

IMPACT

PRESIDENT'S REMARK

Dear AOC members, colleagues, and friends,

As we are transitioning back to normal, I hope you and your family keep staying safe and healthy.

In the past few months, the AOC Executive Board has been meeting regularly and conducting the AOC missions to our best capacities. We are working with African Network Group of ASABE (ANGASABE) and Association of Agricultural, Biological, and Food Engineers of Indian Origin (AABFEIO) to organize a Tri-Society session of "Post Pandemics Lesson Learned, Opportunities and Challenges in Developing Economies" in 2022 ASABE AIM. We collaborated and assisted US Heartland China Association on their events of 2022 US-China Agriculture Roundtable and Agriculture SEM Showcase. We also promoted our society in China-US Bilateral Forum on Precision Agriculture & China (Weifang) Modern Agriculture Forum. For internal affairs, the Executive Board identified the challenges in locating, collecting, and keeping AOC documents as we transit to new boards. As such, we created an AOC cloud storage that can be easily passed on and track the history documents of AOC.

This year, our members are recognized by the society as proved by multiple major ASABE awards! Please join me to congratulate Dr. Hongwei Xin for winning 2022 ASABE Kishida International Award and Dr. Zhongli Pan for winning 2022 ASABE International Food Engineering Award! We are very proud of our extraordinary members for their achievements.

We are calling for nominations of 2022 AOC faculty Achievement and Service Awards (Distinguished Career Award, Early Career Award, and Outstanding Service Award) and student Achievement Awards (Academic Achievement Award, and Graduate Leadership and Service Award). It would be exciting that our deserved AOC colleagues and students are recognized for ALL these awards this year. In addition, we are also announcing the student Paper Competition Award and Research Presentation Awards. The details of all award announcements can be found in this issue of IMPACT Newsletter.

I am delighted to see the leaderships from our members in organizing national and international conferences. These include the 2nd US Precision Livestock Farm Conference hosted by the University of Tennessee and scheduled on May 21-24, 2023 (Organizers: Hongwei Xin, Robert Burns, Yang Zhao), and Sustainable Energy for a Sustainable Future conference scheduled on October 24-26, 2022 (Organizer: Wei Liao).



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IMPACT

PRESIDENT'S REMARK

To better serve the readers of IMPACT Newsletter, I'd encourage and appreciate all of you to share us your news, recent awards, conference announcements, job opportunities, and/or other relevant information so we can highlight them in future Newsletters. Thank you for consistent supports to our association.

Yours sincerely,



Yang Zhao

President of AOC 2021-22



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Awards

Dr. Hongwei Xin Receives 2022 ASABE Kishida International Award

About the award:

Recognizes outstanding contributions to engineering, mechanization and technology related programs of education, research, development, consultation or technology transfer that have resulted in improved food production, living conditions and/or education for people living outside the United States.

Initiated in 1978, the award is endowed by [Shin-Norinsha Co., Ltd. of Japan](#), publisher of *Agricultural Mechanization in Asia, Africa and Latin America* magazine and other publications, in honor of Yoshikuni Kishida, founder of the firm. Kishida, whose signature appears in the upper-right corner of the plaque, earned worldwide recognition from his pioneering agricultural mechanization developments.

The award consists of a plaque and a cash award of \$1,000. Mounted on American walnut, the plaque is a metal reproduction of a certificate on which the international character of the award is graphically indicated, and which carries the inscription: "For outstanding contributions toward food and fiber production, improved living and education of people outside the United States of America."

More information: <https://ag.tennessee.edu/TLLS/Pages/FW19-Xin.aspx>



Zhongli Pan Receives 2022 ASABE International Food Engineering Award

Biological and Agricultural Engineering Adjunct Professor [Zhongli Pan](#) received the 2022 International Food Engineering Award from the American Society of Agricultural and Biological Engineers (ASABE). The ASABE major award recognizes significant engineering contributions in research, development or the design of food processes. The award also recognizes outstanding leadership, management and education in the food engineering profession.

Pan joins Distinguished Professor Emeritus [R. Paul Singh](#) as the only UC Davis faculty member to receive the award. He will be recognized at the 2022 ASABE Annual International meeting in Houston.

"I am humbled and honored to be recognized by this award," said Pan.

"Receiving this award reaffirms my desire and encourages me to continue doing my best to advance the food engineering profession."

More information: <https://bae.sf.ucdavis.edu/news/zhongli-pan-receives-2022-asabe-international-food-engineering-award>



AOC students' news and activities

Information Technology, Sensors, and Control Systems (ITSC) Paper Awards (2021 Winners)

- Authors: **Chenjiao Tan**, Changying Li, Dongjian He, Huaibo Song

Title: Anchor-Free Deep Convolution Neural Network for Plant and Plant Organ Detection and Counting

- Authors: **Tian Qiu**, Anna Underhill, Surya Sapkota, Lance Cadle-Davidson, Yu Jiang

Title: Deep Learning-Based Saliency Maps for the Quantification of Grape Powdery Mildew at the Microscopic Level

Boyd-Scott Graduate Research Award (2021 Winners)

- PhD Category, 1st Place

Guoming Li, Iowa State University,

Title: Development and Optimization of a Deep-Learning-Based Egg Collecting Robot

ASABE Student Oral/Poster Presentation Competition (2021 Winners)

