

IMPACT

PRESIDENT'S REMARK

Dear AOC members, colleagues, and friends,

On behalf of the AOC executive board, I would like to take this opportunity to thank you all for your supports to our association.

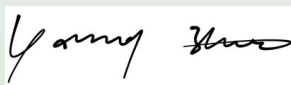
This year is the 20-year anniversary of AOC. We celebrated this momentous event on July 13th during the 2021 virtual ASABE Annual International Meeting. During the ceremony, we reviewed the AOC's history and highlighted our members' significant achievements and contributions to the field of agricultural, biological, and food engineering in the past 20 years. We also received congratulatory remarks from ASABE, CSBE, ANGASABE, AABFEIO, USHCA, CAU, SCAU, NERCITA, CSAE, ZJU, IJABE, NWAUFU, U of Missouri, UC Davis, NCSU, and OSU.

In the following AOC Business Meeting, we announced the major AOC awards to recognize our faculty and student members for prestigious achievements in their academic career. Please join me to congratulate Dr. Hongwei Xin (The University of Tennessee, 2021 class of AOC Fellow), Dr. Sarah Wu (University of Idaho, recipient of 2021 AOC Early Career Award), Dajun Yu (Virginia Tech, recipient of 2021 AOC Graduate Leadership and Service Award and AOC Graduate Scholarly Achievement Award), and Dr. Chang Cheng (UC Davis, recipient of 2021 AOC Graduate Scholarly Achievement Award). Kudos are also given to our student members who received 2021 AOC Graduate Paper and Presentation Awards.

Thanks to the support provided by Professor Yingkuan Wang, we broadcasted 2021 virtual AOC China Exchange Forum on CNKI platform that helped us reach much broader audience than ever before. Over 2,300 audients followed the Forum online. I'd like to express my deepest appreciations to our invited speakers, former Governor Bob Holden, Ambassador Kenneth Quinn, Ms. Min Fan, Dr. Jawkai Wang, Professor Shuqi Shang, and Dr. Liping Chen, for their impressive presentations in the Forum.

Our new AOC Executive Board has been formed. We look forward to working with you all to further the goals and missions of AOC in the coming year. Our priority is to expand AOC's network with a long-term goal of enhancing AOC financial sustainability. We hope that you will continue to support us.

Yours sincerely,



Yang Zhao

President of AOC 2021-22



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AOC 2020-2021 Executive Board



ZHAO, YANG

University of Tennessee
PRESIDENT



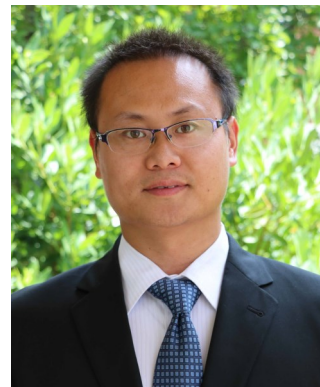
SHI, JIAN

University of Kentucky
PAST-PRESIDENT



WU, XIAO

University of Idaho
PRESIDENT-ELECT



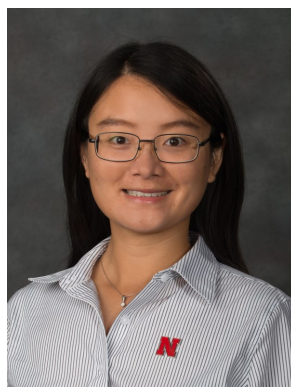
CHAI, LILONG

University of Georgia
VICE-PRESIDENT



CUI, SHAOQING

University of Tennessee
SECRETARY



SHI, YEYIN

University of Nebraska-
Lincoln,
TREASURER



BAO, YIN

Auburn University
MEMBER-AT-
LARGE



YANG, CE

University of Minnesota
MEMBER-AT-LARGE

AOC 2020-2021 Executive Board



ZHANG, XIMIN

Zhejiang University
MEMBER-AT-LARGE



SUN, SHANGPENG

McGill University
MEMBER-AT-LARGE
NEWSLETTER EDITOR



GAN, HAO

University of Tennessee
MEMBER-AT-LARGE



ZHANG, NAIQIAN

Kansas State University
HONORARY STUDENT
ADVISOR



WANG, YINGKUAN

Chinese Academy of Agricultural Engineering,
EXECUTIVE EDITOR OF
IJABE



CHEN, LIPING

NERCITA., China
DIRECTOR OF INSTITUTIONAL MEMBERSHIP



GUO, YANGYANG

University of Georgia
SAC Chair

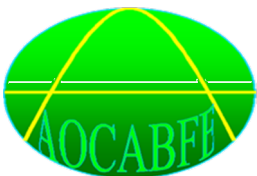
AOC Members Won ASABE Major Awards



Dr. Hongwei Xin
Dean and Director, AgResearch
University of Tennessee



Dr. Xiao Wu
University of Idaho
AOC EARLY CAREER



2020 AOC Student Awards

Academic Achievement Award



Chang Chen

University of California,
Davis



Dajun Yu

Virginia Tech

Graduate Leadership and Service



Dajun Yu

Virginia Tech



Yangyang Guo

University of Georgia
& Northwest A&F

Presentation Competition Awards



Congliang Zhou

(1st Place)

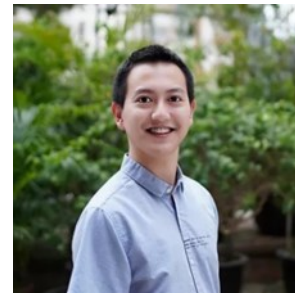
University of Florida



Tian Qiu

(2nd Place)

Cornell University



Endai Huang

(3rd Place)

City University of Hong

Graduate Paper Competition Awards



Chang Chen

(1st Place)

University of California,
Davis



Tian Qiu

(2nd Place)

Cornell University

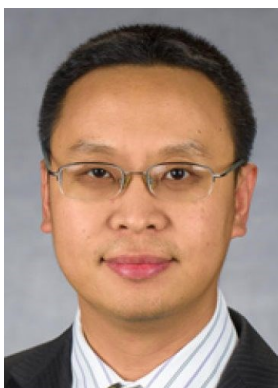


Ke Wang

(3rd Place)

