

ENVIRONMENTAL ENGINEER & SCIENTIST



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2016 *Excellence in Environmental Engineering & Science*

The Excellence in Environmental Engineering & Science (E3S) Awards competition is the **Gold Standard** for identifying state-of-the-art projects in environmental engineering and science. Awards and presentations are held in late spring at the National Press Club, Washington, DC. Winning entries automatically qualify for the International Water Association's Project Innovation Awards.

Entries are accepted in the following categories:

- ❖ Design
- ❖ Industrial Waste Practice*
- ❖ Planning
- ❖ Small Firms
- ❖ University Research
- ❖ Environmental Sustainability
- ❖ Operations/Management
- ❖ Research
- ❖ Small Projects

**The top prize for Industrial Waste Practice will also be presented with the W. Wesley Eckenfelder Industrial Waste Management Medal*

To see profiles of the 2015 winning projects, go to **<http://www.aees.org>** and click on **Excellence in Environmental Engineering and Science**.

Entries are due by February 1, 2016.

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The American Academy of Environmental Engineers and Scientists*

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Sustainability: Go Far Together

The subject of environmental sustainability is receiving priority attention in engineering and scientific project implementation, in academic and research studies, and in public policy development. It's good to see our AAEES colleagues are helping foster this discussion. Evidence of the Academy's contribution through its members is readily apparent by taking a look at our participation in a series of recent and upcoming conferences and industry events.



Dr. Michael Kavanaugh, P.E., BCEE, and current member of the AAEES Board of Trustees, delivered an address at Stanford University as part of Stanford's Civil & Environmental Engineering Department's Perry McCarty Distinguished Lecture Series (<https://www.youtube.com/watch?v=HzYIF3WPgnk>). Mike's presentation was entitled, "Reflections on Sustainable Futures: The Tradeoff Challenge."

On another front, Dr. Issam Najm, P.E., BCEE, who represents the American Water Works Association (AWWA) on the AAEES Board of Trustees, presided over an AAEES luncheon at the recent AWWA conference in Anaheim, CA, and secured the guest speaker, Marty Adams, Senior Assistant General Manager - Water System, for the City of Los Angeles Department of Water and Power. Mr. Adams set forth the many programs and projects LADWP instituted, or is planning, that are targeted to providing a sustainable water supply for the city. Approximately 90 people were in attendance – the largest crowd ever for the AWWA-AAEES event.

Ms. Jeanette Brown, P.E., BCEE, and the Water Environment Federation (WEF) representative on the AAEES Board of Trustees

received a commitment from Catherine O'Connor, Director of Engineering of the Chicago Metropolitan Water Reclamation District to address attendees at the AAEES/AIDIS/WEF breakfast at the annual WEFTEC Conference in Chicago on Monday September 28, 2015. Ms. O'Connor's presentation was entitled: "Recovering Resources, Transforming Water – Phosphorus Recovery and Other Sustainability Initiatives at Metropolitan Water Reclamation District of Greater Chicago".



Lastly, on October 22, 2015, AAEES, in cooperation with the College of Science and Engineering of Loyola Marymount University (LMU) in Los Angeles, will conduct a conference on "Progress in Attaining a Sustainable Wet Infrastructure for Southern California". The leaders of major public agency water programs will report on their ongoing work and attainment of cost effective and environmentally prudent systems. There are a multitude of important environmental engineering and science projects in Southern California, but the prolonged drought has brought the quest for a firm and diversified water supply to the forefront.

This one-day event will precede the AAEES Fall Board of Trustees meeting. It is intended that such a tandem arrangement of a Fall local conference focusing on local challenges in conjunction with the Board meeting will become an AAEES staple. You will be receiving more registration details for the AAEES/LMU event in the near future. For now please reserve the date of Thursday, October 22, 2015. I encourage AAEES local and State Representatives to contact me, any member of the AAEES Board or Burk Kalweit, Executive Director, with any thoughts you have with regard to the planning of AAEES events that could economically foster the goals of the Academy.

The above recent and near term planned activities are but a few of the efforts of the many individual AAEES members and Committees to further the tenets and objectives of AAEES. Space does not permit, nor are there sufficient accolades for thanking each for their tireless contributions.

In addition to all of our outreach and promotional efforts, there have been some very important forward-looking changes that have

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taken place in how the Academy is addressing the work of technical committees. This is something that members need to be aware of. At its most recent meeting, the Board of Trustees approved several structural recommendations proposed by the Hazardous Waste Management Committee led by Jim Fitzgerald. The committee is to be reorganized and retitled as the Hazardous Waste Management and Site Remediation Committee. The committee makeup will consist of Environmental Engineers and Scientists and will have authority over the processes and content for certification of both the BCEE and BCES specialties.

The new committee can be viewed as a pilot initiative, one that is designed to help us sort through operational requirements that other Committees are going to be facing as the world changes around us. There is a clear need to formulate structures and refine processes to enable accommodating BCEE and BCES candidates in a consistent manner. How the Academy decides to proceed in the future will be dependent, in large measure, on what we learn from this newly-established Committee. Special thanks are in order for Board of Trustees members Jim Patterson and Mike Kavanaugh who were instrumental in assisting Jim Fitzgerald and his committee in working through the issues that were raised and addressed.

Lastly, I wish to thank all who took the time to participate in the just completed Academy elections. Congratulations are in or-

“Our collective attention and collaborative actions are what sustains the Academy. Without our volunteers and dedicated members, there would be no Academy.”

der for the successful candidates; Bob Williams – President Elect; Hunter Nolen – Vice President; Kristin Morico and Jim Patterson – Trustees at Large. Their leadership on the Board, along with actions of every member to promote the merits of the Academy and grow our membership, is invaluable.

Our collective attention and collaborative actions are what sustains the Academy. Without our volunteers and dedicated members, there would be no Academy. Our open forum and actions based on collective agreement are the foundation for the organization and for the membership. Nothing is more important than what we do together to move us forward.

There is an old African proverb that says *if you want to go fast, go alone. If you want to go far, go together.* We all want the Academy to go far. [A](#)



Lies, Damned Lies, and Statistics

Imagine there are more than a few of you who will recognize the title line to this article. It is a phrase that is attributed to Mark Twain when he was asked about the nature of things that are untrue. He offered that there are three categories of dishonesty to be considered; “lies, damned lies, and statistics.” While I take Twain’s assertion with a grain of salt, I can certainly agree that trying to elicit insight and meaning from a pile of numbers is not a task for the faint of heart.

With that as a caveat, I have to confess to being a numbers junkie. Speaking to an engineering audience as I am here, I’m sure you agree there’s nothing quite like plowing through a big pile of data and confirming theses, or in the process, discovering a variety of things that you hadn’t expected. But that is the nature of discovery, and the very process we all employ to make sense of the data points that are relentlessly fired at us. We all have preconceived notions about what things appear to be, or what they ought to be, but we can never really know for sure until we gather the facts and quantify.

That was the challenge I faced recently when I learned of a most interesting source of information in the engineering education game. Quite by accident, I stumbled across a report that was published by the American Society for Engineering Education. Every year, the ASEE puts out what they call Engineering by the Numbers. This is a roughly 40-page report that compiles information on the state of engineering education in the United States and Canada. The report focuses on a variety of indicators such as the number of degrees granted, the number of students enrolled, details on faculty composition, and a host of other interesting statistics.

What immediately caught my attention was that the report contains current and historical data by engineering discipline. Thankfully, for our purposes, the report provides detailed information on environmental engineering. Better yet, using the online version of the publication, I was able to access historical data for 2004 to 2013.



While that’s not a great deal of data, it’s more than enough to get some idea of what’s been going on in the education world relative to environmental engineering and the people who are pursuing a career in that discipline.

There is a wealth of information available, certainly more than enough to offer the opportunity to slice and dice the numbers in ways that may be revealing. The table below is one of the first I compiled.

