

IMPACT

PRESIDENT'S REMARK

Dear AOC members, colleagues, and friends,

Happy New Year of Dragon!

We greatly appreciate the continued support from all of you in the past year. AOC board and SAC group made a lot of efforts to serve our community in the past months:

- 1) Held two board meetings to discuss the annual work plan and member development strategies, especially for institute membership and student member.
- 2) Published two issues of IMPACT Newsletter updating the career development and research of AOC members and new job openings.
- 3) Organized two webinars and invited two distinguished professors to share research and career development experience:

Webinar I (Date: December 2, 2023): Speaker: Dr. Changying Li, Professor and IFAS AI Administrative Coordinator at University of Florida.

Webinar II (Date: January 19, 2024): Speaker: Dr. Juming Tang, Member of US National Academy of Engineering & Regents' Professor at Washington State University. We greatly appreciate the time from Dr. Li and Dr. Tang. Our AOC community and friends benefited a lot from your talks.

In the past months, several AOC members received prestigious awards or honors: Dr. Lingjuan Wang-Li named as William Neal Reynolds Distinguished Professor at NC State University; Dr. Hongwei Xin, Dean of UT AgResearch, Received the Leg-ACY Maker Award from Egg Industry Center; Dr. Juming Tang at Washington State University was recognized as one of 2023 highly cited researchers, whose studies are top ten cited in their fields in the world; Dr. Lingying Zhao named as 2023 CFAES Distinguished Professor at Ohio State University; and Dr. Yang Zhao Received the T.J. Whatley Distinguished Young Scientist Award & the UT AgResearch Dean's Grantsmanship Award. Congratulations on their achievements!

In the following months, we will work closely with all of you on the preparation of AOC student and professional awards, AOC business meeting, China Exchange Forum, and Tri-community Symposium that are going to happen during the 2024 ASA-BE International Meeting (July 28-31, Anaheim, California, USA). More information will be shared with you soon.

Best wishes,

Lilong Chai

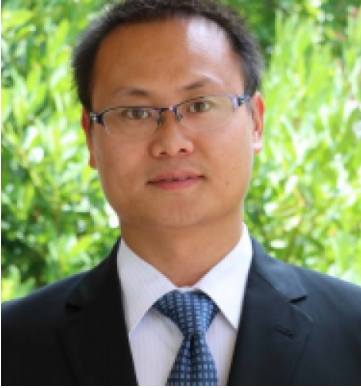
AOC President (2023-2024)



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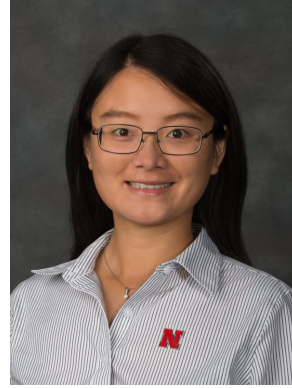
AOC 2023-2024 Executive Board



CHAI, LILONG
University of Georgia
PRESIDENT



WU, SARAH (XIAO)
University of Idaho
PAST-PRESIDENT



YEYIN, SHI
University of Nebraska-
Lincoln
PRESIDENT-ELECT



BAO, YIN
Auburn University
VICE-PRESIDENT



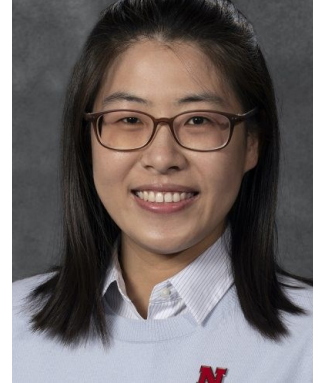
WANG, YINGKUAN
Chinese Academy of
Agricultural Engineer-
ing
EDITOR IN CHIEF - IJABE



JIANG, YU
Cornell University,
MEMBER-AT-LARGE



XIANG, LIRONG
North Carolina State Uni-
versity
MEMBER-AT-LARGE /
NEWSLETTER EDITOR



XIONG, YIJIE
University of Nebraska-
Lincoln
MEMBER-AT-LARGE

AOC 2023-2024 Executive Board



WANG, XU
University of Florida
MEMBER-AT-LARGE



LI, GUOMING
University of Georgia
SECRETARY



CHEN, CHANG
Cornell University
MEMBER-AT-LARGE



LI, ZHENGKUN
University of Florida
SAC CHAIR

2024 AOC Board Meeting Minutes

8:00-9:30 pm EDT, January 11, 2024

Attendants: Lilong Chai, Yeyin Shi, Guoming Li, Chang Chen, Yin Bao, Xiao Wu, Zhengkun Li

Absent: Lirong Xiang, Xu Wang, Yu Jiang

The meeting firstly discussed time and content for the AOC business meeting and global exchange seminar. The global exchange seminar was determined at 2:30 pm, and AOC business meeting was set at 4 pm and ended up at 5 pm. AOC banquet will start at 6 pm. Yin Bao will contact Jessica to reserve the conference for the AOC activities from 2:30 pm to 6 pm.

Yeyin Shi: The topic of the global exchange seminar will be ‘Circular Bioeconomy’. Instead of a single scholar providing speech throughout the seminar, 2-3 panels will be invited to provide interactive discussion in a relaxing manner. The discussion should focus on China-US students’ professional development, information exchange, and finding jobs. Dr. Zhongli Pan, Dr. Ruihong Zhang, and Dr. Ying Chen are preliminary candidates. Chang Chen could be the moderator of the seminar as he is familiar with Drs. Pan and Zhang.

AOC funding management: Yeyin Shi proposed to investigate the expenses and incomes from the historical data. The purpose of this is to set an appropriate amount for professional member and waive the fees for student members, so that the expenses and incomes can be balanced out. But everyone who intend to attend the banquet should pay the dinner fees.

Institutional membership fees: Institutional membership fees are optional for US and Chinese institutions. Current professional membership fees and dinner fees should be sufficient to cover the AOC activity expenses. It is difficult to convince US institutions to pay the fees, and Chinese institutions will feel unfair if only them doing that. But every institution can pay the membership fees voluntarily, and then they can have their hiring information posted on AOC newsletters or website.