University of California,

Retired AOC Executive Board Members



SHI, JIAN

University of Kentucky
RETIRED PRESIDENT



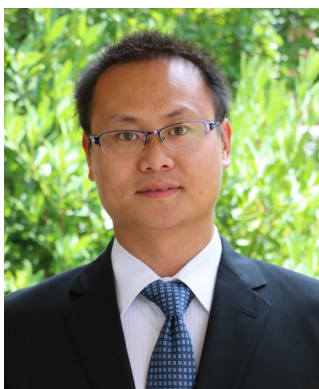
WANG, ZHIWU

Virginia Tech
RETIRED MEMBER-AT-
LARGE



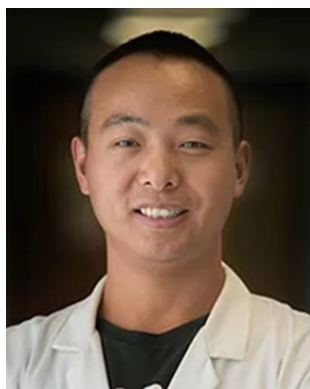
LIU, KAI

City University of Hong
Kong,
RETIRED MEMBER-AT-
LARGE



CHAI, LILONG

University of Georgia
RETIRED NEWSLETTER
EDITOR



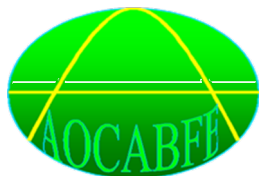
LI, MI

University of Tennessee
RETIRED MEMBER-AT-
LARGE



XIANG, LIRONG

Iowa State University
RETIRED SAC CHAIR



Celebrating 20 Years of AOC



Congratulatory Video from ASABE



Ms. Candice Engler

President of American Society of Agricultural and Biological Engineers (ASABE)

Congratulatory Video from CSBE



Dr. Ying Chen

President of Canadian Society for Bioengineering (CSBE)

Congratulatory Video from ANGASABE



Dr. Luc Hebou

President of African Networking Group of the American Society of Agricultural and Biological Engineers (ANGASABE)

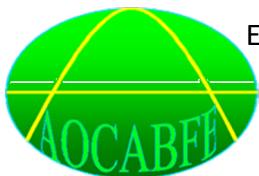
Congratulatory Video from AABFEIO



Dr. Sushant Mehan

President of Association of Agricultural, Biological, and Food Engineers of Indian Origin (AABFEIO)

Congratulatory Video from USHCA

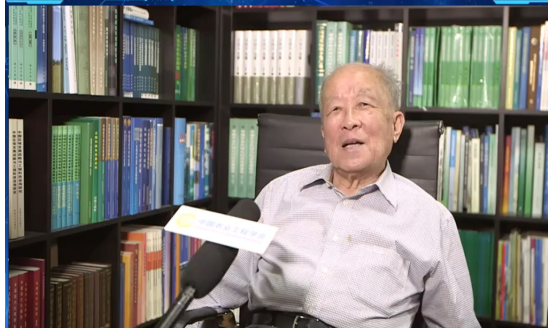


Ms. Min Fan
Executive Director of US Heartland China Association (USHCA)



Celebrating 20 Years of AOC

Congratulatory Videos/messages from China (page 1)



Prof. Maohua Wang (汪懋华 院士)
China Agricultural University 中国农业大学



Prof. Shaozhong Kang (康绍忠 院士)
China Agricultural University 中国农业大学



Prof. Chunjiang Zhao (赵春江 院士)
National Engineering Research Center for Information Technology in Agriculture 国家农业
信息化工程技术研究中心



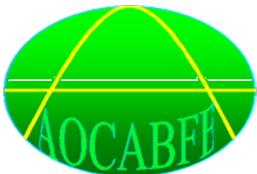
Prof. Xiwen Luo
罗锡文 院士
South China Agricultural University
华南农业大学



Dr. Ming Zhu
Chinese Society of Agricultural Engineering
中国农业工程学会



Prof. Hui Zhang
President, CASE, Academy of Agricultural Planning and Engineering, MARA
农业农村部规划设计研究院



Celebrating 20 Years of AOC

Congratulatory Videos/messages from China (page 2)



Prof. Yibin Ying
Zhejiang University
浙江大学



Prof. Yong He
Zhejiang University
浙江大学 生物系统工程与食品科学学



Prof. Yubin Lan
South China Agricultural University
华南农业大学



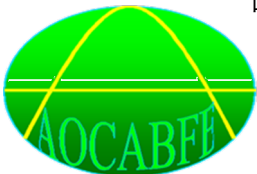
Prof. Baoming Li
China Agricultural University
中国农业大学



Prof. Minzan Li
China Agricultural University
中国农业大学



Prof. Yingkuan Wang
Editor-in-Chief, IJABE
Director General, CASE (中国农业工程学会)



AOCABFE 20

Celebrating 20 Years of AOC

Congratulatory Videos/messages from China (page 3)



Dr. Xiaodong Guan

Chinese Society of Agricultural Engineering
中国农业工程学会



Dr. Liping Chen

National Engineering Research Center for Information Technology in Agriculture
国家农业智能装备工程技术研究中心



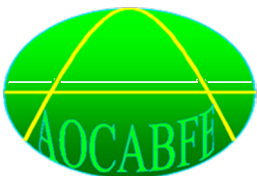
Dr. Man Zhang

China Agricultural University
中国农业大学 信息与电气工程学院



Dr. Wenting Han

Northwest A&F University
西北农林科技大学



AOCABFE 20

Celebrating 20 Years of AOC

Congratulatory Videos/messages from AOC members



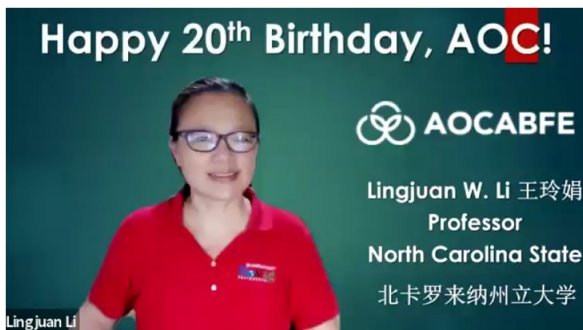
Dr. Jinlu Tan

Interim Department Co-chair and Professor in the Department of Biomedical, Biological and Chemical Engineering at the University of Missouri