Isn’t this interesting? What’s really remarkable about this 10-year time trend is the overall change in the number of environmental engineering degrees conferred. What you see here is the total number of environmental engineering degrees earned by students for the year. This includes Bachelor’s, Master’s and PhD degrees. What jumped out at me was just the remarkable growth of the degrees awarded number in the span of just 10 years. Depending on how generous you want to be, you could make the case that the number has more than tripled since 2004. That would seem to indicate that the environmental engineering profession is (or at least has been) in a period of high growth.

There is more detailed information available that breaks down the growth in the three different degree categories, but we don’t have room enough in this item to display it. Quick summary; bachelor’s degrees grew by a factor of more than three, Master’s degrees and PhDs saw their totals increase by a multiple of around 2.2 over the 10-year time span.



Total Environmental Engineer Degrees Conferred

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	TOTAL
Bachelors											
Masters	1,279	1,579	1,566	1,813	1,935	2,092	2,325	2,642	3,263	3,796	22,290
PhD											

“What’s interesting to me in the context of the Academy is that, in terms of interest in formal education, the community of environmental engineers appears to be booming.

What’s really interesting is that a summation across the years indicates that there were over 22,000 people who received a degree in environmental engineering in that time frame, and these are just the engineering numbers. I suppose there are ways to get at comparable information for the environmental science side, but I’m not aware of what those sources might be. I think there is a consensus that there are a lot of environmental scientists out there plying their trade in a variety of settings. How adding them would impact the numerical totals is hard to say, but it’s something that we should probably try to take a look at since the Academy community now includes both engineers and scientists.

Trying to make sense of this requires that we put this quantitative construct into some kind of context. One thing is readily apparent. There were, on average, 2,200 new degreed environmental engineers per year graduating from an institution of higher learning that has an environmental curriculum. From the raw data, we can’t tell whether or not those people are getting jobs or are going on to other sorts of activities. How many people receiving bachelor’s degrees go into a Master’s program? How many people with a newly-minted Master’s are entering the workforce and how many are planning to continue their education and pursue that PhD? We have ways of getting at part of the story, but it doesn’t look like we have enough detail available to be overly confident in whatever conclusions we might draw from the data on hand.

What’s interesting to me in the context of the Academy is that, in terms of interest in formal education, the community of environmental engineers appears to be booming. We have to assume that the reason people are choosing to pursue a career in environmental engineering is because they expect to be able to secure gainful and interesting employment once they have completed their education. What’s also interesting from the Academy standpoint is that there would appear to be a growing pool of people who are eligible for board certification through the Academy. And this is a pool that the numbers indicate is growing quite rapidly.

Once again, we need more data to be able to make this assertion with a high degree of confidence, but a 10-year time series shows the numbers are increasing every year, regardless of what the economy is doing. Even during the “Great Recession” and financial turmoil we experienced in 2008, the number of degrees conferred continued to go up. The chart below depicts this divergence of growth trends. Converted to an index where the value for the year 2000 is 100, it’s



clear to see that there were many more degrees being awarded than there were people committed to joining the ranks of board-certified environmental engineers. One gets the impression that there are some fundamental changes ongoing in the overall environment that are impacting the market for what the Academy offers through its certification programs.

Going back to how I started this article - that business about lies, damn lies and statistics - and my confession to being a geek for numbers -- I did a little more digging to see if we could find some indicators that might reveal another perspective on the differences between educational growth and the growth of the Academy in providing its services to what appears to be a rapidly growing audience. I fiddled around to see what kind of indicators might be available and I ended up creating a curious indicator. It’s one of those things where you just put a series of numbers together and tweak them a bit to see what happens.

Thinking about how to compare the success that the educational community is having in the environmental sector to the relative stagnation of the Academy in securing more board certified members, it occurred to me that perhaps we can just compare the two in a single number. Just as we did in creating an index for the number of board-certified individuals for the years 2003 through 2014, it seemed to me that we might be able to create an indicator that compares Academy membership to participation in environmental engineering education.

The table on page 8 shows what I ended up with. The table reveals an interesting trend. What we have constructed is an index value that is the simple ratio of the total number of board-certified environmental engineers in a given year divided by the number of people getting their degrees in environmental engineering. We are using a base that includes all degreed individuals; bachelor’s, Master’s, and PhD.

What we see is that this has been a one-way street downhill for the past 10 years and potentially longer. What we also see is that this index has captured the slow growth and plateauing of Academy

Ratio of AAEE Board Certified Individuals to Total Environmental Engineering Degrees Conferred

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Index Value	1.72	1.43	1.44	1.34	1.28	1.23	1.08	0.91	0.77	0.63

“I think there is a consensus that there are a lot of environmental scientists out there plying their trade in a variety of settings.

membership relative to the robust growth we've seen in the academic sector. Comparing the value for 2004 with the value for 2013, we see that where there used to be 1.7 board certified members for every newly degreed person in academia. By 2014 that number had declined to roughly a third of what it was 2004.

What that means is open to interpretation. From a simple mathematical perspective, all we need to know is that we have a situation where the numerator is not keeping pace with the changes in the denominator. Translating that into a context for the Academy, one could say it appears that the Academy is not doing what is required to maintain the relationship it had with the academic sector in years gone by. But I don't know whether that's categorically correct and supported by the evidence other than what we used in the analysis here.

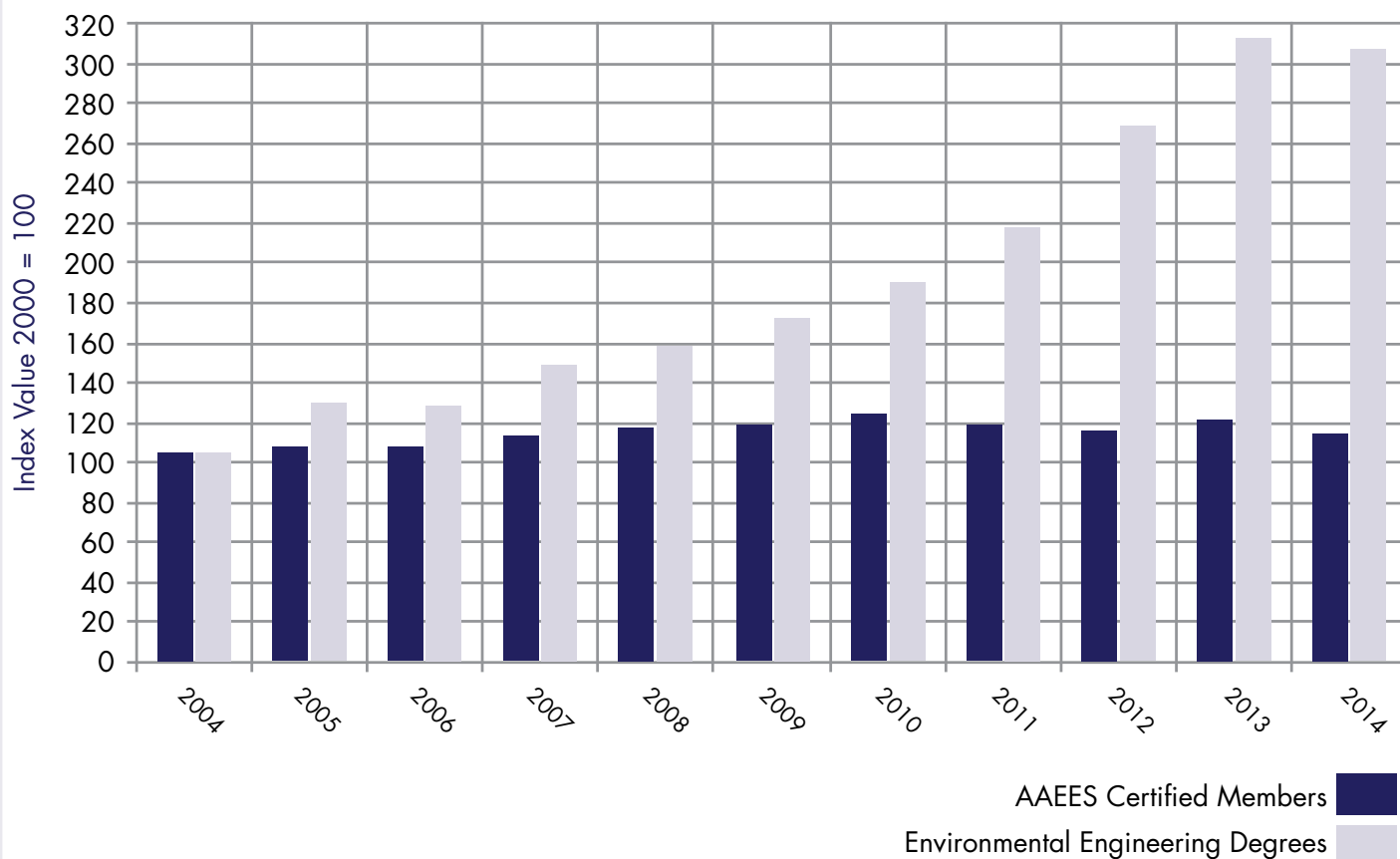
So what we're left with is a situation where we have numbers and we can infer certain things from them. If we give this the glass half-