Institutional member: Chang Chen and Yu Jiang will start to search contact information of the contact persons from institutional member, so that students can realize who they should contact when they are interested in specific program or institutions.

Newsletters: Lirong Xiang proposed to have 2-3 newsletters before ASABE AIM. The information (e.g., student recruitment, faculty position, award) will be collected from AOC board members. Zhengkun Li will help with the information collection.

Website: Zhengkun Li and other SAC members helped to update the website information and find the missing links on the previous website.

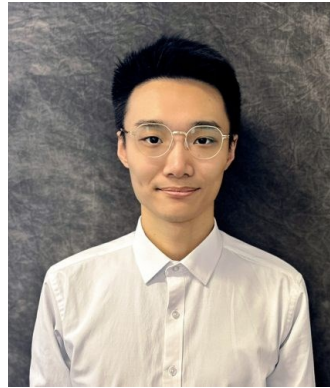
Website renewal: Sarah Wu mentioned that the website renewal fees can be paid with credit card, which can be set with AutoPay.

Changing the name of AOC banquet: The current name on the registration invoice could make the reimbursement difficult for some faculties or students. Alternative names could be award ceremony or reception and social networking.

SAC 2023-2024 Executive Board



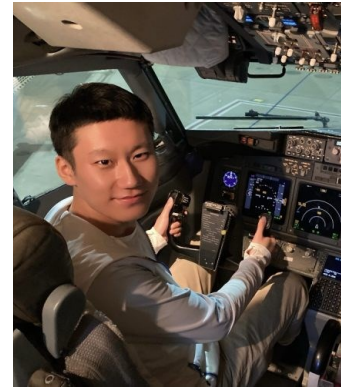
LI, ZHENGKUN
University of Florida
SAC CHAIR



LIU, XUAN
Iowa State University
SAC VICE CHAIR



ZHANG, JUNXIAO
University of Nebraska-
Lincoln
SECRETARY



LIU, WENHAO
University of Florida
SAC MEMBER-AT-
LARGE



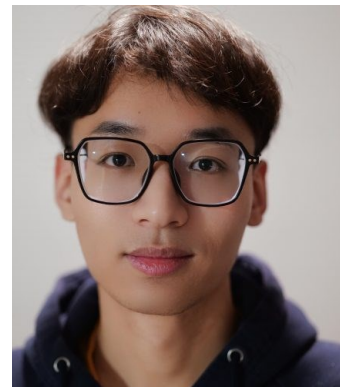
DUAN, JAMIE
University of Nebraska-
Lincoln
SAC MEMBER-AT-
LARGE



XIAO, YITING
University of Arkansas
SAC MEMBER-AT-
LARGE



**XIANG,
ZHAOCHENG**
University of Nebraska-
Lincoln
SAC MEMBER-AT-
LARGE

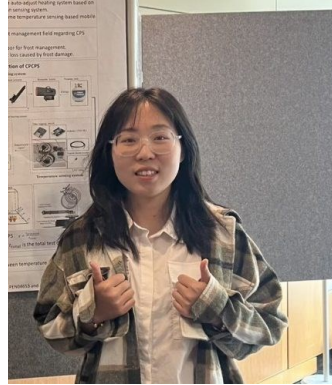


HE, WEILONG
North Carolina State
University
SAC MEMBER-AT-
LARGE

SAC 2023-2024 Executive Board



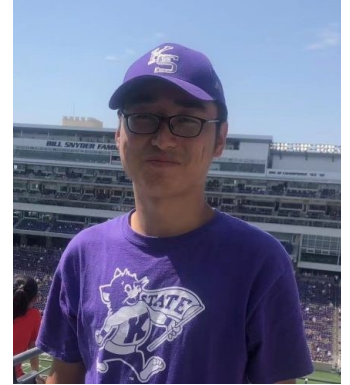
TIAN, FENGKAI
University of Missouri
SAC MEMBER-AT-LARGE



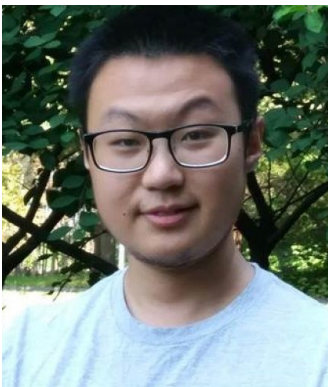
HUA, WEIYUN
Penn State University
SAC MEMBER-AT-LARGE



ZHOU, XU
Washington State University
SAC MEMBER-AT-LARGE



HAN, MINGQIANG
Kansas State University
SAC MEMBER-AT-LARGE



LIU, ERTAI
Cornell University
SAC MEMBER-AT-LARGE

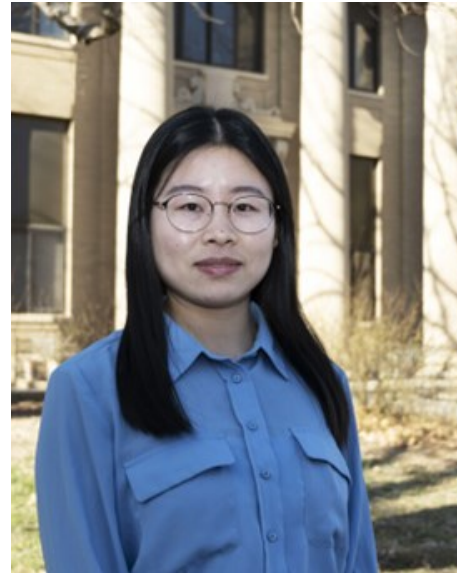
AOC Interview—Dr. Jiating Li

What's your educational background and professional experience?

In 2017, I earned my B.S. degree in Biosystems Engineering from Zhejiang University (ZJU), China. Right after that, I started my graduate journey at the department of Biological Systems Engineering, University of Nebraska-Lincoln, USA. I received my M.S. degree in Agricultural and Biological Systems Engineering in 2019 and my Ph.D. degree in Biological Engineering from the same department in August of 2023, under the supervision of Dr. Yeyin Shi.