Drs. Ruihong Zhang and Zhongli Pan

Professors in the Department of Biological and Agricultural Engineering at the University of California, Davis



Dr. Lingjuan Wang

Professor in the Department of Biological and Agricultural Engineering at North Carolina State University

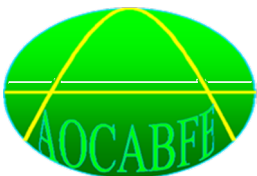
Lingying Zhao, Professor
The Ohio State University

- AOC Member, since 2004
- Secretary of AOC Executive Board, 2005-2006
- Member-at-Large, 2010-2011
- Vice President, 2011-2012
- President-Elect, 2012-2013
- President, 2013-2014
- Past-President, 2014-2015



Dr. Lingying Zhao

Professor and Associate Chair of Research in the Department of Food, Agricultural and Biological Engineering at The Ohio State University



2021 AOC Board Meeting Minutes

8:00-9:30 pm EDT, Sep 13, 2021

Attendees: ZhaoYang, Jian Shi, Sarah (Xiao) Wu, Yin Bao, Ximing Zhang, Hao Gan, Shaoqing Cui, Yangyang Guo, Yeyin Shi, Shangpeng Sun, Ce Yang, Lilong Chai.

1. Meeting Agenda and last meeting minutes on 6/22/2021 were went through and approved by all attendees.

2. New AOC Officers were approved by the Executive board

Shaoqing Cui – Secretary (1 year)

Shangpeng Sun – Impact Newsletter Editor (1 year)

Hao Gan – Student Advisor (1 year)

3. Update and discussion of Newsletter Issues

Linglong Chai updated the previous issue of Newsletter. Shangpeng Sun will take over the editor role and publish first IM-PACT Newsletter in Nov or early December.

The discussion was focused on whether the records, videos and slides of AOC 20th meeting can be made public? It was suggested to get permission from each professor who sent congratulation video. Yang Zhao will check permissions to publish the congratulatory videos. Sarah Wu will check permissions for personal introduction slides.

4. Add payment link to AOC web

An online payment link (PayPal) is suggested to be added to AOC Web, with purposes for student/faculty membership renew and receiving donation. Yin Bao will update the AOC website.

5. Ways to renew AOC membership

Additional discussion regarding to how to renew membership. One option is through ASABE membership, and another is through pay online, specifically through PayPal link on AOC web. But, the idea of second option (PayPal on AOC web) needs more discussions. Yeying Shi will check with Jessica Bell the possibility to pay (student) AOC membership due via ASABE website.

6. Update and Planning of student advising and professional development

For the following term, Hao Gan and Ce Yang will work together to organize virtual seminars/lectures that specially focusing on students' job hunting in U.S. and China. Also, how to do research is another topic for the seminars/lectures.

7. Planning of AOC membership development

Due to unstable connection from Ximing, this update section was skipped.

Discussion of AOC membership plan focused on searching potential companies that would like to be a sponsor and a crowner for an award. Yang Zhao will take the responsibility to receive referral and searching.

8. Update and planning from SAC

Update from Guo: two SAC members will retire and three new members will join in. Guo gave some suggestions about the topics of above “virtual seminars/lectures” including job hunting, academic writing, and research development. Yangyang Guo will work with Ce Yang and Hao Gan on student seminar.

9. Student Achievement Awards and Competition Awards

Ce Yang will send a PDF version of Achievement Awards and Competition Awards to the students who were awarded. And a payment will be delivered through a check or WeChat Pay (specific for award winners from Hong Kong).

Ce Yang and Hao Gan will be the student Award committee Chairs of next term.

10. Faculty Awards

Shi Jian will send PDF versions of Faculty Awards.

11. Additional Discussions

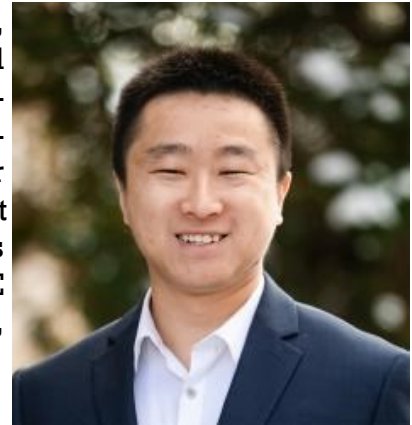
How to efficiently train new board members to perform their roles?

Solutions: 1) a junior work with a senior for one year. 2) Set up a drive (e.g. google drive / Microsoft team) to save and share templates, instructions, protocols, and experiences with new board members. Yang Zhao will work on this.

Meeting adjourned at 9:30 pm.

Faculty Interview—Dr. Yu Jiang

Dr. Yu Jiang is an Assistant Professor in the Horticulture Section, School of Integrative Plant Science, at Cornell AgriTech, Cornell University. He holds interdisciplinary field memberships in Horticulture, Biological and Environmental Engineering, and Electrical and Computer Engineering. He founded and leads the Cyber-Agricultural Intelligence and Robotics (CAIR) Laboratory that dedicates to the development of systems engineering solutions for challenges in specialty crop industries. He has joined ASABE and AOC as a student member since the 2014 AIM in Montreal, Canada.



What's your educational background and professional experience?

I am currently an Assistant Professor of Systems Engineering and Data Analytics for Specialty Crops at Cornell University. Prior to this, I joined Cornell as an Assistant Research Professor in 2019. I obtained my Ph.D. in Agricultural and Biological Engineering from the University of Georgia under the supervision of Dr. Changying Li in 2019 and Master's and Bachelor's degrees in Computer Science from China.

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

I was born and raised in Qingdao, Shandong, China and my way towards agriculture in general can be traced back to my master's study where for the first time, I witnessed the challenges in agriculture and realized the importance of using technologies to overcome them. This motivated me to pursue a Ph.D. degree in Agricultural and Biological Engineering in the United States where many pioneering research studies have been conducted to revolutionize agriculture through innovative technologies.

