is given to an individual who has made a significant contribution to the profession in the area of educating practitioners. Dr. Nies is a Professor of Environmental & Ecological Engineering and the School of Civil Engineering at Purdue University. For more than two decades as a faculty member, he has demonstrated an outstanding ability to engage and inspire thousands of future engineering practitioners in environmental engineering courses. He has exhibited exceptional skill at motivating students, and has demonstrated an unwavering dedication to mentoring, counseling, advising, and leading students – all directed at promoting their professional growth and academic success. Dr. Nies twice received the Ross Judson Buck Outstanding Counselor Award in Civil Engineering, was named an Engineering Education Scholar for his efforts related to First Year Engineering, and is a recipient of the Society of Environmental and Ecological Engineering Instructional Excellence Award. He has also been honored with the Marion B. Scott Outstanding Professor Award for his devotion to encouraging, inspiring, and advising engineering students in order that they grow both academically and professionally to become ready for practice.

Professor Richard Luthy received the Gordon Maskew Fair Award.

Professor Richard G. Luthy received the **Gordon Maskew Fair Award.** Through the Fair Award, the Academy seeks to identify Board Certified Environmental Engineers, Board Certified Environmental Engineering Members, and Board Certified Environmental Scientists who have contributed to the status of the environmental engineering or science professions by exemplary professional conduct, recognized achievements in the practice of environmental engineering or science, and significant contributions to the control of the quality of the world's environment. Dr. Luthy is the Silas H. Palmer Professor of Civil and Environmental Engineering and Senior Fellow in the Woods Institute for the Environment at Stanford University. He is the Director of the NSF Engineering Research Center for Re-inventing the Nation's Urban Water Infrastructure (ReNUWIt), a university consortium that seeks more sustainable solutions to urban water challenges in the arid west.

Professor Shannon Bartelt-Hunt received the Grand Prize for University Research.

Professors Xu Li and **Shannon Bartelt-Hunt** received the **Grand Prize for University Research** for their project "Influence of Selected Land Application Strategies on the Fate and Transport of Antimicrobials and Antimicrobial Resistance Genes in the Agricultural Environment." Dr. Xu Li is an Assistant Professor and Dr. Shannon Bartelt-Hunt is an Associate Professor in the Department of Civil Engineering at the University of Nebraska-Lincoln. Both investigate the fate and transport of antimicrobial resistance genes and antimicrobial compounds in and municipal systems. Stacey Joy and Bhavneet Soni were the graduate students working on the project.

Hilda Fadaei Khoei, Professor Upal Ghosh, AAEES President James Stahl, and Eli Patmont with the Honor Award for University Research.

Professor Upal Ghosh received the **Honor Award for University Research** for the project "Development of In-Situ Remediation of Contaminated Sediments with Activated Carbon and Transition to Practice." Dr. Ghosh is affiliated with the Department of Chemical, Biochemical, and Environmental Engineering at the University of Maryland Baltimore County. His group applies multidisciplinary tools to investigate exposure and bioavailability of organic and metal pollutants to organisms and use this new understanding to develop novel remediation technologies and site-specific remediation goals. Hilda Fadaei Khoei and Eli Patmont were the two graduate students working on the project.

Drs. R.D. Tyagi with the Superior Achievement Award.

Drs. R.D. Tyagi and Rao Y. Surampalli from the Institut National de la Recherche Scientifique, University of Québec, received a **Superior Achievement Award** for their project "Bioconversion of Wastes (Wastewater Sludge, Glycerol) to Biodiesel.

Finally, **Professor Tsair-Fuh Lin** was made an **International Honorary Member** by the Academy's Board of Trustees . This distinction is provided to an individual who has attained a position of eminence in the field of environmental and/or human health protection internationally or in his or her country. Dr. Lin is a distinguished professor in the Department of Environmental Engineering at National Cheng Kung University and the Director of the Global Water Quality Research Center. He is a leader in several Taiwanese and international professional societies in environmental engineering, including International Water Association, Taiwan Water Works Association, Chinese Institute of Environmental Engineering in Taiwan, and the Taiwan Association of Soil and Groundwater Environmental Protection. He also serves as an editor Water Science and Technology and Sustainable Environment Research.

