

BAEG LIFE LINE

Fall 2017



From the Department Head

As the Fall 2017 semester nears an end, I am delighted to share the highlights since our last newsletter of May 2017. Our faculty and staff welcomed our students to the new academic year with a picnic. We have 106 undergraduate Biological Engineering students with sophomore, junior or senior standings. Dr. Kieu Le has joined our department as Instructor this month and will be teaching our courses starting next semester. She completed her graduate education at North Carolina Agricultural and Technical State University.

Dr. Tom Costello organized an industry tour for our students. Drs. Scott Osborn and Ben Runkle accompanied 38 students to food, energy and water related industries in Arkansas in late October. Three undergraduates, Ali Ezell, Casey Gibson and Kendrick Hardaway were honored as **Seniors of Significance** by the Arkansas Alumni Association. Dr. Kosana Suvočarev, postdoctoral research associate working with Dr. Ben Runkle was an *invited keynote speaker* at the Potsdam, Germany Greenhouse Gas Flux Workshop during October 24-26 .

Several faculty participated in the 2017 Annual International Meeting of the American Society of Agricultural and Biological Engineers (ASABE) in Spokane in July. The inaugural *Lalit and Aruna Verma Award for Excellence in Global Engagement* was presented to ASABE Fellow Dr. Bill A. Stout, a 62 year member of ASABE, for 50 years of sustained contributions to the profession through a variety of international assignments and endeavors. The eponymously named award was recently established to recognize “outstanding contributions made toward global advancement and recognition of the profession of agricultural and biological engineering, and excellence in global engagement and international education, outreach, and research.”

The Arkansas Section of ASABE held its 54th meeting on October in Fayetteville in the new *Don Tyson Center for Agricultural Sciences*. The technical program and field tour focused on “Sustainability” in Little Rock on October 7. Distinguished Professor Dr. Terry Siebenmorgen was named “Engineer of the Year” and Dr. Peter Larbi was named “Young Engineer of the Year.” We continue to raise funds to endow the *Carl Griffis Memorial Scholarship* and would appreciate your support. It would be our pleasure to provide additional information about our programs, people and department. Please do not hesitate to call (479-575-2351), e-mail (lverma@uark.edu) or visit us on campus.

Lalit R. Verma, P.E.

Professor and Department Head

In This Issue

- ◆ BAEG Faculty Directory
- ◆ Faculty Accomplishments
- ◆ Spotlight on New Faculty
- ◆ Student Life
- ◆ Field Industry Tour
- ◆ Staff Accomplishments
- ◆ Scholarship Recipients
- ◆ Scholarship Donation Opportunities

University of Arkansas
Division of Agriculture
Biological and
Agricultural Engineering
790 W. Dickson St.
ENGR 203
Fayetteville, AR 72701
TEL: 479-575-2352
FAX: 479-575 2846
EMAIL: baeg@uark.edu

Significant Faculty Accomplishments



Dr. Matlock Receives the Lafarge-Holcim Acknowledgement Award

Dr. Matlock and Steve Luoni received the Lafarge-Holcim

Acknowledgement Award for their collaborative resiliency design work with the city of Conway. They were one of 35 projects selected from more than 5,000 submissions from 121 countries to receive awards.

The project, titled “Conway Urban Watershed Framework Plan: A Reconciliation Landscape,” was an interdisciplinary collaboration between architects, planners, engineers, economists and ecologists. It addresses the impact of urbanization on the 42-square-mile urban sub-watershed that incorporates much of Conway. Problems their work addressed including increased flooding, water quality contamination and property damage.

Drs. Haggard and Runkle Awarded Grant to Study Irrigation in the Arkansas Delta

Drs. Haggard and Runkle received a 3-year, \$330,000 grant this year from the US Department of Agriculture Natural Resource Conservation Service. The project is called “Comparing three water-saving irrigation strategies in production-scale rice fields” The two will be researching different ways to reduce the amount of water needed for rice to produce, and still maintain the rice yield for the producers.



