ASSOCIATION OF OVERSEAS CHINESE AGRICULTURAL, BIOLOGICAL AND FOOD ENGINEERS

VOLUME 26 ISSUE 2

JUN. 25, 2026

IMPACT

PRESIDENT'S REMARK

Dear AOCABFE Members,

Welcome to the newest issue of the AOCABFE IMPACT newsletter! This is our final edition before we gather for the annual ASABE Annual International Meeting (AIM) in Indianapolis, and our executive board has been hard at work preparing an exciting lineup of activities.

Administrative Updates & Moving Forward

We recently hit a new milestone by conducting our first online voting for the 2025-2026 Officers through ASABE's Engage platform in March. Out of our 69 active members, 25 cast their votes—all of which were in favor. This is a fantastic start, and we hope to fully transition to this platform for future official communications and ballots. I highly encourage all active members to cast their votes in future elections.

As a quick membership reminder, when you renew your ASABE membership, please ensure you also pay your AOCABFE membership dues. This is required to maintain your active member status within the AOCABFE group on the Engage platform.

Additionally, I have been actively working on the formal incorporation of AOCABFE in Delaware. Now that we have the certificate of incorporation, the next step will be filing the federal forms to officially request our 501(c)(3) tax-exempt status.

ASABE AIM Events & Gathering

Our board members met in late April to finalize preparations for our activities before and during the ASABE AIM, and we have some excellent events planned. Dr. Ce Yang will be moderating this year's AOCABFE Exchange Forum, focusing on Research and Technology Transfer. She has invited a stellar panel of speakers—Drs. Roger Ruan, Jian Jin, and Zhiwu Wang—who bring extensive experience in industry and commercialization.

Following the forum, we will hold our Award Ceremony and Banquet. Finding a venue that can host a large group at a reasonable cost is always a challenge, but Dr. Lirong Xiang has done a wonderful job evaluating our options. We will be hosting our banquet at the China Garden Restaurant (华苑). Because it is located a bit further from downtown, Dr. Xiang is currently organizing a charter bus service to facilitate smooth transportation.

Webinars & Student Competitions

Our Student Activity Committee (SAC) recently organized an insightful webinar titled, "A Dialogue on Student Hiring: Navigating the Changing Landscape of Doctoral Recruitment." I want to extend my gratitude to SAC Chair Dr. Zhaocheng Xiang for his hard work in organizing this event, and to our panelists—Dr. Jian Jin (Purdue University), Dr. Zhou Zhang (University of Wisconsin-Madison), and Dr. Jiangong Li (China Agricultural University)—for sharing their strategies and providing valuable comparisons between the US and China. Looking ahead, another exciting webinar focused on leadership with Prof. Hongwei Xin is underway for early July. Thank you to Dr. Zhaocheng Xiang and our Program Engagement Chair, Dr. Ke Wang, for coordinating this upcoming session.

Our student competitions and member award nominations are also currently underway. This year, we received 7 student papers and 6 student research presentations. I want to thank Dr. Geng Bai for leading the evaluation efforts for the student competitions, as well as all of our board members for their time and dedication in reviewing the submissions.

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PRESIDENT'S REMARK

[Continued]

Acknowledgments & Milestones

I want to take a moment to thank Dr. Jiating Li for her excellent work leading the newsletter over this past year. I also want to express my deep appreciation to our Past President, Dr. Yeyin Shi, for her continued, invaluable guidance throughout my term.

Finally, I want to send a very special thank you and our warmest good wishes to Prof. Naiqian Zhang. Prof. Zhang, one of the founding members of AOC, is retiring this year. We are incredibly grateful for his legacy and foundational contributions to our community.

I look forward to seeing all of you in Indianapolis very soon!

Warm regards,

Yin Bao

2025-2026 President, AOCABFE

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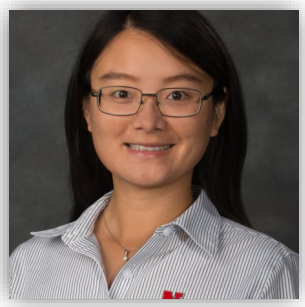
AOCABFE

AOC 2025-2026 Executive Board



SHI, YEYIN

University of Nebraska-Lincoln

PAST-PRESIDENT

BAO, YIN

University of Delaware

PRESIDENT

YANG, CE

University of Minnesota

PRESIDENT-ELECT

XIANG, LIRONG

Cornell University

VICE PRESIDENT

CHEN, CHANG

Cornell University

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University of Manitoba

NEWSLETTER EDITOR

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University of Georgia

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WANG, KE

Cornell University

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MEMBER-AT-LARGE

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North Carolina State University

MEMBER-AT-LARGE

XIANG, ZHAOCHENG

University of Florida

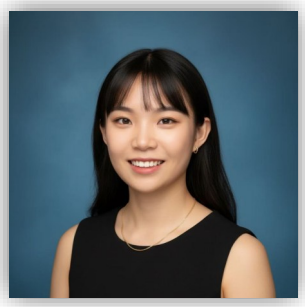
SAC Chair

SAC 2025-2026 Executive Board

XIANG, ZHAOCHENG
University of Florida
SAC CHAIR

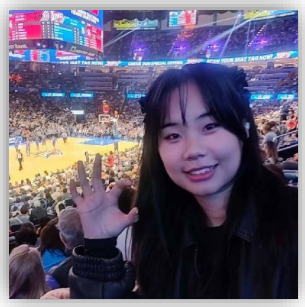
HE, WEILONG
Cornell University
PAST-SAC CHAIR

LIU, WENHAO
University of Florida
SAC VICE CHAIR



JI, LIYIKE
University of Florida
SAC VICE CHAIR

DU, RUIMING
Cornell University
SECRETARY



TAN, YING
Kansas State University
TREASURER

AOC Board Meeting Minutes

4:00-5:00 PM EDT, April 30, 2026

Attendees: Yin Bao (Chair), Yeyin Shi, Ce Yang, Lirong Xiang, Frank Bai, Jiating Li, Zhaocheng Xiang

1. Student Awards & Website Updates

- Competitions: Frank Bai is overseeing the AOCABFE student member awards, which include the Academic Achievement Award, Graduate Service Award, Paper Competition, and Presentation Competition.
- Timeline Revision: To ensure reviewers have adequate time, the deadline for the paper competition has been moved from June 20 to the end of May.
- Publicity: Zhaocheng Xiang will assist Frank in updating these deadlines and contact details on the official AOCABFE website, public accounts, and WeChat groups.