Water and Health Conference: Where Science Meets Policy

October 26-30, 2015

The University of North Carolina at Chapel Hill

The 2015 Water and Health Conference: Where Science Meets Policy, organized by The Water Institute at UNC-Chapel Hill, considers drinking water supply, sanitation, hygiene and water resources in both the developing and developed worlds with a strong public health emphasis. The Conference brings together research with policy, practice and networking events. This year's Conference themes are: WaSH for the future: SDGs, innovation, resources, integration, and urbanization; Hygiene and behavior; WaSH in emergencies and outbreaks; Learning from practice: MEL, action research, case studies; Water supply and quality; and Sanitation: protecting households, communities and environment. For more information about the conference, visit: waterinstitute.unc.edu/waterandhealth.

Annual Anaerobic Treatment Short Course at Marquette University

The annual short course on "Anaerobic Treatment of High-Strength Industrial Waste" will be held September 15-16,2015 at Marquette University in Milwaukee, Wisconsin USA.

Information will be presented regarding anaerobic microbiology and chemistry, anaerobic digestion operation and design, sustainability, biogas utilization, construction/start-up guidelines and case studies of operating anaerobic treatment systems.

Speakerswill include Willy Verstraete (Gent University, Faculty of Bioscience Engineering, Emeritus), Daniel Zitomer (Marquette University) and Dennis Totzke (Applied Technologies, Inc.).

For more information and registration, see http://www.marquette.edu/ANT after May 1st., or email Daniel Zitomer (daniel.zitomer@mu.edu). A limited number of fellowships are available to cover registration costs for graduate students studying anaerobic biotechnology. Students interested in applying should contact Dr. Zitomer.

New Books for 2015

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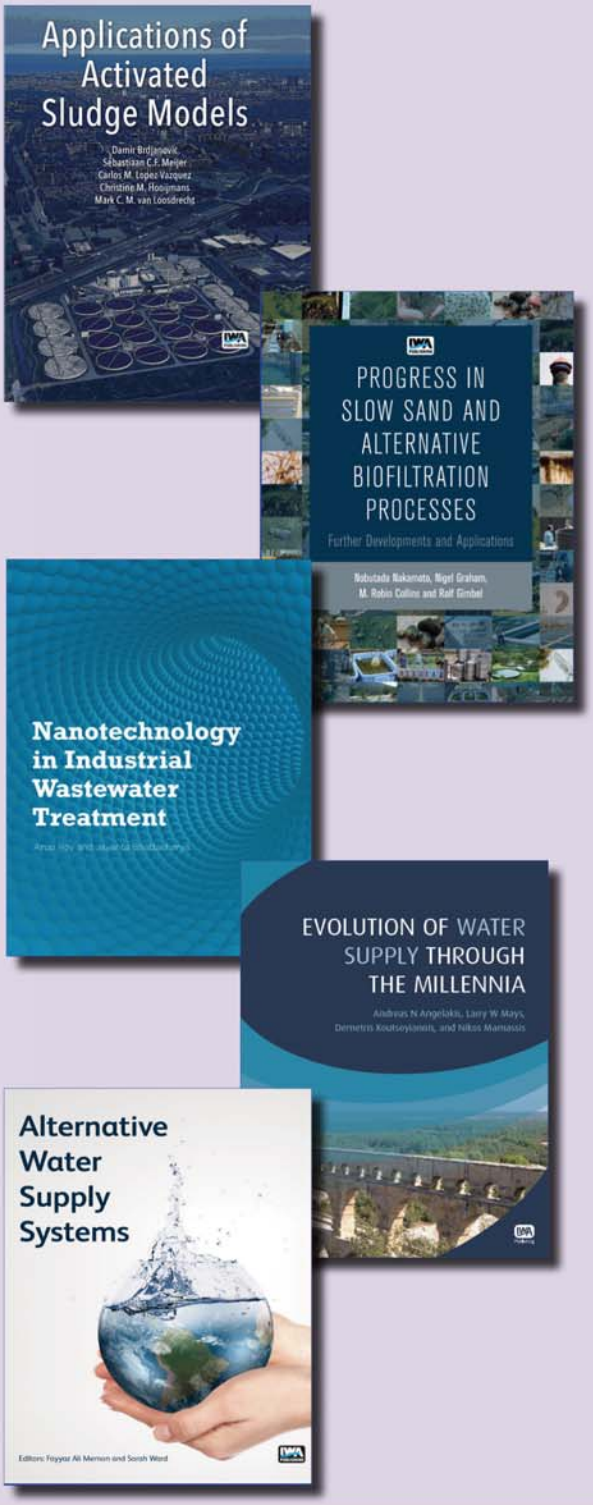
Applications of Activated Sludge Models
Damir Brdjanovic, Sebastiaan C. F. Meijer, Carlos M. Lopez-Vazquez, Christine M. Hooijmans, Mark C. M. van Loosdrecht
February 2015 • ISBN: 9781780404639
Pages: 500 • Hardback • US$ 232.20
IWA members price: US$ 174.15