empty or half-full test, we can say that we have discovered a situation in which the Academy is clearly losing ground relative to where it has been. The other side of the argument is that we documented a significant and apparently long-term trend of more people investing in a career in environmental engineering. If we look at trends that only go back to 2004, given the way the Academy's admissions process works, one could come to the conclusion that we are potentially on the verge of the arrival of a new wave of people who are just now becoming eligible to apply for board certification. If this is the case, we should expect to see rising interest in certification.

The truth is probably halfway between those two alternate constructs. Our takeaway from this discussion is that, even in a quantified world, there is more than enough uncertainty to leave us all scratching our heads when we try to make sense of the facts we are seeing. The bottom line is that tracking trends is useful for understanding how you got to where you are. Understanding underlying forces is valuable in arraying available options and their potential impact on getting us onto a positive path. At the end of the day, it's really all about taking informed action. The statistics are there to suggest and be interpreted. It's up to us to interpret correctly and be nimble in our responses to what the numbers are telling us. 

Comparative Indices

AAEES Certified Members vs. Environmental Engineering Degrees Awarded
2004 - 2014



THE 2015 ANNUAL BOARD OF TRUSTEES MEETING

The 2015 Annual Meeting of the Board of Trustees will be held at Loyola Marymount University, Los Angeles, California on Friday, October 23, 2015 starting at 7:30 AM with a Continental Breakfast.

On Thursday, October 22, the Academy will be hosting an Infrastructure Sustainability Summit at Loyola Marymount University. More information appears on the AAEEES Summit appears on page 18. Following the Summit, the President's Reception and the Installation Dinner will be held at the Renaissance Los Angeles Airport Hotel, 9620 Airport Boulevard, Los Angeles, California from 6 to 9 p.m. The AAEEES has a block of rooms at the hotel.

2016 COMMITTEE APPOINTMENTS

Reminder to Committee Chairs - President-Elect Howard LaFever is anxious to receive your recommendations for new committee members and/or chairs to replace those whose terms expire in December 2015. The Academy is seeking volunteers who are interested in helping the Academy through its network of committees. Committee appointments are for three-year terms. Please email your recommendations and letters of interest to the attention of President-Elect LaFever either via email, JSolmo@aaees.org or via postal mail to Academy Headquarters at:

147 Old Solomons Island Road, Suite 303
Annapolis, MD 21401



2016 EXCELLENCE IN ENVIRONMENTAL ENGINEERING AND SCIENCE (E3S) COMPETITION

AAEEES is extremely excited to announce the call for entries for the 2016 E3S competition! This is your chance to show off your unparalleled expertise in your area of environmental engineering and science.

If your best environmental engineering or environmental science projects deserve more recognition by the profession and the public, enter the E3S competition program. The entry deadline is February 1, 2016.

Entry guidelines, submission forms, and previous winning entries are available at <http://www.aaees.org/e3scompetition.php>.

2016 ENVIRONMENTAL COMMUNICATIONS AWARDS COMPETITION

Successfully communicating complex and challenging issues to the public and its stakeholders who need to understand the value, the

benefits, and the process of environmental engineering and environmental science projects aimed at benefiting the public health is paramount. With this in mind, in cooperation with the International Water Association and the PIA Awards, AAEEES offers the Environmental Communications Awards.

This award is designed to recognize outstanding environmental communication efforts by industry; municipal, state and federal governments; and consulting firms to convey their important environmental messages to the public and other stakeholders. The winner of this award is automatically qualified to enter the International Water Association's Project Innovation Award competition for Marketing and Communications-North American Category.

The deadline for entering the Environmental Communications Awards Competition is March 1, 2016. Entry details and previous winning entries are available at <http://www.aaees.org/environmentalcommunicationsawards.php>.

ANNUAL CERTIFICATION RENEWAL

Renewal notices for the 2016 Certifications were emailed on September 1. Please log into the AAEEES Center and complete your renewal as soon as possible. Please be sure to review and update your data under "My Information" no later than December 31, 2015. It is important to get corrections on your Member Data to the Academy to ensure those changes are printed in the 2016 edition of *Who's Who in Environmental Engineering and Science*. If you need assistance, please contact Joyce Downen at JDowen@aaees.org.

SHINING THE SPOTLIGHT ON YOU

The Academy has special features on its website and in electronic and print publications in recognition of you, **the Academy's honored professionals**. If you want to toot your own horn, or someone else's, here are two ways to do it:

Volunteer of the Month

Part of the Academy's success lies with the selfless work of its members. Do you know of a member that always goes above and beyond? Then send a nomination for **Volunteer of the Month**. Email the 350-word nomination to YMoulden@aaees.org.

Side Tracks

Interested in knowing about the extracurricular activities of your fellow Academy members? Or do you have fun (or possibly funny) stories you'd like to share? Side Tracks is intended to provide a vehicle for learning about the outside interests of your colleagues. Email your submissions to YMoulden@aaees.org for a chance to be featured in a future issue of *Environmental Engineer and Scientist*. ☒

MEMBER NEWS

AWARDS AND RECOGNITION

WEF Fellows Program

Water Environment Federation (WEF) Fellows Recognition Program recognizes distinguished accomplishments and contributions of individuals who have made an effect in the global water environment in a variety of disciplines. The following AAEE Board Certified individuals are among 2015 candidates:

- **Dr. Sarina Ergas, P.E., BCEE**, is a Professor at University of South Florida (Tampa, Florida). Dr. Ergas has been a Board Certified Environmental Engineer in Water Supply and Wastewater since 2012.
- **Terry Krause, P.E., BCEE**, is Vice President of CH2M Hill (Barrington, Illinois). Mr. Krause has been a Board Certified Environmental Engineer in Water Supply and Wastewater since 2005.

- **Dr. Joseph Malina, P.E., BCEE**, is CW Cook Professor of Environmental Engineering at University of Texas at Austin (Austin, Texas). Dr. Malina is a Life member and has been a Board Certified Environmental Engineer in Sanitary Engineering since 1972.
- **Dr. James Patterson, BCEEM**, is Principal of Patterson Environmental Consultants, Inc. (Chicago, Illinois). Dr. Patterson has been a Board Certified Environmental Engineering Member in Water Supply and Wastewater since 2006.
- **Dr. Timothy G. Shea, P.E., BCEE**, is a Consulting Engineer at CH2M Hill (retired) (Fairfax Station, Virginia). Dr. Shea is a Life Member and has been a Board Certified Environmental Engineer in Water Supply and Wastewater since 1981.
- **Dr. H. David Stensel, P.E., BCEE**, is a Professor at University of Washington (Mercer Island, Washington). Dr. Stensel has been a Board Certified Environmental Engineer in Water Supply and Wastewater since 1989.

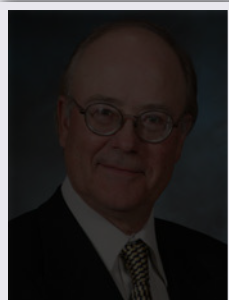
2016 Election Results

The ballots have been counted.

