



BIOLOGICAL AND AGRICULTURAL ENGINEERING

LIFE LINE

Spring 2022



**OUR MISSION IS TO DEVELOP
SUSTAINABLE WATER, FOOD, ENERGY,
AND RELATED SYSTEMS THROUGH
INNOVATION IN TEACHING, RESEARCH,
EXTENSION, AND ECONOMIC
DEVELOPMENT VIA TECHNOLOGY TRANSFER.**

From the Department Head

The spring 2022 semester concluded with full in-person classes and almost normal operations as the pandemic subsided with commencement ceremonies on May 14 with 34 Biological Engineering graduates completing their undergraduate degrees. Recognition of graduating seniors and scholarship recipients was held during the Annual Induction Banquet of the Arkansas Academy of Biological and Agricultural Engineering (AABAE). The AABAE inducted three new members at a ceremony on April 8. The 2021 inductees are Dr. Nupura Bhise, Ms. Catherine Erikson and Dr. James McCarty. The 2020 inductees Mr. A.J. Kaufman, Ms. Kathryn McCoy, Ms. Leslie Massey and Dr. Rebecca Muenich were also inducted at this ceremony. Mr. Kevin Henry a 1999 graduate was honored as a College of Engineering *Distinguished Alumnus* and Dr. Rebecca Muenich as an *Early Career Alumna* on April 9 at the Engineering Alumni Banquet.

Ten senior design teams presented their capstone design projects during the Biological Engineering Design Expo on May 5 to faculty and guests. These teams were mentored by Drs. Scott Osborn, Ben Runkle, Tom Costello, Ahmed Mahmoud, Dongyi Wang, Jun Zhu and Ebenezer Kwofie. Graduating seniors looking for employment have been extremely successful this year with the job market being very hot. Congratulations to our graduates and gratitude to our faculty and staff.

Dr. Marty Matlock, currently serving as Senior Advisor for Food Systems Resiliency with Marketing and Regulatory Programs with the USDA, was elected to the National Academies of Science, Engineering and Medicine (NASEM) Board of Agriculture and Natural Resources (BANR).

Ms. Amanda Bogart was honored as a College of Engineering Outstanding Senior Finalist and the Biological Engineering Outstanding Senior. Drs. Jun Zhu, Ben Runkle and Scott Osborn were the recipients of department's outstanding teaching, research and service-to-students awards, respectively and Ms. Linda Pate was named the outstanding staff on May 6. Ms. Lillie Haddock a masters student in Biological and Agricultural Engineering department has received a *Fulbright U.S. Student Program Award* to Australia to study the role of water markets in managing climate change and low-water availability for the 2022-2023 academic year.

Please send us your news and updates and your continued interest in our programs is appreciated. Please consider supporting our programs through the opportunities listed in the newsletter or on our website and feel free to seek additional information.

Check us out at www.bio-agengineering.uark.edu



Sincerely,
Lalit Verma

Lillie Haddock Receives Fulbright Award

Lillie Haddock masters student in Biological and Agricultural Engineering has received a Fulbright U.S. Student Program award to Australia to study the role of water markets in managing climate change and low-water availability for the 2022-2023 academic year. Haddock will conduct research at University of Melbourne as part of a project that will focus on policy mechanisms to manage declining water availability with the Managing Climate Variability and Change Lab Group with the Department of Engineering.

As a Fulbright participant, Lillie Haddock will conduct research, share knowledge, and foster meaningful connections across communities in the United States and Australia. Recipients of Fulbright awards are selected in an open, merit-based competition that considers leadership potential, academic and/or professional achievement, and record of service. As Fulbright alumni, their careers are enriched by joining a network of thousands of esteemed scholars, many of whom are leaders in their fields. Fulbright alumni include leaders who are making a difference in their communities and the world, including 61 Nobel Prize laureates, 89 Pulitzer Prize recipients, and 40 who have served as a head of state or government.

The Fulbright Program is the U.S. government's flagship international educational exchange program and is supported by the people of the United States and partner countries around the world. The Fulbright Program is funded through an annual appropriation made by the U.S. Congress to the U.S. Department of State's Bureau of Educational and Cultural Affairs. Participating governments and host institutions, corporations, and foundations around the world also provide direct and indirect support to the Program.

Since 1946, the Fulbright Program has provided more than 400,000 participants from over 160 countries the opportunity to study, teach and conduct research, exchange ideas, and contribute to finding solutions to shared international concerns. The primary source of funding for the Fulbright program is an annual appropriation by the U.S. Congress to the U.S. Department of State's Bureau of Educational and Cultural Affairs. Participating governments and host institutions, corporations and foundations in foreign countries and in the United States also provide direct and indirect support.



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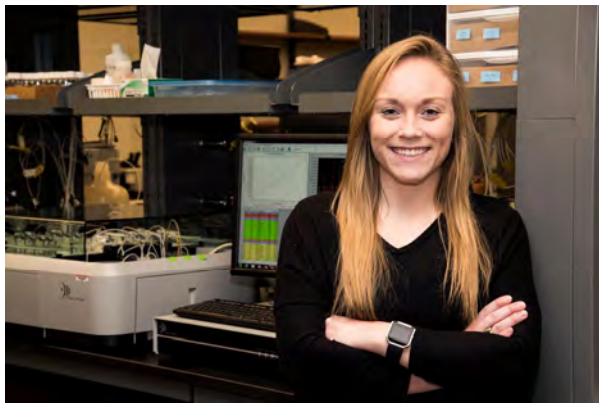
● BAEG Life Line



Senior Ellie Kuhn received 1st prize presentation award at the State and National Awards Reception 2022. Pictured with mentor Dr. Benjamin Runkle.

