

ENVIRONMENTAL ENGINEER & SCIENTIST

The 48th Annual
Excellence in Environmental
Engineering & Science
Awards Luncheon & Conference

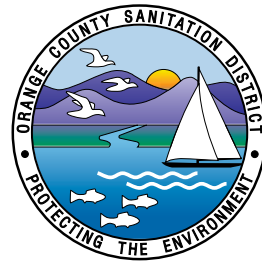


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15
2019 Election Results

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FEATURES

2019 Election Results	15
The 48th Annual Excellence in Environmental Engineering and Science Awards Luncheon and Conference	17
2017 Contributors and Sponsors.....	25

DEPARTMENTS

AAEES Patrons	2
<i>President's Page: Notable Quotes and Lessons Learned in Environmental Engineering and Science (and in Life)</i>	4
<i>C. Hunter Nolen, P.E., BCEE</i>	
Member News	7
<i>Executive Director's Page: Brought to you by our friends at Georgia Tech, creating the next in education</i>	10
<i>Burk Kalweit</i>	
Academy News.....	14
About the AAEEES Patrons Program.....	28
Professional Services Directory	30
Reach Our Advertisers	30

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Notable Quotes and Lessons Learned in Environmental Engineering and Science (and in Life)

How many lessons have you learned over your career in Environmental Engineering & Science? Where did these lessons come from? Were they taught to you in a training class, shared with you by a mentor, or learned the hard way – through difficult mistakes? Whatever the case, one can expect that almost all the lessons we learn have been encountered before by others. As Mark Twain said: *History does not repeat itself, but it rhymes*. How true that is, and Twain's quote is a fitting start to this presentation of notable quotes that offer life lessons across a broad spectrum of topics.

KNOWLEDGE/EXPERIENCE/WISDOM

If I only knew then what I know now... . We live and we learn. It is often difficult, sometimes painful, but lucky are we who live a life full of learning, and so grow in wisdom:

- When you're through learning, you're through. *Vernon Law*
- An investment in knowledge pays the best interest. *Benjamin Franklin*
- Experience enables you to recognize a mistake when you make it again. *Franklin P. Jones*
- If you make a mistake and do not correct it, this is called a mistake. *Confucius*
- If you can live with triumph and disaster and treat those two imposters the same, then you will be a man, my son. *Kipling*
- Learn from the mistakes of others. You can't live long enough to make them all yourself. *Anonymous*
- Forgive your enemies, but never forget their names. *John F. Kennedy*
- When you talk, you repeat what you already know. When you listen, you often learn something. *Jarred Sparks*

- Harsh counsels have no effect. They are like hammers that are always repulsed by the anvil. *Helvettius*
- Words may show a man's wit, but actions his meaning. *Benjamin Franklin*
- A life is not important except for the impact it has on other lives. *Jackie Robinson*
- I'd like to think I'm smarter today than I was yesterday. *Abraham Lincoln*
- The older I get, the less I listen to what people say and the more I watch what people do. *Andrew Carnegie*
- I've been so many fools in my life, it's a wonder I have sailed so many miles. *Guy Clark*
- Beautiful things don't ask for attention. *James Thurber*
- The true meaning of life is to plant trees under whose shade you do not expect to sit. *Nelson Henderson*

COURAGE/CHARACTER

We cannot claim to own either courage or character, for we may fail in each upon our very next challenge. Yet, we hope and strive for both in all of life's difficult moments because without them, there can be no true respect - for others, from others, or for oneself:

- It's not the critic that counts. The credit belongs to the one who is actually in the arena. *Teddy Roosevelt*
- A man never shows his own character so plainly as by his manner of portraying another's. *Richter*
- Integrity without knowledge is weak and useless, and knowledge without integrity is dangerous and dreadful. *Samuel Johnson*

“A life is not important except for the impact it has on other lives.

Jackie Robinson



“ Greatness does not come from the pursuit of greatness. It comes through the pursuit of honorable ends. *Madeline Albright*



- Reputation is what men and women think of us. Character is what God and angels know of us. *Thomas Paine*
- Life, every man holds dear; but the dear man holds honor far more precious than life. *William Shakespeare*
- Greatness does not come from the pursuit of greatness. It comes through the pursuit of honorable ends. *Madeline Albright*
- I will speak ill of no man, but all the good I know of every man. *Benjamin Franklin*
- It is better to deserve honors and not have them than to have them and not deserve them. *Mark Twain*
- There is nothing noble in being superior to your fellow man; true nobility is being superior to your former self. *Ernest Hemingway*
- Courage is what it takes to stand up and speak. It is also what it takes to sit down and listen. *Winston Churchill*
- One man with courage makes a majority. *Andrew Jackson*
- The worst day in a man's life is when he sits down and tries to figure out how to get something for nothing. *Thomas Jefferson*

ATTITUDE/EXCELLENCE/PERSEVERANCE

If you want something, you have to go get it. And if you want to be the best at something you have to insist on it. This takes attitude and commitment, and then it takes more attitude and more commitment:

- To paint a fine picture is far more important than to sell it. *Edward Alden Jewell*
- Our greatest glory is not in never falling, but in rising every time we fall. *Confucius*
- We will either find a way or make one. *Hannibal*
- I'm not going to quit until they lay me in that tomb. And even then, they better shut it tight. *T. Bone Burnett*

“ Reputation is what men and women think of us. Character is what God and angels know of us. *Thomas Paine*



“ Most people are about as happy as they make up their minds to be. *Abraham Lincoln*



- Most people are about as happy as they make up their minds to be. *Abraham Lincoln*
- Anything easy ain't worth a damn. *Woody Hays*
- I am a great believer in luck. The harder I work, the more I have it. *Thomas Jefferson*
- Failure is the path of least resistance. *Chinese Proverb*
- Whatever you are, be a good one. *Abraham Lincoln*
- There's many a way to win in this world, but none of them is worth much without good hard work back of it. *Mark Twain*
- You're never wrong to do the right thing. *Mark Twain*

OPPORTUNITY/ACTION/SUCCESS

As no less than Yogi Berra put it: *When you come to a fork in the road, take it.* One must decide to succeed by recognizing and acting on opportunities because every opportunity presents two possibilities – take it or leave it:

- Opportunity is missed by most because it comes dressed in overalls and looks like work. *Thomas Edison*
- Go out on a limb. That's where the fruit is. *Will Rogers*
- A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty. *Winston Churchill*
- Nothing great has ever been accomplished without enthusiasm. *Ralph Waldo Emerson*
- Don't say you don't have enough time. You have exactly the same number of hours per day that were given to Helen Keller, Pasteur, Michelangelo, Mother Teresa, Leonardo da Vinci, Thomas Jefferson, and Albert Einstein. *H. Jackson Brown Jr.*
- One who fears failure limits his opportunities. Failure is only an opportunity to begin again more intelligently. *Henry Ford*
- Take the time to deliberate, but when the time for action arrives, stop thinking. *Andrew Jackson*
- Fail often, but damn it fail fast. *Steve Jobs*

“ I'm not going to quit until they lay me in that tomb. And even then, they better shut it tight. *T. Bone Burnett*



“ A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty.
Winston Churchill



- Never fear to negotiate and never negotiate out of fear. *John F. Kennedy*
- Amateurs do it until they get it right. Pros do it until they can't get it wrong. *Anonymous*
- He that waits upon fortune is never sure of a dinner. *Benjamin Franklin*
- I had to succeed because I finally ran out of things that wouldn't work. *Thomas Edison*
- You miss 100 percent of the shots you never take. *Wayne Gretzky*
- Success consists of going from failure to failure without loss of enthusiasm. *Winston Churchill*
- Pioneers are seldom around to walk the trails they blaze, but they blaze them anyway. *Rev. Samuel Billy Kiles*
- If you think you're a winner, you might lose; but if you think you're a loser, you cannot win. *Paul Brown*
- Success doesn't come to you. You go to it. *Marva Collins*
- The secret to getting ahead is getting started. The secret to getting started is breaking your complex tasks into smaller manageable tasks, and then starting the first one. *Mark Twain*

LEADERSHIP/INFLUENCE

The art of leadership is a lifelong quest. Leadership is for the courageous - willing to put their heart, soul, and intellect on the line for the good of the group. So quickly one could fail with a forever-haunting misjudgment. And leadership is for the humble - aware of the responsibility and the fragility of their influence. And it is for the strong - willing to fight back from the many mistakes that will be made:

- If you want to gather honey, don't kick over the beehive. *Earl Nightingale*
- Managers do things right. Leaders do the right thing. *Dennis Ferrigno*
- The measure of a man is what he does with power. *Pittacus*

“ Only one man in a thousand is a leader of men. The other 999 follow women. *Groucho Marx*



“ Success doesn't come to you. You go to it. *Marva Collins*



- The best leaders are not interested in selling their own ideas, but in finding the best ideas. *Dan Zadra*
- The greater the commitment toward a group, the greater the motivation among the group. *Rensis Likert*
- Tell me and I will forget. Show me and I may remember. Involve me and I will learn. *Confucius*
- The greatest good you can do another is not just to share your riches, but to reveal to him his own. *Benjamin Disraeli*
- Leadership is the art of accomplishing more than the science of management says is possible. *Colin Powell*
- For the strength of the pack is the wolf, and for the strength of wolf is the pack. *Rudyard Kipling*
- None of us is as smart as all of us. *Ken Blanchard*
- If everyone is thinking alike, then someone is not thinking. *George Patton*
- If we treat people as they are, we make them worse. If we treat people as they ought to be, we help them become what they ought to be. *Johann von Goethe*
- Speak when you are angry, and you'll make the best speech you'll ever regret. *Andy Houlston*
- Remember, it's not what you say, it's what people hear. *Lord Robertson*
- If you employ a "yes man" then one of you is redundant. *Colin Powell*
- It never does a boy much good to shoot him. *Abraham Lincoln*
- Only one man in a thousand is a leader of men. The other 999 follow women. *Groucho Marx*

These words from so many of the world's greatest minds offer many concepts worth contemplating - in our world of Environmental Engineering and Science, and beyond that world into our daily life. I hope you enjoyed reading these quotes, and mostly, I hope that some young engineers and scientists may take some of these lessons and bring them into their work life for their benefit, the benefit of our profession, and the benefit of others. ☒

“ Leadership is the art of accomplishing more than the science of management says is possible. *Colin Powell*



MEMBER NEWS

AWARDS AND RECOGNITION

Lorenzo Iglesias-Velez, P.E., DEE, state representative for AAEEES (Puerto Rico), has been elected president of the Puerto Rico Institute of Environmental Engineers for the 2018-2019 term. The Institute is one of the components of the College of Professional Engineers and Surveyors of Puerto Rico, a quasi-public entity established by law to group and regulate professionals authorized to practice engineering and surveying in Puerto Rico. Mr. Iglesias-Velez is a Consulting Engineer with L R Iglesias Associates. He is a Life Member and has been a Board Certified Environmental Engineer in Air Pollution Control since 1980.

ON THE MOVE

Miles H. Moffatt, P.E., BCEE, has joined Tighe & Bond as a technical director and vice president. A 33-year industry veteran, Moffatt has managed major water programs and projects for



Mr. Iglesias delivers his inaugural address to the Board of Directors of the Institute.

clients throughout the Northeast. He joins Tighe & Bond after serving as US Chief Engineer for Water and a global leader for program management services at one of the world's largest engineering firms. Mr. Moffatt has been a Board Certified Environmental Engineer in Water Supply and Wastewater since 2003.

IN MEMORIAM

Jerrold M. Michael, Sc.D., P.E., DEE

Assistant Surgeon General
Rear Admiral, USPHS (ret.)

by Robert C. Williams, P.E., BCEE



How can you effectively remember a man who literally educated and touched the lives of thousands of PHS Commissioned Corps Officers and public health professionals across the Nation? A man who stood courageous for public health no matter the odds or the consequences? A person whose smile would always light up a room, who was gracious and endearing to all he knew and met, who never lost the opportunity to say "well done" and "thank you"?

RADM Jerrold M. Michael is remembered as a gentleman's gentleman, an astute and sage professor, a true champion of public health, and the consummate PHS Commissioned Officer throughout his life. Most of all, he was our friend.

He was one of the strongest supporters of the Commissioned Officers' Association, and served as the Founding President of the Commissioned Officers' Foundation for the Advancement of Public Health. A regular participant in the annual Training Symposium, he could be seen mentoring junior officers, regaling them with the history of the earliest days of the Cen-

ters for Disease Control and Prevention and the Indian Health Service, or standing toe-to-toe with Surgeons General and Assistant Secretaries of Health imploring them to strengthen the future of the Corps. His wife Lynn was often at his side, her pride in and dedication to the PHS officers every bit his equal. As COF's singular Trustee Emeritus, RADM Michael constantly advocated in writing and speeches for the value and importance of public health across all arenas of the government. A proponent of continuous learning, he was a perpetual force behind leadership training; his mantra was "each of our young officers has the leadership skills within them that will be needed to address future challenges. Our opportunity - as current leaders of the PHS Commissioned Corps - is to invest now in that future leadership potential." This commitment to continual learning is recognized each year by the RADM Jerrold M. Michael Award, bestowed on an engineer or architect who demonstrates personal commitment to the education and development of his/her peers.

Jerrold Mark Michael was born in 1927 in Richmond, Virginia. Upon graduation from high school in Washington, D.C., he enlisted in the US Navy and served as a Hospital

Corpsman at the end of World War II. On March 17, 1951, he married Lynn Simon in Washington, D.C.

Following a 20-year career in the Commissioned Corps of the US Public Health Service, RADM Michael served for 25 years as Professor of Public Health and for the majority of that time, as Dean of the School of Public Health at the University of Hawaii and subsequently for fourteen years as a Professor of Global Health at George Washington University.

Jerrold "Jerry" Michael began his Commissioned Corps career in June of 1950 as an Ensign assigned by the Centers for Disease Control (CDC) as part of a Polio research project in Arizona. In 1951, he was detailed to serve as the Deputy Director of the Phoenix, Arizona Public Health Department, returning to CDC in 1953 to serve as an instructor in the engineering and community health training activities of CDC in Atlanta. The vast majority of his students, he remembered, were veterans of WWII. "They were a highly motivated group. They were prepared to better their professional status and prepared to learn." As a prior Navy Medical Corpsman, he found common ground with his students, and he grew as well, "For me, helping people become more proficient in their professions was a career-shaping opportunity."

In 1959, he was transferred to Washington, D.C., where he served until September 1962 as head of the national training activities for the PHS emergency health mobilization program under the Office of the Surgeon General. From 1962 to 1966 he was the chief of training and then became the Chief of Staff for the Division of Indian Health, Bureau of Medical Services where among other duties, he was responsible for preparing construction planning guidelines and design criteria for Indian hospitals. In 1966, Jerry Michael was assigned to the Bureau of Medical Services and its replacement, the Bureau of Health Services, where he helped manage a variety of public health programs. While there, he was promoted to Assistant Surgeon General with the Commissioned Corp rank of Rear Admiral (RADM). He subsequently served as Assistant Director of the Consumer Protection and Environmental Health Service. He retired from the Corps in January of 1971.

RADM Michael was a registered Professional Engineer and a Diplomate in Environmental Engineering. He graduated from George Washington University (Civil Engineering - 1949); Johns Hopkins University (Sanitary Engineering - 1950) and University of California (Masters in Public Health - 1957). He also held a Doctor of Public Health Degree from Mahidol University in Thailand and the degree of Doctor of Science from Tulane University.

RADM Michael served as Emeritus Professor of Public Health at the University of Hawaii and as an adjunct professor of global health at the George Washington University School of Public Health and Health Services in Washington, D.C. For all his life, teaching was his passion, he remembered fondly,


"There is joy in teaching and you know that when you teach, you learn."

He was also a visiting professor at Mahidol University in Thailand and the Beijing Medical University in China. In May of 1985, in ceremonies in Israel, a chair in public health in his name was dedicated at The Hebrew University of Jerusalem. In December of 1987, the Knight Commander of the Most Exalted Order of the Elephant was conferred upon him by the King of Thailand for his work in enhancing the health of the people of South East Asia. In 1989, he was awarded the Sang Kancil Gold Medal by the government of Malaysia for his work on academic excellence in that country. The Hebrew University of Jerusalem also awarded him the Magnes Medal for his work in health services management and international public health.