2. Banquet Logistics & Payment Solutions

- Venue Selection: Lirong Xiang is evaluating restaurant options to accommodate 80 to 100 people, focusing on reasonable pricing and transport convenience.
- Current Options: The board reviewed Asian Harbor (60–65 capacity, 19-minute walk) and Tianfu Restaurant (larger capacity, requires driving, higher cost).
- Transportation & Final Decision: The board decided to select a larger restaurant. Attendees will drive or carpool, as renting a bus (~$1,000) was deemed less optimal. Lirong will finalize the choice with Yin.
- Payment Processing: Yin, Zhaocheng, and Yeyin are developing an online ticketing solution. While Eventbrite was considered to simplify meal fee collections, Zhaocheng raised tax compliance concerns. The board recommends integrating payments directly through the official AOC organizational account.

3. Events & Technology Transfer Project

- Exchange Forum & Business Meeting: Ce Yang and Yin Bao discussed progress regarding the technology transfer project. The business meeting and exchange forum will share the same room, and the meeting time may extend to 5:30 PM. Ce will coordinate speaker invitations and logistics.
- June Workshop/Seminar: Zhaocheng and the SAC Team will begin planning a June seminar in May, working with Program Engagement Chair Ke Wang to select topics and invite speakers early. Yin recommended consulting faculty advisors for additional topic ideas.
- Newsletter: Jiating Li is tasked with editing and releasing the next newsletter by the end of June.

4. Leadership Transition & Elections

- Improving Voter Turnout: Past voting via the ASABE Engage platform saw low participation (25 out of 65 members). Ce will consult Sarah Rodriguez to improve procedures and promote electronic voting (on-site or pre-meeting) to boost engagement.
- Role Rotations: Yin, Ce, and Yeyin are finalizing upcoming officer positions. To save time during the annual business meeting, elections will be finalized beforehand via a nomination and advance voting procedure.
- Board Adjustments: Frank Bai will conclude his term as member-at-large this year. Board rotations for roles like secretary (with Ce and Jiating as current candidates) are being discussed, and absent members will be consulted. A suggestion to merge the treasurer and president roles will be deferred to the next term; the current structure remains unchanged.

5. Nonprofit Status Application

- Due to accountant availability, the progress on the nonprofit application has been delayed until early June. The estimated cost for this filing is approximately $1,000.

AOC Interview—Dr. Xu Zhou

My name is Xu Zhou (周旭). I am an Assistant Professor in the Department of Food Science at Pennsylvania State University. My research focuses on advanced food processing technologies and AI systems for next generation food manufacturing.

What's your educational background and professional experience?

I earned my PhD in Food Engineering, a master's degree in Agricultural Engineering, and a bachelor's degree in Mechanical Engineering. After my PhD, I did two postdoctoral training: first at University of Washington, then at UC Davis (AI Institute for Next Generation Food Systems). I joined the Penn State faculty in June 2026.

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

Several reasons. First, I was told that a PhD from the US would make me more competitive for an academic job. But the second reason is more important: I did my master's in China. The first step for any new project was to read the leading papers. Many came from groups outside China, especially from the United States. From my own early work, and from what senior students taught me, just follow the leading papers, add a small "innovation," and publication came easily. I always wanted to know why researchers in the US could do pioneer work, and why they did not need to follow or copy others. So, I decided to go abroad to find my answer.

My master's advisor, Dr. Shaojin Wang, was very supportive. He recommended several labs in the US and funded my travel to the ASABE Annual International Meeting in Detroit, Michigan, in 2018, where I met my PhD advisor, Dr. Juming Tang.

What is the biggest challenge you have faced, or are currently facing, in your profession?

The hardest part is to build a lab from zero and, at the same time, to define a research program I believe in for the long term. As a PhD student or postdoc, you are assigned one project or several to work on for a few months or years. As a PI, I have to choose the questions I really want to pursue, that the field needs, that can carry a career for decades, and that are no same from the work of my PhD or postdoc labs. To meet all of them is not easy.

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

I work on AI. My goal is to build AI systems that automate wet lab and dry lab work. One day they may even replace me.

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

A few suggestions: (1) English: good English puts you halfway there. Make more friends with whom you speak only English. (2) Strong faculty candidates usually have a good record in education background, publications, grant writing, and teaching (or extension) as well as good communication. You need all of them. (3) Postdoc training is necessary and I strongly suggest you step out of your comfort zone and learn new things in a different lab. (4) Patience: the job market does not post openings every month, and sometimes several appear at once. Do not worry about the openings; just prepare yourself. My advisor once told me: "when you are ready for a faculty job, you will get an offer or even multiple".

SAC Student Activities - AOC Seminar Panel

Leadership in Academic Career

Jun. 6, 2026 | 8:00 - 9:00 PM US EDT | Zoom Online Meeting

Dr. Hongwei Xin

Dean, Director, and Professor

UT AgResearch

On the research path of Agricultural and Biological Engineering in North America, we often find ourselves fully immersed in optimizing code, processing sensor data, or planning field trials. However, as we step into a new stage of our academic careers—whether it is heading a large-scale interdisciplinary project, managing our own lab, or rising to prominence in international professional societies—we inevitably face a shared challenge: **How do we transition from an excellent "executor" to an exceptional "leader"?**

Academic leadership is far more than just "being the person in charge." It is about establishing academic influence, unlocking team potential, efficiently allocating research resources, and navigating the diverse North American academic ecosystem with confidence and ease.

In this upcoming seminar, we are truly honored to invite the Dean of UT AgResearch, Dr. Hongwei Xin, from our field to share the leadership wisdom and practical strategies they have cultivated throughout their long academic journeys.

Outline

- Role Transition: A comparative look at the research-focused path (diving deep, securing publications) versus the leadership-focused path (broadening scope, securing resources), focusing on the mindset breakthrough of shifting from a "do-it-all-myself" approach to effective team delegation and management, and whether one can successfully balance and achieve both.
- Youth Leadership: How graduate students and early-career scholars can earn leadership through communication and organizational skills even without formal administrative titles, and how to utilize leadership thinking for bidirectional management, both downward mentoring and upward management with advisors and PIs.
- Cultivating Leadership: An evaluation of whether leadership is simply a "plus" or an absolute "must-have" when aiming to become a big PI in academia versus moving into management in industry, alongside practical ways early-career scholars can proactively build leadership skill sets within daily lab management and professional societies like ASABE and AOCABFE.

