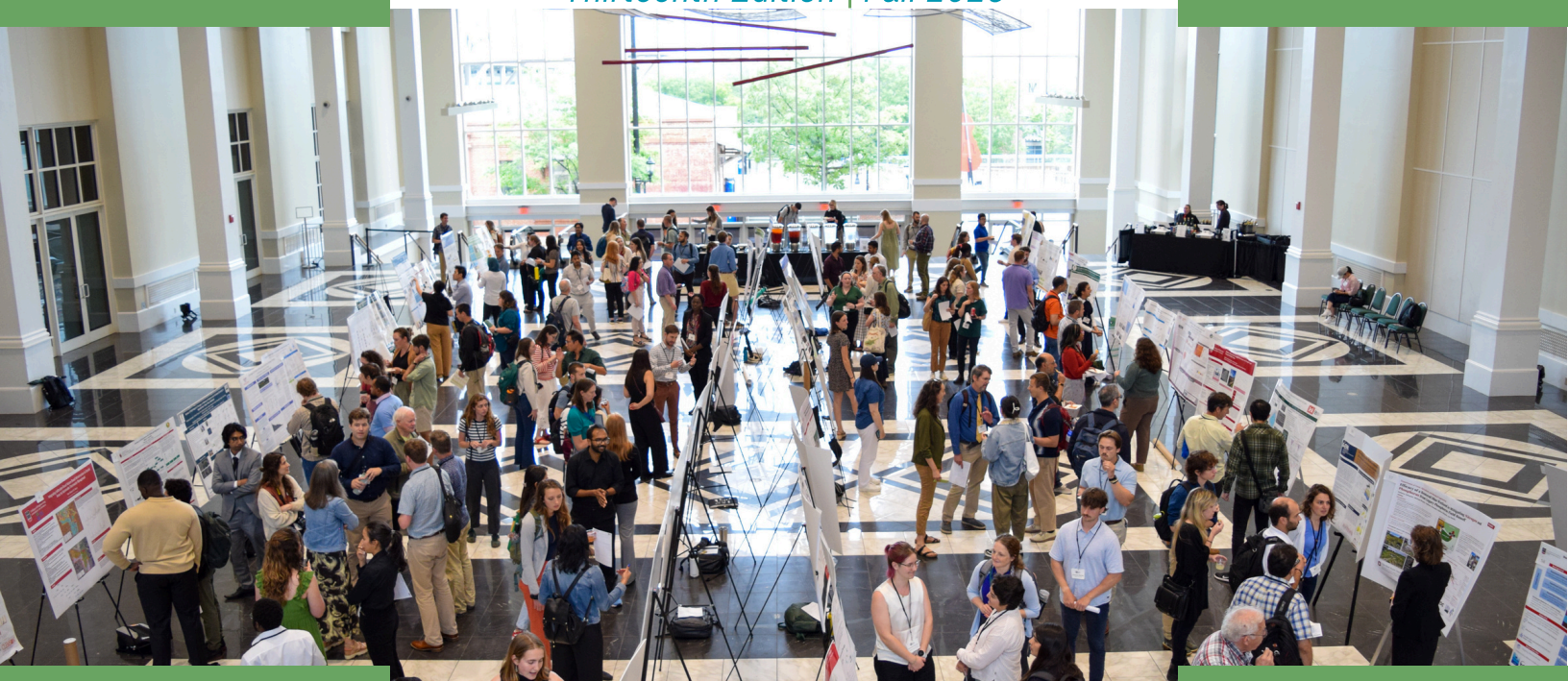


>>> AEES QUARTERLY <<<

Official Newsletter of the American Ecological Engineering Society

Thirteenth Edition | Fall 2025



ECOLOGICAL ENGINEERING IN ACTION

The 25th Annual Meeting, hosted at the University of Georgia in Athens, offered opportunities for lively dialogue and discovery. Pictured above, attendees engage with student researchers showcasing the future of our field during the student poster competition.

A PEEK INSIDE

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CALL TO ACTION!

- ☐ Attend the Student Lightning Talk on Oct. 23rd
- ☐ Attend the AEES Quarterly Webinar - Journal of Ecological Engineering Design QA on Nov. 6th
- ☐ Invite Students and Early-Career Professionals to the EcoEng Career Panel on Nov. 14th
- ☐ Attend the Student Lightning Talk on Nov. 20th
- ☐ Join a Committee and make an impact
- ☐ Submit your work to JEED
- ☐ Join or renew your membership for 2026

PRESIDENT'S MESSAGE

By Mauricio Arias, AEES President, Assistant Professor, University of South Florida Water Institute | mearias@usf.edu | (he/him)



>>> GREETINGS FROM YOUR AEES PRESIDENT

As has been the case for the past 25 years, gathering with old and new ecological engineering friends is a refreshing and energizing way to kick off the summer. One of the highlights for me at this year's meeting was the kayaking trip along the Broad River on the final day—a fantastic way to get out on the water, catch up with friends, and celebrate my birthday.