A prolific writer, RADM Jerry Michael was recognized for his work in health policy analysis and the politics of health, comparative health systems, global health, health management, health leadership and academic management. He was recognized with a number of awards and honors, including the Walter Mangold Award of the National Environmental Health Association and the John Shaw Billings Award of the Association of Military Surgeons of the United States. He also has twice been awarded the PHS Meritorious Service Medal and Commendation Medal as well as two awards of the Brutsche Award from the USPHS Commissioned Officers Association. For his work with the health programs of Native Americans, he was made an honorary member and tribal leader of the Chipewewa Indian tribe. On June 9, 2005, the Surgeon General of the United States presented him with the Surgeon General's Medallion for a life time of service to the Nation in the field of Global Health. He was a member of the Theta Tau Engineering Society Hall of Fame.

RADM Michael was past President of the U.S. Association of Schools of Public Health; past chairman of the Board of Trustees of the Kuakini Health System in Honolulu and the Hawaii Health Coordinating Council, and past member of the Hawaii State Board of Health. He was a founding member of the 35-nation, Asia-Pacific Academic Consortium for Public Health and past vice president of the World Federation of Associations of Academic Public Health.

RADM Michael was a life member of the American Public Health Association, a Diplomate of the American Academy of Environmental Engineers and Scientists, the American Academy of Sanitarians, and the American Academy of Health Administration and is a member of the public health honor society, Delta Omega, the Association of Military Surgeons of the United States and was a life member of the Commissioned Officers Association of the USPHS.

RADM Jerrold M. Michael was a Life Member of AAEEES. He had been a Board Certified Environmental Engineer in General Environmental Engineering since 1979. 



2018 ENVIRONMENTAL SYMPOSIUM

Current Challenges And The Future

Thursday, October 11, 2018 • Red Barn 20 • Cazenovia, NY

The American Academy of Environmental Engineers and Scientists (AAEES) is hosting a one-day environmental symposium in Cazenovia, New York. Leading professionals from Central New York environmental specialties of water, wastewater, and solid waste will speak on current challenges now and the future: how to manage them in a sustainable, resilient, and cost-effective way. Attendees can earn up to 5 PDH credits.

Schedule for the Day

8:00 – 8:25 am	Registration and Coffee
8:25 – 8:30 am	Welcome Howard LaFever, PE, BCÉE, Associate (Past-President, AAEES) GHD
8:30 – 9:30 am	Current Challenges Facing Central New York from a Regulatory Perspective Matthew Mario, PE, BCÉE, Regional Director NYSDEC – Region 7
9:30 – 10:30 am	Potential Health Issues and Remediation Elimination for Algae Bloom in the Finger Lakes Steve Waldvogel, PE – GHD Seth Jensen – Autism
10:30 – 10:45 am	Break
10:45 – 11:45 am	Water Utilities of the Future Geoffrey Miller, PE, BCÉE – Deputy Executive Director Onondaga County Water Authority (OCWA)
11:45 – 1:00 pm	Lunch and Networking Students
1:00 – 2:00 pm	Food Waste to Energy Bill Rabbia, Executive Director Oneida-Herkimer Solid Waste Authority
2:00 – 3:00 pm	Presentations from an Academic Perspective <ul style="list-style-type: none">Student Clarkson UniversityStudent SUNY-ESF
3:00 – 4:00 pm	Control Phosphorus in Your Watershed: From a Fresh Water Perspective Jim Cunningham, President New Water Technologies
4:00 – 4:05 pm	Summary and Adjournment Peter Radosta, PE, BCÉE, Senior Vice President Kroeker Associates, Inc.

REGISTRATION FEES

Members.....	\$100.00
Non-Members.....	\$125.00
Students	\$25.00

Register online now at:
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Room block available 10/10/18 and 10/11/18

Brought to you by our friends at Georgia Tech, creating the next in education.

One of the more interesting aspects of working at the Academy is being a part of its role in defining the interactions that take place with the educational/academic community and the linkages that are created in the follow-on activities that occur at the intersection between academia and the body of practitioners represented by the Academy's membership.

That is a mouthful. However, there are so many moving parts in this community of interest that it's hard to get a simplified definition of what's going on. Consider that there are about 70 ABET-accredited environmental engineering programs in the United States. This exists in parallel with over 160 non-ABET-accredited environmental science programs nationwide. From this, we can easily infer that there is a substantial amount of economic and academic/intellectual activity taking place to provide for the interests of students, educators, educational institutions, and ultimately, the organizations that employ the students in the pursuit of their career path in the environmental community.

Once again, a bit of a mouthful. This is where our connection to ABET is so vital, valuable, and critical to the future of education in environmental engineering and environmental science. As a lead society, the role of the Academy is to work with ABET to ensure the quality of the academic programs that are currently being offered by these institutions. This effort is focused very much on what is currently being offered by the schools so that the level and quality of education that occurs across all ABET-accredited schools is roughly equivalent.

Not to be lost in this dynamic is the fact that there are market forces at play here that cannot be ignored. Students are looking for value in their education and expect to have a marketable education at the end of their four-year process of matriculation. For their part, the schools want to make sure that they do the best they can in offering programs that their rising freshman class is willing to invest in.

Not to be overlooked in this equation is the impact that employers have in determining where students will seek to earn their degree. Corporate and governmental sponsorship of university research is a major source of funding for many of the large research universities. The ability to work on leading-edge

research activities is a significant draw to many students who have seen that doing sponsored work while still in school is a great foot in the door for landing that first job after graduation.

The back-story to all this is that colleges and universities in the United States and around the world are facing some very interesting challenges. They need to be aware of the demographics of the college-age student cohort and their expectations with regard to higher education. They need to continually focus on the finances of the organization. They need to create an internal and external system of relationships with other people and other similar organizations. What makes it particularly interesting is the need to do this in a constantly shifting environment. While institutions of higher learning cherish the history of accomplishments that gives them the patina of solidity that makes them the bedrock institutions in their locale, the reality is that there is an element of whistling past the graveyard in all these schools' stories. Being smart, market-driven and agile are among the most important aspects of life in academia.

Which takes us to the interesting case of the Georgia Institute of Technology, better known as Georgia Tech. By all accounts, Georgia Tech is a very successful institution of higher learning. It has been around since 1885 and is generally regarded as being among the top 10 research universities in the country. It is also seen as an investment that has paid significant dividends to the state of Georgia since its founding. Taking one of the measures mentioned above, research funding, Georgia Tech's research funding of all types totaled over \$700 million in 2017.

By all accounts, Georgia Tech is doing very well. That success is rooted in good management practices, and a willingness to be as innovative in its management of the organization as it is in the management of its research and technology portfolio. All indications are that Georgia Tech is in an enviable position



“Corporate and governmental sponsorship of university research is a major source of funding for many of the large research universities.”

with respect to its educational mission and its parallel activity in research and development.

Which is why seeing an article entitled, “Creating the Next in Education,” authored by the Office of the Provost of Georgia Tech, aroused my curiosity. What exactly does Georgia Tech mean when they say creating the next? And by implication, what was wrong with Georgia Tech’s current apparently very solid performance in recent years? Is there something that the rest of us are missing? Or on the flip side, does Georgia Tech know something that the rest of us are only beginning to think about?

As usual, the answer is; it’s complicated. What I saw was a report of the “Georgia Tech Commission on Creating the Next in Education.” So in very short order, we learn the Georgia Tech has created and launched a commission charged with ‘creating the next’ in education as it is practiced at Georgia Tech. To find out what that means, you have to dig a bit deeper than I have the ability to do in this article. To give you some idea of the depth of the thinking and level of engagement that went into this effort, it’s worth noting that this is a two-year effort. The end product of the process was a proposal by the commission to create the *Georgia Tech Commitment to a Lifetime Education*.

With all due modesty, the commission described the commitment as, “a concept unlike anything that exists today – a future for college not conceived solely as a physical place ... but rather as a platform for an increasingly diverse population of learners.” Knowing that you don’t go from concept to implementation in a few short steps, the commission gave itself what might be considered an appropriate timeline for creating the next - in this case until 2040. The commission also identified impediments to progress as well as the factors that could be drivers of positive change going forward.