Time: 8:00-9:00 PM, Mon, Jul 6, 2026 (EST)

Meeting ID: 932 8129 6726

Passcode: 516659

Link: https://cornell.zoom.us/j/93281296726?pwd=CabXawE3BXJrbhk90LYst29ehamJzW.1

AOCABFE Activities

Purdue Plant Phenotyping Facility Tour

Jun. 16, 2026 | 10:30 AM - 12:30 PM US EDT | West Lafayette, IN

Dr. Jian Jin

Associate Professor
ABE, Purdue Univ.

Interested in plant phenotyping, agricultural robotics, or advanced imaging technologies? Join us for a special visit to Purdue University's Plant Phenotyping Facility, where we will tour the facility and see demonstrations of several new imaging sensors.

- Date: July 16
- Time: 10:30 AM – 12:30 PM
- Location: Purdue University

The event is open to students and researchers who are interested in plant science, phenotyping, sensing technologies, and related research areas. If you have no other plans that morning, you are warmly welcome to join us for the tour, discussions, and networking.

We look forward to seeing you there! For more information, please contact Dr. Jin Jian via WeChat message or email at jinjian@purdue.edu.

FDA Approves First Commercial Foods Processed Using MATS Microwave Technology

The Food and Drug Administration (FDA) has approved the first commercially produced food processed using Microwave Assisted Thermal Sterilization (MATS) technology. This innovative preservation method was invented and developed by Juming Tang, the Frank Jungers Endowed Chair of the Department of Industrial & Systems Engineering at the University of Washington (UW).

While conventional thermal processing and canning methods often compromise food quality due to prolonged exposure to high heat, MATS utilizes electromagnetic microwaves at a precise frequency of 915 MHz. This allows for volumetric heating, which drastically reduces both the time and temperature required to eradicate dangerous foodborne pathogens like Salmonella, E. coli, and Listeria. By minimizing heat exposure, the MATS technology successfully preserves the natural taste, vibrant colors, texture, and nutritional value of packaged foods far better than traditional canning, all while remaining highly scalable for commercial industrial use.

Tang's research has garnered significant support from major organizations, including the U.S. Department of Defense, the USDA, NASA, and several large food corporations. Having recently joined the UW faculty with joint appointments in mechanical engineering and industrial and systems engineering, Tang aims to build on this milestone. His broader, ten-year vision includes utilizing smart, AI-driven, microwave-assisted processing machines to create a decentralized, sustainable "circular" bioeconomy. This network of regional hubs would connect consumers more directly to fresh agricultural yields while drastically reducing the length, energy consumption, and environmental impact of the global food distribution chain.

Juming Tang joined the UW last year with joint appointments in mechanical engineering and industrial and systems engineering. Amy Sprague photo

Source for the original news: https://www.engr.washington.edu/news/article/2025-03-10/immaculate-consumption

For Turning Food Waste into Renewable Energy, Professor Ruihong Zhang Named 2026 Yolo County Climate Crisis Champion

Professor of Biological and Agricultural Engineering Ruihong Zhang has received the 2026 Yolo County Climate Crisis Champion award from Rep. Mike Thompson, who serves California's fourth congressional district.

Each year, Rep. Thompson gives the award to community members across the congressional district, which spans from Lake County in the north to Yolo County in the south, to honor their outstanding efforts to address the ongoing climate crisis.

Zhang's research explores how agricultural waste can be diverted into beneficial and productive systems. This includes creating edible products made from mushrooms that feast on food waste to dairy byproducts that serve as the basis for environmentally friendly bioplastics.

In 2014, Zhang spearheaded the development of the UC Davis Renewable Energy Anaerobic Digester, or READ, a facility that converts 20 tons of food waste into renewable energy and biofertilizers every day.

"Dr. Zhang has helped transform the ecological health of Yolo County through her research," Rep. Thompson said. "Through her work developing READ, Dr. Zhang has helped to both protect our climate by disposing of waste sustainably and benefit our economy by providing cheap electricity, fuel and fertilizer. I am honored to name Dr. Ruihong Zhang a Climate Crisis Champion."

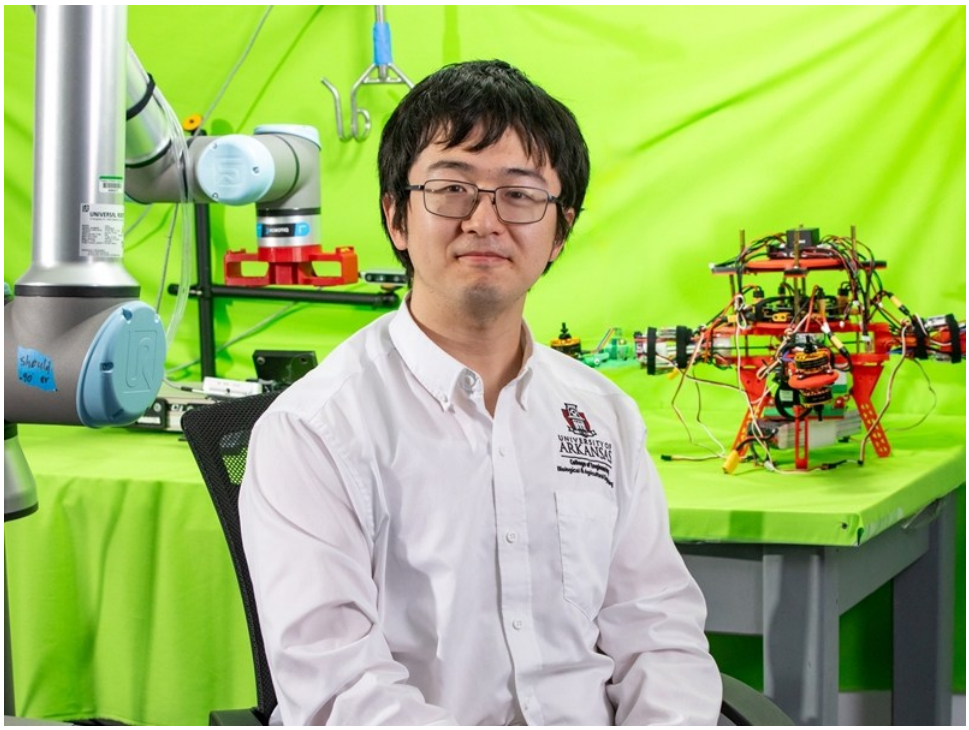
Professor Ruihong Zhang, left, accepts the Climate Crisis Champion award from Rep. Mike Thompson.