Progress in Slow Sand and Alternative Biofiltration Processes
Nobutada Nakamoto, Nigel Graham, Rolf Gimbel
May 2014 • ISBN: 9781780406374
Pages: 584 • Paperback • US$ 232.20
IWA members price: US$ 174.15

Nanotechnology in Industrial Wastewater Treatment
Arup Roy, Jayanta Bhattacharya
January 2015 • ISBN: 9781780406879
Pages: 220 • Paperback • US$ 171.00
IWA members price: US$ 128.25

Evolution of Water Supply Through the Millennia
Andreas N Angelakis, Larry W Mays, Demetris Koutsoyiannis, Nikos Mamassis
April 2012 • ISBN: 9781843395409
Pages: 584 • Paperback • US$ 207.00
IWA members price: US$ 155.25

Alternative Water Supply Systems
Fayyaz Ali Memon, Sarah Ward
January 2015 • ISBN: 9781780405506
Pages: 496 • Hardback • US$ 261.00
IWA members price: US$ 195.75



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AEESP Membership

Membership in AEESP offers important benefits to educators, researchers, students, professionals, corporations and organizations engaged in the environmental engineering and science profession. All who are eligible for membership are welcome to join the Association and to participate in the full range of benefits and opportunities. Membership categories and fees are described below, with complete definitions provided in the AEESP Bylaws. Applying online is easy! We welcome your participation!

Regular and Student Membership

Regular Membership in AEESP is open to persons of full-time faculty or instructional rank (instructors, lecturers, assistant, associate, full professors) in environmental engineering or environmental science at academic institutions that offer baccalaureate, diploma, or graduate degrees in environmental engineering, environmental science or related fields.

Rank	Annual Fee
Full Professors	$100
Associate Professors	$75
Assistant Professors	$50
Affiliate Members	$60
Students and Post-docs	$15

Application for regular membership is made by sending a completed application form and a brief, 2 page curriculum vitae to the Secretary after online payment. Alternatively, application materials may be mailed to the secretary with a check enclosed.

Affiliate Membership

Affiliate Membership is open to individuals who are not eligible for regular membership including:

- Individuals primarily employed outside academia who also hold academic appointments in an environmental engineering or related academic program (e.g. adjunct faculty).
- Individuals primarily employed outside academia who have made contributions to education in environmental engineering or related fields.
- Educators in environmental engineering or related fields who are employed at junior colleges or other educational institutions that do not offer the degrees specified above.
- Individuals who were members at one time and who have retired from active teaching.

Application for affiliate membership is the same as for regular membership. The annual dues for affiliate members are $60.

Sustaining Membership

Sustaining Membership is open to individuals and organizations whose concern for education in environmental engineering and related fields stimulates them to assist in strengthening university programs devoted to this area. Sustaining members are often those who employ or interact closely with graduates of environmental engineering and science programs such as consultants, utilities, research foundations, professional organizations, publishers and equipment manufacturers. The financial support provided by Sustaining Members allows AEESP to carry out a variety of special programs that benefit all members of the profession. Sustaining Members have access to all AEESP publications and are invited to all AEESP events. Organizations or individuals desiring more information on Sustaining Membership should write to the Secretary, the President, or the Business Office.

Annual dues for sustaining members are $500. Organizations or individuals desiring more information on sustaining membership should contact the Business Office at the phone number below.

Ready to join? You can apply for membership online!

https://aeesp.org/user/register

More information can also be obtained from the AEESP Business Office:

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