Not to shortchange itself on institutional chutzpah, rather than borrow old tired phrases about challenges and solution sets and other business type buzzwords, the commission defined for itself a set of initiatives which were to be the platform for change going forward. It identified five initiatives which are designed to become the intellectual foundries where solutions for addressing these long-term challenges will be forged. There are five of these initiatives. They are listed with a short description.

Initiative 1: Whole-person Education

This can be paraphrased into Georgia Tech wanting to create individuals who are superb engineers who also have a private passion for Shakespeare,

Initiative 2: New Products and Services

The mandate here is to develop processes that will enable Georgia Tech to create a platform for flexible learning and continuing learning opportunities. Activities to address problems associated with developing these new products and services include:

1. Micro credentials to create more efficient packages of experience, and achievement.
2. A matrix of ‘mini-mester’ classes that allow students to replace three credit hour courses with more flexible modules
3. A ‘credit for accomplishment’ unit that becomes a standard part of the curriculum
4. The decentralized transcript based on block chain technology that allows students to combine evidence of learning and achievements into credentials that are relevant to potential employers.

Initiative 3: Advising for a New Era

The intent of this initiative is to create a new methodology in which Georgia Tech’s learners will stay connected to the school throughout their lifetime and their career. The idea is that Georgia Tech will be at your side and ready to serve as a resource for personal as well as career development needs.

Initiative 4: Artificial Intelligence (AI) and Personalization

The short-version description of this initiative runs to over half a page so it will not be presented here in its entirety. What this initiative is all about is the application of artificial intelligence to a person’s educational achievements and their ability to use AI to connect with other members of the enhanced and



extended Georgia Tech community over their entire career. The technology to do this is beginning to appear so this may be a very well-timed initiative in terms of developing uses for future-focused, leading-edge hardware and software.

Initiative 5: A Distributed Worldwide Presence

Once more, the answer provided in the commission document is too long to be presented here. The vision provided here is very interesting. It foreshadows the current structure of a centralized campus populated by professors and administrators who provide the educational experience as untenable in the longer term. Instead, it posits a technology-driven Georgia Tech Atrium™ model in which the atrium is a platform with the flexibility built-in to accommodate different types of, and topics for, learning. Also included in Initiative 5 is the Living Library for Learning (L3). This is a construct in which the entire Georgia Tech community - from the youngest to the oldest - becomes a resource to the broad network in which they are learning and providing knowledge that can be tapped on demand. In practice, this looks to me like a privatized, Georgia Tech branded version of LinkedIn cross-pollinated by Wikipedia.

By now you are saying to yourself, okay, but why do I care? The answer, I believe, lies in what's not in the commission's report and recommendations, mainly some exposition on the role of the private sector in 'creating the next in education.' One way of positioning the missing elements is that the Georgia Tech Proctor's office, understandably, views the world from a relatively narrow perspective. It views itself as a provider of goods and services in the broad educational market. As such, it is primarily focused on defining what education is, redefining how we see students, and moving aggressively to create a new

educational community in response to the evolution that it sees as inevitable and, in most cases, desirable.

This is where it, again, begins to get complicated. Georgia Tech's ability to derive revenue from its community is based on selling different things to different constituencies. Its traditional long run position is that it is selling educational services to individuals wishing to earn expertise in a given career area. Or should that be: it is selling knowledge; knowledge that enables its customers (students) to embark on a career path that they believe is one that will be intellectually interesting as well as fiscally and psychically rewarding?

There is another set of customers that comes into play when the students graduate. These customers are the organizations of all types that end up hiring Georgia Tech's graduates -- who are reputed to be a notch or two above average -- to fill the various roles that it continually needs people in so that it can fulfill its organizational/business charter. These customers are typically looking for the classic 'plug-and-play' graduate with a bachelor's degree. They seek candidates who can be molded into the kind of employees it wants in the short-term and the long-term. The expectation in recruiting at Georgia Tech is that they will be able to find enough candidates to fill existing needs. The hiring organizations also assume that Georgia Tech graduates have the requisite skills for the openings they are trying to fill.

Do these organizational customers care if Georgia Tech is embarking on this ambitious 'creating the next' program to define its future going up to 2040 and beyond? A case can be made going either way on that contention. On the positive side, organizational employers will say yes, of course we care. We need to have some assurances that what our future hires are being taught is relevant to the topic in general, and also relevant to the specific areas of expertise we need more talent

in. That's easily countered by the observation that most hires are done on the basis of immediate demand, with considerations of the distant future being something well down the priority list.

You can see that this is where a disconnect occurs. Students, and the organizations that hire them, are necessarily focused on the next four years or less. Georgia Tech finds itself in the challenging position of having to address both short and long-term time frames. It needs to keep cranking out those undergraduate degree holders. It also needs to be able to look ahead so that it creates the education that students and employers want and need in the timeframe that goes well beyond a four-year education. In that context, *creating the next* is a brilliant initiative, one that deserves to be outrageously successful as it is rolled out and implemented. We sincerely wish Georgia Tech, and its team of deep thinkers, all the best and give them a hearty pat on the back for their institutional risk-taking and organizational foresight.

Which brings us to a pause to reflect. The thing that appears to be missing from the *Creating the Next* equation is an overt recognition of the role that future employers and future students have to play in the process. Speaking for the Academy's community of practitioners, it seems to me that there needs to be a seat at the table for the current generation of environmental engineers and scientists so that they can help groom the next generation and beyond.

One would think that Georgia Tech would be eager to include the buyers' side in the discussions and activities implementing the various initiatives. Perhaps it's my own parochial Academy thinking, but it seems that Georgia Tech would be well-served to be more overt in its recognition and inclusion of the individuals and communities that will be impacted as Georgia Tech moves forward in its vision for 2040.

In my experience, there is a long history of disappointment running both ways between the interested parties. Academia is unhappy with the corporate and public sector for not being open to more 'blue sky' research that engenders high-impact innovation. The practitioner community finds itself regarded as too hidebound and inflexible in exploring for - and implementing - innovative solutions with its partners in the academic community. The drumbeat for them is that academics need to be more business-like and recognize that their research funding comes from a business case and careful budgeting of scarce resources. The implications for being able to 'create the next' are clear. Georgia Tech needs to include practitioners as it goes about defining what the educational experience currently is and what it will be in the future. It needs to establish itself and its programs as relevant to the wants and needs


“ Speaking for the Academy's community of practitioners, it seems to me that there needs to be a seat at the table for the current generation of environmental engineers and scientists so that they can help groom the next generation and beyond.



of practitioners. By the same token, practitioners need to do what they can to generate value out of the concepts and models that Georgia Tech is prepared to introduce in its new perspective on education.

Setting aside our skepticism, it's easy to get excited about the sea change that Georgia Tech is proposing. A brief list of what their future holds includes: technical excellence, artificial intelligence, whole-person employees, innovation skills, connections to the Georgia Tech global network as posited, entrepreneurial skills, and much more. Peeling back all the layers of 'creating the next' reveals that, at its core, this is a proposal for Georgia Tech to become a life-long professional partner for its students regardless of where their careers take them. This is a powerful perspective, one that can be made even more powerful if it does a better job of explicitly including practitioners and their evolving career needs.

Marketers frequently refer to the desire to have a 'sticky' relationship with customers, i.e., one in which customers find it hard to switch suppliers because they are bought into the supplier's platform and the cost of change is very high. That concept might apply here. If Georgia Tech can do a good job of selling the *Creating the Next* vision and platform, it may find itself with a customer base that is not just sticky, but is instead welded onto the lifetime education experience that is being offered. It will be interesting to see how well it works, if it works at all.

For those who wish to find out more about 'creating the next' at Georgia Tech, go to www.provost.gatech.edu/cne-home. 

2018 AAEES ANNUAL BOARD OF TRUSTEES MEETING

The 2018 Annual Meeting of the Board of Trustees will be held at Austin Marriott South, Austin, Texas, October 25-26, 2018. President Hunter Nolen encourages the BoT to arrive early to attend the tour of the Meadows Center for Water and the Environment, Texas State University on Thursday afternoon, October 25th.

The BoT meeting begins at 8:00 a.m. Friday, October 26th. The President's Reception and Installation will be held the evening of Thursday, October 25th. For more information and registration, go to <http://bit.ly/2018AAEESFallBoT>.