- **Xiaohan Mei** placed in the NRES community competition for the presentation titled “A Comparison of Daily Streamflow Prediction by an Artificial Neural Network and the Soil and Water Assessment Tool (SWAT) in Two Small Watersheds in Central South Texas”
- **Baitong Chen** placed in the PAFS community competition for the presentation titled “Mitigation of Acute H₂S and NH₃ Emissions from Swine Manure During Agitation Using Pelletized Biochar”
- **Peiyang Li** placed in the PAFS community competition for the presentation titled “Basics of Ultraviolet C (UV-C) Light”
- **Ke Wang** placed in the PRS community competition for the presentation titled “Techno-Economic Analysis on an Industrial-Scale Production System of Biodegradable Plastics from Cheese by-Products by *Haloferax Mediterranei*”

Establishment of “Kuan Chong Ting and Shu Chuang Jung Scholarship Fund” at the University of Illinois at Urbana Champaign

To celebrate Professor KC Ting’s retirement and his many contributions to the agricultural engineering field, the Department of Agricultural and Biological Engineering at the University of Illinois at Urbana Champaign (ABE@Illinois) is establishing the “Kuan Chong Ting and Shu Chuang Jung Scholarship Fund” to award best and diverse students in the department. Professor Ting is a founding member of AOC and has a long time association with AOC. Professor Ting earned his Master’s degree in agricultural engineering from the University of Kentucky and Ph.D. degree in agricultural engineering from the University of Illinois at Urbana-Champaign (UIUC) and served as head of ABE@Illinois from 2004 until his retirement in 2016.



The Kuan Chong Ting and Shu Chuang Jung Scholarship will make education more affordable for students in agricultural and biological engineering or engineering technology and management for agricultural systems (ETMAS), formerly technical systems management (TSM). Those who would like to honor Professor Ting are invited to provide a gift to the ABE Department, UIUC online at <https://abe.illinois.edu/give>. The “Kuan Chong Ting and Shu Chuang Jung Scholarship Fund” is near the bottom of the page. Gifts could also be mailed to the UI Foundation, P.O. Box 734500, Chicago, IL 60673-4500, indicating the “Kuan Chong Ting and Shu Chuang Jung Scholarship Fund.” Please help spread this news to whom you feel may be interested in knowing about this scholarship fund. If you need additional information, please contact Haibo Huang (huang151@vt.edu), chair of the fundraising committee. .



2022 AOC Board Meeting Minutes

8:00 pm to 9:30 pm EDT, Feb 9, 2022

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. **Previous meeting minutes was approved.**
2. **Meeting agenda was went through and approved by all attendees.**
3. **Updates from Zhao Yang :**
 - 1) Africa-China-India joint forum updates:
 - Topic of the forum is “Post-Pandemic”;
 - The deadline for registration was August/2021, so, ASABE registration fee won’t cover it. The potential solution is: contact to Jessica Bell to add it to the ASABE registration;
 - Speakers: at least two “big name” professors will be invited to give presentations;
 - In-person meeting will be required for the ASABE 2022. It will difficult to have enough people to attend;
 - 2) AOC documents sharing:
 - A Google Driver has been set up for sharing documents (sub-folders: membership list, impact Letter, and others).
 - It currently only allows three people to access;
 - Yeyin Shi requested to establish another folder in this Google Account for treasurer.
 - 3) To-do-list after the meeting.
 - Check the to-do-list after this meeting.
4. **Updates of China Exchange Forum from Sara Wu:**
 - The time was scheduled in the evening. But if room available, it could be moved to afternoon.
 - Speakers:
 - Hongwei Xin & Ying Chen, presentation topic -“Collaboration in the North America”;
 - NIFA program leader, presentation topic-“COVID funding opportunity”;
 - Nanqian Zhang, presentation topic - “AOC in the past 20 years”;
 - Challenges: “In-person” attendance is required. No virtual option available for speakers from China. We need to email to Jessica Bell (bell@asabe.org);
5. **Updates of Business meeting and Banquet from Lilong Chai**
 - Place: A Chinese restaurant “China Garden” has been reserved, which is 6-10 mins walk-distance from the conference venue;
 - Time: Evening, the exact time is not sure yet.
 - Layout: Microphone, Podium, and a big projector screen;
 - Deposit: Suggest to pay the deposit first;
 - Number of guests: not sure yet, but it is estimated to be 8 ~10 tables needed;
 - Vote: live voting and awards;
 - Bill: Since Yeyin will not be there, a representative (e.g. Yang Zhao) is needed to pay first through either Zelle or check.

2022 AOC Board Meeting Minutes

(Continued)