Dr. Atungulu presenting Dr. Costello and award for his service as president of the Arkansas Section of ASABE

BAEG FACULTY

Department Head
Dr. Lalit Verma
Professor
lverma@uark.edu

Faculty
Dr. Thomas Costello
Associate Professor
tac@uark.edu

Dr. Brian E. Haggard
Professor Director of
AR Water Resource Center
haggard@uark.edu

Dr. Jin-Woo Kim
Professor
jwkim@uark.edu

Dr. Yanbin Li
Distinguished Professor
yanbinli@uark.edu

Dr. Otto J. Loewer
Professor
ojl@uark.edu

Dr. Marty Matlock
Professor, Exec. Dir.
Office of Sustainability
mmatlock@uark.edu

Dr. G. Scott Osborn
Associate Professor
gsosborn@uark.edu

Dr. Benjamin Runkle
Assistant Professor
brrunkle@uark.edu

Dr. Kieu Le
Instructor
knle@uark.edu

Dr. Jun Zhu
Professor
junzhu@uark.edu

Extension Faculty
Dr. Chris Henry
Assistant Professor
cghenry@uark.edu

Dr. Yi Liang
Assistant Professor
yliang@uark.edu

Dr. Sammy Sadaka
Assistant Professor
ssadaka@uaex.edu

Dr. Karl VanDevender
Professor
dvan@uaex.edu

Spotlight on New Faculty Member

Dr. Kieu N. Le

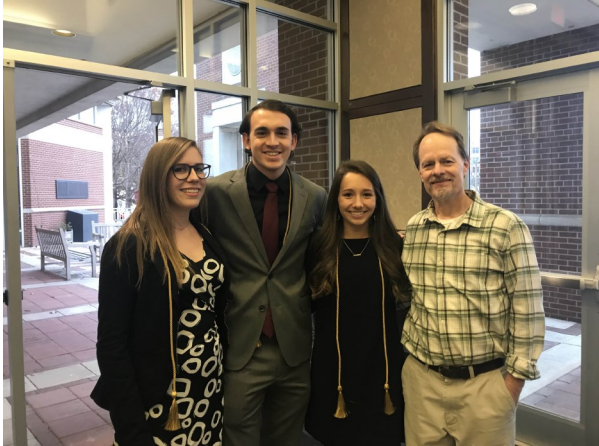
After twenty-five years of grown up in the Mekong Delta, Vietnam, I love and enjoy every moment spent in the rice paddy field: the peaceful evergreen, the happy yellow when rice is ready to harvest, the smell of straws, the sunset, and all the activity of fishing, flying kites and playing as a kid. My Mom's family have been farmers for generations. My Dad is a hydraulic engineer and instructor at Can Tho University. I spent all my childhood in the countryside and went to the field every day with my Mom and relatives. I witnessed how vulnerable of rice production is to ever-changing of climate and water availability. This inspired me to seek out a profession where I could help farmers build irrigation systems and use different engineering designs to control stream/river flow and storage. At the same time, I wanted to be a teacher and thus I did a double-degree in Hydraulic Engineering, and Education and Foreign Language.



During my time working as a Lecturer at Can Tho University for more than three years, and working on different projects that promote climate resilient agriculture for sustainable livelihoods, I realized how poor and vulnerable farmers are to climate change and water availability. They struggle to find ways to improve production and reduce fertilizer and chemical usage. I believe I could contribute to improve farmer's livelihoods with advanced knowledge in agriculture. Thus, I pursued my Master in Plant Soil and Environmental Science and PhD in Energy and Environmental Systems at North Carolina Agricultural and Technical State University (NCAT). I used a field and watershed scale model, the Agricultural Policy/Environmental eXtender (APEX) model, to evaluate the impacts of management (chemical and organic inputs) and tillage practices on crop production and water quality. In my PhD dissertation, I used the Environmental and Policy Integrated Climate (EPIC) model to evaluate the long-term impacts of conservation agriculture and conservation tillage systems on carbon sequestration and crop productivity. During my training, working as a research and teaching assistant at NCAT, and as a research scholar at Blackland Research & Extension Center, I have gained substantial knowledge on crop and watershed modeling, and in developing resilient farming practices to improve food security and nutrition.

I hope my modeling skills, experience in biological engineering designs and cropping systems, and my passion and inspiration can help to promote sustainable food, water and energy systems. Many times in my life, I have heard that female cannot do what male can and that engineering majors were not for females. I stood up for myself and did what people thought a female could not. Thus, as an Instructor at University of Arkansas, I hope to bring in more STEM students, especially female, work with them and believe in them so they can make a difference in their lives.