Somehow, four months have already passed since we met in Athens for the annual meeting, but in many ways it feels like the fun never stopped! We have a dynamic community, and many of us are reluctant to wait a whole year to reconnect. Fortunately, **AEES activities continue year-round! There are plenty of ways to get involved, and we could definitely use your help.**

Whether you're a student, early-career professional, practitioner, senior academic, or serve in another role, **there's a committee for you!** I won't steal the spotlight from the committee updates, so be sure to read through them to learn more about what's happening across the Society. And if, after reading the updates, you still feel like you haven't found your niche, **please don't hesitate to reach out to me—we can chat about other ways to get involved.**

In addition to committee work, we have other activities—some ongoing, some recently revamped—that I'd like to highlight. First, be sure to attend our **quarterly webinars**. In late September, we heard from mangrove engineer Tori Tomizeck, and in **early November**, we'll host a session featuring **our journal's Editor-in-Chief and Production Manager**, who will discuss how you can get involved with the *Journal of Ecological Engineering Design*. Even if you can't join live, recordings are available so you can catch up at your convenience.

Onto a more personal project: as an ecological engineering student in the 2000s, the student design competitions holds a special place in my heart. They were a fun and engaging way to connect with fellow students in a friendly, competitive setting. I've heard from current students that there's interest in reviving this tradition in a format that won't conflict with conference presentations. My goal is to have a clear plan in place by the time we meet in Burlington. **If you have ideas or would like to help plan this new version of the student design competition, please reach out—I'd love to hear from you.**

Thank you for reading this newsletter and for being part of our vibrant ecological engineering community.

Warmly,
Mauricio E. Arias, PhD, PE
AEES President, 2025–2026

2025-26 EXECUTIVE COMMITTEE

PRESIDENT MAURICIO ARIAS <<< (he/him)

Dr. Mauricio Arias is an Associate Professor of Water Resources in the Department of Civil and Environmental Engineering at the University of South Florida. Dr. Arias chaired the Conference Planning Committee in 2023 and organized the 2023 Annual Meeting in Tampa, FL. He has been an active member of the Society since 2007, when he was a graduate student at the University of Florida. Dr. Arias has been a part of the AEES *Journal of Ecological Engineering Design* since its inception in 2020. Dr. Arias became a lifetime member five years ago.



>>> VICE PRESIDENT TIFFANY MESSER (she/her)

Dr. Tiffany Messer is the Gatton Foundation Chair and Associate Professor in the Biosystems & Agricultural Engineering Department at the University of Kentucky. Dr. Messer has been an active member of AEES since 2014, serving as Secretary during the 2021-2023 term, member of the Community Initiatives Committee, and now as Vice President and President-Elect. She regularly presents at annual meetings, mentors student poster competitors, and helps shape the future of ecological engineering through her service and research.



SECRETARY LAUREN MCPHILLIPS <<< (she/her)

Dr. Lauren McPhillips is an Associate Professor at Penn State, co-appointed in Civil and Environmental Engineering, and Agricultural and Biological Engineering. She has been involved in AEES since the 2022 annual meeting, where she was excited to discover a whole community of others who share her interests for nature-based solutions. She is enthusiastic to help grow our Society in particular and our field as a whole. This is her first year as Secretary for AEES, and she is also a member of the Communications Committee.



2025-26 EXECUTIVE COMMITTEE

TREASURER BILL STROSNIDER <<<

(he/him)

Dr. William “Bill” Strosnider is an Associate Professor at the University of South Carolina Baruch Marine Field Laboratory. Dr. Strosnider is a frequent reviewer for Ecological Engineering and the Journal of Ecological Engineering Design. This is Dr. Strosnider’s third year as Treasurer for the Society. He has been an active member of the Society for 18 years and a lifetime member since 2010.



>>> STUDENT REPRESENTATIVE MEGAN KRAMER

(she/her)

Megan Kramer is a PhD candidate at the University of South Florida. Her research interests are in coastal sustainability and nature-based solutions. She has been involved in AEES since the 2023 annual meeting and has participated in the student committee since 2024. She looks forward to growing student engagement and supporting students across the society.



PAST PRESIDENT ERIC ROY <<<

(he/him)

Dr. Eric D. Roy is an Associate Professor of Environmental Sciences within the Rubenstein School of Environment and Natural Resources at the University of Vermont. Dr. Eric Roy first became involved with AEES as a Master’s student at the 2007 Annual Meeting. He has now participated in twelve AEES conferences. Prior to serving as the current AEES President, he served as Vice President from 2023-2024. Dr. Roy played a pivotal role in launching the AEES *Journal of Ecological Engineering Design*, serving as the inaugural AEES-JEED Committee Chair. He continues to contribute to the AEES-JEED Committee, as well as the Membership and Awards Committee.