6. **Update/planning for Newsletter Issues- Shangpeng Sun**
 - Three issues one year; Time for next issue will be March or April;
 - Topics for next issue: “Introduction of different awards” should be included or advertised.
 - Limit of application: one topic is only allowed to apply for one award, different topics can shoot for different awards, although the same applicant.
7. **Update/planning from AOC treasurer -Yeyin Shi**
 - Certification – Some certifications (both paper version and PDF version) have been sent out;
 - Cash awards – Some Winners have received the awards through Zelle transfer, but the transfer to the winners in China is difficult.
 - Cash awards clarification: 1st- \$200; 2nd -\$150; 3rd-\$100;
 - Planning this year: Since Yeyin Shi will not attend the meeting, the certification templates (PDF) will be emailed to Yang Zhao for printing one month earlier before the meeting.
 - AOC registration fee: Treasurer will check the total AOC fee after ASABE (2022) registration finished (around June).
8. **Update and planning from AOC web - Ying Bao.**
 - Only pictures uploaded. Videos were saved in google drive.
 - More updates needed.
9. **Update and planning from AOC student advising and professional development –Ce Yang and Hao Gan**
 - Planning: will send out a survey to collect topic ideas;
 - Target audience: PhD and postdoc;
10. **Update and planning from AOC membership development from Ximing Zhang**
 - Planning: will advertise AOC to more students in China
11. **Faulty award –Jian Shi**
 - Planning: will encourage more applicants to apply.
12. **Award Committee Chairs of students awards – (Ce Yang, Hao Gan)**
 - Shaoqing Cui will be responsible for the achievement awards;
 - Ce Yang and Hao Gan will be responsible for the competition awards;
13. **Mentoring – Faculty –Student seminar (Ce Yang and Hao Gan)**
 - Planning: will advertise to more students;
14. **PDF certifications of students awards (Ce Yang)**
 - PDF version of certifications for 2020 and 2021;
 - Paper version of certification for 2022;
 - Update the winners list. If students, who received the awarded in last two years, come to ASA-BE this year, the certifications in paper version for the past years will be printed and delivered to them.
15. **Update/planning from SAC – Yangyang Guo**
 - Wechat Public Account (AOC account) is a great tool for advertisement. Take advantage of it.
16. **Next meeting – May or June/2022**
17. **Other Business – None.**

Nomination for AOC Fellow and AOC Member Awards

Dear AOC members and friends,

It is time again to nominate your colleagues who have made outstanding achievement in their professional career and service to our professional society.

AOC Fellow is the highest honor conferred for exceptional achievement by an AOC member. The Nomination Form and letters of support are to be converted into PDF files and submitted to AOCABFE executive board through email to the attention of Dr. Jian Shi – j.shi@uky.edu. Please use “AOCABFE Fellow” as subject of the email. The support letters may be sent with the Nomination Form or may be sent separately. The deadline for submitting Nomination Forms and letters of support is **May 1st, 2022**. Details on nomination procedure can be found here. <http://aocabfe.com/fellow-nomination/>

In addition, AOC currently has three member awards (Distinguished Career Award, Early Career Award, and Outstanding Service Award). Nominations for the AOC member awards should be submitted to Dr. Jian Shi – j.shi@uky.edu **by June 1, 2022**. Details on nomination procedure can be found from the link below. <http://aocabfe.com/nomination/>

Thanks!

Faculty Interview—Dr. Juzhong Tan

Dr. Juzhong Tan is an Assistant Professor in the College of Agriculture and Food Science, Florida A&M University. He is the leading PI of NC1023: Engineering for food safety and quality in Florida. His lab focuses on innovative processing and emerging technologies to promote the productivity, sustainability, and quality of foods from farm to table. He joined ASABE as a new member in 2021.



What's your educational background and professional experience?

I am currently an Assistant Professor of Food Science at Florida A&M University (FAMU). I obtained my Ph.D. in Food Science from the University of Georgia under the supervision of Dr. William Kerr in 2017 and worked on a second Master's degree in Engineering. Before joining FAMU at Fall 2021, I had been worked at Rutgers University and University of Idaho as postdoctoral associate for three years. I have been working on multiple interdisciplinary federal grants focused on hydroponic farming, cold plasma, numerical simulation, and innovative food processing.

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

My undergraduate major is Food Science and Engineering, which I never made any acquaintance with before I was assigned to this major. I had no idea about what food science or food engineering is, and my guess about this field at that time was something related to culinary or nutrition. However, later on, as I devoted myself more and explored more into this field, I found it getting fascinating, and later on I realized that Food Engineering or Food Science is an interdisciplinary field that is closely tied to industry and everyone's life.

Things that inspired me to study abroad include my curiosity to the other side of the earth, desire for an adventure, possibility of a better career, and encourages from peers and families. I started preparing to study abroad in my sophomore year and I got Ph. D admission with bypass of Master degree in 2013.

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

One interesting fact of my research is we always produce food products, including chocolates, fresh produces, and dairy products, from our experiments. We use the food products as one way to do diplomacy by distributing them to our colleagues in the same building. People are amazed when they see this professor design robot and work on artificial intelligence in one hand, and 'cook' delicacies for others on the other hand.

My daily life is filled with teaching, meeting, proposal and manuscript writing, and most importantly, research. I am still doing experiments and labs with the students, trying to provide hand-on mentorship and training to the students and postdoc, and trying to ensure the progress of research projects. After work, I will go to gym to work out, play basketball, and think about what to eat for dinner.

Faculty Interview—Dr. Juzhong Tan

(page 2)

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

I think the biggest challenge for me, and it is also something I keep reminding myself avoid, is falling into a comfort zone, where I keep doing things that I am good at or things I have done many times without exploring new area, new technologies, or working with new peoples.

How do you like the teaching/research/service?

My official appointments are research and teaching, however, most of the time we are doing almost everything, including mentoring students, collaborating with stakeholder, services to different committee, federal agencies, journal, university, and communities. I see different things piling up, sorted out, and new things coming. There are many works filling up my day, nevertheless, I enjoy my job since there are many new opportunities, new technologies, new projects, and new peoples I can work with.

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

First of all, be patient and ask yourself if you really want to do this. Being a faculty is like a head of a startup seeking to survive in the world of academia.

To prepare yourself to become a competitive contender for a faculty, based on my observations and experiences, typically requires 1) multidisciplinary background and expertise with tied with the trends and emerging technologies, which means your research is likely to be funded by USDA, NSF, NIH, or other funding agencies. 2) Good-looking publications list (as first author or corresponding author) to show your productivity, potentials in research, and collaborations with peers. 3) teaching experience, services such as reviewers, judges, panelist, and collaboration with industry 4) experiences in writing grants.