The results will be official after the Teller's Report is confirmed by the Board of Trustees at the 2015 Annual Meeting. The following individuals have been elected for 2016:

- President-Elect, Howard B. LaFever, will succeed to the office of President
- Robert C. Williams will be President-Elect.
- C. Hunter Nolen will be Vice President
- Kristin Morico and James W. Patterson have been elected to Trustee-at-Large

AAEES thanks the 2016 Election Teller's Committee for taking the time to tabulate the votes: Nader Bazzazieh, P.E., BCEE, Edward P. Hagarty, D.Sc., P.E., BCEE, and John J. Segna, P.E., BCEE.



HOWARD B. LAFEVER



Robert C. Williams



C. Hunter Nolen



Kristin Morico



James W. Patterson

ON THE MOVE

Glenn Paulson, Ph.D., BCES, Sc.D., was appointed as interim Senior Associate Dean at Milken Institute School of Public Health at George Washington University this past July 2015. Dr. Paulson most recently served as the Science Advisor for the EPA. He has been a Board Certified Environmental Scientist in Environmental Chemistry since 2013.

IN MEMORIAM



Richard P. Arber, P.E., BCEE, passed away on April 21, 2015. He was born on October 12, 1946, in Buffalo, New York. He graduated from Amherst High School in 1964. After graduation, he attended Erie County Technical Institute in Buffalo, NY, where he received an Associate in Applied Science (AAS) in 1967. In 1972, he earned his Bachelor of Science in Civil Engineering (BSCE) from Tri-

State College Angola, IN. He received his Masters of Science in Civil Engineering (MSCE) from Colorado State University in 1974. His first Professional Engineering License was in Colorado in 1975. He was also registered as a professional engineer in 11 other states throughout his career.

Mr. Arber's career as a civil engineer spanned over 48 years. He worked on hundreds of water, wastewater, and water reuse projects during that time. He was passionate about water engineering and was one of the early champions of water reuse and was involved with a number of innovative and state-of-the-art projects, including the Denver Water Potable Reuse Demonstration Project, which was op-

erated during the 1980s and 1990s with the goal of establishing the safety of using reclaimed wastewater for drinking water.

In 1974, Mr. Arber began working for CH2M Hill, Denver, CO, as a Project Engineer and then advanced to Project Manager and Division Manager. On March 16, 1981, he became president and founder of Richard P. Arber Associates, Inc., an award-winning professional consulting engineering firm with expertise in water, wastewater and water reuse. The firm completed projects for communities and agencies throughout the Western U.S. Richard Arber joined Hatch Mott MacDonald in 2010 along with his firm. At HMM, he served as a vice president and practice leader in the West and manager of the water and wastewater group in Lakewood, CO. He preached the importance of protecting public health and the environment and the benefits that it brings to society.

Mr. Arber was an energetic and enthusiastic leader, mentor, colleague, and friend, and his passion for engineering extended to many people across the country. He led multi-disciplinary teams addressing complex issues associated with a variety of reuse projects including potable reuse, urban irrigation and industrial recycling. Mr. Arber managed projects to identify reuse water customers, and resolve institutional and regulatory issues to successfully implement water reuse in various settings. He was active in professional, civic, and technical societies and has authored 30 technical papers.

Mr. Arber had been a Board Certified Environmental Engineer in Water Supply and Wastewater since 1991. A Water for People memorial fund and Colorado State University Scholarship Foundation are being set up in his name. [A](#)



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MEMBER SAVVY

The Value of AAEES Membership to you

The American Academy of Environmental Engineers and Scientists (AAEES) Board certifies environmental engineers and scientists for the benefit of the profession and the public. AAEES's annual Excellence in Environmental Engineering and Science Awards recognize and promote advanced, efficient, and sustainable solutions to environmental challenges. Accredited by the Council of Engineering & Scientific Specialty Boards, AAEES also collaborates on PE licensure and university program accreditation. AAEES offers professional continuing education, student membership and chapters, K-12 education, individual achievement awards, and professional and public resources through the *Environmental Engineering and Science Resource Guidebook*.

Your membership provides you benefits including access to technical information, networking, and career opportunities. In particular, listed below are nine benefits of Academy membership. Are you making the most of them?

1. RECOGNITION

Certification in an environmental specialty field is acknowledged when you proudly display the BCEE or BCES title

2. PUBLICATIONS

The Environmental Engineer and Scientist; Who's Who in Environmental Engineering and Science; Environmental Engineering and Science Resource Guidebook; and Environmental Engineering Body of Knowledge

3. NETWORKING

AAEES Website (<http://www.aaees.org>); Social Media connections; Student Chapters and Tau Chi Alpha

4. AWARDS

Excellence in Environmental Engineering and Science Competition; Environmental Communication Awards; and AAEES Individual Awards

5. MENTORING

AAEES Mentoring Program provides an opportunity to mentor other professionals

6. SEMINARS/WORKSHOPS

Local, regional, and national seminars and workshops; Speaking opportunities

7. HAPPE LECTURE SERIES

A program that brings professional expertise to universities

8. COMMITTEES

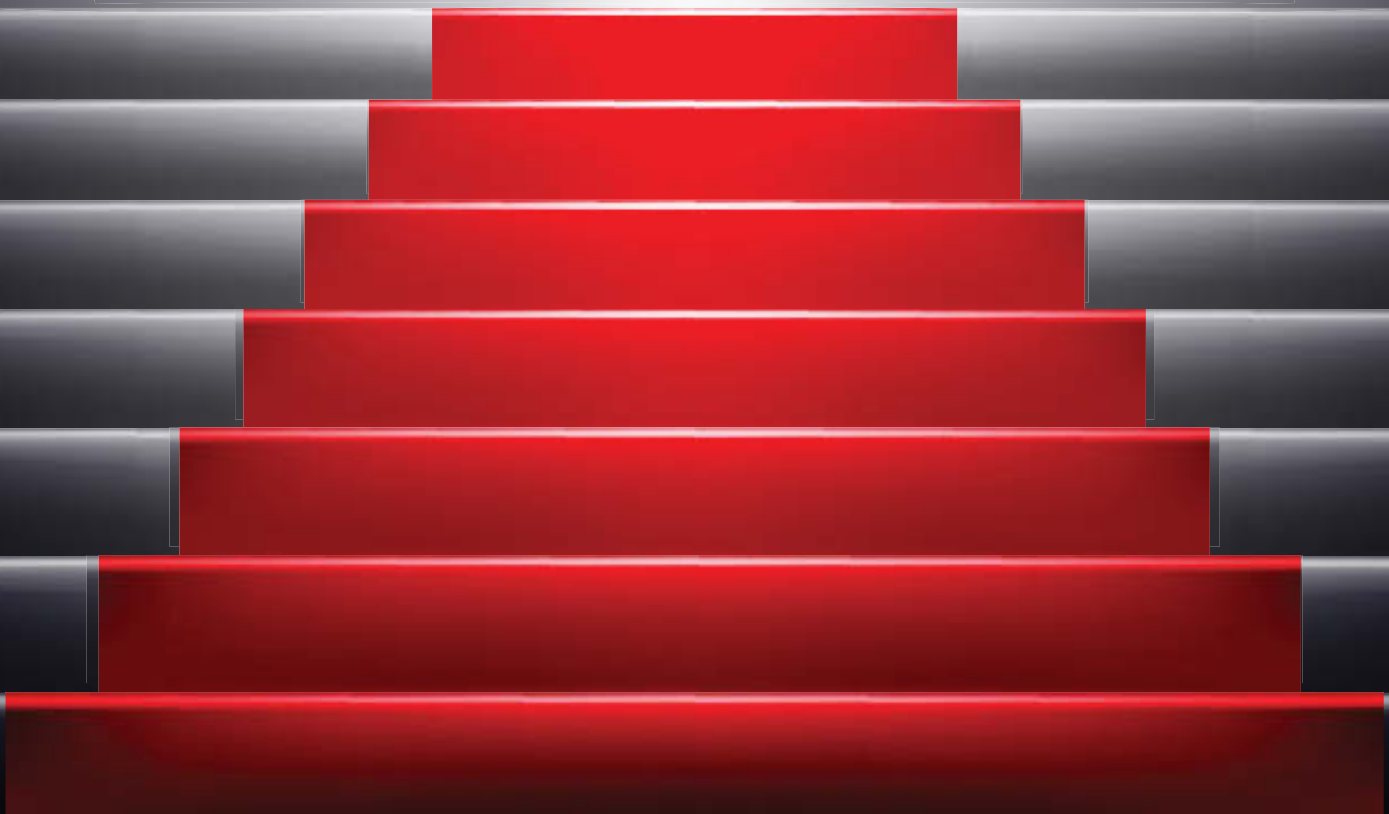
Opportunities abound for volunteer work that benefits the Academy and you