2025 ANNUAL MEETING RECAP

>>> ECOLOGICAL ENGINEERING DESIGN: A RETURN TO RESILIENCE

The 2025 AEES Annual Meeting marked a special milestone—**25 years of ecological engineering collaboration**—with **over 217 attendees** gathering in Athens, Georgia from May 28–30. The event featured **122 talks and 147 posters** with strong student participation, and covered wide variety of themes, such as resilience to extreme climate events, a circular bioeconomy, water quality in agriculture, and innovative algae management.



Keynote speakers Sara McMillan, Ellen Wohl, and Amy Rosemond inspired attendees with talks on community empowerment, river resilience, and nature-based solutions. Special plenary panels focused on community-driven research, workforce development, and curriculum innovation, while field trips—including a dam removal site and botanical gardens—offered hands-on learning experiences. A standout moment for many was the kayaking trip on the Broad River, which provided a fun and meaningful way to both connect with colleagues and celebrate 25 years of AEES.

Looking to future meetings, opportunities were identified for improving student support, scheduling, and sponsorship engagement in future meetings.

2025 CED/AED WORKSHOP

The conference also hosted a **CED/AED course and design charrette**, engaging participants in interdisciplinary restoration planning and site analysis. The event was praised by many attendees for its organization, inclusive tone, and high-quality content.



2025 BUSINESS MEETING RECAP

This year's business meeting kicked off with opening remarks from our outgoing President, Dr. Eric Roy. Dr. Roy highlighted the critical ongoing work of AEES committees as the 'engines' of our society. **Over the last year, each of these committees has developed charters to document their purpose and operations.** Dr. Roy highlighted improvements our society has made in streamlining communications in the last year, such as consistent newsletters and webinars. He also noted efforts to enhance collaborations with the International Ecological Engineering Society and the Network for Engineering with Nature. Advancement of ABET accreditation for Ecological Engineering was also celebrated. Finally, Dr. Roy announced the results of our recent elections: **Megan Kramer is our new Student Representative, Lauren McPhillips is our new Secretary, and Tiffany Messer serves as Vice President and President-Elect.**



AEES committees are the 'engines' of our society.



Strong financial health due to sustained membership.

Treasurer Bill Strosnider reported on the society's finances, indicating strong financial health due to sustained membership (192 members as of May 2025) and the success of our conferences. He emphasized the need to consider investment strategies and noted opportunities to leverage the Society's financial resources to support the ABET review process, along with other emerging needs of the society and its membership base.

Updates from the AEES committees reflected the achievements we have made in the last year, and are summarized in the following section.

The meeting also celebrated the achievements of our students, with poster competition awards going to PhD students Fahmi Dwilaksono, Gabriel Johnson, Ashfaq Ahmad; Master's students Megan Blumenauer, Autumn Sylvestri, and Alexa Ouellette; undergraduate student Alex Babinski; and People's Choice winner Tyler Pyatt.



Celebrated student achievements & early career professionals.

Preparing for our society's future, attendees discussed how to maintain accessible society membership and conference travel for students and early career professionals, strengthen connections with other societies such as ASCE, and ways to support the ABET review process.

Save the Date!
2026 Annual Meeting
June 2-4, 2026
University of Vermont



Wrapping up the business meeting, we officially welcomed Dr. Mauricio Arias as our new AEES President, and we announced the location and date of next year's conference: **University of Vermont, June 2-4, 2026.** Save the date!

Here's to another year of growing and advancing our field!

COMMITTEE UPDATES

>>> JOIN A COMMITTEE AND MAKE AN IMPACT!

Our nine AEES Committees are always looking for members to join their ranks and help push the Society to the next level. To learn more about the roles each committee plays in the success of the Society, visit the [AEES Committees](#) page on the Society’s Website or reach out to a Committee Chair for more information.

BODY OF KNOWLEDGE COMMITTEE

>>> COMMITTEE CHAIRS: [DR. TRICIA MOORE](#) & [DR. TESS THOMPSON](#)

(she/her)

(she/her)

The Body of Knowledge Committee has continued to develop the Body of Knowledge draft, which identifies and describes core knowledge, skills, and abilities of graduates from undergraduate ecological engineering programs. Using feedback provided during the 2025 Annual Meeting, we are finalizing this draft. Next, we will reach out to reviewers outside of our committee for additional feedback. A final draft will be sent to all AEES members for review prior to the 2026 Annual Meeting. If you are interested in becoming an evaluator for new ecological engineering programs, or learning about the accreditation process, please contact Dr. [Trisha Moore](#).

STUDENT CHAPTER COMMITTEE

>>> COMMITTEE CHAIR: [MEGAN KRAMER](#) (she/her)

The Student Chapter Committee is dedicated to enhancing the AEES student member experience. We are continuing the monthly lightning talk series, where we highlight the excellent work being done by AEES students in a concise format (i.e., 7-minute presentations), followed by a Q&A session. Our first featured speakers are student poster award winners from the 2025 Annual Meeting. These talks are always at 12 pm ET and open to the public. **We encourage all AEES members to attend.** Past presentations are available to view on the [Student Community Page](#) of the Society’s website.