2019 COMMITTEE APPOINTMENTS

Reminder to Committee Chairs – President-Elect Kris Morico is anxious to receive your recommendations for new committee members and/or chairs to replace those whose terms expire in December 2018. 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 Kris Morico” either via email, at JSolmo@aaees.org or via postal mail:

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

SPECIALTY CERTIFICATION RENEWAL FOR 2019

The 2019 Specialty Certification Renewal cycle will soon be underway. Notices and instructions will be emailed beginning in September. Log in to your account on the AAEES Center to view your contact information and to verify that your records are up-to-date.

The specialty certification issued by the Academy must be renewed by December 31. Renewals not completed by March 31 are considered expired.

If you still have not renewed for 2018 or if you are delinquent for previous years, email Joyce at JDowen@aaees.org to learn how your certification can be reinstated now.

HAVE YOU VISITED THE AAEES CENTER?

You may renew and update your profile records online! Even if you do not wish to renew online, you may still log in to update your contact information. Additional members-only benefits include an online directory, search for other members, view updated committee and board rosters, and purchase lapel pins, certificates, and other apparel.

Non-members and guests are also able to use the AAEES Center to apply for membership, subscribe to Environmental Engineer and Scientist, register for events, and to purchase AAEES publications. Click on the Log in button on the AAEES.org home page to visit the AAEES Center or go to: <https://netforum.avectra.com/eWeb/StartPage.aspx?Site=AAEES>.

The AAEES Center is a secure site. The information that we collect is never shared with third parties outside of our organization.

THANK YOU FOR ALL OF YOUR AAEES AWARDS NOMINATIONS

The Academy is grateful for all of the wonderful nominations that have been submitted for the 2019 AAEES Awards. We are carefully combing through all of the submissions for the following categories:

- Gordon Maskew Fair Award for substantial contributions to the environmental engineering and science profession
- Edward J. Cleary Award for outstanding management of environmental protection enterprises
- Stanley E. Kappe Award for outstanding service to the Academy and advancement of public awareness
- Honorary Member for professional eminence and achievements
- International Honorary Member for professional eminence and achievements
- Science Award for a professional in the environmental engineering and science fields

2018 FREDERICK GEORGE POHLAND MEDAL

Congratulations to Dr. Charles B. Bott, P.E., BCEE, who has been selected to receive the 2018 Frederick George Pohland Medal from AEESP, the American Academy of Environmental Engineers and Scientist (AAEES), and the Pohland family. This year the AEESP Awards will be presented at their Meet and Greet at WEFTEC in New Orleans on Monday, October 1st.

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**. Send your submissions to YMoulden@aaees.org for:

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

2019 Election Results

The 2019 Election Teller's Committee convened at Academy Headquarters on June 26, 2018, to tabulate the votes for the 2019 Election.

The following individuals have been elected for 2018:

- President-Elect **Kristin (Kris) Morico** will be President
- **James W. Patterson** will be President-Elect
- **Lilia A. Abron** will be Vice President
- **James H. Clarke** and **Richard P. Watson** have been elected as Trustees-at-Large.

Confirmation of the results will take place at the 2018 Annual Meeting in October. Official terms start January 1, 2019.

Leaving the Board December 31 are:

- **Robert C. Williams**, Past President;
- **Gordon R. Garner**, representing APWA;
- **Kyle E. Schilling**, representing ASCE;
- **John E. Tobiason**, representing AEESP;
- **Christopher D. Jones**, representing NSPE;
- **Robert J. Schoenberger**, representing SWANA;
- **Jeanette A. Brown**, representing WEF; and
- **David M. Gaddis**, Trustee-at-Large.

AAEES thanks the 2019 Election Teller's Committee for taking the time to tabulate the votes:

- **Mark H. Houck**, Ph.D., P.E., BCEE
- **Mary Susan Merther**, BCES
- **John J. Segna**, P.E., BCEE



Kristin (Kris) Morico



James W. Patterson



Lilia A. Abron



James H. Clarke



Richard P. Watson

and beyond? Then send a 350-word nomination for **Volunteer of the Month**.


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.

UPCOMING AAEES ACTIVITIES

- **October 1, 2018** - AAEES/AEESP Joint Luncheon at WEFTEC. All are invited! New this year, AAEES will be teaming with AEESP for a joint luncheon at the New

Orleans Convention Center. Details of the luncheon to follow. Earn one Academy PDH for attending. Register at: <https://www.weftec.org/attend/register/about-registration/>.

- **October 11, 2018** - Environmental Symposium, Cazenovia, New York. This year's topic is Current Challenges and The Future. For information, go to <http://bit.ly/2018AAEESEastCoastConference>.
- **October 18, 2018** - AAEES Annual West Coast Event at UCLA. This year's topic is In This Era of Climate Uncertainty; Is SoCal Ready to Invest in Sustainable Local Water Resources? Additional information will be posted to <http://www.aees.org/events>. 

Are you reinvesting in the infrastructure of your organization?



Hiring the right people is key to your success. Bringing in qualified environmental engineering and environmental science candidates will strengthen your organization and provide you with the talent you need. Visit the **AAEES Career Center** today to find that perfect fit.

The American Academy of Environmental Engineers and Scientists can help move along your candidate search. By posting a job on the **AAEES Career Center** at careers.aaees.org, you will get unparalleled exposure within the engineering and scientific communities. As a part of the Engineering & Science Career Network, AAEES ensures that your job posting will be seen by thousands of qualified candidates relevant to your industry. And with access to all resumes posted to the network, you can widen your reach to find the right candidate today!

When it comes to making career connections in the **Environmental Engineering** and **Environmental Science** industries, more and more job seekers are turning to the AAEES Career Center to find their next position. Where better to post a job and search for qualified candidates? Visit the AAEES Career Center to post your Environmental Engineering and Environmental Science jobs today!

The ESCN is a strategic industry alliance formed by AAEES and other top trade and professional associations that serve companies searching for engineering and science professionals.



The 48th Annual
Excellence in Environmental
Engineering & Science
Awards Luncheon & Conference



The 48th Annual Excellence in Environmental Engineering and Science Awards Luncheon and Conference

by Yolanda Moulden

The American Academy of Environmental Engineers and Scientists held its annual Excellence in Environmental Engineering and Science Awards Luncheon and Conference on Thursday, April 19, 2018, at the National Press Club in Washington, DC.

Now in its 48th year, this event celebrates the winning entries in the 2018 Excellence in Environmental Engineering and Science (E3S) and Environmental Communications awards competitions, and honors outstanding individuals in environmental engineering and environmental science who have made significant contributions to the professional.

The conference preceding the luncheon, which was moderated by AAEEES President Hunter Nolen, featured speakers

who provided insight on the state of the business environment in the industry -- giving attendees the opportunity to learn novel approaches towards satisfying customer and partner concerns. The guest speakers for the 2018 were:

- Deb Frodl, Founder, DF Strategies, LLC. Her topic was *The world can't wait - The energy transition is upon us.*
- Paul Zofnass, President, Environmental Financial Consulting Group. His topic was *The Environmental and*



1. International Honorary Award Recipient, Steve Burnage, and Honorary Award Recipient, Rita Rossi Colwell
2. David Pettijohn and Penny Falcon accept the Superior Achievement for Excellence in Environmental Engineering and Science for Los Angeles Department of Water and Power's *LA's Water Conservation Potential Study Targets a Sustainable Future.*
3. Burk Kalweit and Hunter Nolen present the Grand Prize in Environmental Communications to Shannon Roback and David Shawver for Orange County Water District and Orange County Sanitation District's *GWRS Bottled Water Campaign*

THE AAEE AWARDS

Once again, David Gaddis, P.E., BCEE, Chair of the Excellence in Environmental Engineering and Science Awards Committee, did an excellent job serving as the Master of Ceremonies. Before the presentation of the awards, AAEE President C. Hunter Nolen, P.E., BCEE, welcomed the Keynote Speaker, Karl J. Rockne, Ph.D., P.E., BCEE, Director, Environmental Engineering Program, National Science Foundation. His topic was *The Engineering Grand Challenges - where Environmental Engineering fits into the landscape of transformative research.*

The Honorees

The AAEE Awards were established to honor, recognize, and celebrate distinguished environmental engineers, environmental scientists, educators, students, and professionals. The majority of the recipients for 2018 are in academia.