Matlock elected to National Academies of Sciences, Engineering, and Medicine board valued for expertise in agriculture.

Marty Matlock, Professor at UA-BAEG met with Julie Carrier, former professor in UA-BAEG and head of the Department of Biosystems Engineering and Soil Science at the University of Tennessee – Knoxville while both attended the Virginia Tech ASABE Southeastern Region Student Rally. Matlock was the invited keynote speaker for the event.



Abbie Lasater receives Ph.D. Is now working with GBMc Associates

Amanda Bogart Outstanding senior in Biological engineering WAS also a College of Engineering Outstanding senior finalist.



Three Join Arkansas Academy of Biological and Agricultural Engineers



From left: Nupura Bhise, Catherine Erikson and James McCarty.

The Arkansas Academy of Biological and Agricultural Engineers inducted three new members at a ceremony April 8.

The 2021 inductees were Nupura Bhise, B.S.B.E. 2007; Catherine Erikson, B.S.B.E. 2007; and James McCarty, B.S.B.E. 2006, M.S.C.E. 2015, Ph.D. 2020.

Bhise is an accomplished biomedical researcher with in-depth experience in academic and startup environments. She graduated summa cum laude from the Department of Biological Engineering in 2007.

As a Ph.D. in biomedical engineering from the Johns Hopkins University and postdoctoral fellow at the Harvard Medical School, Bhise has contributed to her field in numerous ways. This includes publishing 14 journal articles (in prestigious journals including *Biomaterials*, *Small*, *PNAS*, *Journal of Controlled Release* and *Biofabrication*), one book chapter, one patent, and she has been awarded the Medtronic fellowship, Society for Biomaterials' research award and Biomedical Engineering Society's research award.

Erikson is an engineer at the Food and Drug Administration's Center for Tobacco Products, reviewing tobacco product applications to help accelerate the transition to a healthier America. She is a 2007 graduate of the Department of Biological and Agricultural Engineering.

She earned a master's degree in food technology and nutrition from Lund University in Lund, Sweden, in 2010. She has done regulatory work at Underwriters Laboratories, focusing on commercial and residential cooking appliances, and worked as a compliance engineer for Duke Manufacturing Company in Missouri.

McCarty has been an environmental quality manager with Beaver Water District in Lowell since February 2017. He earned a B.S., M.S. and Ph.D. in biological engineering from the Department of Biological and Agricultural Engineering.

Between 2012 and 2020, he was the primary author on nine peer reviewed publications, advancing the state of science in topics ranging from sustainable agricultural production, water quality modeling and nutrient cycling in lake systems.

McCarty served as an intelligence officer in the U.S. Air Force for five years from 2006-2011. As chief of intelligence for a deployed combat unit, he was awarded the Air Force Commendation Medal, Air Force Achievement Medal and the Global War on Terrorism Expeditionary Medal.

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Dr. Scott Osborn receives Outstanding service to students award. Dr. Jun Zhu receives Outstanding teaching award. Linda Pate received staff excellence award in College of Engineering awards ceremony. Dr. Benjamin Runkle (not pictured) received Outstanding research award.



Dr. Jin-Woo Kim has been elected as a fellow of IEEE for contributions to nanoscale fabrication of bio/nano-hybrid materials



Alumni honored at College of Engineering Banquet

Rebecca Logston Muenich received Early Career Alumni award.

Kevin Henry (not pictured) received Distinguished Alumni award.

Senior Design Expo



Senior Design Expo



2022 Graduate Reception





Congratulations to the Class of 2022!

Undergraduates:

- | | | |
|----------------------|------------------------|--------------------|
| Ellie Kuhn | Spencer Warrick | Logan Jennings |
| Aubin Payne | Harrison Davis | Hunter Dowell |
| Alexis Barber | Olivia Torres | Michelle A. Clark |
| Lillie J. Bolton | Jake Miller | Noah M. Olson |
| Nathan Edward Bowman | Logan Jennings | Noah Geels |
| Tina Dao | Clarissa Fuller | Sophia Gomez |
| Hayden Engelbrecht | Devyn Meyer | Andrew Daniels |
| Megan Doty | Flora Noble | Russell Gartner |
| Janeth Jaen J. | Dawson Oakley | Lauren Gregory |
| Katie Loethen | Michala Smith | Michael Janorschke |
| Samuel Nepomuceno | Connor Pearson | Killen Jones |
| Ian Mills | Mandy Bogart | Daniel Krol |
| Fernanda Novoa | Harper L. Williams-Dow | Ian Mills |
| William Osment | Chloe Hurt | Juliana Newman |
| William Franke | | |

Scholarship Donation Opportunities

Please accept my contribution to the following scholarship(s). My check for

\$ _____ is enclosed.

Billy Bryan Scholarship Fund \$ _____

Joel T. Walker Memorial Scholarship Fund \$ _____

Carl L. Griffis Memorial Scholarship Fund \$ _____

Biological and Agricultural Engineering General Scholarship Fund \$ _____

Biological and Agricultural Engineering Student Support Fund \$ _____

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Have a great year!