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

Cornell's founding principle is "an institution where any person can find instruction in any study", which can be parsed as "interdisciplinarity" in the current academic context. My position makes me a true interdisciplinary researcher. I, as an engineer, home in one of the best Horticulture departments worldwide and work with world-renowned plant scientists as well as leading engineering and computer science researchers from the best Ivy League engineering program. Everyday, I have a strong feeling that I stand at the intersection between agriculture and technology, receive information from all disciplines, and study systems solutions to real-world problems.

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

The unprecedented global pandemic is definitely a great challenge for someone like me who just started their professional career. I hope this can be resolved by joint efforts from all parties, so we can be back to normal life. A more general challenge for myself (continue)

Faculty Interview—Dr. Yu Jiang (page 2)

as an interdisciplinary researcher is communication. While our natural language systems are sufficient for daily uses, they never serve as a direct yet efficient way to connect professionals with specific expertise. Building such a communication system is a grand challenge for any interdisciplinary team. I have learned and will keep learning how to effectively address it.

How do you like the teaching/research/service?

My official appointments are research and extension, but I also offer guest lectures to graduate students majoring in different research fields. I enjoy all of the three and think they are inter-supportive. Research is the core to advance our understanding and innovate technologies, extension is the touchstone to translate and evaluate research outcomes, and teaching is the way to train next generations who would be intrigued by excellent extension and continue the legacy of research.

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

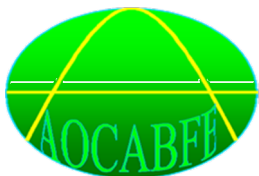
No two are ever alike. Compared to suggestions, I'd like to share my own experiences for seeking a faculty position. As a researcher, it is important to realize that your scholarship is the "corn" in academia. While it is a perfect metric, a strong publication record (both the quality and quantity) always opens a door of a research institute for you. It's crucial to start accumulate that through your graduate studies. More important, or the fact behind a strong publication record, are the motivation to be a faculty member, the ambition to a research field or real-world issue, the executability to achieve goals, and the personality and professionalism in work and collaboration. All of these need to be demonstrated during a search process. It's never late to talk with your major advisor, committee, and colleagues for potential opportunities to learn and practice many different skills of a faculty member (e.g., communication, leadership, mentorship, grantsmanship, etc.). Subsequently, be patient for an opening, be prepared for interviews, and be in the best mindset. I started apply for a faculty position at the beginning of the last year of my Ph.D. study. For approximately 20 openings I applied, only the best three (in terms of the ranking) universities would take the risk to invite me, a Ph.D. candidate prior to defense, for onsite interviews, and I chose Cornell to start off my career because I feel everyone here shares the same ambition and passion for the future of agriculture and the world.

AOC member elected to NAE



2021年2月9日美国国家工程院 (U. S. National Academy of Engineering) 增选了104名院士和24名外籍院士。AOC前主席、美国华盛顿州立大学 (Washington State University-WSU) 生物系统工程系系主任 (2016-2020)、杰出教授Dr. Juming Tang 当选为美国工程院院士 “for invention and commercialization of electromagnetic spectrum wave-based food processes”. 此荣誉是美国工程研究领域最高成就。Dr. Tang是AOC创始人之一，曾担任AOC 主席 (2004-2005)，其当选是AOC成立以来会员首次入选美国工程院、科学院或者医学院。Dr. Tang 目前是华盛顿州立大学 Regents Professor 和Distinguished Chair of Food Engineering。其他重要学术荣誉包括ASABE Fellow, Institute of Food Technologists Fellow, 和International Microwave Power Institute Fellow.

Dr. Tang 于1995年加入美国华盛顿州立大学，至今已经培养或正在培养46名博士，3名硕士，和超过50名博士后、访问学者或者访问教授。Dr. Tang曾获得2018 WSU President’s Distinguished Award for Innovation and Entrepreneurship (the inaugural recipient), 2017 AOC Distinguished Career Award, 2017 Professional Achievement Award of Chinese American Food Society, 2012 ASABE International Food Engineering Award, 以及2004 NASA Faculty Fellow 等多项国际或者国内大奖。截止目前，Dr. Tang以PI身份承担的课题总量已经超过2800万美元，以Co-PI身份承担课题超过1800万美元。His research resulted in over 390 peer reviewed scientific papers and 11 US and International patents all licensed for global commercialization.





- Is your company a U.S.-based small agriculture business eyeing the Chinese market?
- Are you interested in entering the China market but don't know where to start?
- Would you like to learn from top experts the keys to business success in China?

Apply to showcase your business
in front of potential customers, partners, and investors in the
U.S.-China Agriculture SME Showcase!

<https://usheartlandchina.org/projects-events/agriculture-sme-showcase/>

What is the U.S.-China Agriculture SME Showcase?

A virtual showcase event accompanied by a virtual exhibit hall with education resources to help Ag SMEs from both the US and China to gain visibility, connections, and business leads!

When is it?

The Virtual Showcase and Exhibit Hall will open at 8pm US EST, Jan 24, 2022

How can I participate?

Exhibitor:

- **Qualified Ag SME** – free but requires application, which can be accepted or rejected at the discretion of USHCA. Accepted companies will be featured in the virtual exhibit hall and invited to the Virtual Showcase event on Jan 24th, 2022.

Apply to showcase your company now!

Online Application Deadline: Jan 14, 2022

Link: <https://usheartlandchina.org/projects-events/agriculture-sme-showcase/>

- **Service Provider** – want to showcase your service offering in the Education Center of the Virtual Exhibit? Contact Agshowcase@usheartlandchina.org for exhibit options and pricing.

General Admission:

- Free for USHCA and partner organization Members
- ◇ Not a USHCA member? Join Here. <https://usheartlandchina.org/membership/>
- ◇ A B2B directory for all participants will be provided.