DATE	PRESENTER	UNIVERSITY	PRESENTATION TITLE	ADD TO CALENDAR
OCTOBER 23 12 pm ET	ANNIKA KULEBA	CLEMSON UNIVERSITY	Exploring Tradeoffs: Methane Emissions & Carbon Storage in Restored Wetlands	Google Outlook
NOVEMBER 20 12 pm ET	ALEXANDER BABINSKI	UNIVERSITY OF GEORGIA	Innovative Floating Treatment Wetland Design and an Undergraduate Experience in Ecological Engineering	Google Outlook

COMMITTEE UPDATES

EARLY CAREER COMMITTEE

➤➤➤ **COMMITTEE CHAIR: [DR. EMILY NOTTINGHAM BYERS](#)** (she/her)

The Early Career Committee is the newest AEES committee and in its inaugural year! Our goal is to increase the value of AEES membership for early-career professionals. Key objectives for our committee include:

1. Increasing AEES membership retention by smoothing membership transitions from “student” members to “early-career professionals,” until they finally reach “professional” membership;
2. Addressing issues facing early-career professionals;
3. Extending networking opportunities;
4. Ensuring early-career members are active in AEES committees and leadership

Since the conference, our committee has gained 20 committee members (meeting on the second Tuesday each month at 1:30 ET). We have finalized our Committee Charter, started an early career spotlight series, collaborated with other committees to plan the first Career Panel webinar, and worked with the Executive Committee to align membership options with the needs of early-career professionals. If you are an individual with 10 years or less experience as a professional in ecological engineering after a terminal degree, please join our committee! Reach out to the Committee Chair, attend our monthly meetings, or tune into upcoming webinars and events. Also, please reach out to our committee if you or your committee want to collaborate on upcoming events/initiatives! We are grateful for all the support our committee has received from our society as we establish ourselves within AEES.

COMMUNITY INITIATIVES COMMITTEE

➤➤➤ **COMMITTEE CHAIR: [DR. KATHLEEN FAST](#)** (she/her)

The Community Initiatives Committee (formerly the Diversity, Equity, Inclusion, and Justice Committee) has a new name, but we continue to pursue our goal of building community within AEES!

To support this goal, we would love to help folks find mentors and mentorship opportunities. Please contact us at aeescommunityinitiatives@gmail.com if you are interested in being a mentor/mentee for others in the society, or if there is any other way we can support you or your community. Our committee is excited to continue strengthening bonds between members and with the communities we serve.

COMMITTEE UPDATES

CONFERENCE PLANNING COMMITTEE

COMMITTEE CHAIR: [DR. ERIC ROY](#) (he/him)

The Conference Planning Committee has already met twice to plan the 2026 AEES Annual Meeting in Burlington, Vermont. The conference venue, the **University of Vermont Davis Center, is booked for June 2-4, 2026**. The committee has secured multiple lodging options for conference attendees, including very **affordable on-campus options and reasonably priced room blocks** at two hotels <1 mile from the conference venue. We are still developing plans for field trips, the awards ceremony, keynote speakers, the CED workshop, and more. We expect to release the **call for sessions and abstracts in October**, using themes similar to last year's meeting.

Please contact the Conference Committee Chair (eric.roy@uvm.edu) with **ideas for the conference or a lead on a potential conference sponsor**. We look forward to hosting you in beautiful Vermont next summer!

CERTIFIED ECOLOGICAL DESIGNER COMMITTEE

COMMITTEE CHAIR: [DR. DAVID BLERSCH](#) (he/him)

The Certified Ecological Designer Committee continues to strengthen and support professional certification in ecological design. As a part of these efforts, our committee organized and hosted a Certified Ecological Designer workshop at the 2025 Annual Meeting. Over 25 attendees participated in the two-day event, which focused on innovative watershed stream corridor designs on the University of Georgia campus. Led by certified practitioners and faculty, the learning modules covered ecological design principles, project planning, and success assessment. Participants who completed the workshop are now eligible to apply for full Certified Ecological Designer certification through the society.

In addition to the workshop, the Committee launched an online portal to apply for a certification, featuring updated instructions, program requirements, and benefits. These resources are available to all AEES members at <https://www.ecoeng.org/ced>. The Committee oversees a team of reviewers to support and streamline the application and review process. Applications for both Certified Ecological Designer (CED) and Associate Ecological Designer (AED) designations are being accepted and reviewed on a rolling basis.

Planning is already underway for the 2026 CED workshop, which will again be held in conjunction with the AEES Annual Meeting. Prospective applicants for either certification level (CED or AED) are encouraged to include the workshop in their registration and travel plans. Details will be posted on the AEES website at [ecoeng.org](https://www.ecoeng.org). If you are interested in shepherding the certification process of our society, please contact the Committee Chair to learn more.