9. ACCREDITATION

AAEES is a full partner in the Accreditation Board for Engineering and Technology (ABET)

The 45th Annual AAEEES Awards Luncheon and Technical Conference

By Yolanda Moulden; Photos by Lisa Pike





The American Academy of Environmental Engineers and Scientists' Annual Awards Luncheon and Technical Conference was held at the National Press Club in Washington, D.C. on April 23, 2015.

In its 45th year, this event continues to be the premier event for showcasing excellence of individuals and organizations in the environmental engineering and science profession.

The event began in 1970 as a luncheon in which awards recognizing pioneers and professionals in environmental engineering were presented. With the 1989 introduction of the Excellence in Environmental Engineering Awards (now the Excellence in Environmental Engineering and Science Awards), recognition of environmental projects were incorporated. Today, the AAEES Awards

has evolved into a special, all-day event recognizing the excellence of individuals in academia, organizations, professional firms, and students in environmental engineering and science while promoting projects in environmental engineering, environmental science, and environmental communications through awards presentations and the technical conference.

THE TECHNICAL SESSIONS

Since its introduction in 2010, the technical sessions continue to be a showcase for the award-winning projects of the Excellence in Environmental Engineering and Science Competition. The sessions allow the presenters to give more insight into the complexities and challenges of their respective projects. Presentations for 2015 sessions were as follows:

- **Stormwater Capture Master Plan**, David Pettijohn, P.E., and Mark Hanna, Ph.D., P.E., Los Angeles Department of Water and Power



1. AAEES President James F. Stahl presenting Bethany Bezek with DC Water's Grand Prize in Small Projects award for *Greening Grey Infrastructure: A Lightweight Alternative to Upgrade the District's Water Supply Facilities*
2. Richard Pope, 2015 Stanley E. Kappe Award Recipient, addresses the audience

3. Amy Dale displays the inaugural Innovyze Excellence in Computational Hydraulics/Hydrology Award
4. Dr. Ajit Ghorpade of Veolia Water, sponsor of the W. Wesley Eckenfelder Industrial Waste Management Medal, AAEES Trustee Dr. James Patterson, and AAEES Executive Director, Burk Kalweit

- *Santa Clarita Valley Sanitation District Chloride Compliance Program*, **Matthew Bao, P.E.**, Sanitation Districts of Los Angeles County
- *Tucson International Airport Area Groundwater Remediation Project (TARP) Advanced Oxidation Process Water Treatment Facility*, **James W. Dettmer, P.E.**, BCEE, ARCADIS, US, Inc., and **Jeff Biggs**, Tucson Water
- *AVEK Westside Water Bank*, **David Ferguson, Ph.D., P.E.**, BCEE, Kennedy/Jenks Consultants and AECOM, **Michael Flood, P.E.**, AVEK
- *Influence of Selected Land Application Strategies on the Fate and Transport of Antimicrobials and Antimicrobial Resistance Genes in the Agricultural Environment*, **Shannon Bartelt-Hunt**, University of Nebraska-Lincoln and US Department of Agriculture
- *Bioconversion of Wastewater Sludge and Glycerol to Bio-*

diesel, **R.D. Tyagi, Ph.D.**, Institut national de la recherche scientifique – Centre Eau Terre & Environnement

- *Using Environmental Engineering Tools, Scientific Analyses and Epidemiological Studies to Quantify Human Exposure to Contaminated Drinking Water and to Benefit Public Health*, **Morris L. Maslia, P.E.**, BCEE, Agency for Toxic Substances and Disease Registry
- *Greening Grey Infrastructure: A Lightweight Alternative to Upgrade the District's Water Supply Facilities*, **Bethany Bezak, P.E.**, LEED AP, DC Water
- *Digester Complex Rehabilitation Improvements for Des Moines Metropolitan Wastewater Reclamation Authority*, **Scott Carr, P.E.**, BCEE, CDM Smith
- *Point-of-Generation Nitrogen Recovery from Wastewater*, **Daniel P. Smith, P.E.**, BCEE, Applied Environmental Technology.



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1. 2015 W. Wesley Eckenfelder Graduate Research Award recipient, Bryan D. Coday and his advisor, Professor Tzahi Cath
2. David Pettijohn presenting at the morning session of the technical conference for LADPW's Operations/Management Grand Prize winning, *Stormwater Capture Master Plan*

3. Amy Nelson and Michael Thompson of Biohabitats, Inc., enjoy the champagne reception
4. Twenty-five awards were presented at this year's premier event

THE CHAMPAGNE RECEPTION

The champagne reception, which serves as an intermission between the morning session of the technical conference and commencement of the awards ceremony, allows a great opportunity for award winners, technical conference presenters, attendees, and invited guests and dignitaries to network with one another.

Panels highlighting the award-winning projects are put on display, offering more insight into the complexities of each project.

THE AAEE AWARDS LUNCHEON

David M. Gaddis, P.E., BCEE, served as the Master of Ceremonies for the event, which celebrated and recognized both people and projects for their leadership in the continuum of more than 175 years of environmental engineering and science innovations and quality service. Special guests included Ken Kirk, former Executive Director of National Association of Clean Water Agencies

(NACWA), and Dr. Ajit Ghorpade of Veolia Water, sponsor of the W. Wesley Eckenfelder Industrial Waste Management Medal.

Roger S. Pulwarty, Senior Science Advisor (Climate) and Director, National Integrated Drought Information System, NOAA, served as the keynote speaker with his presentation, *Climate, Drought and Risk in the U.S.*

THE AAEE HONOREES

Eight awards were presented to recognize individuals for their excellence and leadership in the environmental engineering and science professions.

Dr. Christian Davies-Venn, P.E., BCEE, 2014 AAEE President, presented the International Honorary Member Award to Dr. Tsair-Fuh Lin. The International Honorary Member Award recognizes 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; has made a single noteworthy contribution or



1. Patrick O'Neill, Dustin Craig, and Scott Carr displaying CDM Smith's Grand Prize in Design for *Digester Complex Rehabilitation Improvements for Des Moines Wastewater Reclamation Authority*
2. David Ferguson and Mike Flood, enjoying the champagne reception. They were on hand to accept the Grand Prize in Environmental Sustainability award for Kennedy/Jenks Consultants and AECOM's *AVEK Westside Water Bank*

3. Sanitation District of Los Angeles County's Matt Bao accepted the organization's Grand Prize in Planning (*Santa Clarita Valley Sanitation District Chloride Compliance Program*) and Honor Award in Research (*Lowering the Economic, Operational, and Environmental Barriers to Sidestream Deammonification: Pilot Testing of the ANITA Mox® Process*), pictured with AAEE Vice President, Howard LaFever.
4. Diana Tucker (PEER Consultants, PC), Bohdan Bodniewicz (AECOM), and Suli Wang (SZ PM Consultants, Inc.)

sustained contribution to the advancement of environmental and/or human health protection in a specific area internationally or in his or her country; or has rendered outstanding service over a long period of time resulting in the advancement 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, National Cheng Kung University, and the Director of the Global Water Quality Research Center.

Trustee Dr. James Patterson, BCEEM, presented the William Brewster Snow Award and the W. Wesley Eckenfelder Graduate Research Award, respectively.