The Opening Celebration segment of the program is free to the public and you can register here:

https://us02web.zoom.us/webinar/register/4016386581562/WN_1QZ5KvyaQT6xZz81jQb6Hw

DRAFT Agenda

Part I: Opening Celebration

(Open to the public)

Welcome by USHCA Leader
Welcome by Chinese Partner Leader
Keynote Speech
US Ag Industry Leader Remarks
Remarks of Heartland State Leaders
Ag Business leaders Roundtable

Part II: Ag SME Showcase

(Ticketed participants only)

Success stories roundtable
US and Chinese Ag SME Company showcases + Q&A
Closing Remarks

Partners



GREATER COLUMBUS CHINESE
CHAMBER OF COMMERCE
俄亥俄哥伦布华美商会

The University of Georgia hosted the 2021 Georgia Layer Conference-Virtual

On September 27, 2021, the University of Georgia hosted the 2021 Georgia Layer Conference Virtually via zoom. The day-long event was hosted by Dr. Lilong Chai, assistant professor and engineering specialist in the Department of Poultry Science, College of Agricultural and Environmental Sciences, along with support from department administration and fellow faculty members and researchers. The event has received extensive attention from poultry and egg farms, poultry service companies, academia and government agencies globally from more than 30 countries. The conference was initiated by AOC board member Dr. Lilong Chai.



Department of Poultry Science

College of Agricultural & Environmental Sciences

UNIVERSITY OF GEORGIA

Speakers at 2020 Georgia Layer Conference



Mike Giles is President of the Georgia Poultry Federation, a trade association which represents the poultry industry in Georgia, the nation's leading poultry producing state. Giles joined the Federation staff on January 1, 2000 as Assistant Executive Director. He was named President in January 2009. Prior assuming his position with the Federation, Giles worked for the University of Georgia in the Office of External Affairs and University of Georgia Alumni Association. Before joining the University of Georgia, Giles held positions with U.S. Senator Sam Nunn and Sandoz Corporation. Giles is a past president of the Rotary Club of Gainesville and serves on the Georgia 4-H Foundation board of trustees and the Georgia FFA Sponsors Board. Giles is a 1983 graduate of the University of Georgia and a native of Unadilla, Georgia. He is married to Carla Rae Abshire who is originally from Louisiana and a graduate of the University of Georgia with a PhD in Child and Family Development.



Todd J. Applegate, PhD., has been a Professor and Head of the Department of Poultry Science at the University of Georgia since 2016. In that role, he is responsible for recruiting and building teams of faculty and students to effectively respond to challenges affecting Georgia and the global poultry industries through scientific research and technology transfer for efficient and environmentally sustainable production of poultry products while providing for optimal animal well-being. Prior to joining UGA, he held an Extension and Research faculty appointment at Purdue University where he focused on Poultry nutrition, gastrointestinal physiology, and environmental issues.



Casey Ritz, PhD., is a professor and the extension poultry program coordinator in the Department of Poultry Science at the University of Georgia. Dr. Ritz has been an extension poultry specialist for 27 years, working with poultry producers on litter management, environmental and waste management issues, and agricultural zoning regulations. His primary focus has been the development of educational and research programs with emphasis on poultry litter management and environmental issues involving waste utilization, nutrient management planning, environmental water and air quality. Dr. Ritz received his B.S. in Zoology and M.S. in Animal Science from Brigham Young University and his Ph.D. in Poultry Science from Virginia Tech.

The University of Georgia hosted the 2021 Georgia Layer Conference-Virtual (page2)



Oscar Garrison is Senior Vice President of Food Safety and Regulatory Affairs for United Egg Producers (UEP). Oscar joined the UEP team in 2013. Prior to this, Oscar had a broad regulatory based career for over 19 years at the Georgia Department of Agriculture where he held the executive positions of Division Director Food Safety and Assistant Commissioner of Consumer Protection. Additionally, Oscar is a Past President of the Association of Food and Drug Officials where he led the national organizations efforts to promote an Integrated Food Safety System. Mr. Garrison was also the Past President of the Georgia Association of Food Protection, an Executive Committee member of the Partnership for Food Protection, Food Safety Liaison to the National Association of State Departments of Agriculture, and a member of the National Integrated Food Safety System Task Force. Mr. Garrison currently serves on the Educational Advisory Board for the Food Safety Summit and as a subject matter expert on The Food Technology Advisory Panel for the American Egg Board.

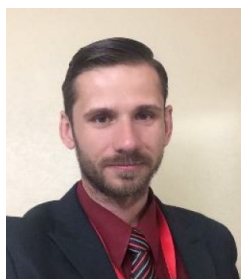


Deana Jones, PhD., is a Research Food Technologist in the Egg Safety and Quality Research Unit of the USDA, Agricultural Research Service in Athens, Georgia. She has served in this role for over 19 years examining the impacts of egg production practices, shell egg and egg products processing methods, and rules and regulations on egg safety and quality. During her tenure with the Agricultural Research Service, Dr. Jones has investigated the impacts of processing plant sanitation practices on egg safety and quality. She has also led efforts to examine the impact of commercial cool water washing of shell eggs on egg safety. Her research on egg storage has been utilized for state, national and international rules and guidelines. Currently, Dr. Jones coordinates efforts to examine the role of hen housing systems on egg safety

and quality. Throughout her career, she has forged extensive research collaborations throughout the US and incidentally perfected the art of shipping eggs across the country. She is the author of over 80 peer-reviewed publications and more than 90 proceedings papers. Dr. Jones has twice received the American Egg Board Research Award from the Poultry Science Association and was selected as an Outstanding Alumni of the College of Agriculture and Life Sciences at North Carolina State University. Dr. Jones sits on the board of directors for the National Egg Quality School, where she has served on the faculty for more than 25 years and the National Egg Products School.



Karen Burns Grogan, DVM, MAM, Diplomate ACPV, is a native of North Carolina. Dr. Grogan received her undergraduate degree and DVM from North Carolina State University. Deciding poultry medicine was her focus, she completed the MAM at the University of Georgia. She held numerous veterinary positions in the poultry industry including roles in technical service, regulatory and consulting. She began a part-time role at UGA PDRC in 2008 to develop instructional materials for the online MAHM degree program, eventually administering much of that program. The call of academia and service to the GA poultry industry prompted her to return full-time as a Clinical Associate Professor at PDRC in 2017. In addition to her diagnostic role at PDRC, she also serves as Graduate Coordinator for the MAM and MAHM programs.