Source for the original news: https://engineering.ucdavis.edu/news/turning-food-waste-renewable-energy-professor-named-climate-crisis-champion

NSF CAREER Award to Study Use of Robotics to Handle Soft Foods

University of Arkansas assistant professor Dongyi Wang has received a prestigious $511,074 NSF CAREER award to develop autonomous manufacturing systems capable of handling soft foods with precision and adaptability. While conventional automation excels in rigid manufacturing environments, it frequently struggles with the irregular shapes and delicate textures of agrifood products. Wang's research aims to solve these challenges, addressing critical labor shortages and harsh working conditions in the food processing industry by creating a highly responsive robotic system.

The project focuses on customizing an off-the-shelf robotic arm using a three-pronged approach. First, the system utilizes noninvasive hyperspectral imaging to analyze chemical signatures—such as protein, moisture, and fat—allowing the robot to determine an object's texture and apply the exact required gripping force. Second, it employs an advanced imitation learning algorithm where human-guided demonstrations establish a baseline for delicate food manipulation, building upon Wang's previous invention, the ChicGrasp gripper. Finally, the research ensures cross-commodity adaptability, enabling the robot to seamlessly transfer its learned grasping skills to entirely new items like oranges, apples, and pears without needing extensive retraining.



Dongyi Wang, an assistant professor of agricultural and biological engineering and researcher with the U of A Division of Agriculture.

Source for the original news: https://news.uark.edu/articles/81143/nsf-career-award-to-study-use-of-robotics-to-handle-soft-foods

From Pixels to Actionable Insights—A Webinar by Dr. Yin Bao

Yin Bao was invited by the President of the African Networking Group of the American Society of Agricultural and Biological Engineers (ANGASABE), Dr. Toby Adjuik, to give an online webinar to their members on May 30. They are the counterpart of AOCABEF for the African community within ASABE. Attached is a screenshot.

Dr. Yin Bao is currently an Assistant Professor in both Plant and Soil Sciences and Mechanical Engineering. He is also current president of AOCABFE. Prior to joining the University of Delaware in 2023, he has been an Assistant Professor in the Department of Biosystems Engineering at Auburn University since 2019. He received his BE degree in Mechanical Engineering from China Agricultural University in 2012 with a focus on automotive electronics. Dr. Bao earned his Ph.D. in Agricultural and Biosystems Engineering from Iowa State University (ISU) in 2018 and continued his postdoctoral research at ISU until 2019. His research focuses on automation technology for facilitating scientific discoveries and advancing production systems in agriculture and forestry. Specifically, he leverages sensors, multimodal imaging, machine/deep learning-based predictive models, unmanned ground/aerial vehicles, and robotics to develop reliable, affordable, and efficient tools for rapid phenotyping and precision farming of crops and livestock.

2026 Agricultural AI Development Conference Held in Beijing

The 2026 Agricultural Artificial Intelligence Development Conference was held in Beijing from May 16 to 18. Hosted by the Chinese Society of Agricultural Engineering, the conference brought together experts from universities, research institutes, agricultural enterprises, and investment institutions to discuss the latest advances in agricultural AI, key technologies, practical applications, and pathways for commercialization. The conference focused on major topics such as agricultural foundation models, agricultural robotics, intelligent equipment, smart agricultural machinery, pest and disease monitoring, and real-world AI applications in farming. Experts shared progress in areas including intelligent decision-making, smart sensing, precision farming, and smart farm development, highlighting how AI is becoming increasingly integrated into agricultural production, management, and services. During the event, the Smart Agriculture Collaborative Innovation Consortium of the Chinese Society of Agricultural Engineering was officially launched, and several agricultural foundation model achievements were released. The conference showed that China's agricultural AI research is moving beyond individual technological breakthroughs toward integrated systems and large-scale application, with smart agriculture, intelligent machinery, and agricultural foundation models becoming key directions in agricultural engineering.

Source for the original news: https://www.stdaily.com/web/gdxw/2026-05/18/content_518389.html

China's First "Safe and Trustworthy Agricultural Foundation Model" Released in Yangling

On May 29, a research team from Northwest A&F University released "Ji'an Zhisuan," China's first safe and trustworthy agricultural foundation model, in Yangling, Shaanxi Province. The model is designed to address key challenges in agricultural AI applications, including data security, privacy protection, model reliability, and risk control. Compared with conventional agricultural foundation models, Ji'an Zhisuan not only supports agricultural knowledge services and production decision-making, but also places stronger emphasis on accuracy, explainability, and trustworthy output. To reduce risks such as inaccurate recommendations, incorrect diagnoses, and data leakage in real-world farming scenarios, the model includes a dedicated security framework to improve the reliability of AI-powered agricultural services. The release of Ji'an Zhisuan reflects an important shift in agricultural AI: from models that can simply answer questions to systems that can provide reliable, production-ready support. As agricultural data, intelligent equipment, and digital farming scenarios become more closely connected, safety and trustworthiness will be essential for bringing AI technologies into farms, supporting growers, and informing industry-level decisions.

Source for the original news: https://news.sciencenet.cn/htmlnews/2026/5/565716.shtm

CIGR-EurAgEng World Congress 2026

Jun. 24-26, 2026 | Politecnico di Torino, Turin, Italy

On behalf of the Organizing Committee, we are pleased and honored to welcome you to the Joint CIGR–EurAgEng World Congress 2026, themed "*Emerging Technologies and Innovation in Biosystems Engineering*."

This distinguished event brings together leading researchers, professionals, and stakeholders from around the world to exchange scientific advances, practical insights, and forward-looking perspectives in the field of biosystems engineering.