Student Life



BENG Students Recognized as Seniors of Significance

Congratulations to Ali Ezell, Casey Gibson, and Kendrick Hardaway for being honored at the Arkansas Alumni Association Seniors of Significance. Pictured with their mentor G. Scott Osborn, PhD.

Gurdeep Singh Named New Face of Engineering

Gurdeep was named a New Face of Engineering for 2017 by American Society of Agricultural and Biological Engineers. The program is sponsored by DiscoverE. New Faces recognizes the outstanding talents and passions of the rising generation of engineering leaders, whose work is already having significant impact on public welfare around the globe. Gurdeep Graduated last year from the UofA with his Masters Degree in Biological Engineering.



Annual Welcome Back Students BBQ

Our annual Welcome Back Student Picnic was held at UARK Agri Park. Dr. Haggard and BENG students enjoying a game of soccer after dinner was served.

Field Industry Tour



Students standing in front of a single windmill blade at the LM Wind Power factory in Little rock.



Will Richardson at the row-crop farm near England, Arkansas.



Dr. Runkle with Laura Gray on a rice harvesting combine at the row-crop farm near England, Arkansas.



Dr. Osborn and students being lead into Riceland Mills by recent graduate student Haley McLaughlin, who is now the Safety Coordinator at Riceland Foods.

Staff's Accomplishment



Kosana Suvočarev, keynote speaker at the Greenhouse Gas Flux Workshop in Potsdam Germany



Dr. Suvočarev was an invited keynote speaker at the Potsdam, Germany Greenhouse Gas Flux Workshop, October 24-26 . Her talk was titled “The surface renewal method and its application for GHG measurements over irrigated crops” and was presented with Francesc Castellví, from the University of Lleida in Spain. Dr. Castellví visited our research group in Fayetteville for ten days in early November.



Keith Trost and Anthony Taylor Recognized at Employee Award Banquet

This year the department celebrated the milestones of two of our staff members. Keith Trost received an award for his 25 years of service at the University. Anthony Taylor was awarded the 10 years of service pin . Congratulations and thank you for all your hard work.



Anthony receiving his ten year's of service award.



Congratulations to Keith Trost (center) on his 25 years of service to the University.

BAEG Life Line

Dr. Fortenberry Honored as Watershed Guardian

The Beaver Watershed Alliance recognized Allan Fortenberry, chief executive officer of Beaver Water District, alumni of the department, and founding member of Arkansas Academy of Biological Agricultural Engineering, as 2017 Beaver Watershed Guardian. He was recognized for 20 years of protecting and preserving Beaver Lake.



Dr. Costello giving the field tour of Don Tyson Center for Agricultural Sciences during the The Arkansas Section of Arkansas Academy of Biological Agricultural Engineering meeting.

Dr. Bailey Sullivan has decided to leave the University of Arkansas this semester. She has accepted a job at Kansas State University as a Teaching Assistant Professor.



Scholarship Recipients

Mike & Yvonne Jones

Lillian Glaeser
Kendrick Hardaway
Natalie Von Tress

Arkansas Academy of Agri & Biological Engineering

Thomas Helvick
Bailey Keller

Biological and Agricultural Engineering General Scholarship

Kendrick Hardaway

Billy Bryan Scholarship

Mckenna Belcher

Xzin McNeal Kendrick Hardaway

McKenna Belcher
Laura Gray
Trent Woessner
Brooke Benham
Megan Woodworth
Gavin Heller
Wesley Jones
Micahel Leppold
Mary Lawson
Taylor Butler

John W. and Tryanny Odom White

Natalie Von Tress

Division of Agriculture

Ryan Clark
Trent Woessner

J.A. Riggs Tractor Company

Lillian Glaeser
Nicholas Cross

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 _____

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: _____ E-MAIL ADDRESS: _____

Remit Payment To:

Dept. of Biological & Agricultural Engineering

*203 Engineering Hall
University of Arkansas
Fayetteville, AR 72701*

 *Happy
Holidays*


UofA

**DIVISION OF AGRICULTURE
RESEARCH & EXTENSION**

University of Arkansas System



UNIVERSITY OF
ARKANSAS.

College of Engineering
Biological & Agricultural Engineering