Dima White was born in the Ukraine, and raised in Cleveland, TN. He is a graduate of Baylor High School and received a BS in animal science from Berry College. In August of 2017, Dima completed his MS from Texas A&M University under Morgan Farnell. Dima's MS thesis was titled "Cleaning & Disinfection of Caged Layer Facilities." Currently, Dima is working to complete a PhD at the University of Georgia with Woo Kyun Kim. During his PhD studies, Dima served as the Student Director of the Poultry Science Association Hatchery and on the Poultry Science Association Board of Directors from 2017 to 2019.

The University of Georgia hosted the 2021 Georgia Layer Conference-Virtual (page3)



Yang Zhao, PhD., started as an assistant professor at Animal Science department on August 1 st , 2020. Dr. Zhao received his B.S. and M.S. degrees from China Agricultural University, and a PhD degree from Wageningen University in the Netherlands. Before joining The University of Tennessee, he was an assistant professor of Agricultural and Biological Engineering at Mississippi State University for three and half years. Dr. Zhao serves as the chair and member in several academic and award committees of American Society of Agricultural and Biological Engineers (ASABE) and is an associate editor of the Transactions of the ASABE. His research focuses on smart poultry farming that addresses challenges in poultry production regarding sensing, automation, behavior monitoring, welfare assessment, disease prevention, and environment management. His work has been published in over 120 scientific articles and guaranteed \$3M research grants and contracts. Dr. Zhao is the awardee of ASABE Sunkist Young Designer Award, AOC Early Career Award, and Gamma Sigma Delta Research Award. Other recognitions of his work include ASABE Superior Paper Awards, Poultry Science Highly Cited Paper of the Year, Poultry Science Article of Editor’s Choice, and ASABE Outstanding Reviewer.



Colin Usher is a Senior Research Scientist at the Georgia Tech Research Institute where he has served as a technical lead and project manager for the past 20 years. He has managed several multidisciplinary teams in the development and evaluation of industrial automation prototype systems for a multitude of clients ranging from food processing companies to the Georgia Department of Transportation. His technical expertise is in machine vision, robotics, system integration, and embedded system development. During his career, he has designed, developed, and tested robotic control systems, image-based classification systems, embedded logic control systems, and mobile applications.



Lilong Chai, PhD., is an Assistant Professor & Engineering Specialist in the Department of Poultry Science at UGA since 2018. His primary research/extension interests include animal environmental engineering and precision poultry farming. Prior to joining UGA, Chai was a postdoc in the Department of Agricultural and Biosystems Engineering at Iowa State University (ISU). At ISU, Chai led the field study on commercial farms for two USDA-NIFA programs for improving indoor air quality and animal health/welfare of cage-free egg production facilities and exploring practical means for preventing/controlling airborne infectious poultry diseases such as avian influenza. Chai received the Ph.D. from China Agricultural University with a two-year joint

training PhD program at Purdue University. Chai is author/co-author of over 100 publications and PI/Co-PI of 15 research/extension projects. Chai’s primary roles in professional societies include: Vice Chair (2020-2022) and Secretary (2018-2020) of Environmental Air Quality Committee of the ASABE (American Society of Agricultural and Biological Engineers); Associate Editor of Trans. ASABE and Applied Engineering in Agriculture; Session Chair/Moderator of ASABE meeting program “Air Pollution from Livestock and Poultry Facilities” (2018-2019; 2020-2021); and Coordinator of Georgia Layer Conference.



Claudia Dunkley, PhD., received her Doctor of Philosophy in Poultry Science, from Texas A&M University, College Station, Texas. She has been an Extension Poultry Scientist at the University of Georgia since 2007. She works closely with the poultry industry within the state, across the country and also internationally conducting workshops and symposia for extension agents, commercial poultry companies and poultry producers. She conducts applied research with poultry producers in areas of poultry environmental issues including; greenhouse gas emissions, carbon footprint of the poultry industry, litter management, dead bird disposal and management of commercial layer flocks. She is actively involved in conducting Small/Backyard

Flock Management seminars and is also involved in youth educational poultry programs across the state.

中英智慧农场科技创新研讨会在天津召开

2021年5月20-22日，中英智慧农场科技创新研讨会在天津隆重召开。本次会议由中国农业工程学会、国家农业信息化工程技术研究中心、国家农业智能装备工程技术研究中心、中国农科院农业资源与区划所、中科院遥感与数字地球所、天津优质农产品示范中心、农芯科技（北京）有限责任公司联合主办，英方单位包括英国纽卡斯尔大学（Newcastle University）、英国卢瑟福实验室（RAL Space）、英方FERA公司（Fera Scienc Ltd）、斯特拉斯克莱德大学（University of Strathclyde）、农业制图公司（MA, Map of Agriculture）。中国农业工程学会副理事长、国家农业信息化工程技术研究中心主任、中国工程院赵春江院士主持开幕式活动，学会名誉理事长、中国工程院罗锡文院士致欢迎辞，学会常务副理事长兼秘书长、国际欧亚科学院院士朱明，学会常务副秘书长管小冬出席开幕式，来自中国、英国的200名专家学者通过线上和线下方式参加会议。



会议邀请中国工程院罗锡文、李德毅、赵春江、陈学庚、戴琼海五位院士参加大会并做主旨报告。在2天的时间里，与会代表围绕农业传感器、农业人工智能、农业机器人、精准农业与智慧农场四个专题，安排学术报告中方报告31个，英方报告10个，同时设立技术成果展区，开展技术成果展示交流60余项。

会议期间，以“深化合作创新、升级中英智慧农场”为主题，组织召开了“中英智慧农场科技创新合作”项目“地-空-星高分遥感信息融合的智慧农场精准决策关键技术”和“智慧农场机器人研发”启动会。科技部国际合作司徐捷副司长、科技部科技交流中心庄嘉副主任和英国驻华使馆科技处Helen Dewberry女士出席会议并致辞。两个项目的中英双方负责人分别汇报了承担项目的整体方案。罗锡文院士、赵春江院士、朱明研究员和上海交通大学刘成良教授组成专家咨询组对项目的组织与实施方案提出了建议和意见。