Other than that, just be patient, keep trying to apply any positions that might fit, keep your productivity and energy when opportunities were not seen.



海外华人农业、生物与食品工程师协会



生物与食品工程 - 科研技能 研讨会

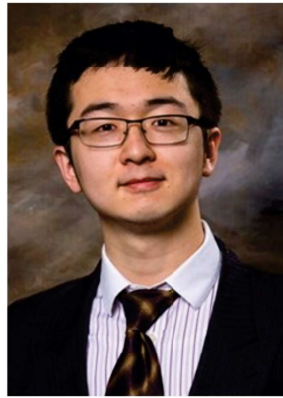
Panelists:



Lirong Xiang, Ph.D.
Assistant Professor
(starting Fall 2022)
Biological and Agricultural
Engineering, NC State
University.

Current: research
assistant in the
Automation and Robotics
Laboratory Iowa State
University

Agricultural robotics, 2D
& 3D computer vision, and
machine learning.



Dongyi Wang, Ph.D.
Assistant Professor
Biological and
Agricultural Engineering,
University of Arkansas

Development and
application of advanced
AI, robotics, and
machine vision
techniques to protect
food safety and improve
food quality



Juhong Chen, Ph.D.
Assistant Professor
Biosystems Engineering.,
Virginia Tech

Development and
application of biosensing
technologies for the
detection of biological and
chemical contaminants in
the food and agricultural
systems



Haibo Huang, Ph.D.
Associate Professor
Food Science &
Technology, Virginia
Tech

Food and bio-processing
technologies to produce
food ingredients, animal
feed, and green
chemicals from
agricultural and food
products

研讨会主题: 研究生, 博士后科研技能以及如何培养的探讨。探讨的方向包括实验设计及执行, 数据分析, 文献检索及分析, 科研成果展示, 同行评审等。

Tuesday, May 31st, 2022 at 8:30 pm USA Eastern Time

周三, 2022年6月1日, 北京时间 早晨 8:30

Zoom Link:

<https://umn.zoom.us/j/95678338957?pwd=bzJNb2tvaFhteks0bGllK0pYk1VhUT09>

Meeting ID: 956 7833 8957 Passcode: aoc2022



海外华人农业、生物与食品工程师协会



Webinar - Proposal Writing Skills

Invited Speaker:



Zhou Zhang, Ph.D.

Assistant Professor

Biological Systems Engineering

Electrical and Computer Engineering

University of Wisconsin-Madison, USA.

讲座主题: **Proposal writing**中的想法构建, 团队配置, 写作技巧以及润色完善

Sunday, June 5th, 2022 at 8:30 pm USA Eastern Time

周一, 2022年6月6日, 北京时间 早晨 8:30

Zoom Link:

<https://umn.zoom.us/j/96200889236?pwd=aVpvSFd5Ym8xQjFKV3QzTmhKN1lzUT09>

Meeting ID: 962 0088 9236 Passcode: aoc2022



2022 Student Paper Competition

ASSOCIATION OF OVERSEA CHINESE
AGRICULTURAL, BIOLOGICAL & FOOD
ENGINEERS (AOC)

Student Activity Committee (SAC) of AOC

Name (Last, First, Middle):

Organization:

Street Address:

City, State, Zip code:

E-Mail:

Telephone:

Current Department:

Paper Title:

ASABE Paper No:

Authors:

SUBJECT AREA (CHECK ONE):

- | | |
|--|--|
| <input type="checkbox"/> APPLIED SCIENCE & ENGINEERING | <input type="checkbox"/> INFORMATION TECHNOLOGY, SENSORS & CONTROL SYSTEMS |
| <input type="checkbox"/> ENERGY SYSTEMS | <input type="checkbox"/> PLANT, ANIMAL AND FACILITY SYSTEMS |
| <input type="checkbox"/> ERGONOMICS, SAFETY & HEALTH | <input type="checkbox"/> PROCESSING SYSTEMS |
| <input type="checkbox"/> MACHINERY SYSTEMS | <input type="checkbox"/> OTHER |
| <input type="checkbox"/> NATURAL RESOURCES & | |

Note: Submission of this form and paper signifies that all co-authors of the paper have given approval to enter the paper into the competition.

This competition requires the submission of the original paper in Word or PDF format and this entry form. All entries shall be submitted to Dr. Ce Yang no later than **June 20, 2022.**

Dr. Ce Yang, ceyang@umn.edu
Assistant Professor
Bioproducts and Biosystems Engineering
University of Minnesota
1390 Eckles Ave, Saint Paul, MN 55126

Association of Overseas Chinese Agricultural Biological Food Engineers

Student Research Presentation Competition

Program Guidelines

Program description

This is an invitation to submit an oral presentation to the AOC Student Research Presentation Competition Program. The winners will receive cash awards and will be recognized in the AOC session meeting during the annual International ASABE Meeting during July 17 – 20, 2022. The number of awardees will depend on the total number of entries. AOC hopes that awardees can benefit from the award for their professional development.

Eligibility

To be eligible for this program:

- Each entry for the competition will be limited to one paper (ASABE conference paper for 2022 Annual International Meeting) per student, and the first author must be an AOC student member.
- Each entry is required to include a submitted 'Entry Form' signed by a faculty member stating that he/she has approved the presentation.

Scope

Various topics that include but are not limited to agricultural and biological engineering, food science, and environmental science and engineering. All submitted papers should have been accepted by ASABE 2022 Annual International Meeting.