After graduation, I got a new position as Postdoctoral research associate at the University of Illinois at Urbana-Champaign. I worked in Dr. Carl Bernacchi's group to explore the potential of a cable-suspended phenotyping system in enhancing crop photosynthesis efficiency.

In July of 2024, I will start as an assistant professor at the department of Biosystems Engineering, University of Manitoba, Canada. My research will focus on digital technologies in agri-food systems, with a particular emphasis on proximal and remote sensing, automation systems, internet-of-things (IoTs), physics-based models, and artificial intelligence (AI).



Dr. Jiating Li

What inspired you to study abroad and what brought you to the current field?

The eagerness to embrace new challenges and broaden my horizons had inspired me to study abroad. I faced two options after completing my undergraduate studies: staying at ZJU or applying for graduate programs in the USA. The second option meant more challenges to me. I need to secure a research assistantship, leave my family, and adapt to a completely different culture. These challenges had attracted and motivated me to embark on this new journey.

I've always been fascinated by advanced technologies, information, and data analysis. Fortunately, the first graduate program I was offered was related to drones, imagery, and, most importantly, information and data processing – aligning perfectly with my interests. Without any doubt, I accepted the offer. After six years of graduate training, my passion for agriculture, technology, and data has only intensified.

Could you talk about some interesting facts about your research or daily life?

Throughout my graduate studies, summers were the busiest time for me, primarily because of field work. One summer, we had an experimental field site located in western Nebraska, which was a six-hour drive from UNL. The interesting fact was, for a 20-minute UAV flight mission, we took a three-day field trip, with two of those days solely on the road.

At the 2023 ASABE annual conference, I had the chance to meet my PhD advisor's PhD advisor, and even that advisor's PhD advisor. It was like having four academic generations under one roof.

AOC Interview—Dr. Jiating Li (page 2)

An interesting fact in my daily life is, my cat always works better than the morning alarm.

What is the biggest challenge you have faced in your profession?

While I have not yet officially started my career as an independent researcher, the biggest challenge I foresee is effectively balancing multiple roles – researcher, teacher, mentor, and various other responsibilities. I believe that achieving this balance is a hallmark of an exceptional professor. To tackle this challenge, I plan to learn from experienced colleagues, actively seek feedback, self-reflect, and make necessary adjustments along the way.

Could you provide some suggestions to oversee Chinese students/postdoc who are looking for a faculty position?

It is not all about research. As I've mentioned earlier, professors take multiple roles. While conducting great research is crucial, it is not sufficient. Teaching, mentoring, writing, and effective communication are equally important. During your graduate studies or postdoc work, seize every opportunity to develop and refine these skill sets.

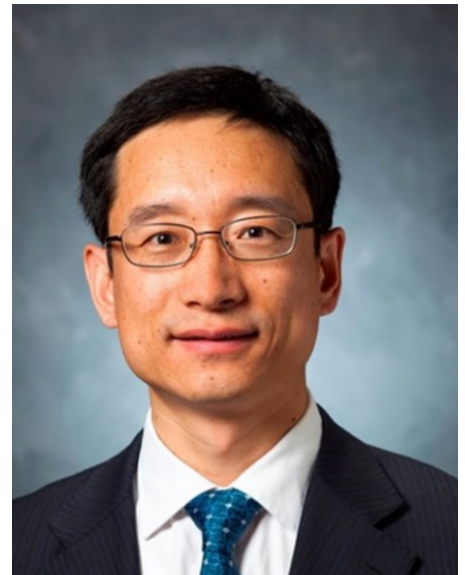
Have a clear plan. It is important to know what you want to accomplish as an independent researcher and how you will navigate the path to tenure. A clear plan not only helps you craft an outstanding application package but also addresses many questions that may arise during the interview.

Be well-prepared. When you receive interview invitations, be happy for it. More importantly, do prepare well for the interview. Familiarize yourself with the department, college, and university. For on-site interviews, ensure you have diligently prepared your job talk and teaching demo (if required). Practice your presentations with at least two people (e.g., advisors, friends). The more feedback and suggestions you receive, the better.

Be ready for any outcome. While landing our dream job is fantastic, not everyone is fortunate enough to do so. When 'bad news' comes, stay calm and keep moving forward. Sometimes, it is just a matter of time.

SAC student activities**自动化和深度学习到表型组学和收获后处理****Automation&Deep Learning to Phenomics and Postharvest Handling**

2023年12月1日美东时间8点晚的线上讲座演讲人为Li Changying 教授，演讲主题为：Automation&Deep Learning to Phenomics and Postharvest Handling。Dr. Li 是美国佛罗里达大学农业与生物工程系教授。他在开发基于人工智能的创新传感和自动化技术以推进数字农业和自动化表型方面拥有超过20年的经验。他的工作获得了ASABE的多个国家级奖项，包括New Holland Young Researcher Award、the Rain Bird Engineering Concept of the Year Award和多个论文奖。他共计发表了100多篇期刊论文，并获得了超过1600万美元的资助资金，包括国家食品和农业研究所、国家科学基金会、国家机构和行业合作伙伴。

**Prof. Changying Li**

在这次演讲中，Dr. Li分享了多个利用农业机器人和深度学习的研究项目，以解决从育种到收获和收获后处理的整个食物链中的挑战。此外，Dr. Li还分享了他在美国从研究生到教授的个人成长经历。最后，参与报告的观众们在报告结束后踊跃发言，针对Dr. Li分享的丰富内容和宝贵的经验开展了深入的交流与探讨。

SAC student activities

AOC 2024春季研讨会：职业历程分享

AOC 2024春季研讨会荣幸邀请到了享誉全球的食品工程领域专家——美国工程院院士、Juming Tang教授。此次会议在美国东部时间1月19日晚8点通过线上形式成功举办，吸引了60余名观众的全程在线参与。

Juming Tang教授，现任美国华盛顿州立大学教授，以其在食品干燥、先进热加工技术、病原体控制以及非化学采后害虫控制等研究领域的杰出贡献著称。他不仅在过去的三十年中专注于这些领域的深入研究，还指导了50多名博士生，培养了超过50名博士后研究员和访问学者，并发表了超过400篇SCI论文。

