AEESP Newsletter

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Highlights

Need to renew your 2020 AEESP membership?
Go to "Membership > Online Renewal" on the AEESP Website: AEESP.org
Dues increase Nov. 1.

AEESP Newsletter Submissions

Please send news, conference announcements, job postings, letters to the editor, and other contributions to the newsletter to Kyle Doudrick at kdoudrick@nd.edu. The next newsletter will appear in February 2021.

President's Letter

BY JOEL J. DUCOSTE
North Carolina State University

Dear AEESP Community:

I never imagined that I would start my presidency of AEESP when we are experiencing such tumultuous times (e.g. a global pandemic, racial strife). I was looking forward to just sharing some exciting things that AEESP will be doing for our members and some personal initiatives that I wanted to accomplish as president. But sharing these initiatives in isolation seems to pale in comparison when our members are wondering: 1) 'how will I deliver my course to maintain effective student learning?,' 2) 'how will I conduct my research while maintaining the health and well-being of my research group?,' 3) 'how are my graduate students and postdoctoral fellows feeling and dealing with everything?'. AEESP and more so, the global community, has never been tested more than it is today to deal with life's uncertainties. The lists of worries are long and personal. I can tell you that there are days that I find it difficult to think and be motivated to work on new ideas for educational or research purposes.

The one thing that helps me maintain my path forward is that I am not alone and that we are all in this together. AEESP was founded on the premise that our collective influence is more powerful than each of us alone to accomplish great initiatives in support of educating future generations of environmental engineers and scientists. There were many times that our members and leadership had to represent the membership at federal meetings to express our concern over budget cuts for training grants and extramural research. While we are not a large association, we worked with other associations to increase our collective power to convince legislatures and those that control budget allocations that our research and educational accomplishments at our universities are vital to the global pursuit of public health and environmental health protection. Technologies that we create, whether through hypothesis driven or non-hypothesis driven research, have changed the world and made it a little safer. Former students who are now leaders in research, engineering practice, education, and policy are helping shape our planet's future. Even with all the accomplishments that we can claim from our collective efforts, there are forces that want to erode those accomplishments.

While many of these forces are affecting life as we know it well beyond the borders within which AEESP operates, we as an association have led by example and continue to demonstrate our innovation for the benefit of our members and the communities that we serve. For example, Colleen Naughton fom UC Merced, in coordination with other members, has led an initiative entitled "AEESP sense of community" that involves developing and collecting a series of online educational resources and webinars for our members to help support the transition to digital educational delivery. She helped put together a list of online resources in a spreadsheet that is available on our AEESP website to assist those faculty in their transition to digital delivery. The list of items continues to grow as members add their resources to help others. Webinars from our faculty colleagues have already been delivered on digital learning and have led to some great advice for best practices in remote distance education. That webinar was recorded and is available on AEESP's YouTube channel, **AEESProfs**.

A survey was also sent to our membership to get a better sense of how AEESP can be of support during this challenging time. Potential responses to the question included 1) online teaching and pedagogy, 2) inclusive teaching, research, and mentoring, 3) remote graduate student mentoring, 4) virtual research strategies, 5) faculty mentoring, and 6) other. Overwhelmingly, responses to the survey suggest that our members want information to help them with online teaching and pedagogy and inclusive, teaching, research, and mentoring (Figure 1). One of my goals is to work with the Education Committee to help develop a

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www.aeesp.org/membership

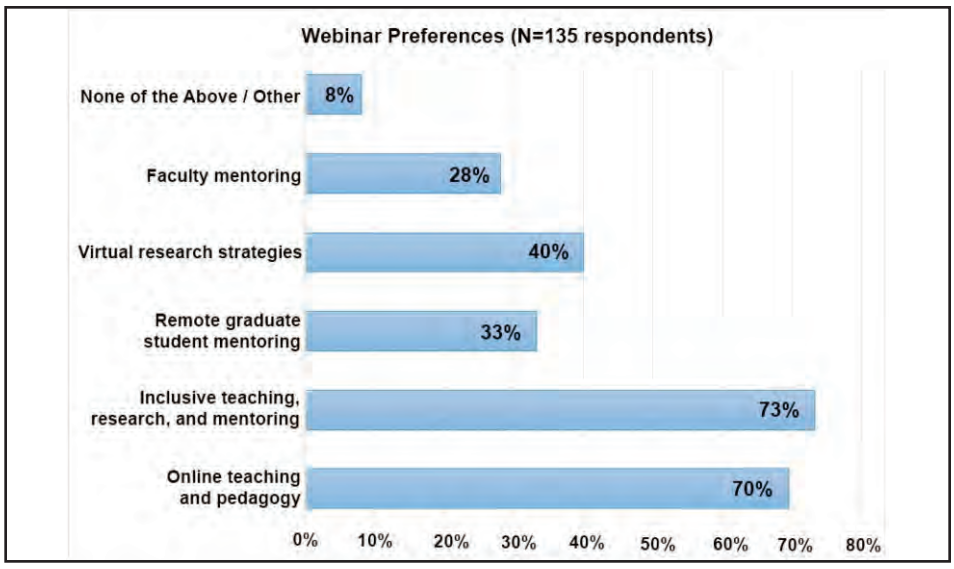

Figure 1. Potential topics for Future Webinars to support our Members from AEESP Sense of Community Series

series of webinars that will provide information on these topics to improve the sense of community in this digital educational and research world that has been thrust upon us.

Past President Maya Trotz and colleagues have received NSF funding to support a project entitled "Converging COVID-19, environment, health, and equity". This project is designed to host a series of meetings that brings together researchers from environmental engineering and science to share knowledge and discuss linkages across different domains of air, water, and the built environment as they relate to COVID-19 responses and contexts of inequity within communities. These wonderful intersectional research topics and discussions that cut across engineering, science, and the social sciences will lead to out-of-the-box and transformational information that moves our field in bold new directions, and they are critically needed for healthy and resilient communities. I am so proud of our membership because these are just a couple of examples of what we do to support the constituencies that we serve and each other.

I am overwhelmingly humbled to serve as the next AEESP President. I look back at the list of presidents before me and see research and educational giants in the field of environmental engineering and science. Yet all of them took time to serve in this important role. I can say the same about many of you who have participated as chairs of committees and members of these committees. It still impresses me to see how members are encouraged to become contributors to the wellbeing of our association beyond just being a card-carrying member. I became a contributing member after attending one of our biennial conferences. If you have not attended one, then I highly recommend that you do, as you will witness the passion of our members that are sharing their time in service of our AEESP. I was hooked. You will have that opportunity next year at Washington University in St Louis, MO. I am grateful for the leadership of Daniel Giammar and his team to host our biennial Research and Education Conference. I know it will be great.

I want to take this opportunity to thank all the past and current committee chairs and members of those committees for their contributions towards the AEESP mission. I am grateful for members that submitted their names after being nominated to serve on the AEESP Board of Directors (BOD). I also want to thank those that have served in this capacity. More recently, I want to acknowledge my BOD colleagues Karl Linden, Shaily Mahendra, and April Gu, who are completing their terms, and welcome Junko Munakata Marr, Treavor Boyer, and Debora Rodrigues, who are starting their terms on the BOD. I look forward to continuing to work with you and other members of the BOD, committee chairs, and their committees to keep AEESP supporting our members and fulfilling its mission. I also want to thank our Sustaining Members for supporting AEESP initiatives. I cannot thank enough those that have contributed personal funds to support AEESP Foundation endowments and those that work tirelessly to raise awareness and encourage others to help support those endowments.

Continued on next page

1) Broaden participation of underrepresented groups in tenure track faculty, post doctoral fellows, and graduate student in environmental engineering and science
2) Grow global participation of international members in AEESP
3) Develop initiatives to enact the NAE/NAS educational mission reported in Grand Challenges of Environmental Engineering and Science report
4) Work on the AEESP Strategic Plan
5) Begin work on Revamping the AEESP Website
6) Finalize AEESP core values statement

Table 1: AEESP Presidential initiatives for 2020-2021 academic year.

So as your President, I hope to work on a number of initiatives and galvanize others to support those initiatives to help make sure that our association continues to serve the mission of educating future generations of environmental leaders and to support our constituencies that provide global public and environmental health protection. Table 1 displays those initiatives.

The list is long and contains items that will go on after my presidency. AEESP presidents have a very short time to make an impact in that role. All presidents hope to do is share a vision, convince others to help fulfill that vision, and get advice on how to achieve it. My first two goals are not unique to me but were goals proposed by my predecessors and good friends Maya Trotz and Karl Linden. I believe that their goals will continue to make AEESP globally strong, diverse and more inclusive. I will share my vision in detail in future correspondences.

Finally, I want to implore all members to be patient with yourselves and each other. Expectations of producing excellence that we place on each other and ourselves are high. Yet, the times that we currently live has placed additional unexpected burdens. Please look out for one another. Reach out to a member and ask the simple question "How are you doing?", "Do you want to talk about it?", "Is there anything I can do to help?". Do not say that you understand, because the reality is that you probably do not. Be a good listener and look out for any injustices that may be occurring in your university communities.

I look forward to serving you as your President and hope you will help me make sure AEESP continues to serve each other and the communities we serve.


AEESP Converging COVID-19:
Environment, Health and Equity
Fridays, October 16 - November 20, 2020, 12:00 - 1:30 p.m. ET
https://aeespconvergingcovid19.org/
Moderators
Session 1: Friday, October 16
COVID-19, systemic biases, and environmental engineering education
Kimberly Jones
Session 2: Friday, October 23rd
COVID-19 and fostering informed decisions and actions
Amy Stuart
Session 3: Friday, October 30th
COVID-19 and the creation of efficient, healthy and resilient cities
Katherine Alfredo
Session 4: Friday, November 6th
COVID-19 and sustainably supplying food, water, and energy
James Mihelcic
Session 5: Friday, November 13th
COVID-19 and designing a future without pollution and waste
Colleen Naughton
Session 6: Friday, November 20th
COVID-19 and climate change mitigation, and adaptation
Maya Trotz
REGISTER FOR ALL SESSIONS:
https://tinyurl.com/aeespconvergingcovidregister
Tweet Questions at:
#AEESPConvergingCOVID19
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UNIVERSITY OF SOUTH FLORIDA
CITRIS BANATAO INSTITUTE
Strong COASTS
AEESP
Association of Environmental Engineering & Science Professors

2020 AEESP Award Recipients

Submitted by Kevin T. Finneran, AEESP Awards Committee Chair (Clemson University)

The 2020 AEESP Awards were presented during an online awards ceremony hosted by incoming President Joel Ducoste on Monday, October 5th from 7-9 pm ET (4-6 pm PT). Below is a list of the recipients. Congratulations to all award winners!

Thank you to the members of the Awards Committee and sub-committees for thoughtful and thorough evaluation of the nominations: Rob Nerenberg (outgoing Awards Chair, who assured a smooth transition), Trina McMahon, Paul Bishop, Paula Mouser, William Mitch, Sarina Ergas, Wen Zhang, Jason He, Adam Smith, Qiong Zhang, Guangbin Li, Navid Saleh, Srijan Aggarwal, Ten Zhang, Kyle Bibby, Brook Mayer.