Professor Steve Burnage, PPSEE, CEng, CEnv, Hon.FSEE, FIMEchE, was installed as the 2018 International Honorary Member by Dr. Daniel Oerther, P.E., BCEE. Professor Burnage is currently a Professor at the University of Surrey (UK) and sits on the Centre for Doctoral Training (CDT) Steering

Group. He is an active member of the UK Society of Environmental Engineers (SEE) and is currently Chairman of the SEE Education and Membership Committee as well as a member of the Main Council. He is currently focusing his effort on promoting environmental engagement amongst licensed, certified and registered environmental engineers and scientists by working with their associated National and International professional bodies.

AAEE President-Elect Kristin Morico, P.E., BCEE, presented the 2018 Honorary Member Award to Dr. Rita Rossi Colwell, a world-renowned scientist and educator. Dr. Colwell is the Distinguished University Professor at University of Maryland College Park and Johns Hopkins University Bloomberg School of Public Health; Global Science Officer and Chairman at CosmosID, Inc.; and Senior Advisor and Chairman Emeritus at Canon U.S. Life Sciences. She served as the 11th Director of the National Science Foundation, 1998-2004. Dr. Colwell has been awarded 61 honorary degrees from institutions of higher education, including her Alma Mater, Purdue University and is the recipient of the 2005 Order of the Rising Sun, Gold and Silver Star, bestowed by the Emperor of Japan, the 2006 National Medal of Science awarded by the President of the United States, the 2010 Stockholm Water Prize awarded by the King of Sweden, the 2017 Vannevar Bush Award from the National Science Foundation, and the 2017 International Prize for Biology from the Japan



1. Dave Thomas, Gavin Grant, Grant Scholes and, Cody Murray of Savron, a division of Geosyntec Consultants International, Inc., are presented with the W. Wesley Eckenfelder Industrial Waste Management Medal Recipient sponsored by AquAeTer for *From Pilot to Full Scale: Development of STARx HottPad™*
2. W. Wesley Eckenfelder Graduate Research Award recipient Lt. Col Andrew Pfluger flanked by faculty advisors, Junko Munakata-Marr and Linda Figueroa
3. President Hunter Nolen presents the 2018 Stanley E. Kappe Award to recipient, Dr. Daniel Oerther

Society for the Promotion of Science. Dr. Colwell is an honorary member of the microbiological societies of the UK, Australia, France, India, Israel, Bangladesh, Czechoslovakia, and the U.S. and has held several honorary professorships, including the University of Queensland, Australia. A geological site in Antarctica, Colwell Massif, has been named in recognition of her work in the Polar Regions.

AAEES Trustee John Tobiason, Ph.D., P.E., BCEE was called upon to present the next three awards.

Dr. Richard Valentine (not present) won the 2018 Excellence in Environmental Engineering and Science Education Award. Dr. Valentine has been a faculty member in Civil and Environmental Engineering at the University of Iowa since 1982, teaching courses in environmental chemistry, physical-chemical water treatment processes, and courses in engineering for freshman emphasizing strategies for creative problem solving. He is the leading authority on chloramine reaction kinetics, which governs the stability of the disinfection process. He developed a simple, practical relationship for predicting how fast chloramines decompose in the distribution system, which is used as a guide in implementing the chloramination process.

Ahmed Abokifa, Washington University of St. Louis, won the 2018 Innovyze Excellence in Computational Hydraulics/Hydrology Award. Ahmed Abokifa is currently a Ph.D. candidate in the department of Energy, Environmental, and Chem-

ical Engineering at Washington University in St. Louis. He is on schedule to graduate in May and afterwards, he will be joining the University of Texas at Austin as a postdoctoral fellow in the Center for Water and the Environment. He holds both a BS and MS degrees in Civil Engineering from Cairo University.

Maria Briones won the 2018 W. Brewster Snow Award. Maria Briones graduated from the University of Rhode Island (URI) in the International Engineering Program (IEP) with a BS in Civil Engineering and a BA in Spanish Language. Through the IEP, she spent a year in northern Spain studying and working at a research facility, Centro de Estudios e Investigaciones, in the field of computational fluid dynamics to model aeration efficiency in wastewater treatment. She is currently a Master's candidate at University of South Florida where she will graduate in 2018 with an MS in Civil Engineering with an International Development Engineering focus. Her current GPA is 3.91. Her MS thesis research, based on her time and experience as a water, sanitation, hygiene Peace Corps volunteer in Panama (RPCV '15-'17), is a validation of a gravity fed water distribution design computer program, Neatwork, against field data obtained in a rural community in Panama. Maria currently works part time at CH2M (now Jacobs Engineering Group) in the water sector while she completes her MS thesis requirement. There, she supports the project management of storm and wastewater projects.



1. Dr. Daniel Oerther and Master of Ceremonies, David Gaddis, accept the inaugural Science Award on behalf of Dr. Joel Burken
2. Deb Frodl addressing the conference attendees
3. Chih-Ming Kao, P.E., BCEE, accepted the Grand Prize in University Research for *Remediation of Chlorinated Solvent-Contaminated Groundwater Using Long-Lasting and NZVI-Contained Colloidal Substrates with pH and Hydrogen Sulfide Control Capabilities: Innovative Substrate Development and Mechanism Studies*

Lieutenant Colonel Andrew Pfluger, U.S. Army, was presented the 2018 W. Wesley Eckenfelder Graduate Research Award by AAEE Vice President, James Patterson, Ph.D., BCEE. Lieutenant Colonel Andrew Pfluger, U.S. Army, is an active duty officer and a Ph.D. candidate at the Colorado School of Mines in Golden, Colorado. His research interests revolve around microorganisms in engineered environmental systems, including biological wastewater treatment. His doctoral research has centered on the characterization of anaerobic bioreactors for treatment of domestic wastewater. Upon graduation from Mines in the summer of 2018, Andrew will serve as an Assistant Professor at the United States Military Academy in the Department of Chemistry and Life Science. He was accompanied by his Faculty Advisors, Dr. Junko Munakata-Marr and Dr. Linda Figueroa.

Dr. Daniel B. Oerther, P.E., BCEE, D.AAS, CEP, C.Eng, M.CIEH, C.Env, returned to the podium to be presented with the 2018 Stanley E. Kappe Award by AAEE President Hunter Nolen. Dr. Oerther is a Professor of Environmental Health Engineering at the Missouri University of Science and Technology in Rolla and was previously Department Chair at the University of Cincinnati. Dan uses environmental biotechnology to achieve sustainable development at the nexus of water quality and food security. He co-founded/directed: NSF GK-12 Project STEP at Cincinnati; Ohio Center for Excellence in Sustaining the Urban Environment; Environmental Research

Center at Missouri; and Missouri Center for Science Diplomacy Laboratory. He served as major advisor for 14 doctoral and 22 masters students. He is a Jefferson Science Fellow of the U.S. National Academies, a Lifetime Honorary Fellow of the American Academy of Nursing (FAAN), and both a Fellow of the Royal Society for Public Health (FRSPH) and a Fellow of the Royal Society for Arts (FRSA) in the United Kingdom where he is also registered as a Chartered Engineer, a Member of the Chartered Institute of Environmental Health, and as a Chartered Environmentalist.

Dr. Oerther was then called upon to present the Edward J. Cleary Award to Karen L. Pallansch, P.E., BCEE, CEO for Alexandria Renew Enterprises, previously known as the Alexandria Sanitation Authority. She has served as CEO for twelve years, during which time she led a rebranding effort that incorporated a successful a public - developer partnership. Ms. Pallansch was unable to attend the event. Charles Logue, Alex-Renew's Chief of Production, accepted the award on her behalf.