研讨会上，Tang院士不仅分享了他个人的职业发展历程，还讲述了他从一名研究生到成为世界知名食品工程专家的成长之路。他详细回顾了加拿大求学的点点滴滴，以及随后在加拿大和美国从事教职的宝贵经历，无不展示出他在学术和职业发展上的坚持与奋斗。

此外，Tang教授还介绍了他在微波食品加工方面的主要研究活动及其重大成果。他慷慨分享的职业发展经验，对于参会的观众来说无疑是一场宝贵的学术盛宴，尤其是对于那些专注于专业发展、学术领导力、研究创新、专利申请及创新成果商业化等领域的学生和老师们。

会议期间，学生和老师们热烈互动，提出了一系列精彩的问题，探讨了教育成功的研究生和博士后所需的关键因素、职业生涯中影响深远的重大时刻与决策、技术商业化过程中遇到的挑战以及面向未来的食品工程研究领域等多个话题。

此次研讨会不仅促进了与会者对Tang教授职业历程与研究成果的了解，也为年轻学者提供了一次与世界级学术大咖近距离交流的难得机会。对于无法参与现场的朋友，我们也贴心提供了研讨会的录播链接：

https://wsu.zoom.us/rec/share/S2ipYFwW27lzt7DBclMELr4poEYeBhPxNcYr1Kr4YdWxEEq4_A5_GFrVxXpRxMD.bYEP2ZfPG0tj3Qma



Prof. Juming Tang

Lingjuan Wang-Li named as William Neal Reynolds Distinguished Professor

Dr. Wang-Li, interim head of Department of Biological and Agricultural Engineering in NC State University’s College of Agriculture and Life Sciences were recently named William Neal Reynolds Distinguished Professor.

Wang-Li specializes in air quality engineering and food animal production systems environmental control. Much of her research addresses various aspects of air emission and environmental control issues associated with animal feeding operations (AFOs). Wang-Li’s research program has been well-funded by USDA, NSF, EPA and industrial sectors in three general directions: air quality engineering, including monitoring, modeling, and mitigating air emissions and associated fate and transport of the emissions; animal production systems environmental control and management; and sustainable animal production and animal well being. In addition to research, Wang-Li also teaches the undergraduate course Management of Animal Environment as well as the graduate course Aerosol Science & Engineering. She was appointed to the USDA Agricultural Air Quality Task Force (AAQTF) in 2013 and served on the Task Force from 2013-2017 and 2021-2023.



Prof. Lingjuan Wang-Li

The professorship is one of the college’s highest honors, created to recognize outstanding scholars, leaders, teachers and mentors. When William Neal Reynolds established the endowment creating the distinguished professorships in 1950, it was one of the most impactful gifts that had been made to a single CALS program. The gift, one of many made to NC State University by the Reynolds family in Winston-Salem, has benefitted not only the recipients but the many others who have gained from the research, teaching and Extension efforts of those who bear the title of William Neal Reynolds Distinguished Professor.

Dean of UT AgResearch Receives the LeggACY Maker Award

Dean Xin was recognized at an awards ceremony and reception held at the 2023 Egg Industry issues Forum on October 25 in Indianapolis, Indiana. Image courtesy UTIA.

Hongwei Xin Recognized by the Egg Industry Center.

The Egg Industry Center will recognize Dr. Hongwei Xin with the 2023 LeggACY Maker Award for his commitment and achievements in advancing the egg industry and the mission of the Egg Industry Center (EIC).

“Hongwei did an extraordinary job of taking what was a totally new concept for a partnership between Iowa State University and an entire industry and turning that into the information and research entity known today as the Egg Industry Center,” said Dr. Richard Gates, EIC Director. “His expertise and professional, compassionate leadership style was critical as he successfully served EIC for 10 years as the Center’s founding director.”



Dean Hongwei Xin

During his time at the Center, Xin helped establish communications channels with egg farmers, their associations, donors, board members, and many other center stakeholders. His research, and the research funds awarded from the Egg Industry Center’s grant program, focused on practical and timely solutions to issues that greatly impacted the entire U.S. egg industry.

During his research career, Xin was a principal investigator (PI) or Co-PI of \$74M in competitive grants and contracts for research, extension, and education projects.

In 2019, Xin became the dean of University of Tennessee Ag Research, and director of the Tennessee Agricultural Experiment Station at the University of Tennessee Institution of Agriculture (UTIA). A hallmark accomplishment since joining UTIA is his persistent work with Institute/University upper administration and key stakeholders in successfully securing \$50M in funding to modernize UT AgResearch infrastructure and equipment at the ten AgResearch and Education Centers across the state. He has also helped develop and implement the UT AgResearch Strategic Action Plan whose research expenditure funding has increased more than 40% in the past four years.

While on his new path at UTIA, Xin remained close to the egg industry as an active member of the Egg Industry Center Advisory Board and continuing other leadership positions he held within in the industry.

Juming Tang among seven WSU faculty recognized as highly cited researchers

Food engineer Juming Tang and catalysis researcher Yong Wang are the newest Washington State University faculty to be added to the 2023 list of the world’s most Highly Cited Researchers. They join five other WSU faculty who have been on the list recognizing researchers whose studies are most often cited in their fields: Dan “Annie” Du, Dogan Gursoy, Kris Kowdley, Yuehe Lin, and Nathan McDowell.



Prof. Juming Tang

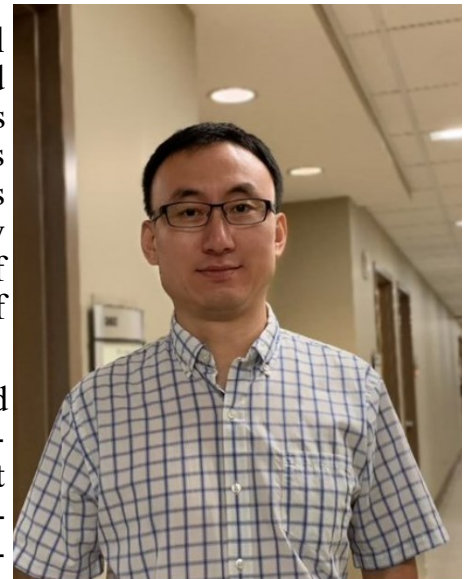
This recognition means these researchers have authored multiple papers which rank in the top 1% by citations for their fields and publication year in the Web of Science over the past decade. Of the world’s population of scientists, Highly Cited Researchers are 1 in 1,000.