Submission

Send all documents including this document (Second page filled and signed) and a link for your presentation video (Dropbox, Google Drive etc.) to Dr. Hao Gan no later than **July 1, 2022.**

Hao Gan, hgan1@utk.edu

Assistant Professor

315 Biosystems Engineering & Soil Science Office Building

2506 E.J. Chapman Dr.

Knoxville, TN 37996-4531

Phone: (865) 974-8379

Evaluation Process

The length of the presentation is suggested to be 12 ± 0.5 minutes. Presentations longer 12.5-minute will not be considered for evaluation. Each presentation will be evaluated by three judges using the attached evaluation form. The Judging Criteria includes technical content, methodology, oral presentation, and Power Point appearance. Results will be announced in the AOC meeting session during the AIM ASABE 2022.

Produce and Submit Video

Presentation is recommended to be recorded at a suitable environment, such as meeting room, conference room or classroom, with minimum background noise. Both PPT slides and the presenter should be recorded during the presentation. The video can be recorded using video cameras (cellphone, DSLR, DV). The video format needs to be the common formats (.avi, .wmv, .mp4, etc.). For presentation video submission, you only need to include the shared links that lead to your Dropbox, Google drive, Box, or Skydrive. Evaluators will use the shared links to access your videos. Double check your links before submitting.

AOC Student Research Presentation Competition Entry Form

Your submission should contain:

- This page completed and signed.

Presentation Topic:

Student Name (Last, First):

Department:

University:

Student Email:

Street Address:

City, State, Zip:

Advisor's Name:

Advisor's Email:

Student Signature

Date

Advisor Signature

Date

This signature certifies that the Advisor approves the submission of this research presentation for the competition.

Auburn University Hosting Artificial Intelligence in Agriculture Conference

BIRMINGHAM, Ala. – The Auburn University College of Agriculture is hosting on its campus an academic conference to address the potential of artificial intelligence, robotics and automation in agriculture. Beginning today, the conference is titled “Envisioning 2050 in the Southeast: AI-driven Innovations in Agriculture,” and it is funded by the USDA National Institute of Food and Agriculture.

“The Envisioning 2050 in the Southeast: AI-Driven Innovations in Agriculture conference will bring together academics, industry and stakeholders to share their expertise and develop a vision for the future,” said Dr. Arthur Appel, Interim Associate Dean of Research for the Auburn College of Agriculture. “Attendees will be able to learn about the depth and breadth of AI in agriculture from the experts who are making the promise of AI a reality.”

Conference speakers include Hendrik Hamann, a Distinguished Research Staff Member and Chief Scientist for the Future of Climate in IBM Research; Mark Chaney, engineering manager of the automation delivery teams at Intelligent Solutions Group at John Deere; Steven Thomson, a national program leader with the USDA National Institute Food and Agriculture; and dozens more.

Organizers note speakers from academia, the federal government and industry will share their work in areas such as crop production, plant and animal breeding, climate, agricultural extension, pedagogy, food processing and supply chain, livestock management and more.

Dr. Kati Migliaccio, co-organizer of the conference and Chair of the Department of Agricultural and Biological Engineering at the University of Florida, said the timing of the conference is perfect.

“This is an opportune time to host this conference focusing on AI in agriculture in the Southeast because of the resources invested in AI, the state of innovation of AI in agriculture and the critical need to adapt agriculture for current world challenges, including labor, nutrition, energy and climate.”

In November, the chief academic officers of the 14 member universities in the Southeastern Conference (SEC) announced formation of an artificial intelligence and data science consortium for workforce development, designed to grow opportunities in the fast-changing fields of AI and data science.

Believed to be the first athletics conference collaboration to have such a focus, the SEC Artificial Intelligence Consortium enables SEC universities to share educational resources, such as curricular materials, certificate and degree program structures, and online presentations of seminars and courses; promote faculty, staff, and student workshops and academic conferences – such as today’s event at Auburn; and seek joint partnerships with industry.

(continued) The University of Florida is leading the SEC-wide effort, and Dr. Joseph Glover, Provost and Senior Vice President for Academic Affairs at Florida said, “AI is changing nearly every sector of society, and the SEC is uniquely positioned to engage students, faculty, and staff in one of the most transformational opportunities of our time. The combined strength of our institutions gives us the opportunity to advance in how we process the future of teaching and learning, research and economic development and how we can provide leadership at this critical moment when AI and data science are changing the way we think about small tasks and big questions.”

More information: <https://www.theseecu.com/news/auburn-university-hosting-artificial-intelligence-in-agriculture-conference/>



2022 U.S. - China Agriculture Roundtable

US Heartland China Association (USHCA) once again organized the [virtual US-China Ag Roundtable](#) around the National Agriculture Week from March 21- April 7. The virtual US-China Ag Roundtable last year was very well received in both countries and heralded as one of the most positive dialogues between the two countries in recent years.

Event Details:

Reflecting the strong commitment that leaders of both the U.S. and China have for finding areas of cooperation, especially around climate change, and the essential role that climate-smart agriculture can play to accomplish the goals set forth by the national leaders, USHCA is again organizing the virtual U.S. – China Agriculture Roundtable this spring.