Thanks also to American Academy of Environmental Engineers and Scientists (AAEES) members Richard Magee, Webster Owen Jr., and Hector Fuentes, for serving on joint AAEES-AEESP awards committees, and to Liz Pohland for assisting with the selection of the Frederick George Pohland award recipient. Also thanks to Charles Haas for chairing the AAEES/AEESP Joint Awards Sub-Committee.

*Please also note that nominations for 2021 AEESP Awards will go live on November 1 and be open through March 1, 2021. See AEESP's Awards webpage (**https://aeesp.org/awards**) for more information and changes to this coming year's nomination eligibility.

Student Awards

Jacobs Engineering Group /AEESP Outstanding Doctoral Dissertation Award

This award, endowed by Jacobs Engineering Group, is given annually to recognize an outstanding doctoral dissertation that contributes to the advancement of environmental science and engineering.

Christopher E. Lawson, University of Wisconsin
Dissertation Title: *Metabolic versatility and interactions of nitrogen cycling microbiomes*
Advisors: Profs. Katherine (Trina) McMahon, Daniel Noguera

Paul V. Roberts/AEESP Outstanding Doctoral Dissertation Award

This award is given annually to recognize an outstanding doctoral dissertation that advances the science and practice of water quality engineering for either engineered or natural systems.

John T. Trimmer (right), **University of Illinois, Urbana Champaign**
Dissertation Title: *Resource Recovery from Sanitation to Amplify Development: Navigating Global and Local Possibilities*
Advisor: Prof. Jeremy S. Guest (left)

AEESP Master's Thesis Award

This award annually recognizes two most outstanding Master of Science theses that contribute to the advancement of environmental science and engineering.

Kristen E. Snyder

Olivia Salmon

Awardee 1:
Kristen E. Snyder, San Diego State University
Thesis Title: *Photochemical Dissolution and Degradation of Industrial Crude Oil and Natural Seep Oil in Seawater*
Advisor: Prof. Natalie Mladenov

Awardee 2:
Olivia Salmon, Colorado School of Mines
Thesis Title: *Impacts of Rare Earth Elements on Biological Wastewater Treatment Processes*
Adviser: Prof. Junko Munakata Marr

W. Wesley Eckenfelder Graduate Research Award

This award, jointly administered by AEESP and AAEES, is given annually to recognize a student whose research contributes to the knowledge pool of industrial wastewater management.

Joseph Weaver, North Carolina State University
Dissertation Title: *Physical and Population Changes in Aerobic Microbial Communities Treating Wastewater*
Advisers: Profs. Francis L. de los Reyes III and Joel J. Ducoste

William Brewster Snow Award

This award recognizes an environmental engineering graduate student who had made significant accomplishments in an employment or academic engineering project. There were two awardees this year.

Awardee 1:
Ashley Older, University of South Florida

Awardee 2:
Megan Patterson, The Ohio State University

Innovyze Excellence in Computational Hydraulics & Hydrology Award

This award recognizes a student whose research contributes to the knowledge pool in the area of computational hydraulics and hydrology.

Jonathan Bradshaw, Stanford University

Education, Research, Practice and Outreach Awards

AEESP Award for Outstanding Teaching in Environmental Engineering and Science

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

2020 Recipient: Daniel E. Giammar, Washington University in St. Louis

Dan joined Wash. U. in 2002, and currently is Walter E. Browne Professor of Environmental Engineering. He is consistently recognized by the students in his classes as an excellent instructor, and his evaluation scores are amongst the highest in the department. His efforts have been recognized by receiving the Department Teaching Award. Dr. Giammar is engaged in various educational and outreach teaching related activities.

Steven K. Dentel AEESP Award for Global Outreach

This award, established in 2014, is given annually to recognize outstanding contributions and leadership by a faculty member through involvement in environmental engineering and science outreach activities to the global community.

2020 Recipient: Virender K. Sharma, Texas A&M University

Virender K. Sharma joined Texas A&M in 2014 in the School of Public Health, and is currently Professor/Director of the Program on Environmental and Sustainability. Over the last three decades, Virender has made outstanding contributions to environmental science and engineering outreach activities to the global community through teaching excellence, workshops, mentorship, collaborating research, and chairing international conferences/symposia in Asia, North and South America, and Europe. His innovative approaches addressed many environmental contamination challenges worldwide, which resulted in high impact articles published in premier international journals.

Excellence in Environmental Engineering and Science Education (E4) Award

This award, jointly administered by AEESP and AAEES, is given annually by AAEES to an individual who has made a significant contribution to the profession in the area of educating practitioners.

2020 Recipient: Susan J. Masten, Michigan State University

Professor Susan Masten, PhD, PE, is the Associate Chair for Undergraduate Studies in the Department of Civil and Environmental Engineering at Michigan State University. Susan has served the students of Michigan State, and the greater community of environmental engineers and scientists, with distinction as an educator of the highest caliber. In particular, since 2003 she has co-authored and regularly updated the seminal, "Fundamentals of Environmental Engineering and Science," textbook published by McGraw-Hill. In addition to her leadership in co-authoring a seminal textbook to educate students, Professor Masten has demonstrated leadership in organizing and contributing to successful course and curriculum aimed at educating practitioners and the public. One example is her work as a member of the Technical Outreach Services for Communities (TOSC) program of the Great Lakes/Mid Atlantic Hazardous Substance Research Center.

Charles R. O'Melia AEESP Distinguished Educator Award

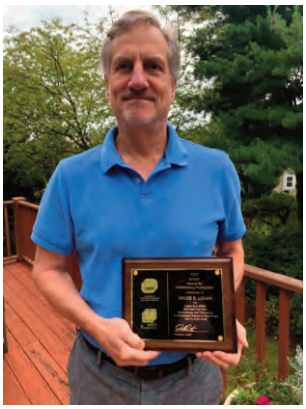
This award recognizes the significant contributions of Professor O'Melia to environmental engineering education and is awarded to an environmental engineering or science professor who has a record of excellent classroom teaching and graduate student advising, significant research achievements, and an outstanding record in mentoring of former students and colleagues.

2020 Recipient: R. Scott Summers, University of Colorado Boulder

Scott (pictured here at left, with Karl Linden) is a Professor and former Director of the Environmental Engineering program at UC Boulder. He has an outstanding record that embodies all the characteristics of this award. His long list of other awards can confirm that. References mentioned that "Scott is an influential researcher and the top in his field, but his humility and dedication to his students' research makes him approachable", and that Scott "has a gift for inspiring students to reach their potential, even when the student doesn't realize it's there".

AEESP Outstanding Publication Award

This award is given annually to recognize the author(s) of a "landmark environmental engineering and science paper that has withstood the test of time and significantly influenced the practice of environmental engineering and science."



2020 Recipient: Bruce E. Logan, Penn State University for the team paper "Microbial Fuel Cells: Methodology and Technology," which appeared in *Environmental Science & Technology* in 2006.

Logan et al. (2006), which includes co-authors: Bert Hamelers, Rene Rozendal, Uwe Schroder, Jurg Keller, Stefano Freguia, Peter Aelterman, Willy Verstraete, and Korneel Rabaey, presented a landmark paper written to tackle important issues in the field of bioelectrochemical systems in environmental engineering. The publication addresses everything from microbial fuel cell design features and electrode and membrane materials among other topics. The impacts of this publication can also be seen through its citation record: 3,000+ citations, making it the 2nd highest cited paper of the 40,771 papers published in the journal *Environmental Science & Technology*, and it is the #1 most cited work of the >9800 papers on the topic of "Microbial Fuel Cells".

AEESP/Mary Ann Liebert Award for Publication Excellence in Environmental Engineering Science Journal

This award, established in 2017, is given annually to the authors of an outstanding paper published in *Environmental Engineering Science* during the previous calendar year. *Environmental Engineering Science* is the official journal of AEESP, and this award recognizes publication excellence among its members.

The 2020 award recipients are **Joe F. Bozeman III, Weslynne S. Ashton,** and **Thomas L. Theis.** Their 2019 paper is entitled: "Distinguishing Environmental Impacts of Household Food-Spending Patterns Among U.S. Demographic Groups."

Joe F. Bozeman III

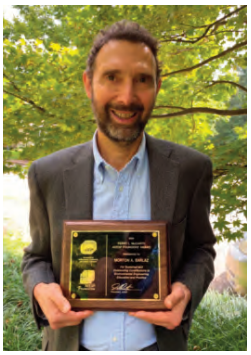
Weslynne S. Ashton

Thomas L. Theis

Perry L. McCarty AEESP Founders' Award

This award, established in 1991 and endowed in 2015, is given annually to recognize a member of AEESP who has made "sustained and outstanding contributions to environmental engineering education and practice."

2020 Recipient: Morton A. Barlaz, North Carolina State University

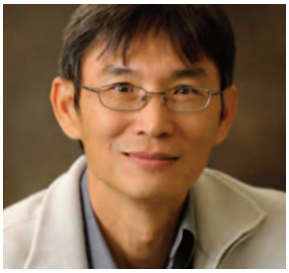


During his 30+ career at NC State, Mort has been a world leader in the area of solid waste research and is highly regarded by both academics and industry professionals. A distinguished university professor, his research has led to novel and important insights into landfill management and performance. Contributions include novel insights regarding mechanisms by which microbial populations develop in buried waste, methane generation, and the extent of biodegradability. Mort has also been an active member of AEESP: Chair of the Legislative Affairs Committee, Chair of the Lecturers Committee, and recently Chair of the Fellows Committee; He was recognized with his election as a Fellow in 2017. He served as the AAEES Kappe Lecturer in 2010. His students have received numerous paper and dissertation awards.

Walter J. Weber, Jr. AEESP Frontier in Research Award.

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

2020 Recipient: Wen-Tso Liu, University of Illinois at Champaign Urbana



Wen-Tso is Arthur C. Nauman Professor in the Department of Civil and Environmental Engineering. His research outcomes have made significant contributions to improve the treatment of water, specifically in understanding microbiomes to describe the ecological roles in different water systems. He is one of the few researchers who is active and successful at understanding and applying concepts at the interdisciplinary boundary of microbial ecology and water/wastewater treatment.

Fredrick George Pohland Medal

This award honors a member of AEESP and/or AAEES who has made sustained and outstanding efforts to bridge environmental engineering research, education, and practice.

2020 Recipient: Debra R. Reinhart, University of Central Florida

Debra is internationally recognized for her work in solid waste management, including foundational understanding of biological, chemical, and physical landfill processes. She is a highly cited researcher that has received numerous awards, including 2009 Fellow of AAAS, 2009 Pegasus Professor at the University of Central Florida, and 2005 Distinguished Individual Achievement Award from the Solid Waste Association of America. Professor Reinhart has developed and offered several different courses at UCF on wide ranging topics. She has mentored over 60 graduate students and received numerous awards in teaching and mentoring. She is a well-respected practitioner, who has been President of AAEES and received awards from AAEES.