The response from the international community has already been outstanding: more than 770 participants have registered and over 670 abstracts have been submitted so far.
To welcome even more high-quality contributions, the abstract submission deadline has been extended to 15 March 2026.

In nearly a century of history, this is only the second time that this prestigious congress is held in Italy, after the 1994 edition in Milan. The event is jointly organized by the International Commission of Agricultural and Biosystems Engineering (CIGR) and the European Society of Agricultural Engineers (EurAgEng), bringing together the global scientific community working at the intersection of engineering, agriculture, and sustainability.

We are confident that the Congress will serve as a dynamic platform for scientific dialogue, cross-disciplinary collaboration, and the dissemination of innovative solutions to address global challenges in agriculture, environmental sustainability, and resource management.

We invite you to actively engage in the sessions, share your expertise, and build new collaborations that will shape the future of Biosystems Engineering, Artificial Intelligence, research, and innovation for a more sustainable and resilient world.

We look forward to welcoming you to Turin.

Warm regards,

Patrizia Busato, Remigio Berruto
Presidents, CIGR–EurAgEng World Congress 2026

Fedro Zazueta
Chair of the Scientific Committee

Link: https://www.cigr-eurageng-2026.org/homepage/

ASABE meets for the 119th annual meeting in Indiana this July bringing together members from the US and around the globe to expand awareness of current industry trends, promote and acknowledge innovations in design and technology, and provide opportunities for professional development – all with a focus on the economic, political, and societal impacts facing the industry.

Over 1,600 people are expected to attend the 2026 AIM in Indy! Join us to share your expertise, professional insights, and industry best practices by becoming a presenter in one of the more than 120 technical sessions expected. Interact with the industry's best and brightest engineers and engineering students while imparting your knowledge.

This year, we are introducing a new method of session titling. Session titles will be determined after abstracts have been received and sorted, creating sessions that YOU shaped with topics that you want to discuss. To get you started, we have compiled a list of topics to submit to. These topics are spread out over our 11 Technical Communities, listed below. Simply select the group of topics that you feel fits your abstract best. Then, with the help of the session organizers, the session title engine will organize submissions to place them to the best fitting groups and create the session titles.

ASABE is seeking abstracts for the following technical communities:

Applied Science & Engineering
Circular Bioeconomy Systems Institute
Energy Systems
Ergonomics, Safety & Health
Education, Outreach & Professional Development
Global Engagement
Information Technology, Sensors & Control Systems
Machinery Systems
Natural Resources & Environmental Systems
Plant, Animal, and Facility Systems
Processing Systems

Link: https://asabeaim.org/

IGARSS2026 Washington D.C.

IEEE GRSS Geoscience and Remote Sensing Society

Aug. 9-14, 2026 | Washington D.C., USA

The International Geoscience and Remote Sensing Symposium (IGARSS) is the flagship conference of the IEEE Geoscience and Remote Sensing Society (GRSS). On behalf of the Organizing Committee, we are honored to invite you to attend the 46th IGARSS which is to be held in Washington, D.C., the United States of America, on 9-14 August 2026.

The theme of IGARSS 2026 is the Future of Earth Observations. IGARSS 2026 will examine the future Earth observation technologies for solving grand challenges faced by our Earth and society and promote collaborative global solutions using such technologies. IGARSS 2026 will provide an excellent experience for its attendees through strong technical and social programs, and opportunities for collaboration regionally and globally.

General Co-Chairs

Liping Di,
IEEE Fellow, Director
CSISS, George Mason University, Fairfax, VA, USA

Michael Seablom,
IEEE Member, Associate Director
Earth Science Division, NASA Headquarters, Washington, D.C., USA

Mitch Goldberg,
IEEE Member, Distinguished Research Professor
City College of New York for the NOAA Center for Earth System Sciences and Remote Sensing Technologies (CESSRST), NY, USA

Link: https://2026.ieeeigarss.org/

世界农业科技创新大会（英文缩写：WAFI）是一个致力于推动农食系统融合创新的国际交流与合作平台。依托每年举办的国际年度大会，并通过贯穿全年的常态化交流与协作机制，WAFI持续促进农食系统转型升级，推动政府、产业、学术、科研与应用等多方深度对话与协同合作，共同应对粮食安全、气候变化与可持续发展等全球性挑战。WAFI致力于构建一个健康、韧性、包容、可持续的农食未来，为全球创新者搭建务实、长期、开放的合作桥梁。

2026世界农业科技创新大会以“农食系统绿色低碳转型”为主题，于2026年9月17日至19日在中国北京平谷举行，届时将举办开幕式、全体会议、专题会议、平行会议、边会、创新秀、博览会等多场次、多类型的同期活动。

今年大会将继续邀请影响全球农业发展的科研界、教育界、企业界嘉宾，以及各国政府、国际和地区组织、商协会、投融资机构等领域代表参与，共话世界农业科技创新前沿话题，共享农业科技创新成果，加强产学研合作及成果转化，推动世界农业科技、政策、模式等创新，培育全球农业发展新动能，打造农业科技“达沃斯”。

大会同期举办的2026世界农业科技博览会，将集中展示全球农业领域的前沿成果、尖端技术、先进模式、优质项目、创新产品等，致力于打造全球农业科技领域具有代表性和标志性的专业展会，搭建全球农业科技展览展示、分享交流、投资促进、洽谈合作的优质平台。

活动主题：人工智能与数字技术、新型食品、营养与健康、畜牧业和水产、生物技术、政策和治理、复原力和可持续性、小农场主、金融、女性就业。

会议官网：www.wafiforum.com
会议时间：2026年9月17-19日
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The 3rd International Symposium on Cellulose and Renewable Materials (ISCRM 2026) will be held from November 27 to 29, 2026, in Nanjing, Jiangsu Province, China. The symposium is organized by the Cellulose and Biomass Chemistry Committee of the Chinese Chemical Society and Nanjing Forestry University. The inaugural symposium took place in Wuhan in 2021, adopting a hybrid model (online + offline) that connected experts and scholars in the field of cellulose worldwide. The second edition was successfully convened in Chengdu in 2024, further advancing academic exchanges within the field.