COMMITTEE UPDATES

MEMBERSHIP AND AWARDS COMMITTEE

»»» COMMITTEE CHAIR: [DR. MICHAEL BURCHELL](#) (he/him)

The Membership and Awards Committee was proud to recognize Dr. Brian Bledsoe and Dr. Greg Jennings for the 2025 class of AEES Fellows and Dr. W. Cully Hession as the recipient of the 2025 Odum Award.

Looking ahead, the Committee is excited to offer a new award for early-career professionals. The Dr. William J. Mitsch Early Career Award, named for the late Dr. Mitsch, who was a founding member of AEES and a pioneer in our field, honors AEES members within the first 10 years of their career who have made significant contributions to ecological engineering. Recipients of this award may come from academia, industry, or government, and are recognized for their leadership, research, practice, or education. **Nomination packages are due October 30, 2025.** More details are available on the [Early Career Awards](#) webpage.

Nominations for the **2026 Odum Award** and the **2026 class of AEES Fellows** will open in **November**.

The Awards Committee meets every two months and is always looking for additional members. Serving on this committee is a rewarding opportunity to help recognize excellence in our field and shape the future of AEES. Please contact Dr. [Michael Burchell](#) if you have questions or are interested in joining us.

COMMUNICATIONS COMMITTEE

»»» COMMITTEE CHAIR: [BRITTANY SANTORE](#) (she/her)

The Communications Committee has been working more closely with other committees to help support their activities and increase their visibility through more frequent communications with the society's membership. Demonstrating the impact of these efforts, the [society's LinkedIn](#) page just crested 500 followers! The committee has also started an audit of the website to identify outdated content and improve clarity, readability, and navigation, with plans to feature member news, awards, and events more prominently. The committee meets once a month on the third Thursday at 9 am ET and is always seeking new members who are interested in outreach, writing, design, or digital strategy. If you have ideas, announcements, or content to share, or if you're interested in joining the committee, please contact [Sam Sage](#) (they/them).

COMMITTEE UPDATES

JOURNAL OF ECOLOGICAL ENGINEERING & DESIGN COMMITTEE

»»» COMMITTEE CHAIR: [DR. ROD LAMMERS](#) (he/him)

Journal of Ecological Engineering Design is the open-access journal of AEES, published in partnership with the University of Vermont Press. Visit our [website](#) or contact us at jeed@uvm.edu with any questions or to inquire about submissions. Twelve peer-reviewed articles have been published to date, with more on the way! Research topics range from wetlands and stream restoration to green walls and novel waste management approaches. As a diamond open-access journal, all articles are free for readers, and authors pay zero fees. If you have research that you think fits the journal's scope, please submit! We also encourage you to [sign up to be a reviewer](#) and contribute to this burgeoning journal and our field. The most recent published papers are shown below:

[Assessing Rain Garden Placement through Hydrologic Modeling in the Puget Sound Region](#)

By M. Samrat Dahal, Anand D. Jayakaran, Joan Q. Wu, and Anish Mahat | Published August 26, 2025

An indexing approach based on variable source area hydrology was evaluated through hydrological modeling and used to prioritize placement of rain gardens.

[Evaluating Plant Coverage and Thermal benefits of Green Walls for Sustainable Design](#)

By Mark Ostendorf, Susan Morgan, William Retzlaff, and Serdar Celik | Published April 10, 2025

Experimental research on green retaining walls showed that the choice of plants and the coverage ratio play a significant role in thermal benefits of these sustainable designs.

[Multi-Objective Wetland Design for Water Quality and Waterfowl Habitat](#)

By Madlyn Carpenter and Brian Bledsoe | Published March 19, 2025

This study found that wetlands can be actively managed and designed as 2% – 7% of the incoming watershed area to more optimally meet the dual goals of phosphorus retention and waterfowl habitat provision in a Great Lakes watershed.

[Floating Wetlands beyond Retention Ponds: Estimating Nitrogen Cycling and Removal in Tidal Waters](#)

By Isabel C. Butler-Viruet, Jeremy M. Testa, and Lora A. Harris | Published March 14, 2025

Floating wetlands are capable of transforming and removing nitrogen from coastal systems.

[A Process Model for Leachate Treatment in Adsorbent-Amended Constructed Wetlands](#)

By Ishfaqun Nisa, Mauricio Arias, Lillian Mulligan, Xia Yang, and Sarina J. Ergas | Published: December 16, 2024

This study introduces a computer model for constructed wetlands utilizing zeolite and biochar as adsorbent media, demonstrating enhanced pollutant removal through improved nitrification by zeolite and denitrification and organic compound removal by biochar.