AEESP Outstanding Contribution to Environmental Engineering & Science Education Award

This award is given annually to recognize excellence in teaching scholarship and/or professional society educational initiatives: authorship of educational or instructional material, effectiveness in course and/or curriculum development, record of activity in the educational activities of AEESP or another professional society.

2020 Recipient: Jeffrey A. Cunningham, University of South Florida

Jeff is currently an associate professor in the Civil and Environmental Engineering Department. He has accomplished a lot in each of the areas of the award. He was a co-PI on a multi-university NSF grant that developed a concept inventory for fundamentals of environmental engineering. The research was well received by colleagues at AEESP's conference and ASEE, which led to an award-winning presentation and best paper awards. In course and curricular development, Dr. Cunningham was the leader to "formally" globalize the civil and environmental engineering undergraduate curriculum at USF. It is a program at USF to produce students' global competency. Because of his leadership, his department has multiple courses with the distinction of being global competency builders.

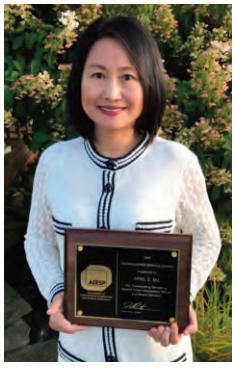
AEESP Distinguished Service Awards

2020 AEESP Distinguished Lecturer Award:

Diane M. McKnight
University of Colorado Boulder

2020 AEESP Distinguished Service Award:

AEESP President and Board Member
Karl G. Linden
University of Colorado Boulder



2020 AEESP Distinguished Service Award:

AEESP Chief Information Officer and Board Member
April Z. Gu
Cornell University

2020 AEESP Distinguished Service Award:

AEESP Secretary and Board Member
Shaily Mahendra
UCLA

2020 AEESP Distinguished Service Award:

Chair of the AEESP Internet Resources Committee
Kaoru Ikuma
Iowa State University

2020 AEESP Distinguished Service Award:

Chair of the AEESP Master's Thesis Awards Sub-committee
Srijan Aggarwal
University of Alaska Fairbanks

2020 AEESP Distinguished Service Award:

Chair of the AEESP Membership and Demographics Committee
Krista Rule Wigginton
University of Michigan

2020 AEESP Distinguished Service Award:

Chair of the AEESP Fellows Committee
Bruce E. Rittmann
Arizona State University

2020 AEESP Distinguished Service Award:

Chair of the AEESP Conference Site Selection Committee
Junko Munakata Marr
Colorado School of Mines

2020 AEESP Distinguished Service Award:

Co-Chairs of the AEESP Environmental Engineering Program Leaders Committee
Maria Chrysochoou
University of Connecticut

and

Joel G. Burken
Missouri University of Science & Technology

2020 AEESP Distinguished Service Award:

AEESP/AAEES Foundation Awards Committee Liaison
John E. Tobiason
University of Massachusetts Amherst

2020 AEESP Distinguished Service Award:

AEESP Foundation Treasurer and Board Member
Cindy M. Lee (pictured with David Freeman)
Clemson University

2020 AEESP Distinguished Service Award:

AEESP Foundation Chair and Board Member
Peter Adriaens
University of Michigan

2020 AEESP Distinguished Service Award:

Chair of the AEESP Education Committee
Rouzbeh A. Tehrani
Temple University

2020 AEESP Distinguished Service Award:

Chair of the AEESP Lecturers Committee
Debora Frigi Rodrigues
University of Houston

2020 AEESP Distinguished Service Award:

Chair of the AEESP Student Services Committee
Randi H. Brazeau
Metropolitan State University of Denver

2020 AEESP Distinguished Service Award:

Chair of the AEESP Publications Committee
Susan J. Masten
Michigan State University

Congratulations to the AEESP Fellows, Class of 2020

Submitted by Morton A. Barlaz, Committee Chair

Please congratulate the new AEESP Fellows for 2020! These individuals were selected for this recognition based on their many and impactful accomplishments in environmental engineering research, teaching, and professional service, with an emphasis on service within AEESP.

Lynn E. Katz, University of Texas-Austin

Dr. Lynn Katz is the Hussein Al-Harthy Centennial Chair in Civil Engineering and Director of the Center for Water and the Environment. She is internationally recognized for her research contributions on the sorption of inorganic and organic substances and the surface reactivity of these substances in a wide variety of applications in both engineered and natural systems. Dr. Katz has held leadership positions with several ACS divisions (a testament to her wide-ranging expertise and reputation) and has organized several symposia at national meetings. She is recognized as a first-rate teacher in classes from Foundations of Environmental Engineering taught to first year students to Water Chemistry taught to graduate students. Dr. Katz has served AEESP as an elected Board member, Treasurer, and President of the Foundation. She also recognized the need for AEESP to honor Walter Weber in much the same way several of his contemporaries had been honored. Accordingly, Dr. Katz initiated the drive to endow an award in his honor.

Benito J. Mariñas, University of Illinois at Urbana-Champaign

Dr. Benito Mariñas is the Ivan Racheff Professor of Environmental Engineering. He is a world leader in the field of water quality engineering and has made seminal contributions to the advancement of the science and technology of disinfection and membrane separations. His research contributions are known for exhibiting outstanding scientific rigor while also emphasizing practical applicability. Dr. Mariñas is well liked by students where in the classroom he regularly introduces his research into undergraduate and graduate courses in water quality control technologies. Dr. Mariñas has served AEESP as an elected Board member, and with other professional organizations has chaired/co-organized twenty-two conferences. He has held leadership positions in thirteen professional societies. He has also served as an Associate Editor for the ASCE *Journal of Environmental Engineering* and as an Editorial Advisory Board member for *Environmental Science & Technology Letters* and the *Journal of the American Water Works Association*.

Daniel B. Oerther, Missouri University of Science and Technology

Dr. Daniel Oerther is a Professor of Environmental Health Engineering and Director of the Missouri Center for Science Diplomacy Lab. He is a registered professional engineer and a Board Certified Environmental Engineer. Dr. Oerther's career has bridged research to practice, particularly in applying knowledge of microbiology to solve biotechnology challenges in water and wastewater. His success in bridging research with practice and educating practitioners are reasons he has been awarded the Frederick George Pohland Medal and AAEES Excellence in Environmental Engineering Education Award. He has developed courses in environmental biotechnology, public health engineering, and science diplomacy. Dr. Oerther has led several international collaborations to improve access to water, sanitation, hygiene, and nutritious food for residents of low and middle income countries. These efforts have been recognized by the Steven K. Dentel Award for Global Outreach. Dr. Oerther has served AEESP as an elected Board member and CIO. He has also served as a Board Trustee and CIO with AAEES and on the Editorial Board for *Perspectives in Public Health*. Currently, he is President-Elect in AAEES.

Michael K. Stenstrom, University of California, Los Angeles

Dr. Michael Stenstrom is a Distinguished Professor in Civil & Environmental Engineering. He is a registered professional engineer, Board Certified Environmental Engineer, and Fellow of WEF, IWA, and ASCE. His research has advanced the science and engineering of wastewater and stormwater treatment, specifically, mathematical modeling, process engineering, oxygen transfer, energy footprint, and detection of emerging contaminants and antibiotic resistance genes in water reuse strategies. Dr. Stenstrom has mentored 56 PhD students and advised more than 200 MS degree students. He has held many leadership positions and editorial responsibilities with AEESP, WEF, ASCE, and IWA. His research collaborations with practitioners have translated his research to practical application, which is one reason he has been awarded the Frederick George Pohland Medal. Dr. Stenstrom

has served AEESP as an elected Board member and Treasurer. He has also served as chair or member of several WEF committees including the Program Committee, Management / Information Committee, Research Committee, and as Editor-in-Chief of *Water Environment Research*.

John E. Tobiason, University of Massachusetts, Amherst

Dr. John Tobiason is Professor and Department Head. He is a registered professional engineer and a Board Certified Environmental Engineer. His research on physical chemical water treatment crosses both fundamental and applied spaces and has been acknowledged to have a real and significant impact on water treatment practices. Dr. Tobiason's role as a mentor and collaborator in the environmental engineering community is widely valued across academia and industry. His dedication and excellence as a teacher has been recognized with the Charles R. O'Melia AEESP Distinguished Educator Award. Dr. Tobiason has served AEESP as an elected Board member and President. He has also served as an AAEES Board Trustee and chair or member of several AWWA committees, including Coagulation Research, Membrane Research, Particulate Contaminants Research, and Academic Achievement Awards, and as an Editorial Advisory Board member for the *Journal of the American Water Works Association*.

Nominations for 2021 AEESP Fellows will open beginning on November 1 and run through March 15, 2021. See AEESP's Fellows page (**https://aeesp.org/fellows**) for more information on eligibility and how to nominate colleagues for this distinguished recognition. Questions can be addressed to Morton Barlaz (barlaz@ncsu.edu), Chair, Fellows Steering Committee.

2019-2020 AEESP/EESF Student Video Competition Announcement of Winners

AEESP's Membership and Demographics Committee hosted the fifth annual AEESP/EESF Student Video Competition. The theme of this year's Competition was "The U.S. Environmental Protection Agency Turns 50." Each year, the Student Video Competition seeks to highlight environmental engineering and science to increase awareness about the field and encourage young people to learn more about stewardship of water, land, air, mineral, and energy resources. The Competition was open to undergraduate and graduate students studying environmental engineering and science worldwide. Teams from around the country submitted videos on this year's theme. Judging was conducted by a panel of environmental engineering and science faculty, as well as practicing engineers. Videos were evaluated based on originality and creativity, content accuracy, and potential to motivate middle and high school students to pursue a career in environmental engineering and science.

The winning teams were awarded prizes of $1,000 (first place), $750 (second place), and $500 (third place). Respectively, they were:

First Place: Team USF, University of South Florida (Adaline Buerck, Daniel Delgado, Michelle Henderson, Estenia Ortiz Carabantes; Advised by Dr. James Mihelcic)

Second Place: Team CWEA-AWWA, California Polytechnic University, Pomona (Alejandro Cerano, Isabelle Guido, William Tse; Advised by: Dr. Monica Palomo)

Third Place: Team UCI Global Engineering Brigades, University of California, Irvine (Michael Blake, Kate Huynh, Gavin Ma, Enrique Pineda, Jorge Rocha, Andrea Saucedo; Advised by Dr. Chenyang (Sunny) Jiang)

AEESP President Joel J. Ducoste recognized the winning teams in conjunction with the annual AEESP Awards Presentation on Monday, October 5th. The Awards presentation was held online as part of AEESP's Celebration of the Membership event.

The Membership and Demographics Committee would like to congratulate this year's Competition winners and thank all the teams who participated! We hope that everyone enjoys these videos, and we encourage you to share them widely to promote the general public's understanding of environmental engineering and science. They are available on AEESP's website (**https://aeesp.org/aeespeesf-student-social-media-and-video-competitions**).