The William Brewster Snow Award was presented to John Trimmer. The Brewster Snow Award is awarded to an outstanding engineering student currently pursuing or recently completing a Masters degree in Environmental Engineering or closely related degree program. Mr. Trimmer graduated from Bucknell University. After graduation, he entered the Peace Corps Master's International

program at the University of Southern Florida, where he served for three years as a Peace Corps Volunteer in Uganda.

The W. Wesley Eckenfelder Graduate Research Award was presented to Bryan D. Coday. The Eckenfelder Graduate Research Award, sponsored by HDR, Inc., is given annually to recognize a student whose research contributes to the knowledge pool of wastewater management. The award selection is based on original, innovative research of publishable quality. Mr. Coday received his BS and MS degrees from the Colorado School Mines and is pursuing his Ph.D. under the advisement of Professor Tzahi Cath in Civil and Environmental Engineering.

Next, AAEEES Trustee, Dr. James Mihelcic, BCEEM, presented the Excellence in Environmental Engineering Education and the Innovye Excellence in Computational Hydraulics/Hydrology awards.

AAEES Awards, continued on page 20



1. Candace Pearson, P.E., displaying the Honor Award in Environmental Sustainability for CDM Smith's *Dallas/Fort Worth International Airport Sustainability Management Plan*.
2. The head table included Past President Dr. Christian Davies-Venn, Dr. Tsair-Fuh Lin, Howard LaFever, Richard Pope, James Patterson, Ajit Ghorpade, and James Mihelcic

3. David Pettijohn, Richard Luthy, and Ted Tarr (PEER Consultants, PC)
4. Jim Stahl presenting Morris Maslia with the Grand Prize in Research for the Agency of Toxic Substances and Disease Registry's project, *Using Environmental Engineering Tools, Scientific Analyses and Epidemiological Studies to Quantify Human Exposure to Contaminated Drinking Water and to Benefit Public Health*.

Attaining a Sustainable Wet Infrastructure for Southern California

THURSDAY, OCTOBER 22, 2015 | LOYOLA MARYMOUNT UNIVERSITY

The American Academy of Environmental Engineers and Scientists has assembled the leadership of the largest public water agencies in the Southern California area for a one-day Summit being held at Loyola Marymount University on October 22, 2015. The session is designed to provide perspective and insight on the issues they are facing in meeting current and future demands on their water infrastructure.

This one-of-a-kind event will enable attendees to learn about the strategies that these agencies are employing in addressing the challenges and opportunities that the current drought is imposing on Southern California's water supply. More importantly, the speakers will also focus on the options available for defining a 'new normal', and what that means for planning, designing, and building a water infrastructure that will accommodate an evolving reality.

8:30 a.m. - 9:00 a.m.	Registration and Coffee	
9:00 a.m. - 9:15 a.m.	Welcome  James Stahl, P.E., BCEE <i>President – AAEEES Board of Trustees</i> <i>Senior Strategic Advisor – MWH Global</i>	
9:15 a.m. - 9:30 a.m.	Opening Remarks  Dr. Tina Choe <i>Dean</i> LMU Frank R. Seaver College of Science and Engineering	
9:30 a.m. - 10:00 a.m.	 Enrique C. Zaldivar, P.E. <i>Director and General Manager</i> LA Sanitation - City of Los Angeles	
10:00 a.m. - 10:30 a.m.	 Grace Hyde, P.E., BCEE <i>Chief Engineer and General Manager</i> Sanitation Districts of Los Angeles County	
10:30 a.m. - 11:00 a.m.	 Debra C. Man, P.E. <i>Assistant General Manager & COO</i> Metropolitan Water District of Southern California	
11:00 a.m. - 11:30 a.m.	 Martin L. Adams, P.E. <i>Senior Assistant General Manager - Water System</i> Los Angeles Department of Water and Power	
11:30 a.m. - 1:00 p.m.	Lunch and Networking	

1:00 p.m. - 1:30 p.m.



James Herberg, P.E., BCEE
General Manager
Orange County Sanitation District



1:30 p.m. - 2:00 p.m.



Michael Markus, P.E., BCEE
General Manager
Orange County Water District



2:00 p.m. - 2:30 p.m.



Robb Whitaker
General Manager
Water Replenishment District of Southern California



2:30 p.m. - 3:00 p.m.



Richard Nagel
General Manager
West Basin Municipal Water District



3:00 pm - 3:30 p.m.



Mark Pestrella, P.E.
Chief Deputy Director
County of Los Angeles Department of Public Works



3:30 p.m. - 3:45 p.m.

Summary and Adjournment
Overview and closing remarks by James Stahl

LMU CAMPUS MAP

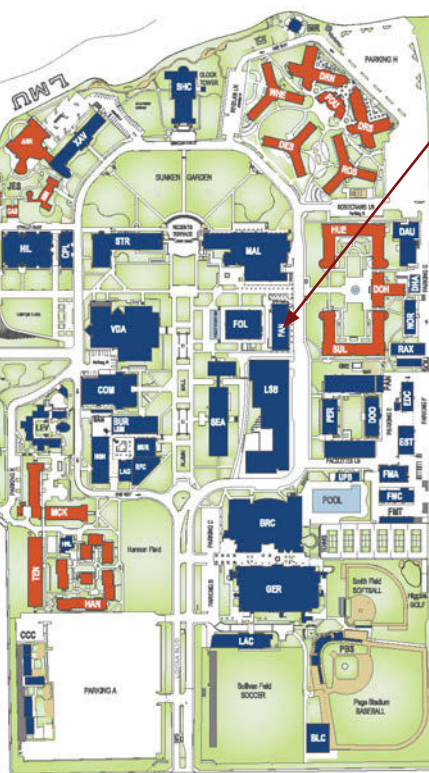
CAMPUS BUILDINGS	
BER Bird Nest	1-1
BLC Baseball Lion Cage	1-10
BRC Burns Rec. Center	H-7
BUR Burns Fine Art Center	G-6
BAR Burns Faculty Center	
BPC Burns Faculty Center	
BHJ Hogan Hall	
LAM Lathrop Gallery	
LEN Lenore Hall	
MUR Murphy Medical Hall	
CPJ Central Plant	F-4
CCC Children's Center	E-9
COM Communication Arts	F-6
DAU Daum Hall	3-4
DHA Daum Hall Annex	3-4
DOO Dooleen Hall	1-6
EST East Hall	3-6
EDC Engineering Design Ctr.	3-6
FAY Foley Annex	H-5
FMA Facilities Management	3-7
FMC F.M. Craft Shops	3-7
FMT F.M. Transportation	3-7
FOL Foley Building	H-5
POU Founders Pavilion	1-2
COL Colburn	
GAR Liane Garden	1-5
GER Gersten Pavilion	H-5
GRE Greenhouse	1-5
HNL Hansen Lab	F-8
HEL Hilborn Center for Bus.	E-4
LEV Levey Hall	F-6
ATH Athletics (Coaches)	
CR for Students Bldg.	
LAC Lions Athletic Center	H-9
LSD Life Science Bldg	H-6
NAL Nations Student Center	H-4
NOR North Hall	3-5
PBS Del Ray Theatre	1-9
PER Pepsi Baseball Stadium	1-6
PAN Pereira Annex	3-6
RAX Research Annex	3-5
SHC Sacred Heart Chapel	F-2
SEA Seaver Science Hall	H-6
SOU South Hall	3-5
STR St. Roberts Hall	F-4
UNH University Hall	A-9
AMM Ammerson Auditorium	
BOH Bohannon House	
LOH Lora Owen Cafe	
SHC St. Hedwig's Chapel	
UPS Univ. Pool & Building	1-7
VDA Charles Von der Ahe Bldg	G-5
WHL William H. Harrison Library	E-4
XAY Xavier Hall	F-2

CAMPUS PARKING	
A General Parking	F-9
B General Parking	H-8
C Life Science Bldg	H-6 (opening summer 2015)
P1-P3 General Parking	
E General Parking	3-6
F Faculty/Staff Only Parking	H-5
G General Parking	3-4
H General Parking	3-1
I Visitor Only Parking	F-2
J Jesuit Only Parking	F-2
K Faculty / Staff Only Parking	E-7
L Drollinger Parking Plaza	D-7
M ADA / Loading	D-7
N University Hall Building	C-6
P1 - Faculty / Staff Parking	A-9
P2-3 - Student / Visitor Parking	A-10
O Temporary Only Parking	C-6
P General Parking	1-3
W Faculty / Staff Only Parking	H-2

*See LMU Parking Map for specific assignments and detailed information regarding parking.