罗锡文院士提出中英双方团队应就共同的目标作物对象，开展共性关键技术研究，针对不同规模的农场能够提供不同的应用技术套餐；关于小机器人的研发，不必着眼于耕种管收的全程应用，可就其中某些关键生产环节的应用技术集中攻关做出亮点。特别地，赵春江院士建议：项目的组织实施要强调重点，抓住关键，突出场景应用；中英双方团队要能够通过联合攻关，取得一两项重要的合作技术，才能很好地体现出项目的合作性质；加强对知识产权的保护，对于合作技

术可能产生的权益分配问题，要有明确的解决机制和分配方案；依托于项目加强青年人才的培养是有必要的，双方要建立有效的人员互访和人才交流的机制和方式。



科技部科技交流中心辛秉清处长、呼万丽处长，科技部农村技术开发中心卢兵友处长、鲁淼，北京市农林科学院王之岭副院长、科研处杨国航处长参加会议。

会议交流了智慧农场科技创新领域新技术、新模式、新业态、新成果，探索了合作机制，促进了成果对接，对加强中英科技创新合作平台建设、加强科技组织国际交流具有积极意义。

2021“一带一路”精准农业国际合作高端论坛

为推进中国科协与“一带一路”沿线各国科技交流与合作，通过开展高水平对外民间科技人文交流、搭建务实有效的交流合作平台，促进国际民间科技交流与社会融合发展的新体制建设，中国科协国际联络部组织实施了“中美”“中加”“中英”“中法”“中巴”等21个双边学术会议及科技交流活动。中国农业工程学会继成功举办“中美双边精准农业高端论坛”和“中英双边智慧农业高端论坛”后，与中国卫星导航定位协会合作举办2021“一带一路”精准农业国际合作合作高端论坛，旨在以国内实施精准农业科研机构和龙头企业为基础，联合“一带一路”沿线重点国家精准农业领域的相关组织和机构，抓住机遇，凝聚共识，携手推动“一带一路”国家精准农业领域的科技提升与国际合作，为促进世界现代化农业发展做出贡献。



12月12日，由中国卫星导航定位协会主办的2021“一带一路”精准农业国际合作高端论坛在中国北京主会场、四川德阳等分会场以线上线下结合形式成功举办。来自中国、蒙古、俄罗斯、巴基斯坦、马来西亚、老挝、埃及、新加坡、越南、柬埔寨等十余个国家的院士、专家、国际机构负责人、相关代表等通过线上或现场参会的形式出席论坛，共同探讨“一带一路”精准农业国际合作联盟建设及国际精准农业技术与产业发展。



论坛通过大会直播平台、中国知网在线教学平台和蔻享学术平台全程直播，截至论坛闭幕，最大直播观看总人数超过4800人，浏览总量超过1.8万人次，吸引了国内外精准农业相关人士的广泛关注和参与。论坛开幕式由中国农业工程学会执行秘书长王应宽研究员主持，邀请了七位国内外领导专家致辞。首先，中国卫星导航定位协会会长于贤成致开幕辞，介绍了协会承担项目以及筹建“一带一路”精准农业国际合作联盟的总体情况，并期待联盟早日成立，为“一带一路”沿线国家精准农业技术与产业发展提供支撑；随后，中国农业工程学会常务理事、国际欧亚科学院院士朱明研究员致辞，对论坛召开表示支持和祝贺，强调成立“一带一路”精准农业国际合作联盟开展交流合作具有重要意义。

义，介绍了学会参与举办此次高端论坛和筹备联盟的情况。罗锡文院士在视频致辞中指出，精准农业优势突出、发展迅猛，已经成为世界农业发展趋势之一；中国在精准农业领域的研究取得重大进展，特别在依托精准农业和数字农业进行的无人农场的探索和实践取得了成功，加强与“一带一路”国家之间在精准农业领域的交流合作具有重要而深远的意义。之后，俄罗斯科学院院士、工程院院士、国立农业大学马兹诺夫·M·A教授、俄罗斯自然科学院院士、新疆农业大学艾克拜尔·伊拉洪教授、国际马铃薯中心亚太中心国家联络科学家 Philip Kear博士等纷纷对此次论坛的顺利召开表示祝贺，对建立“一带一路”精准农业国际合作联盟表示支持并表达良好祝愿，希望继续加强各国的交流合作，为推动国际精准农业科技与经济融合发展贡献各方专业力量。

最后，北京合众思壮科技股份有限公司董事长郭信平作为优秀企业家代表发表致辞，他希望与“一带一路”沿线国家共同携手为精准农业的发展添砖加瓦。



GRADUATE RESEARCH ASSISTANT IN BIOPROCESS ENGINEERING

Dr. Shi’s lab at Biosystems and Agricultural Engineering Department at University of Kentucky is looking for two PhD students (starting spring or fall 2022) in bioprocess engineering area.

Project 1) will tackle the sulfur contamination problem in biofuel production. You will work with researchers across the nation to establish sulfur profile database and correlate the form and fate of sulfur in biomass feedstocks to thermochemical conversion performance and to develop effective feedstock preprocessing and sulfur mitigation strategies.

Project 2) will investigate biocatalysis in novel solvent systems for potential applications in plastic upcycling, compounds extraction, CO₂ capture, bioremediation, and cellulose/lignin derived chemicals and materials.

Both projects will involve close collaboration with DOE’s premier national laboratories including Idaho National Lab (INL), Pacific North National Lab (PNNL) and Lawrence Berkeley National Lab (LBNL). You are expected to work at the hosting labs over the summers and possibly during the academic semesters (with compensation for transportation and lodging). If you are interested in applying or have questions about this opportunity, please contact:

Jian Shi, PhD
 Associate Professor
 Biosystems and Agricultural Engineering
 University of Kentucky
 115 C.E. Barnhart Bldg,
 Lexington, KY 40546-0276
 Voice: 859.218.4321
 Fax: 859.257.5671
 Email: j.shi@uky.edu
 Web: <http://www.uky.edu/bae/shi-lab>



POST-DOCTORAL SCHOLAR IN BIOMASS LOGISTICS AND BIOBASED CHEMICALS AND MATERIALS

Department of Biosystems and Agricultural Engineering
University of Kentucky

TITLE: Postdoctoral Scholar

LOCATION: University of Kentucky, Lexington, KY

JOB DESCRIPTION AND RESPONSIBILITIES:

We are seeking one self-motivated Postdoctoral Scholar to conduct research on one or more of the following aspects: biomass feedstock characterization and logistics; catalytic or biological valorization of lignin for chemicals and advanced materials; techno-economic and life cycle analyses of bioprocesses. Experimental work will be conducted in our well-equipped laboratories at the Department of Biosystems and Agricultural Engineering, University of Kentucky. You will be expected to apply HPLC, GPC, TGA, GC-MS, NMR and other analytical equipment to characterize biomass raw materials, the intermediate streams and end products. You will also be expected to write manuscripts for publication and prepare grant proposals.