Spotlight: Environmental Engineering Science, AEESP Journal

Baolin Deng (Member of the AEESP Publications Committee), Mark J. Krzmarzick (Chair of the AEESP Publications Committee), Catherine A. Peters (*EES* Editor-in-Chief)

The "spotlight" column draws attention to selected articles in *Environmental Engineering Science* (*EES*), the official journal of AEESP. Spotlight articles appear regularly in the journal as an Editor's Note, as well as in the AEESP newsletter. Through publication of high-quality peer-reviewed research, *EES* helps AEESP achieve its mission of developing and disseminating knowledge in environmental engineering and science. In this entry, we shine the spotlight on selected articles from the April 2020 issue through the July 2020 issue of *EES*. Congratulations to all whose work is highlighted.

Hunter, H.A., Ling, F.T., & Peters, C.A. (2020). Metals Coprecipitation with Barite: Nano-XRF Observation of Enhanced Strontium Incorporation. *Environ. Eng. Sci.* 37(4), 235-245.

Radionuclides and toxic metals exist widely in produced water from oil and gas industries and wastewater in many legacy waste sites. Coprecipitation is an effective approach to remove radionuclides and toxic metals at concentrations that could be significantly lower than their solubility limits. In a study focused on coprecipitation of strontium with barite ($BaSO_4$), **Hunter et al.** (2020) used X-ray fluorescence (XRF) nanospectroscopy at the Hard X-ray Nanoprobe (HXN) beamline of the National Synchrotron Light Source II to quantify Sr incorporation into barite. The results showed the amount of incorporated Sr was far larger than thermodynamic models predict, suggesting the formation of metastable solid solutions. Increasing the barite supersaturation index to over ~3 led to a significant increase of Sr incorporation. A review of the thermodynamics on the equilibrium in solid solution and aqueous solution systems was presented and used as a framework to understand the kinetic control of the coprecipitation process. The insights obtained from the research could help develop approaches for stabilizing radionuclides and toxic metals in various waste streams.

Ibrahim, A., Hiripitiyage, Y., Peltier, E., & Sturm, B.S. (2020). Use of Halophilic Bacteria to Improve Aerobic Granular Sludge Integrity in Hypersaline Wastewaters. *Environ. Eng. Sci.* 37(5), 306-315.

Aerobic granular sludge (AGS) reactors have been increasingly explored to treat organic contaminants because the granules can better withstand fluctuation of wastewater composition and be more easily settled for biomass separation. For wastewater with high salinity, however, it is challenging to grow and maintain the microbial granules for organic degradation. **Ibrahim et al.** (2020) evaluated the performance of an AGS reactor inoculated with an enriched halophilic culture in comparison with one seeded with activated sludge at salt concentrations ranging from <1 to 85 g NaCl / L. The results showed the halophile-inoculated reactor could better retain the granule structure at hypersaline conditions (>40 g NaCl / L) and produced significantly higher amounts of total extracellular polymeric substances and alginate-like exopolysaccharides. The microbial population of both reactors converged toward halophile-dominated systems at hypersaline conditions. Adding halophilic organisms in the initial inoculum is therefore advantageous for treating hypersaline wastewater because of the production of better granules.

Gutierrez, F., Kinney, K.A., & Katz, L.E. (2020). Phosphorus Speciation in Municipal Wastewater Solids and Implications for Phosphorus Recovery. *Environ. Eng. Sci.* 37(5), 316-327.

Gutierrez et al. (2020) conducted a comprehensive evaluation of phosphorus recovery potential from municipal wastewater solids. Different phosphorus species in biosolids, operationally defined as orthophosphate, condensed polyphosphate, and organic phosphate, were separated and quantified from 11 wastewater treatment plant solids. These results were then used to estimate the phosphorus recovery potential by comparison with the known performance of three established technologies (AIRPREXTM, Stuttgart Process, and KREPRO) for phosphorus recovery. The study provides guidance on how to select proper technologies for phosphorus recovery, based on the type of wastewater treatment process and determined phosphorus speciation.

Kearns, J., Dickenson, E., & Knappe, D. (2020). Enabling Organic Micropollutant Removal from Water by Full-Scale Biochar and Activated Carbon Adsorbers Using Predictions from Bench-Scale Column Data. *Environ. Eng. Sci.* 37(7), 459-471.

While granular activated carbon (GAC) has long been used for removal of organic micropollutants such as pesticides and pharmaceuticals from water, the treatment cost may still be prohibitively high for regions with limited resources. **Kearns et al.** (2020) investigated the use of biochar as a low-cost alternative for removal of micropollutants in comparison with GAC, with a particular emphasis on modeling the contaminant breakthrough data and developing a scale-up procedure to predict the contaminant adsorption under the influence of background dissolved organic matter. This comprehensive study provides a user-oriented, conservative approach to predicting full-scale micropollutant breakthroughs that is critical to the design and operation of biochar and GAC treatment systems.

2020-21 AEESP DLS Tour by Dr. Cliff Davidson Delayed

The AEESP Distinguished Lecture Series tour by Dr. Cliff Davidson that was planned for the 2020-2021 academic year is being delayed by one year due to COVID-19. AEESP anticipates that the tour will take place during September 2021 to April 2022.

Highlights of the AEESP Board of Directors Meeting

2020 September 17-18

Submitted by William Arnold (University of Minnesota, President-Elect)

The AEESP Board of Directors (BOD) met on September 17-18 via Zoom due to the COVID-19 pandemic. The Board was joined by Brian Schorr, AEESP's manager of business operations, from Technology Transition Corporation (TTC). A summary of highlights from this BOD meeting is provided below.

Treavor Boyer, Junko Munakata-Marr, and Debora Rodrigues were welcomed as new members of the BOD. This was the last meeting for Karl Linden, Shaily Mahendra, and April Gu.

Karl Linden presented that AEESP is coordinating with the IWA E3 specialist group to support development of teaching materials and strategies for attribution of educational content developed by and for environmental engineering professors. We hope to collaborate on a workshop at the 2021 AEESP Conference on this topic.

Membership

Through the end of August 2020, 131 new members have joined AEESP (62 Regular Members, 5 Affiliates, and 64 Student/PostDoc Members). Among the Regular Members: 12 Full Professors, 6 Associate Professors, and 44 Assistant Professors joined. In 2019, there were 151 new members. There are 1,025 AEESP members (853 in good standing and 172 in arrears). The new dues rates beginning Nov 2020 were finalized. Paying dues is important to the continued sustainability of AEESP! There are currently 19 Sustaining Members.

Finding better ways to engage with Sustaining Members during the pandemic and beyond is being explored, including seminars by Sustaining Members and career panels for students. Please contact Brian Schorr with ideas for new Sustaining Members and Joel Ducoste regarding engagement.

A "Celebrating AEESP Members" event was held on Monday October 5th online via Zoom because it was not possible to do the Meet and Greet at WEFTEC. This was designed to be an opportunity to socialize, recognize award recipients, and thank those people who have served the organization.

Finances and Sponsorship

Both expenses and revenues are down compared to projections due to cancelled events, but the financial status of AEESP remains stable. With the AEESP Foundation, the Board is exploring using a financial advisor to assist with investments of AEESP reserve funds.

2021 AEESP Research and Education Conference

Dan Giammar from Washington University in St. Louis joined to update the Board on the planning for the 2021 biennial meeting. The website is live (**aeesp2021.wustl.edu**). The meeting will focus on convergence in education &-research, research & action, research/entrepreneurship/practice, and research in air-water-soil. Proposals for workshops were due October 16, 2020. Abstracts will be due in January, and the early registration deadline will be mid-May 2021. Keynote speakers have been selected. The impact of COVID-19 on delivering the conference face-to-face is being monitored closely. An initial go/no-go decision will be made in January 2021 and shared with the AEESP community.

Website Update

The board approved a proposal to pay for updating the website. The website will be moved to a new platform and the visual aspects and content will be refreshed. New functionality for committee chairs is also a goal. The new site will launch in mid-2021.

Officer Elections

Bill Arnold will be the President-Elect for 2020-2021. The other new officers will be Allison MacKay (Vice President), Rob Nerenberg (Secretary), and Willie Harper (Chief Information Officer).

Strategic Planning

Joel Ducoste presented his plan for his term as president. Primary goals are a strategic planning exercise (which has not been done since 2012) to provide a roadmap for AEESP, achieving the 3rd goal of the Grand Challenges in Environmental Engineering report (design a future without pollution and waste), broadening participation in environmental engineering and science, supporting a sense of community, and mentorship of junior faculty. He will share a video message with membership outlining his goals.

Activities of Committees

The Board discussed the various committees that make AEESP work. Highlights from a few of the committees are presented below. You can find the listing of the AEESP committees and committee chairs at (**http://www.aeesp.org/about/committees**). Please consider volunteering your time on one of these committees and getting more involved with AEESP.

Awards: The award ceremony was part of the October 5th event.

Newsletter: Laura Arias Chavez is completing her term as the editor. Thanks to Laura for her organization and hard work! A new editor will be announced soon.

Education: The committee has been focused on disseminating materials and holding webinars to help members teach online.

Government Affairs: The committee is monitoring agency announcements to assess if decisions merit an AEESP response, and they are developing a rapid response mechanism. There is also a plan to assess how policy changes affect the field. Plans are in place to develop a Policy Corner as part of the newsletter to inform members of important items being discussed by federal agencies.

Lecturers: The 2019-2020 and 2020-2021 lecture series were disrupted by

the COVID-19 pandemic. Cliff Davidson's lectures will largely be pushed to 2021-2022. Mary Jo Kiritsis is the new chair of the committee.

Other organizations: Annmarie Carlton is delivering the AEESP Lecture at the AAAR 2020 Fall Meeting. AAEES is having a virtual award lunch on October 15th. AWWA's WQTC and ACE were cancelled. The call for abstracts for the 2021 ASEE conference is available. Gordon Research Conferences have been delayed. The Royal Society of Chemistry (RSC) has brought together 23 publishing organizations to set a new standard to ensure a more inclusive and diverse culture within scholarly publishing. Signatories to this statement include ACS, Elsevier, Wiley and AGU. More at: **https://www.rsc.org/newperspectives/talent/joint-commitment-for-action-inclusion-and-diversity-in-publishing/**

The RSC will be hosting a series of free Environmental Science "Desktop Seminars" each Tuesday in October at 11am US Eastern time. Talks will be given by Peter Vikesland, Krista Wigginton, Neil Donahue, and Delphine Farmer.

Fellows: The nomination window for AEESP Fellows opens November 1st.