This upcoming symposium will focus on cutting-edge technologies and the latest achievements in the field of cellulose and renewable materials. In-depth discussions will center around key research hotspots, including the high-value utilization of biomass resources, nanocellulose functional materials, cellulose-based green packaging, and biomass energy conversion. The symposium aims to establish a high-level, interdisciplinary, and international academic exchange platform, bringing together experts and scholars from universities, research institutions, and related industries worldwide. Through keynote lectures, invited presentations, young scientist forums, and poster sessions, participants will share the latest research advances, stimulate innovative thinking, and promote deep integration among academia, industry, and application.

As the ancient capital of six dynasties and a renowned center of culture and learning, Nanjing warmly welcomes you. The organizing committee sincerely invites experts, scholars, and industry professionals in the field of cellulose and renewable materials to gather in Nanjing for this prestigious academic event, and to jointly shape a sustainable future!

Early Registration: Sep. 30, 2026
Abstract Submission: Jul. 31, 2026
Conference Date: Nov. 27-29, 2026
Website: https://www.chemsoc.org.cn/meeting/en/ISCRM2026/

AGU ANNUAL MEETING

7–11 December 2026 | San Francisco, CA

At the intersection of global food security and accelerating climate volatility, the upcoming AGU Annual Meeting (December 7–11, 2026 | San Francisco, CA) is hosting Session B031: Crop Modeling, Data Assimilation, and Machine Learning for Agricultural Decision Support. This session serves as a critical forum for converging mechanistic understanding with data-driven innovation to build resilient agricultural systems.

Modern agro-ecosystems face unprecedented pressures from compounding biotic and abiotic stressors. To translate complex environmental data into actionable insights, this session invites contributions across three deeply interconnected thematic pillars:

- Mechanistic Crop Modeling: Investigating the complex physiological responses of crops to climate variability, resource scarcities, and extreme weather events to predict yield vulnerabilities.
- Data Assimilation & Hybrid Frameworks: Exploring the methodological synthesis of empirical Earth observations and physical crop models using advanced machine learning architectures, bridging the gap between theoretical modeling and real-world observation.
- AI/ML for Decision Support: Developing scalable, transparent, and interpretable predictive pipelines capable of delivering localized, decision-relevant insights across diverse regional scales.

Led by a collaborative convening team from UW-Madison (Zhou Zhang, Licheng Liu, Zezhong Tian), Columbia University (Meijian Yang), and Cornell University (Danyang Yu), Session B031 aims to pioneer the next generation of smart agricultural interventions. Researchers are invited to submit their abstracts to help shape the predictive frameworks defining the future of global agronomic sustainability.

UM | Faculty of Agricultural and Food Sciences

Position Description

Dr. Jiating Li's lab at the Department of Biosystems Engineering, University of Manitoba is actively recruiting highly motivated graduate students (MSc or PhD level). Successful candidates will receive full stipend support. My lab specializes in digital technologies for agri-food systems, with a focus on proximal and remote sensing, multimodal (optical) sensors, robotics and automation systems, Internet-of-Things, and the integration of AI and process-based models (knowledge-guided machine learning).

Minimal Qualifications

- Qualified applicants must have earned a bachelor's (for MSc) or master's (for PhD) degree in Agricultural and Biological Engineering, Biosystems Engineering, Computers and Electrical Engineering, Computer Science, Mechanical Engineering, or other related fields.
- Meet the minimum admission and English language proficiency requirements of the Faculty of Graduate Studies.

Preferred Qualifications

- Programing skills in Python, R, Matlab, C++, etc.
- Machine learning and deep learning.
- Process-based modeling (e.g., radiative transfer model, crop growth model, climate model).
- Remote sensing (e.g., UAV, satellite, optical sensing, 2D/3D image processing).
- Mechatronics and robotics (e.g., mechanical design, Robot Operating System).
- Records of previous scientific publications.

About the University

As a member of the U15 Group of Canadian Research Universities, the University of Manitoba is one of Canada's leading research-intensive institutions. With more than 145 years of history, it is the oldest university in Western Canada. The university has strong research capacity and international recognition in agriculture, food, engineering, health, and many other fields. Specifically, our faculty (Faculty of Agriculture and Food Sciences) has been ranked 2nd in Canada by Shanghai Ranking's 2024 Global Ranking of Academic Subjects. Learn more at https://umanitoba.ca/about-um/facts-figures

Application Process

If you are interested in joining us, please email Dr. Li (jiating.li@umanitoba.ca) with a statement of intent (2-page maximum), Curriculum Vitae, copies of all post-secondary transcripts, and a writing sample (if available). Applications will be reviewed immediately. Please understand that, due to the large volume of emails received, I may not be able to reply to all email inquiries. I accept applications on a rolling basis, but note that each term has its own online application deadline, please check the details here.

Scan the code to learn more about Dr. Jiating Li:

DEPARTMENT OF
BIOSYSTEMS AND
AGRICULTURAL ENGINEERING

Graduate Research Assistantship (MS/Ph.D.)

The Zeng Lab in the Department of Biosystems & Agricultural Engineering at Oklahoma State University is seeking multiple self-motivated and research-driven MSc and PhD students to join the team beginning Fall 2026 (with possible Summer 2026 start). This is a funded Graduate Research Assistantship (GRA) opportunity that includes tuition coverage, competitive stipend, and health insurance. The Zeng Lab focuses on advancing next-generation agricultural machinery systems through physics-based modeling, digital twins, intelligent sensing, and sustainable mechanization strategies. Students joining the lab will work at the intersection of computational modeling, experimental validation, and industry-driven innovation. Full application instructions are provided in the final section.

Research Vision & Lab Overview

Modern agricultural machinery is becoming increasingly complex, data-rich, and performance-sensitive. The Zeng Lab is developing advanced digital engineering frameworks to accelerate innovation, improve machine–soil interaction understanding, and enable sustainable mechanization. The lab integrates high-fidelity physics-based simulation with experimental validation (including soil bin testing and field experimentation) to create robust, predictive engineering tools that support both academic advancement and industry collaboration.