ECOLOGICAL ENGINEERING VIRTUAL CAREER PANEL

»»» DESIGNING YOUR FUTURE: CHARTING A CAREER IN ECOLOGICAL ENGINEERING

Join us for AEES's inaugural virtual Ecological Engineering Career Panel featuring ecological engineering professionals with experience across industry, government, academia, and extension! Early-career professionals and students will be able to learn about the opportunities and challenges involved in our rewarding and exciting field. Please share with your students and colleagues!

NOVEMBER 14, 2025 | 12 - 1 PM ET
Register at go.ncsu.edu/career-panel-2025



American
Ecological
Engineering
Society

Ecological Engineering Career Panel

Designing Your Future: Charting a Career in Ecological Engineering

Learn how today's professionals navigated challenges, seized opportunities and forged meaningful careers in ecological engineering.

Virtual Panel

Friday, November 14, 2025 | 12 - 1 pm ET
Register at go.ncsu.edu/career-panel-2025



Rachelle Crow, PE
Natural Resources Engineer
Ohio Department of
Agriculture



John McMaine, PhD
Assistant Professor
University of Kentucky



**Kelsey
McDonough, PhD**
FloodID® Product Lead
The Water Institute



**Claudia McAllister-
Peterson, PE**
Senior Engineer I
Crawford, Murphy, & Tilly

EARLY CAREER SPOTLIGHT

>>> RISING VOICES IN ECOLOGICAL ENGINEERING: MADISON KACICA, RESEARCH SPECIALIST

Institution: University of Vermont, Casella Center for Circular Economy and Sustainability

Role/Position: Research Specialist

Madison Kacica (she/her) is the first and only Research Specialist at the newly launched Casella Center for Circular Economy and Sustainability, housed at the University of Vermont. In this pivotal role, she advances research on sustainable waste management and circular resource use.

Madison is also an active member of the American Ecological Engineering Society, serving on the Early Career, Communications, and Conference Planning Committees.



ACADEMIC FOUNDATIONS AND MENTORSHIP

Drawn to the intersection of people and the environment, Madison's passion led her to pursue a B.S. in Food, Agricultural, and Biological Engineering—specializing in Ecological Engineering and Creative Writing—followed by an M.S. in Environmental Science. Her research interests center on environmental modeling, sustainable resource management, and public engagement with circular economy practices. She is currently working toward her Professional Engineer license.

Madison credits Dr. Jay Martin at Ohio State University and Dr. Eric Roy at the University of Vermont for their mentorship, which helped her navigate rigorous research and chart a meaningful career path. “Both have been invaluable in helping me define my goals and grow as an environmental researcher and engineer,” she says.

LEADING RESEARCH IN CIRCULAR RESOURCE USE

At the Casella Center, Madison leads applied research projects focused on reducing waste inefficiencies, decreasing reliance on virgin resources, and improving public understanding of reuse and recovery strategies. Her work bridges academia, industry, and government, blending her technical expertise with science communication to foster partnerships and develop innovative solutions.



Madison Kacica (left) and UVM undergraduate student Lauren Nelson (right) at a material recycling facility in Vermont.

Among her current projects, Madison is especially excited about designing a novel treatment train for removing PFAS and other contaminants from landfill leachate. She is also constructing a life cycle assessment that evaluates the environmental impacts of using recycled glass in alternative applications, such as stormwater systems and road construction.

THE AEES CONNECTION

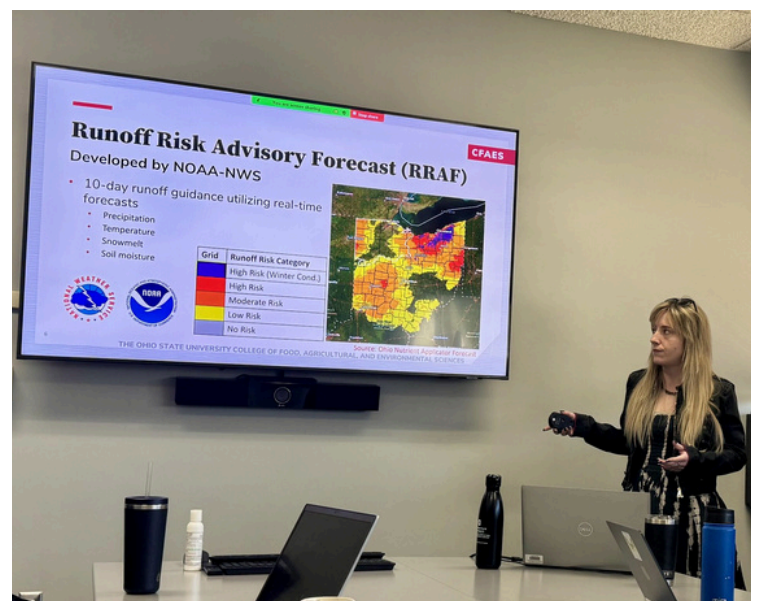
Madison first came across her current role through the AEES job board. “I was checking my email one day and saw the Research Specialist position posted through the AEES listserv. It felt like everything I was looking for in a job, and I honestly don’t think I would’ve found it without being engaged with the Society.”