Liaising with the AEESP Liaisons

By Amy Pruden, Professor of Civil & Environmental Engineering, Virginia Tech, AEESP Board Member

AEESP partners with several organizations with shared values in the realms of environmental engineering and science research, education, and practice. These include (alphabetically) the: American Association for Aerosol Research, American Academy of Environmental Engineers and Scientists, American Chemical Society, Air & Waste Management Association, American Water Works Association, American Society of Civil Engineers, American Society for Engineering Education, Chinese American Professors in Environmental Engineering and Sciences, Gordon Research Conferences, International Water Association, National Water Research Institute, Royal Society of Chemistry, Society of Toxicology and Chemistry, Tau Chi Alpha, Water Environment Federation, and Water Research Foundation. In these difficult times, these partnerships are as important as ever, reminding us that we are not alone in seeking to address pressing challenges facing society and our environment. We have within our reach an entire network of professionals with whom we can work together to advance research and education initiatives, where they are needed, across the globe. During "normal" times, and hopefully once again we will be in a place of new and better "normal," there are conferences relevant to the AEESP community happening nearly every week. Many of these are now going virtual (e.g., AAEES, AAAR, WEFTEC, SETAC SciCon2) or are postponed for the time being. AEESP officially co-sponsors many of these conferences, including prestigious lectureships and student and professional awards. As activities, lectures, and awards ceremonies have moved online, we are learning that there are many positives to the virtual format: greater accessibility and smaller carbon footprint to name two! As the "liaison to our liaisons" I encourage you all to keep a lookout for opportunities to stay connected during the pandemic and to seek out new and creative ways to move forward in service to our profession. One thing is for sure: the world never stands still-—let's keep moving, together.

Below, we highlight a selection of news items from our AEESP Liasions to these partnering organizations:

Annmarie Carlton, associate professor of chemistry at UC Irvine, gave this year's AEESP plenary lecture at the American Association for Aerosol Research 38th Annual Conference. Her lecture was titled "The Clear Sky Bias in Atmospheric Chemistry".

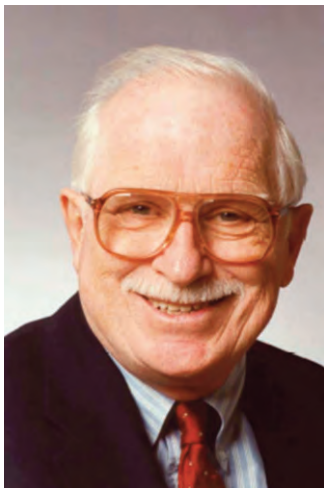
Call for papers for the 2021 ASEE Annual Conference June 27-30, Long Beach, CA, is now open! **https://www.asee.org/annual-conference/2021**

The IWA World Water Congress has been postponed and will take place in Copenhagen, Denmark, May 9-14, 2021. Registration is open! **https://worldwatercongress.org**/

SETAC SciCon2 is going virtual, November 15-19, 2020. Register and submit abstracts here: **https://scicon2.setac.org/** Other SETAC conferences are "rebooting" either virtual or postponed- stay tuned.

The RSC made a statement in response to #Blacklivesmatter and launched a dedicated call for applications as part of our Inclusion & Diversity Fund where applications up to the value of £5000 can be made to support projects that benefit the Black chemistry community. More details at: **https://www.rsc.org/awards-funding/funding/inclusion-diversity-fund/#specificcall**. RSC also launched a journal: *Environmental Science: Atmospheres*, led by Neil Donahue (Carnegie Mellon University) as editor-in-chief. The journal welcomes submissions in all areas of atmospheric science, from fundamental to applied disciplines and global to molecular scales. This journal is fully gold open access, and article processing charges have been waived until mid-2023, meaning it is both free to read and free to publish in. More details can be found at: **https://www.rsc.org/news-events/articles/2020/aug/atmospheres-new-journal-launch/.** More details to be announced via our Twitter Channel (@EnvSciRSC) in due course.

In Memoriam



In Memoriam: Professor James J. Morgan

James J. Morgan, Marvin L. Goldberger Professor of Environmental Engineering Science, Emeritus, at Caltech passed away on September 19, 2020. Dr. Morgan was a Lifetime AEESP Member, having joined and supported this organization since 1982.

Dr. Jim Morgan came to Caltech in 1965 as Associate Professor of Environmental Health Engineering. After 35 years of distinguished service to the Institute, he became emeritus in 2000. He served as the Academic Officer for Environmental Engineering Science, 1971-72, Dean of Students, 1972-75, Executive Officer for Environmental Engineering Science, 1974-80 and 1993-96, Acting Dean of Graduate Studies, 1981-84, and Vice President for Student Affairs, 1980-89.

Professor Morgan's research was concerned with the chemistry and technology of water treatment, the scientific basis for establishing criteria and standards for water quality protection, and manganese in fresh and marine waters. He was renowned as a caring teacher and mentor to generations of students and scholars. His book on Aquatic Chemistry, which he co-authored with his advisor Werner Stumm, remains the standard reference on the subject (cited more than 25,000 times) and has become a worldwide classic. He received numerous awards and honors, including election to the National Academy of Engineering and the Athalie Richardson Irvine Clarke Prize for Water Science and Technology from the National Water Research Institute. Jim Morgan and Werner Stumm were awarded the Stockholm Water Prize in 1999.

In Memoriam: Professor Michael D. Aitken

Michael (Mike) D. Aitken, PhD, professor emeritus of Environmental Sciences and Engineering (ESE) at the University of North Carolina at Chapel Hill's Gillings School of Global Public Health, passed away peacefully on September 19th after a long and courageous battle with cancer. At the time of his passing, he was surrounded by his siblings, his children, and Betsy, his wife and lifelong companion.

Mike spent his entire 31 year academic career at UNC, serving as Director of the Environmental Engineering program for eight years, Deputy Director of UNC's Superfund Research Center for six years and as Department Chair for 10 (2006-2016). He was also a passionate advocate for the profession of environmental engineering, one who was deeply engaged with AEESP. Mike served AEESP in many capacities, from leading workshops to chairing committees. He then served on the AEESP Board (1999-2003) and was subsequently elected AEESP President in 2002. His career accomplishments and long commitment to the profession were recognized in 2016 when he was named an AEESP Fellow, an honor reserved for only a small fraction of the membership.

Mike's research was in the area of environmental biotechnology, with a focus on subsurface remediation, anaerobic digestion, and the use of biological processes to treat wastes. He published well over 100 papers in the peer-reviewed literature and many more research reports, and served as PI/co-PI on over 50 research grants. Mike took particular pride in the 17 PhD and 33 Masters students that he advised during his time at UNC, as well as the seven post-doctoral researchers he mentored. Their professional successes in academia, government and the private sector never ceased to bring a smile to his face.

Mike was a tireless advocate for others, known as a compassionate, generous and supportive colleague, one that always put other people's needs before his own. Dr. Barbara K. Rimer, Dean of the Gillings School of Global Public Health and Alumni Distinguished Professor, remembers Mike as a "central force in the department and school," as well as "a notably decent, caring, humble and humane person and chair. He treated everyone with respect and civility."

During his time as Chair, ESE set course for the future with the establishment of the UNC Water Institute and the hiring of a new cohort of junior faculty, including a number of women, which greatly improved departmental diversity. Throughout his time as Chair, he continually sought to support the careers of young faculty, which was not always easy, as his tenure as Chair coincided with a time of significant budget cuts. Nonetheless, in the face of these difficult decisions Mike's overriding concern was always protecting the Department's faculty, staff and stu-

In Memoriam

dents, and he worked hard to find ways to cushion the impact that these financial challenges would have on them. For Mike, it was always about the people, and the strong relationships that he built through his approach to life were on broad display in November 2019 when over 100 colleagues, former students, staff, family and friends gathered in Chapel Hill to celebrate his retirement.

Mike was trained as an engineer, with all his degrees earned in civil engineering: University of Buffalo (BS); University of California, Davis (MS); and University of Notre Dame (PhD). Between his MS and PhD studies, he also spent four years as a Project Engineer with Malcolm Pirnie, Inc., an experience that always allowed him to bring a practical perspective to his research.

Mike will be remembered by all who knew him as a kind, friendly, generous and funny person. He was completely devoted to his family, including his wife Betsy Rudolph, his sons Matt (Dana Clifton), Myles (Jessie Schrubbe) and Graham, and his first grandchild, Madeleine. He also reserved the right to provide full-throated support to UNC basketball and the New York Yankees, the latter attachment being a byproduct of growing up in Syosset, NY. Mike's was a life well-lived, and he will be greatly missed by his family, friends, the UNC community and the environmental engineering profession.

In Memoriam: Professor Louis J. Thibodeaux

Environmental engineering lost a pioneer and strong advocate with the passing of Professor Louis J. Thibodeaux on August 18, 2020 after a brief illness. Louis taught thousands of students during his term as a faculty member at both the University of Arkansas, Fayetteville, where he began his academic career, and then at Louisiana State University (LSU), where he remained a faculty member for over 30 years until his retirement in 2015. He worked hard to focus engineering students on their role in understanding and managing the environment and coined the term "environmental chemodynamics" to reflect the application of chemical engineering principles to environmental processes.

Dr. Thibodeaux received his BS in a dual degree program in petroleum and chemical engineering at LSU in 1962 and began an industrial career at DuPont in South Carolina. He soon returned to LSU to pursue a PhD with a fellowship from the National Council for Air and Stream Improvement, which began his lifelong focus on environmental research. After receiving his PhD in 1968, he became a faculty member in the Department of Chemical Engineering at the University of Arkansas. In 1985, he returned to LSU as a full professor and also as the Director of the EPA Hazardous Waste Research Center. In 1991, he became the founding Director of the EPA Hazardous Substance Research Center/South and Southwest. The latter Center focused on contaminated sediments and made many contributions to our understanding and management of this media, which until then had received relatively little attention from the engineering community.

His seminal 1979 book, Environmental Chemodynamics, defined the area of environmental transport phenomena. It underwent a revision in 1997 and has been accepted at hundreds of universities both within and outside the US. He wrote more than 200 journal articles and gave hundreds of presentations at various national and international meetings. He also introduced Chemodynamics to hundreds of professionals through short courses on the topic through AIChE and other avenues. He was a fellow of AIChE and a recipient of the Lawrence K. Cecil Award from the Environmental Division of the organization. At LSU he was also appointed the first Jesse Coates Distinguished Professor, which was named for his PhD advisor, Prof. Jesse Coates. At the recent department celebration in honor of his 80th birthday, many of his former students and colleagues spoke eloquently about his many contributions to the field of environmental chemical engineering.

Professor Thibodeaux has advised many graduate students who have gone on to become faculty members at other universities and environmental leaders in industry and government. He was a genuine, honest and caring professor who touched many lives at LSU and elsewhere. He will be sorely missed by us and many others!

— KT Valsaraj, LSU, and Danny Reible, Texas Tech University

New Faculty Appointments

Apul joins University of Maine

Dr. Onur G. Apul recently joined the Department of Civil and Environmental Engineering at University of Maine as an assistant professor. Apul earned his PhD in Environmental Engineering and Earth Sciences from Clemson University in 2014. Prior to his appointment, he was an assistant professor at University of Massachusetts Lowell. His research group focuses on unraveling intermolecular interactions between synthetic organic compounds and carbon-based nanomaterials with an overarching goal of safe and sustainable practice for nano-enabled water treatment. The central theme of his work is "responsible technology development" to tackle incipient environmental threats and public health concerns that are beyond the capabilities of traditional physicochemical water treatment approaches.