Tang holds 15 US and international patents leading to global commercialization of microwave-assisted thermal processing technologies for production of shelf-stable, chilled, or frozen meals free from pathogens. His research has led to understanding and development for pathogen control in low-moisture foods, such as baby formula, spice, nuts, and chocolates. He has conducted research on food drying technologies for improved energy efficiency and quality as well as preserving ready-to-eat meals for future space programs.

Yang Zhao Receives the T.J. Whatley Distinguished Young Scientist Award and the UT AgResearch Dean’s Grantsmanship Award

Yang Zhao, associate professor in the Department of Animal Science, is the recipient of the T.J. Whatley Distinguished Young Scientist Award and the UT AgResearch Dean’s Grantsmanship Award. Established by the late Dr. Thomas Whatley, associate dean emeritus of UT AgResearch, this award recognizes a young scientist who has been in a faculty position for no more than seven years, with a minimum of two years of service as a member of the agricultural faculty of The University of Tennessee.

“UTIA is filled with an abundance of incredibly talented young scientists. I considered myself truly fortunate to be recognized for the T.J. Whatley Distinguished Young Scientist Award this year,” says Zhao. “I would like to express my sincere appreciation to the college, department, mentor and colleagues who have supported and guided me throughout my academic journey. I look forward to utilizing this award as a platform to further my scientific contributions and make a meaningful impact in my field and at UTIA.”



Prof. Yang Zhao

Zhao has been with UTIA for four years and specializes in precision poultry management. During his time with UT, he’s not only enjoyed watching the Vols play from the skybox in Neyland Stadium, but also is thankful for the recognition of this award and receiving funding for a USDA-NIFA IDEAS project in 2022 where the proposal ranked first among 101 submitted proposals.

Zhao also received the UT AgResearch Dean’s Grantsmanship Award, which recognizes the extraordinary effort of our faculty members in successfully securing competitive extramural grants and contracts and who exceeds expectations of good departmental/institutional citizenship. This award is based on the total dollar amount of competitive extramural grants/contracts secured by the faculty member serving as principal or co-principal investigator.

In addition to his many accomplishments, Zhao has previously received the 2020 AOCABFE Early Career Award, the 2020 Gamma Sigma Delta Research Award, the Sunkist Young Designer Award, the 2019 ASABE Major Award, the ASABE Superior Paper Award in both 2017 and 2018, the 2017 Highly Cited Paper of the Year – Poultry Science, the 2015 Article of Editor’s Choice – Poultry Science, and the 2013 and 2022 ASABE Outstanding Reviewer award.

Lingying Zhao named as 2023 CFAES Distinguished Professor

The Ohio State University College of Food, Agricultural, and Environmental Sciences (CFAES) has named Department of Food, Agricultural and Biological Engineering (FABE) faculty member Lingying Zhao a Distinguished Professor of Food, Agricultural, and Environmental Sciences.

The honorific title, selected annually on a competitive basis among faculty members at the rank of full professor, recognizes excellent work and significant impact in fulfilling CFAES' missions—teaching, research, outreach, and engagement.

"I am truly humbled to be nominated for and named as a CFAES Distinguished Professor," said Zhao. "CFAES has many distinguished professors and I look forward to seeing many more professors be recognized in the coming years."

In the department, Zhao conducts research, teaching and extension education in building ventilation, indoor environmental quality, air pollutant control of animal production facilities, and green residential buildings and animal production systems.

She been awarded 38 grants and contracts for a total of \$12.7 million as a Site PI or co-PI for research, Extension, and integrated projects. Zhao also holds two patents for a wet scrubbing ammonia mitigation technology she developed with her students. She has authored 181 publications (62 peer-reviewed journal articles, 2 book chapters, 55 proceedings articles, 11 fact-sheets, 21 technical reports, 6 abstracts, and 30 editor-reviewed articles in popular press) and made over 180 scientific and extension presentations at regional, national, and international conferences.

Additionally, she has been an active member of the American Society of Agricultural and Biological Engineers (ASABE) and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

"I would like to thank many people including CFAES leadership team initiating the CFAES Distinguished Professor recognition, my department chair, Dr. Scott Shearer, providing strong support to my research and Extension programs, my mentors (Drs. Karen Mancl, Ann Christy, Sudhir Sastry, Tom Beans) who have significantly helped me grow professionally, and my students and research and Extension associates who have worked diligently on various research and Extension projects. "

Congratulations to Lingying Zhao on receiving the 2023 CFAES Distinguished Professor Award!



Prof. Lingying Zhao

第一届数字乡村工程研讨会暨中国农业工程学会数字乡村工程专业委员会成立大会在重庆梁平召开

10月21日，第一届数字乡村工程研讨会暨中国农业工程学会数字乡村工程专业委员会成立大会在重庆梁平召开。中国农业工程学会名誉理事长、国家农业信息化工程技术研究中心主任赵春江院士，农业农村部信息中心副主任李韶民研究员，中国农业工程



学会数字乡村工程专委会主任委员、中国农业大学李道亮教授等嘉宾分别作了《我国智慧农业发展与展望》、《深入推进数字乡村建设》、《我国数字乡村工程建设与展望》等专题报告。相关参会人员围绕数字乡村发展战略、数字农业、智能农业、乡村信息基础设施、数字乡村产业发展等议题展开深入探讨，为政府和企业提供可行的解决方案。会上发布了《全球数字农业发展报告（2023）》和《中国农业农村信息化发展报告（2022年）》两份报告，为数字乡村工程的未来发展提供了重要的数据和见解。在大会分会场，34位专家围绕智慧农业、乡村治理与服务、乡村新业态以及中国数字渔业协同创新平台等领域作精彩报告及交流分享。会议还集中考察了位于重庆数谷农场园区内鱼菜共生数字工厂和竹山镇猎神村。