AEES has played a much larger role than just helping her launch her career, and she emphasizes the value of AEES as a supportive professional community: “Being part of a professional community where people genuinely want to collaborate and support each other has made a huge difference. It’s helped ease the transition from grad school to full-time work and shown me the value of staying connected with peers in the field.”

LOOKING AHEAD: MAKING ECOLOGICAL ENGINEERING MAINSTREAM

Madison’s biggest hope for the future of ecological engineering is that it becomes mainstream. “This role has shown me how powerful a systems-thinking approach can be. That’s where ecological engineering shines,” she says. “My goal is to make these challenges and solutions more accessible—to help the public understand how ecological engineering can create real, lasting change.”

Madison is excited to be hosting the 2026 AEES Conference in Burlington, Vermont. To stay informed about her work at the Casella Center, visit the Center’s [LinkedIn](#) page and connect with Madison’s personal [LinkedIn](#).



GRADUATE STUDENT SPOTLIGHT

»»» FROM CURIOSITY TO IMPACT: HOW TASNUVA FARNAZ IS ADVANCING ECOLOGICAL ENGINEERING BY CONNECTING ENGINEERING AND PEOPLE

INSPIRED BEGINNINGS IN BANGLADESH

Tasnuva Farnaz (she/her), a Ph.D. student in Civil Engineering at Georgia Southern University, has always followed a path guided by curiosity and purpose. Growing up in Bangladesh, she admired her father, a mechanical engineer whose precision and integrity shaped her outlook.

After completing her bachelor's degree in civil engineering at Chittagong University of Engineering and Technology, her fascination with water and the environment drew her to Georgia Southern for her master's studies. There, she found a home for her curiosity and a community that encouraged her to dream bigger. Continuing into a Ph.D. was a natural step, and her dedication has since been recognized through the Presidential Research Fellowship.

Beyond research, Tasnuva is deeply committed to advancing the ecological engineering community. She serves on the Communications and Student Chapter Committees and was crucial in launching the Ecological Engineering Career Panel, a meaningful initiative designed to connect students with diverse professional pathways.

RESEARCH WITH PURPOSE: ADVANCING ECOLOGICAL ENGINEERING

Working with her advisor, Dr. Francisco Cubas, Tasnuva has been advancing ecological engineering since the beginning of her graduate journey. Her master's thesis supported an NSF-funded initiative that revealed how recalcitrant forms of phosphorus stored in sediments can continue to fuel harmful algal blooms even after external inputs decline.

These findings laid the foundation for her doctoral research on phosphorus recovery, bridging fundamental science with sustainable solutions for nutrient management. Her work demonstrates how applied research can address some of the most pressing challenges in freshwater quality.

CONNECTING SCIENCE AND COMMUNITY

Outreach has been central to Tasnuva's mission. In March 2025, she co-organized a workshop at the Georgia Water Resources Conference in Athens titled "Is Organic Phosphorus the Main Source of Soluble Reactive Phosphorus Fueling Algal Blooms in Local Freshwaters? What Your Water Quality Data Is Saying About It."





The session engaged engineers, students, and regulatory professionals in exploring how overlooked nutrient sources — particularly organic phosphorus— contribute to harmful algal blooms, and how water quality data can guide stronger management strategies.

INSPIRING THE NEXT GENERATION

Tasnuva's outreach extends to K-12 classrooms through a USEPA-funded stormwater biofilter project, where she connects real-world engineering to student learning. Her goal is to spark curiosity about STEM pathways and make environmental science tangible for young learners.

The impact has already been felt. From one of these classrooms, a student later joined her lab as a freshman researcher—proof that early engagement can inspire the next generation of scientists.

SHARING KNOWLEDGE, BUILDING NETWORKS

Over the past three years, Tasnuva has shared her research nationally and internationally through communities such as the North American Lake Management Society (NALMS), the International Water Association (IWA), the Georgia River Basin Center, and our own society.

Through these collaborations, she has helped bridge the gap between research and practice, engaging scientists, practitioners, and regulators in meaningful dialogue about the future of freshwater management. Participants from across the country—from Alaska to California—have since sought to adapt her methods for their own research.

For Tasnuva, these moments affirm that outreach does not merely come from sharing scientific findings, but from cultivating collaboration, fostering trust, and shaping new pathways of discovery.

At Georgia Southern, Tasnuva's vision is strengthened by collaboration with Dr. Cubas and her research team. Together, they are transforming knowledge into practice and helping build resilient freshwater futures.

In the days ahead, Tasnuva carries forward a guiding belief: science finds its true value when it connects with people.



ANNUAL MEMBERSHIP DRIVE

>>> SOCIETY MEMBERSHIP IN 2025

It is a very exciting time to be a member of the American Ecological Engineering Society! Become the heart of the Society's success, and be a part of a community of scientists, engineers, students, and others passionate about the design of ecosystems for the mutual benefit of people and the environment.