Brown joins U. Texas at San Antonio

Dr. Kristen Brown has joined the Department of Civil and Environmental Engineering at the University of Texas at San Antonio. She was previously at the US Environmental Protection Agency in the Office of Research and Development. She holds a PhD from the University of Colorado at Boulder in Environmental Engineering. Dr. Brown's research interests include studying the consequences of energy choices in the atmosphere, particularly the concentrations of criteria pollutants and greenhouse gases. Research in her new position will include analyzing energy choices and air quality in Latin America. She will also examine the air quality in her new home in the seventh largest city in the US. Her goal is to increase knowledge so that informed decisions can be made that protect human health.

Giometto joins Cornell University

Dr. Andrea Giometto joined the School of Civil and Environmental Engineering at Cornell University as an assistant professor in July 2020. Andrea comes to Cornell after being a postdoc at Harvard University in the Department of Physics and in the Department of Molecular and Cellular Biology.

Andrea's research interests lie at the interface of microbiology, ecology, evolutionary dynamics and physical biology. His research aims to understand how spatial structure, mechanical interactions and biological interactions among microbes affect the ecological dynamics and evolutionary trajectories of microbial communities. His group combines methods from experimental microbiology and molecular biology with mathematical and computational investigation inspired by statistical and soft matter physics.

Andrea received his PhD in Environmental Engineering from the École Polytechnique Fédérale de Lausanne in 2015 and was a postdoctoral fellow at Harvard University before joining the faculty of Cornell. He holds BS and MS degrees in Physics from Padua University. More information on his research can be found at giometto.cee.cornell.edu.

Iskander joins North Dakota State University

Dr. Syeed Md Iskander joined the Civil and Environmental Engineering Department at North Dakota State University as a tenure-track assistant professor in August 2020. Dr. Iskander received his PhD from Virginia Tech's Civil and Environmental Engineering Department in 2019 and his MS from Washington State University in 2015. He worked as a postdoctoral research associate with Profs. Adam Smith and Amy Childress at University of Southern California from May 2019 to July 2020. The Iskander Research Group at NDSU will research in the field of municipal solid waste management, landfilling, landfill leachate management, and plastics pollution. His group employs advanced technologies to understand and solve emerging and enduring challenges associated with solid waste management practices.

Lopes to join UMass Amherst

Dr. Mariana Lanzarini-Lopes has accepted a position as an assistant professor at UMass Amherst starting January 2021. Lopes seeks to engineer platforms that enhance light transport and reactions for photon-driven water treatment. This includes using nano-enabled technologies to enhance light-driven chemical transformations while optimizing hydraulics and optical paths of reactor designs. She works at the interface of basic science and industry to create innovative and green technologies applicable to today's social and economic climate. Through her appointment at UMass Amherst, Lopes seeks to educate diverse communities in STEM with a focus on water treatment and resources.

Lopes obtained her bachelor's in Chemical Engineering from the University of Dayton in 2015 with a minor in sustainability, energy, and the environment. She received her MS and PhD in Environmental Engineering from Arizona State University as part of the Nanotechnology Enabled Water Treatment Center. She has been awarded the NSF Interdisciplinary Gradu-

ate Education and Research Traineeship, Thomas R. Camp Scholarship, and the Achievement Rewards for College Scientists.

Mekonnen joins University of Alabama

Dr. Mesfin Mekonnen joined the Department of Civil, Construction and Environmental Engineering at the University of Alabama as an assistant professor in the summer of 2020. Before joining the UA, Mekonnen was a research assistant professor at the Daugherty Water for Food Global Institute, University of Nebraska. He also worked as a postdoctoral researcher at the University of Twente in the Netherlands, where he also received his PhD in Water Engineering and Management. Mekonnen has published more than 50 highly cited peer-reviewed articles. He is a member of the editorial board of the Frontiers in Sustainable Food Systems journal. His research focuses on understanding the interactions between human and natural systems to assess the sustainability of freshwater resources. His research interests include assessment of water footprint, assessment of water scarcity, water-food-energy nexus, and spatial modeling.

Moor joins Utah State University

This fall, the Utah Water Research Laboratory and Department of Civil and Environmental Engineering at Utah State University (USU) welcome Dr. Kyle Moor as a new assistant professor. Moor holds both a PhD and Master's in Chemical and Environmental Engineering from Yale University, as well as a BS in Chemistry from Virginia Tech. Prior to joining USU, Moor was an ETH Postdoctoral Research Fellow in the Institute of Biogeochemistry and Pollutant Dynamics at ETH Zürich.

Moor's research focuses on applying chemistry principles to tackle challenges related to water quality and scarcity. His research efforts have spanned engineered and natural systems, from developing nanomaterial technologies for solar disinfection to investigating aquatic pollutant transformation processes with laser spectroscopy. In his lab, Moor uses materials science, laser spectroscopy, and an overall mechanistic viewpoint to catalyze new environmental technologies and to deepen our understanding of pollutant transformation in environmental systems. His research interests include inexpensive carbon materials for water purification, new advanced oxidation processes, and the fate of environmental plastic.

Nock and Rounce join Carnegie Mellon University

Dr. Destenie Nock has joined the faculty at Carnegie Mellon as an assistant professor with a joint appointment in the Department of Civil and Environmental Engineering and the Department of Engineering and Public Policy. In 2019, Nock completed her PhD in Industrial Engineering and Operations Research at the University of Massachusetts-Amherst, where her research

focused on energy systems modeling. Nock built models that analyzed how changes in the kinds of power plants used to supply energy impact the job creation, environmental health and economic viability of various communities. She uses multi-criteria decision analysis and applied optimization to inform energy planning options. Nock completed a one-year Presidential Postdoctoral Fellowship in Engineering and Public Policy at Carnegie Mellon prior to beginning her faculty appointment. She is continuing research on the US electricity sector with a focus on making it more sustainable as well as equitable for low-income communities.

Dr. David Rounce has joined the Department of Civil and Environmental Engineering at Carnegie Mellon as an assistant professor. He completed his PhD in Civil Engineering at the University of Texas-Austin in 2016. For the past three years, Rounce has been a Postdoctoral Researcher in the Glaciers Group at the University of Alaska-Fairbanks, working on an open-source global glacier evolution model to improve projections of glacier mass change and runoff. Rounce's research focuses on the response of glaciers, water resources, and hazards to climate change to inform adaptation and mitigation efforts at local, regional, and global scales. He uses computational models informed by remote sensing and grounded in field observations to produce actionable information. He is continuing his research on glacier evolution and related hydrological effects.

Shimabuku Joins Gonzaga University

Dr. Kyle Shimabuku joined the Civil Engineering Program in the School of Engineering and Applied Science at Gonzaga University as an assistant professor in August 2019. Previously, he worked as a Water Process Engineer for Corona Environmental Consulting, LLC. At Corona, he conducted applied research on water treatment processes (e.g., ion exchange) and redox chemistry (e.g., bromamine formation) in drinking water distribution systems to control inorganic contaminants, disinfection byproducts, and corrosion in drinking water distribution systems. Shimabuku is a licensed Professional Engineer and holds degrees in Civil Engineering from San Diego State University (BS, 2008) and University of Colorado Boulder (MS, 2013; PhD, 2017) where he received a US EPA STAR Fellowship in 2014.

Shimabuku's research interests surround physicochemical treatment processes for drinking water and stormwater management. Ongoing projects include developing adsorptive filtration media to remove inorganic and organic contaminants to support stormwater harvesting and evaluating the inadvertent production of PCBs. He has also studied disinfection processes to deactivate antibiotic resistance genes, dissolved organic matter characterization techniques including fluorescence spectroscopy, biodegradation of

organic contaminants in biologically active drinking water filters, and organic contaminant adsorption with activated carbon and biochar.

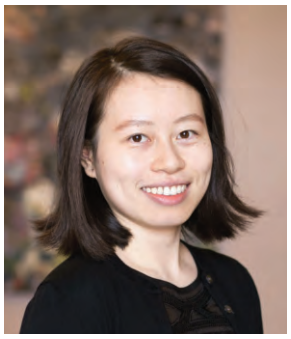
Pennock joins the New Jersey Institute of Technology

Dr. William H. Pennock joined the faculty of the New Jersey Institute of Technology this fall as an assistant professor in the John A. Reif, Jr. Department of Civil and Environmental Engineering. William Pennock comes to NJIT from Cornell University, where he completed his PhD in Environmental Engineering. His research at Cornell primarily focused on creating resources to aid the engineering community in the design and operation of hydraulic flocculators. The chief aim of his work is to expand access to municipal drinking water treatment throughout the majority world. Before joining the faculty at NJIT, William was working in India under the Fulbright-Nehru Program on a collaboration with AguaClara Reach and Gram Vikas to pilot a small-scale community water treatment plant in Odisha. Prior to his studies at Cornell, William completed his BS in Civil Engineering with a minor in Environmental Engineering at NJIT. He is excited to join his former mentors in expanding NJIT's research and education missions.

Williams joins Central Michigan University

Dr. Maggie Williams joined the School of Engineering and Technology at Central Michigan University (CMU) in the summer of 2020. Williams earned her PhD from Michigan State University (MSU) in 2017 and was a post-doc at MSU before joining CMU. Her research interests lie at the intersection of environmental engineering, molecular microbial ecology, and human health. Her specialty is identifying, developing, and utilizing novel molecular genomics tools to best answer scientific questions related to the complex interactions between microbes and their environment.

Ye to join SUNY Buffalo



Dr. Yinyin Ye will join the Department of Civil, Structural and Environmental Engineering at the University at Buffalo (SUNY-Buffalo) in January 2021. Ye is currently a postdoctoral research associate at the Pacific Northwest National Laboratory. She received her PhD and MS in Environmental Engineering from the University of Michigan (2018, 2014) and her BS in Water Supply and Wastewater Engineering from Tongji University (2012).

Ye's research aims to apply high-throughput biomolecular approaches to understand the fate and health risks of viruses and other pathogens in engineered and natural environment. The primary interests of her research group include developing sensitive and specific proteomic tools for detecting human pathogens in environmental samples and discovering disease-associated protein biomarkers in wastewater for community-wide health monitoring. Ye is also interested in expanding her research to investigate potential health impact associated with phage-bacteria interactions in water treatment systems.

AWWA establishes Dr. Philip C. Singer Endowed Scholarship

A $100,000 endowed scholarship is being created to honor the legacy of Dr. Philip C. Singer through the American Water Works Association's (AWWA) Water Equation. The annual scholarship will provide $3,000 to a graduate student pursuing research in water quality and treatment. Singer (pictured above), who passed away in February 2020, was Professor Emeritus of Environmental Sciences and Engineering at the University of North Carolina-Chapel Hill's Gillings School of Global Public Health.