QUALIFICATIONS:

PhD in a relevant field, such as Chemical Engineering, Biological Engineering, Materials Sciences, Chemistry or equivalent. Candidates should have good understanding and experience with biomass conversion using thermo-chemical or/and biological processes. Successful candidates will have excellent communication skills and demonstrated ability to work productively and independently as part of a multidisciplinary research team.

APPLICATION: Applicants may contact:

Dr. Jian Shi, Associate Professor
Biosystems and Agricultural Engineering Department
115 Charles E. Barnhart Building
University of Kentucky, Lexington, KY 40546-0276
Phone: 549-218-4321

Email: j.shi@uky.edu

Website: www.uky.edu/bae/shi-lab

The University of Kentucky is an Equal Opportunity Employer.



Graduate Research Assistant Position (Ph.D.)

Position description: A Graduate Research Assistant position is available with Dr. Yu Jiang in the Department of Biological and Environmental Engineering at Cornell University. The successful candidate will conduct research on the development of multimodal sensing robots for the detection and quantification of plant stress for specialty crops.

Location: Cornell AgriTech, Geneva, NY

Qualifications: Candidates must have: 1) bachelor's and master's degrees in one of the Engineering branches (Agricultural, Biological, Electrical, or Mechatronics) or a related field with strong background in designing, sensing, and data analytics; 2) academic experience with biology and/or agriculture; 3) a demonstrated ability to work independently to solve complex problems; and 4) strong written and oral communication skills. International applicants should fulfill the minimum English language proficiency required by the Cornell Graduate School and Graduate Field: <https://gradschool.cornell.edu/admissions/prepare/english-language-proficiency-requirement/>

Preferences: Candidates are preferred to have proficient programming skills in both Python and C/C++, knowledge of agriculture (particularly viticulture), and experience in 3D design and prototype fabrication. Experience with thermal/hyperspectral imaging, deep learning framework (e.g., PyTorch), and robot operating system (ROS) are highly desired.

Salary and Benefits: The successful candidate will be fully funded with full tuition and an annual stipend.

Anticipated Start Date: Spring or Fall 2022

If you are interested in this position, please email a statement of interest, your CV and transcripts to Dr. Yu Jiang (yj522@cornell.edu).



Academic Job Description
Postdoctoral Research Associate
Horticulture Section, School of Integrative Plant Science
Cornell AgriTech, Cornell University, Geneva, NY

The College of Agriculture and Life Sciences at Cornell University embraces diversity and seeks candidates who will contribute to a climate that supports students, faculty, and staff of all identities and backgrounds. We strongly encourage individuals from underrepresented and/or marginalized identities to apply.

The College of Agriculture and Life Sciences (CALs) is a pioneer of purpose-driven science and home to Cornell University's second largest population of students, faculty and staff. We work across disciplines to tackle the challenges of our time through world-renowned research, education and outreach. The questions we probe and the answers we seek focus on three overlapping concerns: natural and human systems; food, energy and environmental resources; and social, physical and economic well-being. CALs is fundamentally invested in improving the lives of people, their environments and their communities both in New York state and around the world.

Position Function

We are seeking an experienced researcher with strong engineering and computer science background to develop protocols that can be used to guide the general implementation and deployment of digital agriculture (DA) tools for research and breeding programs of representative specialty crops (e.g., grape, hemp, apple, etc.) in NYS. These new protocols will help domain experts and stakeholders to address major barriers in 1) system selection and operation and 2) data management and analysis.

Responsibilities include the development of a general workflow of using DA tools for specialty crop sensing and automation; field data collection and curation of multimodal sensing data for specialty crop research and management; and design of machine (deep) learning algorithms to characterize key crop and fruit traits. Potential collaborations would involve a large interdisciplinary team consisting of breeders, geneticists, plant physiologists, pathologists, engineers, and computer scientists at Cornell as well as USDA ARS Plant Genetic Resources Unit (PGRU) and Grape Genetics Research Unit (GGRU).

Anticipated Division of Time

- 25% protocol and system development and maintenance
- 15% system deployment, field data collection, and collaboration coordination
- 25% data management and analysis
- 35% manuscript preparation and submission

Requirements

The applicant will have a Ph.D. degree in agricultural engineering, computer and electrical engineering, mechanical engineering, computer science, or a related field. Deep understanding and extensive experience (at least 5 years through Ph.D. studies and/or postdoc research) in sensing techniques, control theory, and



statistics-based learning are required. Strong written and verbal communication skills are expected. Preference will be given to those who have previously worked in an interdisciplinary team and demonstrated leadership and organizational skills.

Supervision Exercised

Some supervision of undergraduate research intern and/or professional graduate students (Master of Professional Science in SIPS and/or Master of Engineering in Computer Science or Electrical and Computer Engineering) would likely be involved.

Terms

Anticipated starting date of this position is January 1st, 2022 and the position will remain open until filled. Actual starting date can be negotiated. This is a 12-month appointment with the opportunity to extend the term based upon performance and available funding.

Application Procedure

Interested applicants should email a cover letter and CV to Dr. Yu Jiang (yj522@cornell.edu). Application materials must be submitted to Academic Jobs Online (<https://academicjobsonline.org/ajo/jobs/20721>), including a letter summarizing background and qualifications; a statement of research plan; [a statement of diversity, equity, and inclusion](#); a detailed curriculum vitae; and the names and contact information of four references. The search committee is particularly interested in candidates who through their work will contribute to the diversity and excellence of the community.