Dr. Oerther then presented the inaugural AAEE Science Award to Dr. Joel Burken, P.E., F.AEESP, BCEE. Though not present for the event, Dr. Oerther and David Gaddis accepted the award on behalf of Dr. Burken. Dr. Burken currently serves as Chair and Curators' Distinguished Professor of the Civil, Architectural and Environmental Engineering Department and is a member of the US EPA Science Advisory Board. His research has focused upon low impact and



1. Peter Weed and Frank Sapienza accepted the Grand Prize in Planning for CDM Smith's *MSD Buncombe County, North Carolina - Sanitary Sewage Sludge Incinerator Improvements Project*
2. Keynote Speaker, Dr. Karl Rockne, addresses the attendees
3. Former AAEE President (2009) Debra Reinhart was the 2018 Gordon Maskew Fair Award Recipient

natural treatment systems since 1991. In that time, terms of sustainable-remediation, green infrastructure, and green-remediation have evolved and now promote the same fundamental aspects surrounding water quality and water resource management.

Finally, Kristin Morico presented the 2018 Gordon Maskew Fair Award to Dr. Debra R. Reinhart, P.E., BCEE. Dr. Reinhart is a Pegasus Professor and Assistant Vice President for Research and Scholarship at the University of Central Florida and a member of the Civil, Environmental and Construction Engineering Department. Her research area is solid waste management, with a focus on optimized waste collection and sustainable operation of landfills. Her research has been supported by grants from and contracts with both government agencies and private companies, with research support from the federal government (U.S. Environmental Protection Agency through subcontractor ARCADIS, and the National Science Foundation), core funding from the State of Florida (Hinkley Center for Solid and Hazardous Waste Management), and from the Environmental Research and Education Foundation.

EXCELLENCE IN ENVIRONMENTAL ENGINEERING AND SCIENCE AWARDS

Following the presentation of the individual awards, it was time to announce the winning projects of the 2018 Excellence in Environmental Engineering and Science Competition.

Research

There were two award-winning projects in Research.

- **Honor Award:** Orange County Water District for *A Simple, Cost-Effective Method for NDMA Analysis in Drinking Water and Recycled Water to Improve Public Health Protection* (Fountain Valley, California). Engineer in Charge: Dr. Megan Plumlee, P.E. Accepting the award was Shannon Roback.
- **Grand Prize:** Gwinnett County Department of Water Resources, CDM Smith, and Stantec for *Direct Potable Reuse Pilot Testing of Ozone-Biofiltration/Research Project (WE&RF Reuse-15-11)* (Lawrenceville, Georgia). Accepting the award were the Engineers in Charge, Denise R. Funk, P.E., BCEE, and Jennifer Hooper, P.E.

Planning

Two awards were presented in Planning.

- **Honor Award:** HDR for *Toronto Long Term Waste Management Strategy* (Toronto, Ontario, Canada). Person in Charge: Christine Roarke.
- **Grand Prize:** City of Los Angeles, LA Sanitation and Los Angeles Department of Water and Power for *One Water LA 2040 Plan* (Los Angeles, California). Engineer in Charge: Adel Hagekhalil, P.E., BCEE. Accepting on his behalf was Azya Jackson.



1. Azya Jackson accepted City of Los Angeles, LA Sanitation's Grand Prize in Planning for their project, *One Water LA*
2. Los Angeles Department of Water and Power won the Grand Prize in both Environmental Sustainability and Operations Management for *Los Angeles Aqueduct - Owens Lake Environmental Protection and Dust Mitigation*. Accepting the awards were Jamie Valenzuela and Jeffrey Nordin
3. Dr. John Tobiason presents the 2018 William Brewster Snow Award to Maria Briones

Design

There were two award-winning projects in Design.

- **Honor Award:** CH2M, now Jacobs for *Central Pasco County Beneficial Water Reuse Project: 4G Wetlands* (Land O Lakes, Florida). Engineer in Charge: Rafael Vazquez-Burney, P.E. Laurens Van der Tak and Charles Cullen accepted the award.
- **Grand Prize:** Metro Wastewater Reclamation District for *Northern Treatment Plant Facilities* (Brighton, Colorado). Engineer in Charge: Steve Patterson, P.E. Accepting the award were Steve Patterson, Matt Duncan, and Scott Vanier.

Operations/Management and Environmental Sustainability

A single project won Grand Prize in both the Operations/Management and Environmental Sustainability categories.

- **Grand Prize:** Los Angeles Department of Water and Power for *Los Angeles Aqueduct - Owens Lake Environmental Protection and Dust Mitigation* (Los Angeles, California). Engineer in Charge: James G. Yannotta, P.E. Jeffrey Nordin and Jamie Valenzuela accepted both awards on behalf of LADWP.

University Research

University Research had two award-winning projects.

- **Honor Award:** Dr. Robert W. Nairn, University of Oklahoma for *Southeast Commerce Mine Water Passive Treatment Project* (Norman, Oklahoma). Engineer in Charge: Russell C. Dutnell, P.E. Accepting on their behalf was Dr. Robert Knox.
- **Grand Prize:** Chih-Ming Kao, P.E., BCEE, and Yih-Terng Sheu for *Remediation of Chlorinated Solvent-Contaminated Groundwater Using Long-Lasting and NZVI-Contained Colloidal Substrates with pH and Hydrogen Sulfide Control Capabilities: Innovative Substrate Development and Mechanism Studies* (Kaohsiung, Taiwan). Accepting the award was Engineer in Charge, Chih-Ming Kao, P.E., BCEE.

Small Projects

One prize was presented in Small Projects.

- **Grand Prize:** CDM Smith for *MSD Buncombe County, North Carolina - Sanitary Sewage Sludge Incinerator Improvements Project* (Asheville, North Carolina). Engineer in Charge: Richard Tsang, Ph.D., P.E., BCEE. Frank Sapienza, P.E., BCEE and Peter Weed accepted the award on behalf of CDM Smith.



1. Paul Zofnass addressing the conference attendees
2. Dr. John Tobiason presents Ahmed Abokifa with the 2018 Innovyze Excellence in Computational Hydraulics/Hydrology Award
3. Engineers-in-Charge Jennifer Hooper and Denise Funk accept the Grand Prize in Research for CDM Smith's *Direct Potable Reuse Pilot Testing of Ozone-Biofiltration/Research Project (WE&RF Reuse-15-11)*

2018 Sponsors

Excellence in Environmental Engineering and Science
Awards Luncheon and Technical Conference

C.P. Huang Ph.D., BCEEM



American
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Excellence in Environmental
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Hydraulics/Hydrology Award

Innovyze®

W. Wesley Eckenfelder Industrial
Waste Management Medal



Engineer in Charge: David Major, Ph.D., BCES. Accepting the award were Cody Murray, Gavin Grant, Grant Scholes, and Dave Thomas.

The Grand Prize in Industrial Waste Practice is also awarded the **W. Wesley Eckenfelder Industrial Waste Management Medal** sponsored by AquAeTer. Presenting the award to the winning team was Dr. James Patterson, BCEEM.

Superior Achievement in Environmental Engineering and Science

The Superior Achievement Award is presented to the project receiving the highest score of all entered projects. The winning project had been entered in Environmental Sustainability. Congratulations to:

- Los Angeles Department of Water and Power for *LA's Water Conservation Potential Study Targets a Sustainable Future* (Los Angeles, California). Engineer in Charge: David Pettijohn, P.E., BCEE. Accepting the award were David Pettijohn and Penny Falcon.

ENVIRONMENTAL COMMUNICATIONS AWARDS

Following are the winning projects in the 2018 Environmental Communications Awards.


- Honor Award:** Sanitation Districts of Los Angeles County (LACSD) for *Converting Waste into Resources at the Sanitation Districts*. Person in Charge: Grace Robinson Hyde, P.E., BCEE. Accepting the award was Wendy Wert, P.E., BCEE.
- Grand Prize:** Orange County Water District and Orange County Sanitation District for *GWRB Bottled Water Campaign*. Person in Charge: Eleanor Torres. Shannon Roback and Jim Colston were on hand to accept the award on behalf of OCWD and OCSD.

Following the awards luncheon, AAEES held a poster session in which attendees were able to interact with the E3S award winners.

Full profiles of all of the winning projects and award recipients were published in the Spring 2018 (V54, N2) issue of *Environmental Engineer and Scientist*. They are also posted on <http://www.aees.org> and <http://www.eesfoundation.org>.

All photos of this event can be found at on our Flickr page at <https://www.flickr.com/photos/aaeesdotorg> or our Facebook page at <https://www.facebook.com/AAEESdotORG>.

As always, AAEES would like to thank all entrants, honorees, attendees, volunteers, sponsors, and participants who collectively contribute to the continued success of the AAEES Excellence in Environmental Engineering and Science Awards Luncheon and Conference.