2023年三亚田间育种试验装备技术研讨会暨现场会顺利召开

2023年12月1日至4日，由中国农业工程学会、海南大学和海南省科学技术协会主办，海南省农业工程学会、海南大学三亚南繁研究院和海南大学机电工程学院承办的三亚田间育种试验装备技术研讨会暨现场会在三亚市召开，会议邀请国内知名专家进行技术指导交流。大会特邀石河子大学陈学庚院士、国家农业信息化工程技术研究中心赵



春江院士、青岛农业大学尚书旗教授、海南大学杨然兵教授、浙江大学王永维教授等13位专家学者作主旨报告，深刻解析我国种子机械装备的发展面临的机遇与挑战。与会代表观摩了南繁育种全程机械化科研中心，该中心是由海南大学杨然兵教授牵头、与多家单位合作打造，旨在为“南繁硅谷”提供机械化、智能化技术与装备保障，目前已培育企业12家，自主研发了16种田间育种装备，其中9种填补国内空白。

在海南大学坝头基地召开田间育种试验现场会，现场演示了海南大学杨然兵教授团队联合浙江大学、青岛农业大学、青岛普兰泰克机械科技有限公司、研发的共计16台装备。全面展示南繁育种综合软件控制系统及耕、种、管、收、加工智能化、信息化装备。海南大学杨然兵教授在现场分享了这些装备的创新亮点和未来发展方向，强调了技术创新与农业现代化之间的紧密联系，并呼吁更多的行业力量参与到种业现代化的推进中来。专家们对这些装备的先进性和实用性表示了高度的认可，并就如何进一步推动这些技术的应用和推广进行了深入交流。

第八届水产工业化养殖技术国际学术研讨会在海口成功举办

2023年11月25日-27日，以“发展现代化渔业，为乡村振兴蓄力赋能”为主题的“第八届水产工业化养殖技术国际学术研讨会”在海口成功举行。研讨会由中国农业工程学会主办，中国农业工程学会水产工程分会、中国学位与研究生教育学会（农林学科工作委员会）、浙江大学生物系统工程与食品科学学院、海洋研究院、工业化水产养殖



技术与装备产业技术创新战略联盟、设施渔业教育部重点实验室（大连海洋大学）承办。来自美国、加拿大、葡萄牙等国家以及国内10余个省市地区的160余位科学家、企业家围绕水产工业化养殖技术前沿和产业发展趋势，进行了广泛的交流和研讨。浙江大学刘鹰教授、朱松明教授、北卡罗来纳州立大学Steven Hall教授、圣若瑟大学Raquel Vasconcelos副教授等20余位国内外知名专家和企业界人士做了主题报告，内容涵盖循环水养殖设施设备的效能提升、循环水养殖技术发展与应用新特点、鲑鳟鱼及鲍的陆基工业化养殖技术与数字化创新进展、水产工业化养殖疫苗新进展、养殖环境与水产鱼类福利、循环水养殖系统养殖池的优化设计、循环水养殖水质自动化调控思路及海水养殖尾水高效脱氮技术、面向智能管控需求的水产养殖鱼类行为识别的探索与实践、多视域下工厂化循环水养殖产业的发展与展望等方面。本次国际技术交流研讨会展示了我国工业化循环水养殖方面的最新研究与应用成果，总结了我国水产工业化养殖的经验与发展现状，提出了发展工业化循环水养殖技术的途径和方法，将进一步促进我国水产业向高质高端高效方向发展。

全国高等学校农业工程类专业“农业强国和农业工程人才培养”研讨会在天津召开

2023年10月14日，全国高等学校农业工程类专业“农业强国和农业工程人才培养”研讨会在天津召开。此次研讨会由中国农业工程学会教育委员会与中国农业机械学会教育工作委员会主办，天津农学院工程技术学院和吉林大学生物与农业工程学院共同承



办。来自全国多个省份的高等院校、科研院所和企业代表共计170余人参会。本次会议紧紧围绕“农业强国和农业工程人才培养”这一主题，旨在谋划教育教学改革，推动一流专业和课程建设，宣传推广新理念和新方法。专家学者就各自研究领域进行了广泛而深入的交流和研讨，交流了思想、碰撞了智慧，为我国农业工程与智能制造领域的未来发展注入了新的活力和动力。

中国农业工程学会2023年学术年会在成都举办

2023年8月23日傍晚，为期两天的中国农业工程学会2023年学术年会在四川成都落下帷幕。大会体现了广大中国农业工程科技工作者的实干担当，旨在凝聚共识、汇聚力量，以科技创新和高质量发展的崭新实践和突出作为，推动农业农村现代化发展和“农业强国”建设，对于全国农业工程界在当前和今后一个时期完成既定目标任务和



谋求高质量发展、争创一流均具有重要意义。

大会特邀主旨报告环节，中国工程院罗锡文院士、康绍忠院士、陈学庚院士、李天来院士、赵春江院士、李培武院士，张辉理事长、欧洲科学艺术与人文学院外籍院士兰玉彬教授、塞尔维亚工程院院士Stevan Stankovski教授、韩国忠南大学Sun-OK Chung教授，董红敏研究员、张德权研究员、王霜教授分别作了颇具学术性、创新性和前瞻性的大会特邀报告。来自潍柴雷沃、中国一拖、新腾数致、极飞科技、大疆科技、上海联适、昆仑北斗等7位企业家代表作了精彩发言。

中国农业工程学会是中国科学技术协会所属的全国一级学会，是国际农业与生物系统工程学会（CIGR）的国家会员。作为促进农业和农村经济发展、助推农业农村现代化、实现“农业强国”的重要社会力量和学术性、综合性及社会公益性的全国优秀科技社团，中国农业工程学会始终坚持把服务国家战略作为首要任务，通过强化政治引领，积极打造“会展赛刊”优势品牌，积极拓展“评才奖智”新领域，团结广大农业科技

工作者潜心研究，敬业奉献，追求卓越，多作贡献。近几年来，坚持新冠疫情防控与业务发展“两手抓”，成功召开了学会第十一次全国代表大会完成了学会换届，实现了新老交替。在新一届理事会领导下，中国科协“一把手工程”全国学会会员入库建设、“科创中国”项目、一流期刊建设、品牌学术会议、国内外交流、科技成果评价、人才举荐和培养、科学普及活动、秘书处自身建设、创新与创收等各方面均取得了可喜成绩，连创新高，在促进农业工程科技创新与高质量发展、加强农业工程的普及与推广、加快科技人才的成长与提高等方面作出了重要贡献。