A member of AWWA and the North Carolina Section since 1969, Singer received the Association's A.P. Black Research Award in 1995 and the Abel Wolman Award of Excellence in 2014. He served on AWWA's Disinfection Treatment Com-mittee from 1997 to 2002. He was elected to the National Academy of Engineering in 1995 for his contributions to the treatment of public water supplies and the education of environmental engineers. In 2006, he received the esteemed Athalie Richardson Irvine Clarke prize for excellence in water research. Singer was a long-term member of the AEESP and 2013 recipient of its Charles R. O'Melia Distinguished Educator Award.

To contribute to Phil's legacy scholarship, please visit the giving website or contact AWWA Sr. Manager of Development Michelle Hektor at mhektor@awwa.org

Sabatini is 2020 Inductee into Oklahoma Higher Education Hall of Fame

Dr. David Sabatini, David Boyd Professor and Sun Oil Company Endowed Chair of Civil Engineering and Environmental Science at the University of Oklahoma, is a 2020 inductee into the Oklahoma Higher Education Hall of Fame. Sabatini is the founding director of OU's Water Technologies for Emerging Regions (WaTER) Center and associate director of the Institute for Applied Surfactant Research. His research focuses on sustainable drinking water systems for developing and developed countries, surfactant-based environmental and biofuel technologies, and subsurface contaminant transport and remediation, with an emphasis on integrating technical, economical, and behavioral factors. He is former editor in chief and current associate editor of the *Journal of Contaminant Hydrology,* associate editor of *Journal of Surfactants and Detergents* and an editorial board member of the *Journal of Water, Sanitation and Hygiene for Development*. Sabatini's awards include AEESP's Steven Dentel Award for Global Outreach and Wiley Outstanding Educator Award, International Service Award from the International Association of Hydrogeologists, Oklahoma Medal for Excellence in Teaching from the Oklahoma Foundation of Excellence, and the Distinguished Alumnus Award from the University of Illinois's Department of Civil and Environmental Engineering. Sabatini earned his BS from the University of Illinois at Urbana-Champaign, his MS from Memphis State University, his PhD from Iowa State University, and joined the University of Oklahoma in 1989.

New Educational Modules based on Environmental Engineering Grand Challenges Report available

Submitted by Domenico Grasso, University of Michigan – Dearborn

Project-based lessons for middle and high school students based on the National Academies of Sciences, Engineering, and Medicine (NASEM) "Environmental Engineering for the 21st Century: Addressing Grand Challenges" report are now available at **designthefuturetoolkit.com**. NASEM worked with EduNetwork Partners to develop two stand-alone projects for students with supporting lessons that collectively highlight the five Grand Challenges of the report through engaging activities and in-depth projects. NASEM also developed a separate environmental justice lesson that can complement either project or work as a stand-alone lesson. The resources can be used for face to face or remote learning options. This will be a great resource to get young people excited about future careers in this field and also expand awareness of the challenges.

Environmental Engineering & Science Contributions to COVID-19 Surveillance

Submitted by Dr. Steve Hrudey, P.Eng. Emeritus Professor, Environmental & Analytical Toxicology, Faculty of Medicine & Dentistry, University of Alberta

The COVID-19 pandemic has become the worst public health disaster in a century, and the world has likely not yet seen its worst consequences. Although the primary focus on science and research related to the pandemic has been in the health sciences, a novel and important role has been emerging for environmental engineering and science researchers.

Wastewater-based epidemiology (WBE) has been a niche research speciality in public health surveillance for more than 15 years [1]. WBE has been used for a variety of purposes, such as tracking population drug use and antimicrobial resistance, and to track viruses, including monitoring the effectiveness of polio vaccination programs and tracking infectious diseases such as hepatitis, norovirus and influenza. Dutch researchers who had been active in WBE submitted a preprint in March that demonstrated an ability to detect genetic signals (i.e., RNA fragments) for SARS-CoV-2, the virus that causes COVID-19, in municipal sewage with high sensitivity. This pioneering study raised the prospect that composite surveillance of populations by sampling community wastewater for detecting trends in SARS-CoV-2 might supplement the logistically-challenged clinical sampling of individuals for informing public health decision-making.

Research is now active in over 23 countries and most U.S. states [2] and national surveillance programs are already being established in at least five countries: Netherlands,[3] Finland, Germany, Australia,[4] and South Africa. The U.S. Centers for Disease Control and Prevention (CDC) committed in mid-August to establishing a National Wastewater Surveillance System.[5] Several U.S. states have either implemented or are in the process of designing state-wide surveillance programs. The Water Research Foundation [6] has funded research to validate sampling and analytical methods, and over 70 academic institutions (e.g., Arizona, Colorado, New Jersey Institute of Technology, Syracuse, Utah State) are monitoring on-campus dormitory sewage.[7]

In April, the Canadian Water Network (CWN) created the COVID-19 Wastewater Coalition [8] that has signed on 127 participating researchers, wastewater utilities and public health agencies to follow a set of principles for wastewater monitoring studies. CWN has created an inventory of laboratory capabilities, organized an interlaboratory testing program with Canada's National Microbiology lab, designed principles for pilot WBE studies, created regional hubs and has published original and comprehensive ethics and communications guidance for WBE investigations.[9]

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7. https://www.covid19wbec.org/covidpoops19
8. https://cwn-rce.ca/covid-19-wastewater-coalition/
9. https://cwn-rce.ca/wp-content/uploads/COVID19-Wastewater-Coalition-Ethics-and-Communications-Guidance-v4-Sept-2020.pdf

AEESP Community Thanks Laura Arias Chavez and Welcomes Kyle Doudrick with Newsletter Editor Transition

This AEESP Newsletter serves as Laura Arias Chavez's last edition in her role as Editor. AEESP would like to thank her for her service over the last three years in collecting and assembling the articles, photos, advertisements and announcements.

We would also like to welcome Kyle Doudrick, Associate Professor at the University of Notre Dame, as AEESP's next Newsletter Editor beginning with the next Newsletter, scheduled to be released in February 2021. If you have an article or announcement you would like to submit or comments, please contact Kyle at kdoudrick@nd.edu.

Thank you and best wishes Laura, and welcome Kyle!

Call for Papers on "Advanced Technologies to Manage Nutrients in Wastes"

Special Issue of International Journal of Environmental Research and Public Health — Open Access Journal

Phosphorus and nitrogen are essential for life and are valuable resources. Phosphate rock, used to produce phosphorus fertilizers, has finite availability, and nitrogen fertilizers are generally produced from fossil fuels. Their discharge into the environment resulting from the poor management of agricultural, industrial, and municipal wastes is not sustainable and causes ecological harm, human health risks, and economic losses. Once excessive nutrients from wastes are dispersed into the environment, efficient recovery for beneficial reuse is difficult to impossible.

The implementation of nutrient best management practices and policies within a watershed should consider all sources to determine the optimal solution that minimizes the overall loading to the environment. Complications can occur when each discharge is regulated independently of each other and the overall impact on the watershed is not considered. This Special Issue is on technical and policy solutions that emphasize effective and efficient nutrient removal and recovery from wastes with the goal of environmental protection and resource conservation.

As such, we welcome manuscripts on modeling algorithms to enable the selection of the best practices to minimize nutrient release into the environment; novel nutrient waste recovery and reuse technologies; and innovative policies that are proven to efficiently and effectively reduce losses into the environment at the watershed, field, and point source scales.

For more details, please see **https://www.mdpi.com/journal/ijerph/special_issues/Manage_Nutrients_in_Wastes**

or contact

Steven Safferman (SteveS@msu.edu), Younsuk Dong (dongyoun@msu.edu), Céline Vaneeckhaut (celine.vaneeckhaute@gch.ulaval.ca), or Andrea Busch (andrea.busch@glwater.org)

Manuscripts are due through July 31, 2021.

NATIONAL WATER RESEARCH INSTITUTE

Clarke Prize for Excellence in Water Research to be Awarded to Dr. Karl Linden on November 10

Prize Recognizes Achievement in Water Science and Technology

National Water Research Institute (NWRI) and the Joan Irvine Smith and Athalie R. Clarke Foundation will present the 2020 Clarke Prize to Dr. Karl Linden on November 10, 2020. Linden is the Mortenson Professor in Sustainable Development at the University of Colorado in Boulder. He is the immediate past president of AEESP. Currently, Linden's research focuses on UV light-emitting diodes (LEDs) and UV for distributed water treatment systems. NWRI administers the $50,000 Clarke Prize prize that is awarded annually to thought leaders in water research, science, technology, or policy. Clarke Prize laureates are from wide-ranging disciplines including civil and environmental engineering, water science, biological science, health science, political science, physical and chemical science, and public planning and policy.

A link to the virtual ceremony, which features a lecture by Dr. Linden, will be live on the NWRI website at 12:25 PM Pacific time on November 10. A link to the event is at https://www.nwri-usa.org/clarke-prize-award-ceremony

National Water Research Institute is a 501c3 nonprofit that collaborates with water utilities, regulators, and researchers in innovative ways to help develop new, healthy sources of drinking water.

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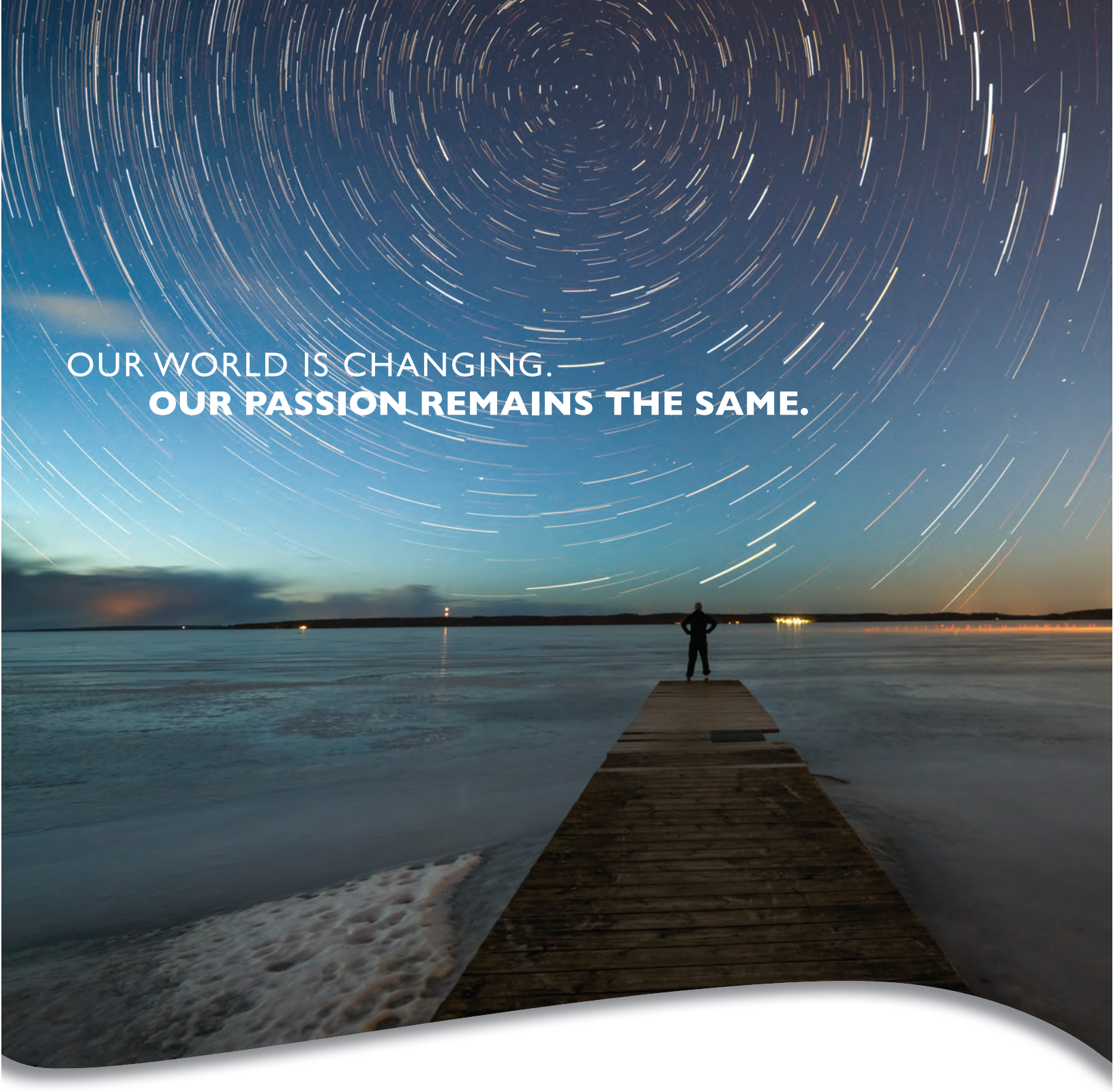