- Digital twin frameworks for agricultural machinery
- Soil–machine interaction modeling
- DEM/CFD/MBD coupling
- Virtual prototyping for industry innovation
- Intelligent sensing integration
- Sustainable mechanization systems

Required Skills

- Engineering background (Mechanical Engineering, Biosystems/Agricultural Engineering, or closely related fields)
- Strong quantitative foundation (statistics, experimental design, applied mathematics, etc.)
- Programming experience (Python, MATLAB, or similar tools)

Preferred Qualifications

- Peer-reviewed publication experience
- DEM / CFD / MBD / FEM experience
- AI applications in agriculture

Application Procedure: Applications are accepted by email (bob.zeng@okstate.edu) only. Inquiries without the required documents will not be reviewed. Please include the following documents (Please combine all materials into a single PDF file whenever possible):

- CV
- A statement of interest (maximum 2 pages) describing research aspirations, technical interests, and alignment with the Zeng Lab research program
- Transcripts (unofficial is okay)
- Contact information for 3 references

DEPARTMENT OF BIOSYSTEMS AND AGRICULTURAL ENGINEERING

Postdoctoral Research Associate

Biological Systems Engineering
COLLEGE OF AGRICULTURAL & LIFE SCIENCES
UNIVERSITY OF WISCONSIN-MADISON

Digital Twin Modeling and Precision Nutrient Management Systems for Sustainable Dairy Production

The Zeng Lab at Oklahoma State University (OSU), in collaboration with Dr. Matthew Digman at the University of Wisconsin–Madison (UW), invites applications for a fully funded two-year Postdoctoral Research Associate position (July 1, 2026 – June 30, 2028). This position focuses on advancing precision manure injection and nutrient management systems through integrated digital modeling, controlled experimentation, and field-scale validation to improve sustainability and profitability in dairy production systems.

Position Overview

The successful candidate will play a leadership role in developing a digital twin framework for precision nutrient application systems, integrating simulation, laboratory experimentation, and on-farm validation. Core responsibilities include:

- DEM-based soil–tool interaction modeling
- Development and calibration of a virtual soil bin environment
- Soil bin construction and instrumentation setup
- Field validation trials (fuel consumption, nutrient retention, economic analysis)
- Optimization of low-disturbance liquid manure injector designs
- Technology transfer and outreach to stakeholders

The postdoctoral researcher will collaborate closely with faculty at OSU and UW, co-mentor graduate students, and contribute to major grant proposals. The position offers strong professional development in research leadership, interdisciplinary collaboration, and academic career preparation. This role is ideal for a candidate seeking a future faculty or advanced R&D career in agricultural machinery systems, soil dynamics, precision agriculture, or sustainable nutrient management.

Required Qualifications

- Ph.D. in Agricultural/Biosystems Engineering, Mechanical Engineering, Civil Engineering (Geotechnical), or a closely related field
- Demonstrated expertise in granular material modeling (e.g., DEM) or advanced numerical simulation methods (e.g., DEM-CFD coupling)
- Strong record of peer-reviewed publications
- Excellent English communication and scientific writing skills
- Ability to work independently while contributing to collaborative research teams

How to Apply

Application materials should be sent via email with the subject line "Postdoc Application 2026 [Your Name]" to BOTH:

Dr. Bob Zeng – bob.zeng@okstate.edu

Dr. Matthew Digman – digman@wisc.edu

UNIVERSITY OF ARKANSAS

Ph.D. opportunity at the University of Arkansas

One Ph.D. assistantship is available starting from Spring/Fall 2027 in the Department of Biological and Agricultural Engineering at the University of Arkansas. Prospective students will conduct independent and creative research in the Smart Agricultural and Food Engineering (SAFE) lab under the supervision of Dr. Dongyi Wang. The position is supported by the National Science Foundation (NSF) and focuses on developing AI, robotics, and machine vision solutions for smart agriculture and food manufacturing. The assistantship package will include the stipend ($33,000/year), tuition support, and benefits.

Minimal Requirements

- Majored in Agricultural Engineering, Electrical Engineering, Computer Engineering, Mechanical Engineering, or other related fields.
- Interested in research areas: Sensors, AI, robotics learning, and automation solutions for agrifood manufacturing.
- TOFEL: 79+ or IELTS: 6.5+
- Strong oral and written communication skills.

Preferred Qualifications

- Hands-on experience and skills in: Python, C++, Robotics, Artificial intelligence, ROS, Machine vision, CAD drawings, Electrical and mechanical design.
- Publications in robotics, AI, or computer vision conferences/journals

Additional Details

- Ph.D. Applicants who have a GRE writing score >4 are eligible to compete for a doctoral fellowship (https://graduate-and-international.uark.edu/graduate/costs-and funding/fellowships-scholarships/doctoral-fellowships.php). This will be additional support ($12,000/$22,000 per year) on top of the graduate assistantship offered by the professor.
- The University of Arkansas is the R1 flagship of the University of Arkansas System. The campus is located in Fayetteville, AR, which is regularly ranked in the top 5 best places to live in the U.S. The Northwest Arkansas (NWA) region is the top 100 metropolitan area and the top 20 fastest growing area in the U.S. NWA is also the hometown of big companies such as Walmart, Sam's Club, Tyson Foods, J.B. Hunt, which offer great job opportunities for data scientists, automation engineers, and food engineers.

If you are interested in the position, please email Dr. Dongyi Wang (dongyiw@uark.edu) with your CV. Potential candidates will be invited for online interviews.

NDSU AGRICULTURAL AND BIOSYSTEMS ENGINEERING

M.S. Graduate Research Assistantship Position

Agricultural and Biosystems Engineering, North Dakota State University

Position Description

Dr. Iris Feng in the Department of Agricultural and Biosystems Engineering at North Dakota State University is seeking a highly motivated M.S. student to join her research group. The position focuses on biosensing technologies, environmental and natural resource management, disease monitoring and management, and precision agriculture applications. This position includes a Graduate Research Assistantship that provides full tuition coverage and a competitive stipend, renewable annually for up to two years based on satisfactory academic and research progress. The anticipated start date is Fall 2026.

The successful applicant will be enthusiastic about interdisciplinary research, eager to develop new technical and analytical skills, and capable of working both independently and collaboratively with graduate and undergraduate students, technicians, research staff, faculty, and external partners.

Minimum Qualifications

- B.S. degree in Agricultural Engineering, Natural Resource Management, Plant Science, Horticulture, or a closely related field.
- Minimum cumulative GPA of 3.0.
- Willingness to conduct research in both laboratory and field environments and collaborate with multiple stakeholders.
- Strong self-motivation and ability to work independently.
- Excellent written and verbal communication skills in English.
- For applicants with non-English academic credentials: TOEFL iBT score of 85 or higher, or IELTS score of 6.5 or higher.