Event Page with registration details:

<https://usheartlandchina.org/us-china-agriculture-roundtable/>

Register for the Opening Celebration on March 21:

https://us02web.zoom.us/webinar/register/8616465096164/WN_OGmdlLH6TjC4pdxpJnPDUA



南京农业大学
NANJING AGRICULTURAL UNIVERSITY

关于举办南京农业大学第五届“钟山国际青年学者论坛”的通知

南京农业大学“钟山国际青年学者论坛”旨在围绕农业特色世界一流大学的目标任务，聚焦国家“双一流”建设，为海内外优秀青年学者搭建高水平的学术交流平台。论坛已连续成功举办四届，并已成为学校引进高层次人才的主渠道。基于当前疫情的特殊形势，2022年，我校将继续通过线上线下平台举办第五届“钟山国际青年学者论坛”，更加诚挚地邀请海内外青年学者感受南农、了解南农，围绕学术前沿、探讨学科热点，促进交流与合作。

学校简介

南京农业大学坐落于钟灵毓秀、虎踞龙蟠的古都南京，是一所以农业和生命科学为优势和特色，农、理、经、管、工、文、法学多学科协调发展的教育部直属全国重点大学，是国家“211工程”重点建设大学、“985优势学科创新平台”和“双一流”建设高校。学校拥有卫岗校区、浦口校区和白马教学科研基地，坐落于南京市江北新区的南京农业大学江北新校区正在紧张建设中，即将投入使用；学校现有教职员工2900余人，其中中国工程院院士3人、发达国家工程院院士1人；学校设有20个学院（部），17个博士授权一级学科和15个博士后流动站。在教育部第四轮一级学科评估中，4个学科获评A+，位列全国高校第11位。学校10个学科领域进入ESI学科排名全球前1%，其中农业科学、植物与动物科学等2个学科进入前1%，跻身世界顶尖学科行列。

论坛学科领域

前沿交叉领域：重点围绕人工智能与智慧农业、中医药与人类健康、绿色农业与美丽乡村建设、粮食安全与自然资源管理等前沿交叉领域，具体研究专业方向包括但不限于：表型组学、人工智能、生物信息学、农业信息学、智慧农业、合成生物学、生物传感器技术、健康与营养、化学生物学、生物物理学、绿色农业、园艺康养、中医与中药、乡村振兴、食品安全、粮食安全、自然资源管理、数字人文等。

传统专业领域：大农学类（作物学、园艺学、农业资源与环境、植物保护、畜牧学、兽医学、水产学、草学等）；理工类（生物学、生态学、环境科学与工程、食品科学与工程、风景园林学、农业工程、统计学、计算机科学与技术等）；人文社科类（管理学、经济学、金融学、社会学、法学、历史学等）等领域。

邀请范围

1. 海外高校、科研机构担任助理教授及以上职务人员。
2. 海内外高校博士毕业生，年龄一般35周岁以下。
3. 海内外高校或研究所博士后，年龄一般40周岁以下。

论坛安排

1. 时间：2022年5月28-29日。

2. 举办形式：本届论坛线上线下同时举办，依靠网络平台，以“主论坛+分论坛”的形式开展。

(1) 主论坛。学校主论坛由学校承办，设置学校引才政策介绍、特邀专家学术报告、互动交流等环节，依托视频会议平台进行同步直播；

(2) 学院分论坛。学科分论坛由学院承办，设置学院介绍、学科推介、学术交流、线上线下洽谈等形式。

(3) 前沿交叉分论坛。本次论坛特别鼓励具有交叉学科背景的优秀青年学者积极参与，通过前沿交叉研究分论坛，重点进行交叉学科领域的交流和洽谈。

(4) 引进洽谈。有意向的优秀青年学者，论坛期间即可签订人才引进意向性协议；学校为高层次引进人才提供具有竞争力的科研和生活条件，获聘我校教授职务的高层次人才除了享受教授薪酬之外，额外享受校内高层次人才津贴，特别优秀人员一事一议。学校将会通过个性化服务，鼓励和支持高层次人才依托我校申报国家和省级人才计划，对于获得国家级人才计划引进项目的高层次人才，学校对国家资助经费进行不低于1:1的配套。如未达到高层次人才引进条件的青年人才可推荐申请南京农业大学钟山青年研究员并享受有竞争力的薪酬待遇。

报名方式

本次论坛报名截止日期：**2022年5月1日**，有意者请认真填写报名表（见附件1）。请直接发送报名表至njrcb@njau.edu.cn（邮件主题写明意向学院+姓名+青年学者论坛）。**5月15日**之前学校人才办会通过电子邮件对通过遴选的青年学者发出正式邀请信，并告知具体参会方式。

请有意向的青年学者积极报名，密切关注南京农业大学网站（<http://www.njau.edu.cn>和<http://zsforum.njau.edu.cn>）和南京农业大学人才办微信公众号（NJAU-RCB）。

南京农业大学人才办联系人：刘红梅

联系电话：+86-25-84399039；

18652999049（手机号同微信号，青年学者可直接添加微信咨询）

联系邮箱：njrcb@njau.edu.cn

Source: <http://www.njau.edu.cn/2022/0204/c579a117838/pagem.htm>

Other Conferences

Conferences in China

- 2021年高附加值植物高效生产国际研讨会（12/27/2021-12/27/2021）
More information: <https://mp.weixin.qq.com/s/L-p5aJVHK8OvpyPqCD7Rxxw>
- 中国农业工程学会第十一次全国会员代表大会 12/18/2021
More information: <https://mp.weixin.qq.com/s/fHwLx6kfARYxAUp8xzdehA>
- 河南农业大学教授张全国当选乌克兰工程院外籍院士
More information: http://www.csae.org.cn/rdxw/202112/t20211231_395098.html

Conferences in Europe

- **DIGICROP 2022:**

The International Conference on Digital Technologies for Sustainable Crop Production (DIGICROP) took place as a remote event on **March 28-30, 2022**.