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Environmental Research & Education Foundation™

Lighting a path to sustainable waste management practices

The Environmental Research & Education Foundation Awards Two Research Grants

EREF's Research Grants Program is led by its Research Council, a body of volunteers consisting of technical experts in industry, academia and consulting. The work of the Council is guided by a long range strategic plan with the goal to achieve greater sustainability, good environmental stewardship, higher process efficiency and increased knowledge of the solid waste industry.

In the past, projects funded by EREF have primarily focused on landfills; however, nearly half of awarded grants non-landfill projects that relate to sustainable solid waste management. Currently funded projects include coal ash management, anaerobic digestion, recycling, waste collection, waste diversion, organics stabilization, leachate treatment, landfill fugitive emission management and modeling and non-hazardous industrial waste management. Awards have been made over the past decade to more than 30 institutions.

The EREF Board of Directors approved support for the following projects funded thus far in 2020:

Non-Recyclable Plastics to Pavements
Brajendra Sharma, Ph.D.,
Imad Al-Qadi, Ph.D.,
University of Illinois at Urbana-Champaign

Techno-Economic Evaluation of Supercritical Water Oxidation for Landfill Leachate and Condensate Management
Marc Deshusses, Ph.D.,
Duke University

Pre-proposals are required prior to submitting a full proposal.

The next preproposal deadline will be December 1 at 5 pm (EST)

Submission are accepted online and additional information on how to apply for a grant can be found at

https://erefdn.org/research-grants-projects/how-to-apply-for-grant/

For additional information, please contact Dr. Stephanie Bolyard (sbolyard@erefdn.org)

EREF | Environmental Research & Education Foundation™

Lighting a path to sustainable waste management practices

The Environmental Research & Education Foundation Awards Nine Scholarships

The Environmental Research & Education Foundation (EREF) is the largest source of funding for scholarships and grants related to sustainable solid waste management in North America. The Scholarship Program recognizes students with academic excellence, professional involvement and an interest in sustainable solid waste management issues at the postdoctoral, doctoral, and master's levels.

The EREF Board of Directors is pleased to announce the award of nine scholarships in 2020:

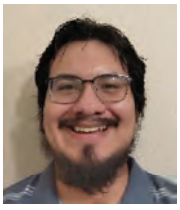
Brooke Marten
University of Colorado Boulder, PhD
Tom J. Fatjo Scholar

Kameron King
Old Dominion University, PhD

Ryan Anderson
Colorado State University, PhD

Seth Kane
Montana State University, PhD

Vanessa Maldonado
Michigan State University, PhD



Marcos Miranda
Ohio State University, PhD

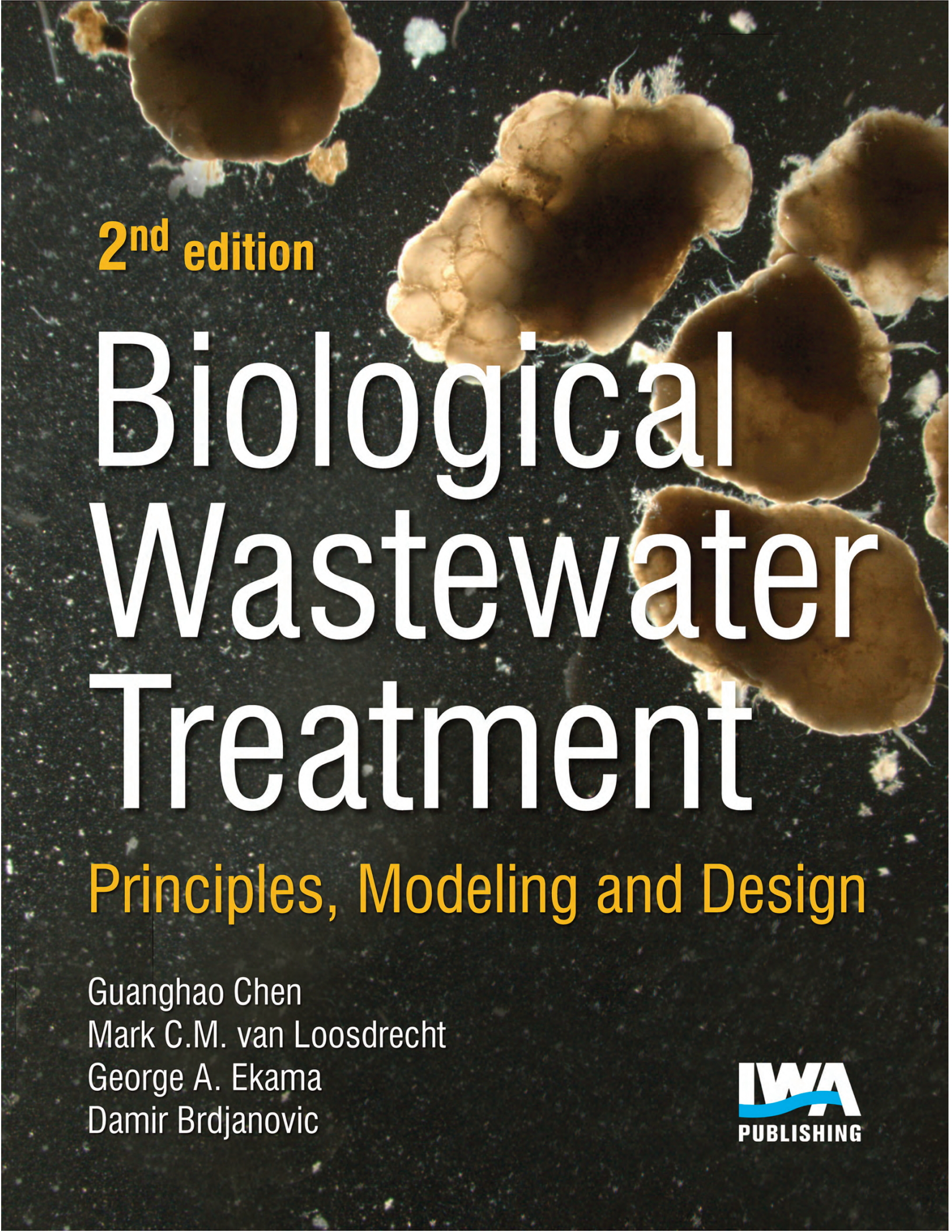
Anna Yip
University of California, Berkeley, MS

Angel Villarruel-Moore
University of Central Florida, MS
DCA Scholar

Kelsey Rodriguez
University of Central Florida, MS

THE NEXT SCHOLARSHIP DEADLINE IS SPRING 2021.

EREF has awarded over $2 million in scholarships to over 80 students since 1998.
More information on how to apply to the EREF scholarship program can be found at
https://erefdn.org/scholarship-program/how-to-apply/



2nd edition

Biological Wastewater Treatment

Principles, Modeling and Design

Guanghao Chen
Mark C.M. van Loosdrecht
George A. Ekama
Damir Brdjanovic

IWA PUBLISHING

10th IWA Membrane Technology Conference & Exhibition for Water and Wastewater Treatment and Reuse

the international water association

Washington University in St. Louis, USA — August 1–4, 2021

It is our great pleasure to invite you to the 10th International Water Association Membrane Technology Conference & Exhibition for Water and Wastewater Treatment and Reuse (IWA-MTC 2021), which will be held at Washington University in St. Louis from August 1 to 4, 2021.

Following the past conferences in Seoul (Korea) in 2004, Harrogate (UK) in 2007, Beijing (China) in 2009, Aachen (Germany) in 2011, Toronto (Canada) in 2013, Singapore in 2017 and Toulouse (France) in 2019, we are excited to bring IWA-MTC to the United States for the first time. IWA-MTC 2021 is expected to be a key platform for scientists and professionals in the membrane section of water research/industry to share the latest findings, exchange thoughts, and enlighten more ideas to advance membrane technologies to address water challenges. The conference will have both oral and poster presentations. The opportunities for sponsorship are available. The confirmed plenary speakers include Miriam Balaban, Pierre Côté, Menachem Elimelech, Peter Fiske, Masaru Kurihara, and John H. Lienhard V. More information can be found on the conference website: https://mtc2021.wustl.edu/.

This conference is jointly supported by IWA specialist group on Membrane Technology, McKelvey School of Engineering at Washington University in St. Louis, and IWA USA National Committee. We look forward to seeing you at the 10th IWA MTC in St. Louis!

Conference Co-Chairs:

Zhen (Jason) He, Washington University in St. Louis
Baoxia Mi, University of California, Berkeley

AEESP Membership

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

Regular and Student Membership

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

Rank	Annual Fee*
Full Professors	$110
Associate Professors	$ 85
Assistant Professors	$ 55
Students and Post-docs	$ 15

**effective November 1, 2020*

Members residing in low and middle income countries as identified by the World Bank may request a discount by contacting the Business Office.

Applying for Regular membership is made by submitting a completed application form and a brief two page curriculum vitae online with payment. Alternatively, application materials may be mailed to the Business Office with a check enclosed.

Affiliate Membership

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

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

Application for Affiliate membership is the same as for regular membership. The annual dues for Affiliate members are $65 (effective November 1, 2020.).

Sustaining Membership

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

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

Ready to join? You can apply for membership online!

https://aeesp.org/user/register

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

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