据统计，本届学术年会共有十多位中外院士作报告，举办了13个专题19个分会场共330场精彩学术报告和1场高水准的“政产学研对话暨科技成果发布需求对接交流会”以及169个论文墙报展示，共有农业农村部规划设计研究院、中国农业大学、西北农林科技大学、华南农业大学以及大北农国际集团、新腾数致网络科技、中国移动、潍柴雷沃、中国一拖等200多家包括全国农业工程相关专业的科研院所专家、企事业单位代表、学生代表齐聚一堂，聆听了报告会。西华大学一百多名师生志愿者参与了年会的服务工作，感谢他们为大会的成功召开付出的辛勤劳动。人民日报客户端、人民网、农民日报、中国农网等20多家媒体对学会年会、“政产学研对话暨科技成果发布需求对接交流会”等同期活动进行了新闻报道，产生了广泛的影响。

本届年会达成了四点共识：一是农业工程前途广阔，农业工程人大有可为，农业工程发展正逢其时，有国家政策的支持，农业工程事业的发展将迎来重大机遇；二是在迈向农业强国建设的新征程中，信息化、数字化、网络化、数据化、智能化、无人化将是现代农业农村发展的重要的方向；三是中国农业工程学会学术年会已成为农业工程领域的知名品牌会议；四是通过学会学术年会平台吸引产业界参展参会报告交流，有利于促进产学研融合发展。自2022年11月中国科协发布《关于进一步加强学术会议规范管理的五条措施》通知后，中国农业工程学会作为主办单位承担学术会议主要管理责任，首次以学会秘书处为主要力量举办的一次大型学术年会。中国农业工程学会2023年学术年会获得了与会领导、院士、教授、专家及各界代表的高度评价和赞誉。大家都认为中国农业工程学会2023年学术年会是新冠疫情之后农业工程领域一次高水平的学术盛会。

第6届国际农业与生物系统工程大会（CIGR2024）即将召开

第6届国际农业与生物系统工程大会（CIGR2024）将于2024年5月19-22日在韩国济州岛济州国际会议中心举行。本次大会由国际农业与生物系统工程学会（CIGR）主办，由韩国农业机械学会（KSAM）、韩国农业工程学会（KSAE）和韩国生物与环境控制学会（KSBEC）联合承办。

在第四次工业革命来临的21世纪，CIGR积极推动农业信息交流、技术开发与利用研讨会、共同利益的探讨、未来发展对策研究等。气候变化具有全球意义，因为不可预测的自然灾害会对每个国家的市场和经济产生不利影响，并进一步导致政治危机和社会不稳定。面对这种普遍的危机，农业产业在为人们提供拯救生命的食物方面尤为重要。为世界各地人民的未来生计创造可持续的生存和进步价值是至关重要的。本届CIGR国际会议的主题是“数字农业(保证未来粮食供给)”。活跃在第一线的思想领袖、科学家和研究人员将在本次会议上分享和交流有关农业工程的最新技术信息。此外，本次会议将为来自世界各地的农业和生物工程领域的专家提供一个很好的交流机会。大会学术活动将包括8个分会，分别是农业机械新技术和创新、农业机器人及传感技术结构和农业环境、可持续植物生产、人工智能和数据科学、农业加工中的机器视觉系统、食品安全、加工和工程、智慧畜牧业。这些分会将是交流各学术领域最新研究成果的宝贵论坛。

Europe's Food Chain at Risk: Pesticides Found Laced with "Forever Chemicals"

A new report by environmental NGOs has uncovered a troubling truth - dozens of pesticides used across Europe contain per- and poly-fluorinated alkyl substances (PFAS), also known as "forever chemicals." These chemicals are notorious for their persistence in the environment and potential health risks.

PFAS have been linked to various health problems, including cancer, immune system issues, and developmental problems in children. The widespread use of PFAS-laced pesticides raises serious concerns about potential contamination of our food chain. The European Union (EU) has already acknowledged the dangers of PFAS and plans to restrict their use. However, there's a major loophole - these restrictions currently exclude pesticides.

The report, conducted by Générations Futures and Pesticide Action Network (PAN) Europe, found that a staggering 37 active substances approved for use in European pesticides contain PFAS. This translates to 12% of all approved synthetic pesticide ingredients.

France serves as a prime example. The investigation revealed a concerning rise in PFAS-based pesticides, with sales tripling since 2008. Furthermore, analysis suggests these chemicals linger in the environment, raising fears of groundwater contamination.

The report emphasizes the urgency of addressing this issue. The NGOs are calling for a multi-pronged approach from the EU:

- **Ban PFAS in Pesticides:** A complete ban on PFAS within pesticides is the ultimate goal to eliminate this source of environmental pollution.
- **Stricter Enforcement:** The existing pesticide regulations need to be better enforced to ensure harmful chemicals don't reach our food supply.
- **Precautionary Principle:** The NGOs urge the EU to adopt the precautionary principle, which dictates erring on the side of caution when dealing with potential health risks. A ban on all PFAS pesticides would be a strong step in this direction.

The presence of PFAS in pesticides poses a significant threat to human health and the environment. By closing this regulatory loophole and implementing stricter controls, the EU can safeguard its citizens and ensure a cleaner food chain.

EU Falling Short on Organic Farming Goals

The European Union's ambitious plan to have a quarter of its farmland dedicated to organic agriculture by 2030 appears increasingly out of reach, according to a recent report by the European Environment Agency (EEA).

The EEA report, published in December 2023, reveals a significant gap between the desired outcome and current progress. Organic farming currently occupies only 9.9% of EU agricultural land, and even maintaining the current growth rate would only achieve 15% by 2030. To meet the 25% target, the pace of conversion would need to nearly double.

This shortfall highlights the need for stronger support for organic farming within the EU. The report calls for increased funding through the Common Agricultural Policy (CAP), a key financial instrument for European agriculture.