DIGICROP 2022 is a scientific event addressing an international and interdisciplinary audience working at the intersection of engineering, robotics, computer science, crop sciences, agricultural sciences, phenotyping, and economics. It brings together researchers across disciplines that develop, propose, use, or evaluate new digital technologies with the goal of making central contributions to sustainability in the context of crop production, crop breeding, biodiversity, or our ecosystems.

DIGICROP 2022 is organized by the German Cluster of Excellence “PhenoRob – Robotics and Phenotyping for Sustainable Crop Production” at the University of Bonn and the AI Institute for Next Generation Food Systems.

More information: <https://digicrop.de/>



Biological Systems Engineering UNIVERSITY OF WISCONSIN-MADISON

Postdoctoral researcher recruitment

The Digital Agriculture Research lab (<https://digitalag.bse.wisc.edu/>) at University of Wisconsin-Madison and the USDA Forest Service (FS) Forest Products Laboratory (FPL) is recruiting a postdoctoral researcher with backgrounds in machine learning, hyperspectral image, biomass properties, and biofuels. The position is immediately available. The funded project summary can be found here. The goal is to find the best algorithms that can have high predictabilities for biomass handling properties and conversion efficiencies. Candidates with a research focus on one of the following two areas are strongly encouraged to apply.

- 1) Apply machine learning models to experimental data and hyperspectral images of various types of biomasses including forest and crop residues.
- 2) Basic understanding of biomass properties, handling and pretreatment processes, and biomass conversion to biofuels.

The postdoctoral researcher will be supervised by Dr. Zhou Zhang (<https://bse.wisc.edu/staff/zhang-zhou/>) from the Department of Biological Systems Engineering within the College of Agriculture and Life Sciences and Dr. Richard Bergman from USDA Forest Service (FS) Forest Products Laboratory (FPL). The postdoctoral researcher will also have opportunities to collaborate with researchers with diverse background both at the university and the USFS. Ideal candidates would have a PhD degree in Agricultural and Biological Engineering, Chemical Engineering, Mechanical 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.

Starting Date: The position is immediately available.

Application Process: Interested candidates can email their CVs to Dr. Richard Bergman (richard.d.bergman@usda.gov) and Dr. Zhou Zhang (zzhang347@wisc.edu). Qualified candidates will receive email feedback immediately.



Biological Systems Engineering

UNIVERSITY OF WISCONSIN-MADISON

Postdoctoral researcher recruitment

The Digital Agriculture Research lab (<https://digitalag.bse.wisc.edu/>) at University of Wisconsin-Madison is recruiting a Postdoc Researcher with backgrounds in remote sensing, machine learning, and precision agriculture. The postdoc position is immediately available. Candidates with a research focus on one of the following two areas are strongly encouraged to apply.

- 1) High-throughput Plant Phenotyping using UAV multi-sensor data (e.g., hyperspectral, RGB, Li-dar);
- 2) Develop machine learning models with satellite remote sensing data for precision agriculture.

The Postdoc Researcher will be supervised by Dr. Zhou Zhang (<https://bse.wisc.edu/staff/zhang-zhou/>) through the Department of Biological Systems Engineering within the College of Agriculture and Life Sciences. The Postdoc Researcher will also have opportunities to collaborate with researchers with diverse background. 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.

Starting Date: The position is immediately available, and it is expected to start no later than June 2022.

Application Process: Interested candidates can email their CVs with publication records to Dr. Zhou Zhang (zzhang347@wisc.edu). Qualified candidates will receive email feedback immediately.



McGill

Bioresource Engineering
Faculty of Agricultural and Environmental Sciences

Ph.D. and M.S. opportunities at McGill University

Dr. Shangpeng Sun's group at McGill University has several PhD/Master positions opening for 2023 Spring. Our group are interested in developing machine learning, robotics, computer vision, and remote sensing technologies for spatio-temporal crop growth monitoring and modeling. The application deadline is **July 15, 2022**, and the expected starting date **January 2023**.

- Web: <https://www.mcgill.ca/bioeng/faculty-and-staff/shangpeng-sun>
- Google Scholar: <https://scholar.google.com/citations?user=HzOdf-IAAAAJ&hl=en>

About McGill University

McGill University is a world top research university located in Montreal, Quebec, Canada, founded in 1821. It is one of the most prestigious universities of the world. It has been ranked 1st in Canada in Maclean's annual and 27th in the world (QS world University Ranking 2022).

Position description:

- 3D imaging data, such as point cloud, CT imagery, registration and processing
- plant structural-functional property modeling and prediction using multi-source sensing data, such as hyperspectral, thermal, fluorescence imagery.
- Agricultural robotics

Qualifications

- Qualified applicants should earn a B.S./M.S. degree in Agricultural/Biological Engineering, Computer Science, Electrical Engineering, or related engineering fields, by the time of enrolling in the program.
- Students who are proficient in computer programming (Matlab/Python/C++), image/point cloud processing and mathematical modeling, and have excellent writing and communication skills are highly welcome to apply.
- The candidates will be organized, self-motivated, and willing to learn new skills and collaborate in a highly multidisciplinary environment.

Application Procedures

Please contact Dr. Shangpeng Sun (email: shangpeng.sun@mcgill.ca) with the subject of **Prospective master/PhD student_Your name** if you are interested in or have any questions regarding the positions. Applications will be screened immediately until the positions are filled.