CAMPUS HOUSING

DRN Del Ray North	1-2
DRS Del Ray South	1-2
DES Desmond Hall	1-3
DOH Doherty Hall	3-4
HAN Hannan Apts.	F-8
HUE Husman Hall	1-4
JES Jesuit Community	1-4
ARR Arrupe House	
CAR Carlin House	
CAR Casa Rodriguez	
CON Convent	
LV4 Levey 4 Apts.	C-6
LV5 Levey 5 Apts.	B-7
LV6 Levey 6 Apts.	
MCC McCarthy Hall	D-5
MCK McKay Hall	F-7
OMA O'Malley Apts.	C-5
RAI Rains Hall	D-6
ROS Rosencrans Hall	1-3
SUL Sullivan Hall	1-5
TEN Tenderlich Hall	F-8
WHE Whelan Hall	H-2



Life
Sciences
Building

LMU
Main Campus
1 LMU Drive
Los Angeles, CA
90045

Students: \$25

Pre-Registration
AAEES Member: \$100

Non-Member: \$125

At the Door
AAEES Member: \$125

Non-Member: \$150

Register online now at <http://bit.ly/AAEES2015Summit>

The Excellence in Environmental Engineering Education (E4) Award is sponsored by MWH Global, Parsons, and ABET. The 2015 recipient was Dr. Larry (Loring) Nies. The E4 is awarded to an educator who has made a significant contribution to the profession in the area of educating practitioners. Dr. Nies is Professor of Environmental and Ecological Engineering and Professor of Civil Engineering at Purdue University.

The inaugural Innovyze Excellence in Computational Hydraulics/Hydrology Award, sponsored by Innovyze, was presented to Amy Dale. This award is presented to a student whose research contributes to the knowledge pool in the area of Computational Hydraulics and Hydrology. Amy Dale is a Ph.D. candidate pursuing a joint degree in the Departments of Engineering and Public Policy and Civil and Environmental Engineering at Carnegie Mellon University.

AAEES Vice President Howard B. LaFever, P.E., BCEE, presented the Stanley E. Kappe Award to Richard J. Pope, P.E., BCEE. This award is presented to the Board Certified Environmental Engineer or Board Certification Environmental Scientist who has performed extraordinary and outstanding service contributory to significant advancement of public awareness to the betterment of the total environment and other objectives to the Academy. Mr. Pope is Odor Services Leader of a global company of 22,000. He has been a Board Certified Environmental Engineer in Water Supply/Wastewater since 2012.

President James F. Stahl, P.E., BCEE, presented the Edward J. Cleary and Gordon Maskew Fair Awards.

The Edward J. Cleary award was presented to Kevin Shafer, P.E. The Cleary Award is given to an individual who is an outstanding performer in the management of environmental protection enterprises conducted under either public or private auspices who have demonstrated exemplary professional conduct, personal leadership, originality in devising new environmental protection techniques



1. Daniel Smith displaying Applied Environmental Technology's Grand Prize in Small Firms for *Point-of-Generation Nitrogen Recovery from Wastewater*
2. Eli Parmont, (UMBC) and Jeffrey Vance (Brightfields, Inc.)

3. Jim Stahl presenting the Honor Award in Small Projects to Richard Greene and John Cargill for Delaware Department of Natural Resource and Environmental Control's *Remediation of Mirror Lake Using In-Situ Amendment of Activated Carbon to Sediments*
4. Dr. R.D. Tyagi accepted the Superior Achievement Award for Institute National de la Recherche Scientifique, Centre Eau Terre & Environnement (INRS-ETE), University of Quebec's *Bioconversion of Wastes (Wastewater Sludge, Glycerol) to Biodiesel*

and sensitivity and responsiveness to social, economic, and political factors in environmental protection. Mr. Shafer is Executive Director of the Milwaukee Metropolitan Sewerage District (MMSD).

The Gordon Maskew Fair Award was presented to Dr. Richard G. Luthy, P.E., BCEE. The Fair Award identifies 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; or 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 in the Woods Institute for the Environment at Stanford University and Director of the NSF Engineering Research Center for Re-inventing the National's Urban Water Infrastructure. He has been a Board Certified Environmental Engineer in General Environmental Engineering since 1982.

EXCELLENCE IN ENVIRONMENTAL ENGINEERING AND SCIENCE AWARDS

Following the individual awards, the award-winning projects in the Excellence in Environmental Engineering and Science (E3S) were announced.

The Academy launched the Excellence in Environmental Engineering, now named the Excellence in Environmental Engineering and Science, competition in 1989 to identify the best environmental engineering and science projects in the world. When environmental engineering began before the Civil War, the challenge was to collect and convey water to growing urban areas; later the challenge was to provide sewers to carry away the wastes that an ample water supply produced. By the late 1880s, a few pioneering innovators, like Allen Hazen, were engineering methods to purify water and treat wastewater. Abel Wolman perfected reliable disinfection in the 1920s, and before World War II, most of America's citizens had safe drinking water and sound sanitation. The standards for



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1. John Kennedy (DC Water), AAEES Past President Dr. Christian Davies-Venn, and Carlton Ray (DC Water)

2. Richard Luthy receives the Gordon Maskew Fair Award

3. Jim Stahl presents the Grand Prize in Operations/Management to David Pettijohn and Mark Hanna for Los Angeles Department of Power and Water's *Stormwater Capture Master Plan*

4. APHA Trustee Fred Ellerbusch and Daniel Smith attend the champagne reception

excellence established by those environmental engineering pioneers continue today.

All entries in this year's competition were judged by an independent panel of experts. The judges' independent evaluations of how well each project addressed the program's five criteria are tallied to determine the winner. One Grand Prize is awarded in each category to the highest scoring entry. Other high scoring entries in each category are granted Honor Awards. The highest scoring entry, regardless of category, receives the Academy's Superior Achievement for Excellence in Environmental Engineering and Science.

Research

There were two winning projects in the Research category. They were:

- **GRAND PRIZE:** Agency for Toxic Substances and Disease Registry for *Using Environmental Engineering Tools, Scientific Analyses and Epidemiological Studies to Quantify Human*

Exposure to Contaminated Drinking Water and to Benefit Public Health (Atlanta, Georgia); Engineer in Charge was Morris L. Maslia, P.E., DEE.

- **HONOR AWARD:** Sanitation Districts of Los Angeles County for *Lowering the Economic, Operational, and Environmental Barriers to Sidestream Deammonification: Pilot Testing of The ANITA Mox® Process* (Whittier, California); Engineer in Charge was Grace Robinson Hyde, P.E., BCEE.

Planning

There were two winning projects in the Planning category. They were:

- **GRAND PRIZE:** Sanitation Districts of Los Angeles County for *Santa Clarita Valley Sanitation District Chloride Compliance Program* (Whittier, California); Engineer in Charge was Grace Robinson Hyde, P.E., BCEE.
- **HONOR AWARD:** RMC Water and Environment for *North*



1. James Detter and Jeff Biggs displaying ARCADIS US, Inc. and Tucson Water's Grand Prize in Design Award for *Tucson International Airport Area Groundwater Remediation Project (TARP) Advanced Oxidation Process Water Treatment Facility*

2. AWWA Trustee Issam Najm and Lyndel Melton

3. Heidi Khoei, Upal Ghosh, and Eli Partmont accepting the Honor Award in University Research for Department of Chemical, Biochemical, and Environmental Engineering, University of Maryland Baltimore County's *Development of In-Situ Remediation of Contaminated Sediments with Activated Carbon and Transition to Practice*

4. Shannon Bartelt-Hunt, Jim Mihelcic, Larry Nies

Valley Regional Recycled Water Program (Phase 3) (Patterson, California); Engineer in Charge was Lyndel Melton, P.E., BCEE.