Organic farming offers a range of environmental benefits, promoting biodiversity, improving soil health, and protecting water quality. It is seen as a crucial component of the EU's Farm to Fork Strategy, which aims to create a more sustainable food system.

Eric Gall, deputy director of the EU organic farming association IFOAM, emphasizes the importance of organic farming for achieving the EU's sustainability goals. He urges member states to allocate more resources to organic farmers through the CAP.

While organic farming has grown steadily in the EU since 2012, significant disparities exist between member states. Austria, Estonia, and Sweden lead the way with over 20% of their farmland dedicated to organic practices. However, six member states, including Ireland and Bulgaria, still hover below 5%. Notably, Germany has set a national target exceeding the EU's ambition, aiming for 30% organic farmland by 2030.

The EEA report serves as a wake-up call for the EU. Stronger policy measures and increased financial support are essential to bridge the gap and achieve the ambitious goal of a more sustainable European food system.



Research Assistantship on Agricultural Robotics and AI

The Bio-Sensing Automation and Intelligence Laboratory (B-SAIL) (www.uflbsail.net) in the Department of Agricultural and Biological Engineering at the University of Florida is seeking highly motivated graduate students for Ph.D.-level research assistantships (RA) in agricultural sensing, automation, and AI. We are currently accepting applications for these positions, which will be reviewed on an ongoing basis.

As a top-ranked institution, the University of Florida (UF) is ranked #29 in National Universities and #5 in public universities in the 2022-2023 rankings by the US News and World Report. B-SAIL is a research laboratory dedicated to developing innovative sensing and automation technologies for agricultural and food systems. Funded by research grants from the National Institute for Food and Agriculture, the National Science Foundation, and industry partners, the RA positions will involve working on projects to develop robotic technologies, computer vision, and deep learning technologies for high-throughput plant phenotyping, precision crop management, and postharvest food quality sensing.

Successful candidates should have relevant experiences and interests in one or more of the following areas: computer vision, mechatronics, robotics, electronics, sensing, and machine learning/deep learning. Additionally, candidates should possess strong programming skills in one or more of the following languages: Python, MATLAB, LabVIEW, C/C++, Java, and IDL. A proven ability to publish research in peer-reviewed journals and a willingness to learn new technologies is also desirable.

Interested applicants should send their curriculum vitae, a list of three references, and transcripts to Dr. Changying “Charlie” Li at cli2@ufl.edu.



Assistant Professor Precision Agriculture

About This Role:

The Agronomy Department at Kansas State University is seeking an Assistant Professor (tenure track, 80% extension, 20% research) to develop a strong, innovative extension and research program in precision agriculture to increase agricultural productivity, sustainability, and profitability.

The successful candidate will work with and through research and extension colleagues and industry partners to implement and coordinate a comprehensive precision agriculture program. They will interact with commodity and industry partners to identify, develop, and implement critical extension and applied research programs. Collaboration with research and extension faculty across Kansas and participation in multi-disciplinary, regional, or national initiatives are expected. Training and supporting professional development of extension agents in precision agriculture are expected. The successful candidate will work with agents, producers, consultants, and other industry experts to identify client needs and disseminate Kansas State University Research and Extension recommendations. Applicants will have the opportunity to affiliate with the newly established Institute for Digital Agriculture and Advanced Analytics (ID3A) and participate in new university initiatives across campus.

For more details: <https://careers.k-state.edu/cw/en-us/job/516712/assistant-professor-precision-agriculture>



Digital Agriculture (<https://digitalag.bse.wisc.edu/>)
Biological Systems Engineering

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Open Research Opportunities

Postdoctoral Researcher Positions in General (multiple positions are available):

The Digital Agriculture lab (<https://digitalag.bse.wisc.edu/>) is recruiting a Postdoc Researcher at the University of Wisconsin-Madison. Candidates with a research focus on one of the two areas: 1) High-throughput plant phenotyping using UAV multi-sensor data (hyperspectral, RGB, lidar); 2) develop machine learning models with satellite remote sensing data (e.g., hyperspectral, multispectral, high-resolution RGB, SAR) for precision agriculture, are strongly encouraged to apply. Ideal candidates would be with PhD degree in Electrical and Computer Engineering, Computer Science, Geography, Agricultural and Biological Engineering, and or other related disciplines. Demonstrated skills in scientific writing, publications, and communication. Salary is commensurate with candidate's experience and UW-Madison provides competitive fringe benefits.

To apply, please email CV and a Cover Letter to Dr. Zhou Zhang at zzhang347@wisc.edu.

PhD Positions:

We are looking for PhD students starting through the Department of Biological Systems Engineering, at University of Wisconsin-Madison. In addition to a waiver of tuition, the Research Assistant (RA) positions also provide your monthly stipend. Candidates with research experience in machine learning/deep learning, remote sensing, precision agriculture and UAVs are highly desired. Ideal candidates would be with M.S. or Bachelor's degree in Electrical Engineering, Computer Science, Agricultural/Biological Engineering, Civil Engineering, Geography or other related disciplines. Please check the admission requirements and application procedures at <https://bse.wisc.edu/graduate-studies/admissions/> (<https://bse.wisc.edu/graduate-studies/admissions/>).

Master and visiting students/scholars positions are also available.

English Requirements

- 1) For PhD, RA positions, minimum scores are TOEFL: 80; IELTS: 6.5;
- 2) For visiting students/scholars (e.g. funded by CSC), minimum scores are TOEFL: 65 total with the speaking no less than 17; IETLS: 6 total with no portion less than 5

If you are interested in these opportunities, please send me your updated CV including your publications and English scores at zzhang347@wisc.edu (<mailto:zzhang347@wisc.edu>)



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The 2023–2024 AOC IMPACT Editorial Board

Call for News & Activity Reports

The 2023-2024 IMPACT editorial Board earnestly invites you to submit news and activity reports related to ASABE and AOC. Please send your write-up and/or picture news to the Editorial Board at aoc.impact@gmail.com. The IMPACT Board will work with you to put your news into the publication.

It is our publication and it is your publication. We sincerely thank each and every AOC members for their support!

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