>>> RENEW OR JOIN TODAY!

Benefits of being a member of the American Ecological Engineering Society include:

- Discount on registration for [AEES Annual Meeting](#)
- Discount on annual subscription to the [Ecological Engineering Journal: The Journal of Ecosystem Restoration](#)
- Ability to list [career opportunities](#) on the AEES website
- Subscription to the AEES listserv, keeping you abreast of all Society information, including this newsletter, AEES webinars and student lightning talks, and career opportunities
- Ability to join [AEES Committees](#) to directly impact the Society, members, and outreach

Membership dues provide benefits for one year (January 1 - December 31). Join us for another year!

**STUDENT
MEMBERSHIP**
\$35

**EARLY CAREER
MEMBERSHIP**
\$75

**PROFESSIONAL
MEMBERSHIP**
\$140

**LIFETIME
MEMBERSHIP**
\$1500

>>> 2025 LIFETIME MEMBER SHOUT-OUT

Lifetime members are not only dedicated to the improvement of the ecological engineering profession but also to the betterment of the society. Consider joining this cohort of Lifetime Members when you renew your membership. We celebrate these individuals and thank them for their continued support! A special shout-out to our newest Lifetime Members, Dr. Kyle McKay, Environmental Director at Woolpert and Dr. Sara McMillan, PE, Professor at Iowa State University!



CAREER OPPORTUNITIES

>>> DO YOU HAVE A POSITION YOU WOULD LIKE TO HAVE POSTED?

Email Communications Manager, [Brittany Santore](#), with the details and the date that the post should be removed.

FACULTY TENURE-TRACK - MECHANICAL ENGINEERING, ENERGY SYSTEMS ENGINEERING, AND/OR ENVIRONMENTAL RESOURCES ENGINEERING

Cal Poly Humboldt | Arcata, CA | Posted by 10-16-2025

POST-DOCTORAL RESEARCH ASSOCIATE: DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

University of Tennessee | Knoxville, TN | Posted by 10-16-2025

MS RESEARCH ASSISTANTSHIP

Clemson University | Clemson, SC | Posted by 10-13-2025

ARBORIST/RESTORATION ECOLOGIST

Biohabitats | Baltimore, MD | Posted 09-12-2025

WATER RESOURCES ENGINEER - STREAM RESTORATION SPECIALIST

Biohabitats | Baltimore, MD | Posted 09-12-2025

TWO ASSISTANT PROFESSOR POSITIONS

University of SC Baruch Institute for Marine and Coastal Sciences | Georgetown, SC | Posted 09-09-2025

CIVIL ENGINEERING MANAGER

Ducks Unlimited | Syracuse, NY | Posted 09-04-2025

CIVIL ENGINEER

Ducks Unlimited | Huxley, IA or Garfield, MN | Posted 09-04-2025

ENGINEERING TECHNICIAN

Ducks Unlimited | Richmond, TX | Posted 09-04-2025

WATER RESOURCES ENGINEER

Biohabitats | Baltimore, MD | 08-14-2025

MORE CAREER OPPORTUNITIES

WATER RESOURCES ENGINEER

Biohabitats | Cleveland, OH | 08-14-2025

HMEI RESEARCH AND TEACHING LABORATORY MANAGER

High Meadows Environmental Institute (HMEI) at Princeton University | Princeton, NJ | 08-14-2025

HMEI ENVIRONMENTAL FELLOWS PROGRAM

High Meadows Environmental Institute (HMEI) at Princeton University | Princeton, NJ | 08-14-2025

PROFESSOR OF PRACTICE IN COASTAL WATER RESOURCES RESILIENCE

University of Florida - Center for Coastal Solutions (CCS) in the Engineering School of Sustainable Infrastructure and Environment (ESSIE) | Gainesville, FL | 07-11-2025

LECTURER

High Meadows Environmental Institute (HMEI) at Princeton University | Princeton, NJ | 07-02-2025

OPPORTUNITIES TO GET INVOLVED

SPOTLIGHT ECOLOGICAL ENGINEERING IN ACTION

AEES is always looking for new stories to tell! Ecological engineering in action can happen in a variety of places -- academia, industry, locally and abroad. If you have a project to spotlight, know someone we should interview, or have interesting photos or videos, we want to hear from you. Your story could be highlighted on the AEES website, included in the AEES Quarterly Newsletter, or featured in the Journal of Ecological Engineering & Design (JEED). Next time you are in the field, lab, classroom, or conference, take some pictures and [share your experience with us!](#)

JOIN A COMMITTEE. MAKE AN IMPACT

The Society is always eager to have members serve on one of our [8 committees](#). Whether it is helping with recruitment efforts, contributing to developing our body of knowledge, or supporting our growing communication needs, there are multiple ways your efforts can make an impact at AEES. Join us!