Design

The Design category had three award winning projects. They were:

- **GRAND PRIZE:** ARCADIS, U.S., Inc., for *Tucson International Airport Area Groundwater Remediation Project (TARP) Advanced Oxidation Process Water Treatment Facility* (Tucson, Arizona); Engineer in Charge was George Maseeh, P.E., BCEE
- **GRAND PRIZE:** CDM Smith for *Digester Complex Rehabilitation Improvements for Des Moines Metropolitan Wastewater Reclamation Authority* (Des Moines, Iowa); Engineer in Charge was Patrick O'Neill, P.E.
- **HONOR AWARD:** Greeley and Hansen for *Whale Creek Sludge*

Dock & Vessels Projects – Contracts NC-50/50A (Corona, New York); Engineers in Charge were Cliff Pomerantz and Sundaram Solai, P.E.

Operations/Management

There was one winning project in the Operations/Management category:

- **GRAND PRIZE:** Los Angeles Department of Water and Power for *Los Angeles Department of Water and Power (LADWP) Stormwater Capture Master Plan* (Los Angeles, California); Engineer in Charge was Mark Hanna, Ph.D., P.E.

University Research

Two awards were presented for University Research. They were:

- **GRAND PRIZE:** Department of Civil Engineering, University of Nebraska – Lincoln and Agricultural Research Service, US Department of Agriculture for *Influence of Selected Land*



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1. Lyndel Melton displaying RMC Water and Environment's Honor Award in Planning for *North Valley Regional Recycled Water Program (Phase 3)*
2. Ken Kirk and Christian Davies-Venn

3. 2015 International Honorary Member, Dr. Tsair-Fuh Lin
4. John Lisle and Pamela Mooring accepting the Grand Prize in Environmental Communications for DC Water's Lady Bird (*DC Clean Rivers Project*)

Application Strategies on the Fate and Transport of Antimicrobials and Antimicrobial Resistance Genes in the Agricultural Environment (Lincoln, Nebraska); Persons in Charge were Xu Li and Shannon Bartelt-Hunt.

- **HONOR AWARD:** Department of Chemical, Biochemical, and Environmental Engineering, University of Maryland Baltimore County for *Development of In-Situ Remediation of Contaminated Sediments with Activated Carbon and Transition to Practice* (Baltimore, Maryland); Engineer in Charge was Dr. Upal Ghosh.

Small Projects

There were two winning projects in the Small Projects category. They were:

- **GRAND PRIZE:** DC Water for *Greening Grey Infrastructure: A Lightweight Alternative to Upgrade the District's Water Supply Facilities* (Washington, DC); Engineer in Charge was John Cassidy.

- **HONOR AWARD:** Delaware Department of Natural Resources and Environmental Control for *Remediation of Mirror Lake Using In-Situ Amendment of Activated Carbon to Sediments* (Dover, Delaware); Engineer in Charge was Douglas G. Streaker, P.E.

Small Firms

There was one winner in the Small Firms category:

- **GRAND PRIZE:** Applied Environmental Technology for *Point-of-Generation Nitrogen Recovery from Wastewater* (Thonotosassa, Florida); Engineer in Charge was Daniel P. Smith, P.E., BCEE.

Environmental Sustainability

There were two awards presented in the Environmental Sustainability category. They were:

- **Grand Prize:** Kennedy/Jenks Consultants and AECOM for



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1. 2015 Edward J. Cleary Award recipient, Kevin Shafer with the awards luncheon Master of Ceremonies, David Gaddis.
2. Panels of some of the winning Excellence in Environmental Engineering and Science projects.

3. 2015 Excellence in Environmental Engineering Education Award recipient, Dr. Larry Nies.
4. Shannon Bartelt-Hunt presenting at the technical session for the Grand Prize in University Research winning, *Influence of Selected Land Application Strategies on the Fate and Transport of Antimicrobials and Antimicrobial Resistance Genes in the Agricultural Environment* (University of Nebraska-Lincoln and US Department of Agriculture)

AVEK Westside Water Bank (Palmdale, California); Engineer in Charge was David Ferguson, Ph.D., P.E., BCEE.

- **HONOR AWARD:** CDM Smith for *Dallas/Fort Worth International Airport Sustainability Management Plan* (Dallas/Fort Worth International Airport, Texas); Engineer in Charge was Candace Pearson, P.E.

Superior Achievement in Environmental Engineering and Science

The Superior Achievement Award is presented to the overall best entry in each year's competition. The winning project had entered the entry into the University Research category. The winner was:

- Institut National de la Recherche Scientifique, Centre Eau Terre & Environment (INRS-ETE), University of Quebec for *Bioconversion of Wastes (Wastewater Sludge, Glycerol) to Biodiesel* (Quebec, Canada); Engineers in Charge were R.D. Tyagi, Ph.D. and Rao Y. Surampalli, Ph.D., P.E., BCEE

ENVIRONMENTAL COMMUNICATIONS AWARD

As the costs and scopes of environmental engineering and science projects increase, effectively educating the public has become increasingly important. This is the basis for the Environmental Communications Award. The winning entry was:

- **GRAND PRIZE:** DC Water for *Lady Bird (DC Clean Rivers Project)*; Person in Charge was John Lisle.

Full profiles of the projects and award recipients were published in the Spring 2015 (V 51, N 2) issue of *Environmental Engineer and Scientist* and on our website, <http://www.aees.org>.

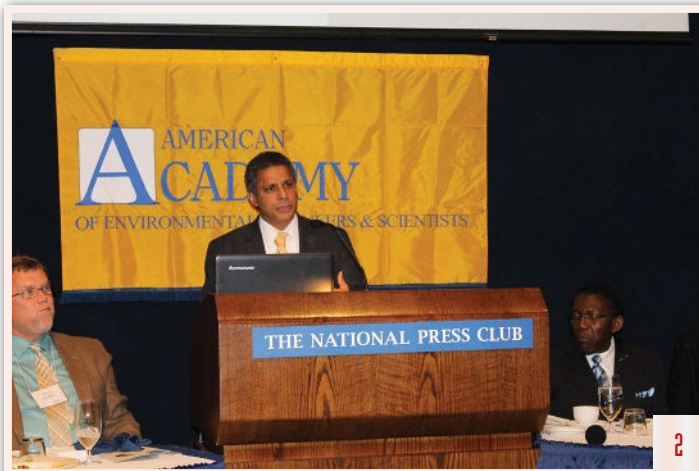
AAEES would like to thank all of our attendees and participants for continuing to make this annual event such a success and a special thank you to Lisa Pike, AAEES Financial Manager, who provided the photos for this feature. ☒



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1. 2015 W. Brewster Snow Award recipient, John Trimmer
2. Keynote Speaker, Roger Pulwarty.

3. Ken Kirk and James Stahl
4. Richard Pope, James Dettmer, and James Patterson

ACADEMY CONTRIBUTORS

The American Academy of Environmental Engineers and Scientists is pleased to recognize the following individuals who contributed to several funds of AAEES and the Environmental Engineering and Science Foundation (EESF) between January 1, 2014, and December 31, 2014. A key source of strength to the Academy's continued success and growth has been the many who generously contribute. The Academy takes great pride in recognizing the following:



AAEES GENERAL FUND

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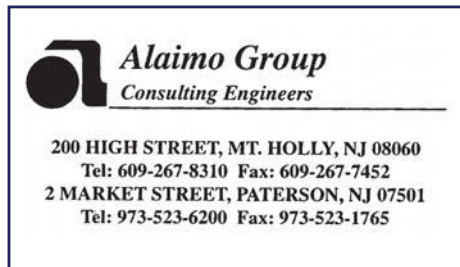
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