And we would like to offer a special 'thank you' to the organizations and corporations represented on this page and our AAEES Patrons on page 2. 

Small Firms

Small Firms had one award-winning project.

- Grand Prize:** AquaWorks DBO, Inc. for *Florissant Water & Sanitation District Drinking Water Treatment Improvements Project* (Florissant, Colorado). Accepting the award was Engineer in Charge, Adam Sommers, P.E.

Industrial Waste Practice

Two awards were presented in Industrial Waste Practice.

- Honor Award:** HDR for *Factoria Recycling and Transfer Station* (Bellevue, Washington). Person in Charge: Mary Shanks.
- Grand Prize:** Savron, a division of Geosyntec Consultants International, Inc. for *From Pilot to Full Scale: Development of STARx HottPad™* (Houston, Texas).

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2017 Contributors and Sponsors

Contributions and sponsorships that the American Academy of Environmental Engineers and Scientists and the Environmental Engineering and Science Foundation receive are vitally important to the infrastructure and longevity of many programs. We are pleased to recognize the individuals on the following pages for contributing to various funds during 2017.

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While most contributions are donated during the specialty certification renewal process, members may log in to their account on the AAEEES Center at any time to donate to any of the following funds:

- **AAEES General Fund.** This fund is for supporting AAEEES infrastructure.
- **Environmental Engineering and Scientist Fund.** This fund supports improvements to editorial quality of the AAEEES quarterly periodical, *Environmental Engineer and Scientist*.

- **Excellence in Environmental Engineering and Science (E3S) Fund.** This fund aids the publicity of the program.

- **Kappe Lecture Fund.** This fund is used to support and ensure continuance of the Kappe Lecture Series.

In addition to during the specialty certification renewal process, donations to these funds can be made year-round either by logging in to the AAEEES Center, or by mailing a check to Academy headquarters. AAEEES is a 501(c)6 organization. Your donation may be reported as a business expense. Consult your tax advisor for details.

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- **Environmental Engineering and Science Foundation General Fund.** The general fund for the Environmental Engineering and Science Foundation.
- **The Fred Pohland Memorial Fund.** This fund supports the Frederick George Pohland Medal which is awarded annually to an individual who has made sustained and outstanding efforts to bridging environmental engineering research, education, and practice.
- **The K-12 Student Competition Fund.** This fund is used to support ongoing K-12 student competitions.
- **The Students & Young Professionals Fund.** This fund supports student activities in environmental engineering and environmental science at colleges and universities. The S&YP Fund is used to facilitate events on or off-campus that will assist students in their academic advancement, enhance their understanding of the profession, and support their career aspirations.

- **The W. Brewster Snow Award Fund.** This fund supports the W. Brewster Snow Award, which is awarded annually to an outstanding engineering student pursuing or recently completing a Masters degree in Environmental Engineering or closely-related degree program.
- **The W. Wesley Eckenfelder Fund.** This memorial fund was established in the name of W. Wesley Eckenfelder Outstanding Graduate Research Award, the W. Wesley Eckenfelder Industrial Waste Management Medal, the W. Wesley Eckenfelder Distinguished Leadership Award, and the W. Wesley Eckenfelder University Lectures.

Donations can be made online at:
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About the AAEEES Patrons Program

The American Academy of Environmental Engineers and Scientists (AAEES – aaees.org) has been in existence for 60 years, credentialing professionals in environmental engineering and science, educating the public about the value of environmental systems, working with ABET (the Accreditation Board for Engineering and Technology) as the Lead Society in the accreditation of over 60 college and university Environmental Engineering programs, and providing recognition for noteworthy projects and programs in the annual Excellence in Environmental Engineering and Science competition.

The Academy has greatly benefited from the collaborative spirit and active participation of its sponsoring societies. However, from the standpoint of economic support, the Academy's endeavors have focused on individual membership and the actions of these individuals in implementing its goals. To sustain the Academy's programs and enhance their effectiveness, the Academy is implementing a Patrons Program that is being offered in three categories:

- Corporate/Consulting firms,
- Public Agency/Government organizations, and
- Academic institutions.

It is the Academy's firm belief that the synergistic impact of individual membership activities, coupled to support by the organizations in which they work, will create a powerful success model that will enable the Academy to better implement its organizational goals and mission.

The Patrons Program umbrella is expansive. Its intent is to have our patrons effectively co-brand with the Academy for everything that it does in outreach to either members or the general public.

The list below is a summary of the Patrons Program elements that participants receive.

- Featured recognition of Patrons on the AAEEES website with a direct link to the Patron's website. We will establish a rotating schedule of all Patrons' content that features a noteworthy event or project undertaken within their overall portfolio. AAEEES staff will work with Patrons' staff to structure their content and format. This aspect of the program benefits both the Patron and the Academy in publicizing the profession, its relevance, and its accomplishments.
- Oral and visual recognition (signage/logo) for Patrons at all AAEEES events.
- Prominent recognition/logo display in *Who's Who in Environmental Engineering and Science*.
- Prominent recognition/logo display in the *Environmental Engineering and Science Resource Guidebook*.
- A listing in the *Environmental Engineering and Science Resource Guidebook*, featuring the Patron organization's

Board Certified staff and its overall capabilities, at no-charge.

- Two complimentary tickets to the annual Excellence in Environmental Engineering and Science Awards Conference and Luncheon (E3S) in Washington, DC.
- Two complimentary entries for the E3S competition.
- Waiver of certification application and examination fees for a Patron's employees.
- Prominent publication space/logo recognition in the *Environmental Engineer and Scientist* quarterly magazine.

The Patrons Program is much more effective in providing consistent recognition for our Patrons. Wherever the Academy goes and wherever Academy materials appear, those of its Patrons also appear.

In establishing the Patrons Program the Academy acknowledges and appreciates the past economic support of corporate, agency, and academic entities. Their support for individual events and programs has been beneficial to the Academy. We believe that the Patrons Program outlined here will be more effective in achieving the goals of the Academy in developing its programs, and more effective in providing the recognition that our Patrons seek for their sponsorship of the Academy.

Administratively, the Patrons Program enables Patrons to support the full slate of Academy activities through one annual contribution. We are setting annual Patron contribution commitments of: \$8,000 for Corporate/Consulting category; \$6,000 for Public Agency/Government category; and \$2,000 for Academic institutions participating in the program.

We invite you to consider having your organization become an Academy Patron. Your decision to participate will trigger our sending you a simple 'Patrons Program Participation Agreement' that lists the program features and benefits. This will be followed by contact from the Academy staff to determine your preferred invoicing and form of payment information. We will also need to have Patrons' staff contact information to ensure that we have requisite materials -- accurate logos, entity identification, website links, and other items -- to enable us to create the content we will use to maximize your exposure and recognition as an Academy Patron.

Should you have questions please contact: Burk Kalweit, AAEEES Executive Director (BKalweit@aaees.org).

Start Planning Now

Environmental Communications Award



Your organization has been especially successful in communicating complex and challenging issues to the public and other important audiences. Through your efforts, citizens, environmental conservation groups, town councils, state and national legislative bodies, private sector companies, and others have come to realize the value and importance of your projects, and their economic and public health benefits. If that sounds familiar to you, get the recognition you deserve by entering the AAEEES Environmental Communications Award competition. Winning entries are automatically qualified to enter the International Water Association's PIA Awards in the category of Marketing and Communications.

Here are the criteria for judging the Environmental Communications Award:

Innovative approach to messaging or branding

- ❖ Future value to the water engineering profession
- ❖ Creativity and clarity in portraying and communicating the messages
- ❖ Effectiveness in delivery and achieving desired outcome
- ❖ Integrated Design Approach

This Award is designed to recognize environmental communication efforts by industrial entities; municipal, state and federal governments; and consulting firms who work to convey the important environmental messages to their constituencies and other interested parties.

The deadline to submit all entries is March 1, 2019.

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



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For more information, go to <http://www.aaees.org/becomeboardcertified/>.

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Start planning your entry now!

2019 *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 sponsored by AquAeTer*

To see profiles of the 2018 winning projects, go to
<http://www.aees.org/e3scompetition/>

Entries must be submitted by February 1, 2019.



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