Please visit the website application details:

- <https://www.mcgill.ca/gradapplicants/programs/bioresource-engineering>
- <https://www.mcgill.ca/gradapplicants/how-apply>



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.



Distinguished Postdoctoral Fellowship at Zhejiang University

AgroOptics and Imaging Lab at Zhejiang University in Hangzhou, China, is seeking a postdoctoral researcher to work in an interdisciplinary area on developing high-throughput whole-plant phenotyping strategies for supporting plant breeding. The successful candidate will contribute to advanced modeling and algorithms for processing phenotypic data acquired from a greenhouse phenotyping system with various optical imaging sensors from plant seedling to harvest. Phenotypic data processing will be further improved by considering different climate scenarios and management practices.

The postdoctoral researcher will be supervised by Prof. Haiyan Cen through College of Biosystems Engineering and Food Science at Zhejiang University. Scientists with experience in plant phenotyping, remote sensing, machine learning, and software development are encouraged to apply. A Ph.D. degree in a discipline such as computer science, electrical engineering, optical engineering, agricultural engineering or plant science is required. The initial appointment is for two years, and may be extended for up to four additional years. Annual salary depends on qualification, and has a chance to apply for the position of the Hundred Talents Program Fellowship at ZJU after finishing the postdoc fellowship.

The position is available immediately and will remain open until filled. Please send an email with a brief introduction of the research background, curriculum vitae, and contact info for three references to Prof. Haiyan Cen (hycen@zju.edu.cn). Successful candidates will be contacted via email.

Zhejiang University was found in 1897, and is one of the China's most prestigious universities. Check our website for further details <http://www.zju.edu.cn/english/>. We offer competitive fellowships, salaries and benefits for the Postdoctoral position.

Research Areas :

- Image processing, machine learning, deep learning, and statistics for spectral and image data
- 3D point cloud processing
- RGB and multi/hyperspectral imaging
- Software development

Qualifications:

- Strong ability to conduct high-quality independent research
- Hands-on research experience in one of the above areas
- Solid programming skills



Ph.D. or M.S. opportunity at the University of Arkansas

M.S., and Ph.D. assistantships are available starting from Fall 2022 and Spring 2023 in Biological and Agricultural Engineering Department of University of Arkansas.

Minimal requirements:

- Majored in Agricultural Engineering, Electrical Engineering, Computer Engineering, Mechanical Engineering, or other related fields.
- Interested in research areas: computer vision, robotics, automation solutions for food manufacturing and precision agriculture applications.
- TOFEL: 79+

Other expectations:

- Has hands-on experience and skills about Python, C++, robotics, CAD drawings, Artificial Intelligence, ROS, Machine vision
- Applicants who have GRE writing score >4 are eligible to compete for doctoral fellowship (<https://graduate-and-international.uark.edu/graduate/costs-and-funding/fellowships-scholarships/doctoral-fellowships.php>). This will be additional support on the top of graduate assistantship offered by the professor.

If you are interested in the position, please email Dr. Dongyi Wang dongyiw@uark.edu with your CV.

Dongyi Wang, Ph.D.
 Assistant Professor
 Department of Bio & Ag Engineering
 University of Arkansas, Fayetteville, 72701
dongyiw@uark.edu
 479-575-5782



Postdoc and Ph.D. Positions at North Carolina State University

POSITION DESCRIPTION

One postdoctoral researcher and two fully funded Ph.D. student positions are available in [Dr. Lirong Xiang's](#) group in the Department of Biological and Agricultural Engineering at North Carolina State University. Prospective postdoc and doctoral students will pursue research in areas related to **robotics, machine vision, and artificial intelligence in agricultural applications**. The anticipated start date is Fall 2022, Spring 2023, or Fall 2023. For the postdoc position, the minimum salary will be \$52,000/year plus benefits and health insurance; the initial contract is one year, with the possibility for extension based on the availability of funding. The Ph.D. positions will provide monthly stipends, tuition coverage, health insurance, and travel support for conferences.

QUALIFICATIONS

- An Ph.D. or met all Ph.D. requirements (for postdoc position) or B.S. /M.S. (for Ph.D. position) in Agricultural Engineering, Computer Engineering, Electrical Engineering, Mechanical Engineering, or other closely related disciplines.

Experience or interest in at least of the following areas:

- * Robotics and automation
- * Computer vision
- * Machine learning, deep learning
- * Mechanical design
- * Electrical design
- Strong programming skills (e.g., C/C++, Python, MATLAB)
- Strong oral and written communication skills
- Minimum requirements for Ph.D. position:
 - * GPA > 3.0
 - * GRE test scores
 - * TOEFL > 80 with each section 18 or higher (if applicable)

HOW TO APPLY

If you are interested in any of those positions, please email your CV to Dr. Lirong Xiang at xiang@iastate.edu. Review of applications will begin immediately and continue until the positions are filled. Selected applicants will be contacted and interviewed virtually. A full application for the Ph.D. position should include a CV, transcripts, test score(s), personal statement, and three recommendations. More information about the application can be found at <https://www.engr.ncsu.edu/admissions/>.

ABOUT NCSU

NC State University is a public land-grant research university in Raleigh, North Carolina. The university forms one of the corners of the Research Triangle together with Duke University in Durham and the University of North Carolina at Chapel Hill. It is classified among "R1: Doctoral Universities – Very high research activity". In the 2022 U.S. News and World Report rankings, NCSU was ranked #26 in Best Engineering Schools and #3 in Best Biological/Agricultural Engineering Programs; Raleigh, NC was ranked #2 in Best Places to Live in the U.S.