Preferred Qualifications

- Experience with data analysis using programming tools such as R and Python.
- Experience with field research design, data collection, and field management.
- Background or interest in precision agriculture and biosensor technologies.

Contact Information

Dr. Iris (Xiaoyu) Feng, Ph.D., Assistant Professor
Department of Agricultural and Biosystems Engineering, North Dakota State University
Email: xiaoyu.feng.1@ndsu.edu

NDSU AGRICULTURAL AND BIOSYSTEMS ENGINEERING

Ph.D. Graduate Research Assistantship Position
Controlled Environment Agriculture

Agricultural and Biosystems Engineering, North Dakota State University

Position Description

Dr. Iris Feng in the Department of Agricultural and Biosystems Engineering at North Dakota State University is seeking a highly motivated Ph.D. student to join her research group. The position focuses on controlled environment agriculture technologies, energy-efficient system operations and modeling, and water-energy-food system interactions. This position includes a Graduate Research Assistantship that provides full tuition coverage and a competitive stipend, renewable annually based on satisfactory progress. The anticipated start date is Summer 2026.

The successful applicant will be enthusiastic about interdisciplinary research, eager to develop new technical skills, and capable of working both independently and collaboratively with graduate and undergraduate students, technicians, research staff, faculty, and external partners.

Minimum Qualifications

- B.S. or M.S. degree in Agricultural Engineering, Environmental Engineering, or a closely related field. Applicants without an engineering degree must demonstrate completion of equivalent foundational engineering coursework.
- Minimum cumulative GPA of 3.0.
- Willingness to conduct research in both laboratory and field environments and collaborate with multiple stakeholders.
- Strong self-motivation and ability to work independently.
- Excellent written and verbal communication skills in English.
- For applicants with non-English academic credentials: TOEFL iBT score of 85 or higher, or IELTS score of 6.5 or higher.

Preferred Qualifications

- Experience with interpretable machine learning or data-driven modeling approaches.
- Proficiency in at least one programming language (e.g., Python, R).
- Experience with process-based modeling or familiarity with building energy simulation tools such as EnergyPlus.
- Background in energy efficiency analysis and life cycle assessment (LCA).

Contact Information

Dr. Iris (Xiaoyu) Feng, Ph.D., Assistant Professor
Department of Agricultural and Biosystems Engineering, North Dakota State University
Email: xiaoyu.feng.1@ndsu.edu

NDSU AGRICULTURAL AND BIOSYSTEMS ENGINEERING

Ph.D. Graduate Research Assistantship Position
Water Quality

Agricultural and Biosystems Engineering, North Dakota State University

Position Description

Dr. Iris Feng in the Department of Agricultural and Biosystems Engineering at North Dakota State University is seeking a highly motivated Ph.D. student to join her research group. The position focuses on water quality, best practice management (vegetated buffer) and nutrient management. This position includes a Graduate Research Assistantship that provides full tuition coverage and a competitive stipend, renewable annually based on satisfactory academic and research progress. The anticipated start date is Summer/ Fall 2026.

The successful applicant will be enthusiastic about interdisciplinary research, eager to develop new technical and analytical skills, and capable of working both independently and collaboratively with graduate and undergraduate students, technicians, research staff, faculty, and external partners.

Minimum Qualifications

- B.S. or M.S. degree in Agricultural Engineering, Environmental Engineering, Natural Resource Management, or a closely related field.
- Minimum cumulative GPA of 3.0.
- Willingness to conduct research in both laboratory and field environments and collaborate with multiple stakeholders.
- Strong self-motivation and ability to work independently.
- Excellent written and verbal communication skills in English.
- For applicants with non-English academic credentials: TOEFL iBT score of 85 or higher, or IELTS score of 6.5 or higher.

Preferred Qualifications

- Experience with field research design, data collection, and field management.
- Experience with data analysis using programming tools such as R and Python.
- Background or interest in water quality and nutrient analysis.

Contact Information

Dr. Iris (Xiaoyu) Feng, Ph.D., Assistant Professor
Department of Agricultural and Biosystems Engineering, North Dakota State University
Email: xiaoyu.feng.1@ndsu.edu

FAMU COLLEGE OF AGRICULTURE + FOOD SCIENCES
FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY

Postdoctoral Researcher Position in Digital Agriculture

Institution: Florida A&M University

College: College of Agriculture and Food Sciences

Program: Biological Systems Engineering

Location: Tallahassee, Florida (remote possible as approved)

Position Summary:

Dr. Jingqiu Chen's lab invites applications for a Postdoctoral Researcher position focused on digital agriculture, including sensor-based data collection, IoT and edge computing, remote and proximal sensing, machine learning, and plant phenotyping analytics to support data driven agricultural decision making. The postdoctoral researcher will lead and support research projects, develop reproducible data and modeling workflows, publish peer reviewed manuscripts, mentor graduate and undergraduate students, coordinate research activities with collaborators, and contribute to competitive grant proposals and project reporting. This position is available immediately, with an initial one-year appointment and the possibility of extension based on performance and funding.

Qualifications

- PhD in agricultural engineering, biological systems engineering, environmental engineering, computer science, data science, or a closely related field (ABD candidates who have met all PhD requirements and are awaiting graduation are eligible).
- The candidate must have a strong track record in at least one of the following digital agriculture areas:
  - Machine learning or deep learning for agricultural or environmental datasets
  - IoT applications in agriculture (sensor networks, edge computing, data acquisition, telemetry)
  - Remote sensing or proximal sensing image analysis for crop monitoring and phenotyping
  - Decision support system development and optimization focused on agricultural management and best management practices (BMPs)
  - Hydrologic and water quality modeling integrated with data driven workflows (e.g., SWAT, WEPP, etc.)
  - Proficiency in programming (Python, R, and MATLAB preferred; Fortran is a plus), version control, and reproducible research practices
  - Strong scientific communication skills (writing, presentation, and collaboration)

How To Apply

Please email a single PDF to Dr. Jingqiu Chen (jingqiu.chen@famu.edu) that includes:

1) Cover letter describing research experience and fit for digital agriculture
2) CV with full publication list
3) 3) Contact information for three academic references

Review will begin immediately and continue until the position is filled.

THE UNIVERSITY OF TENNESSEE KNOXVILLE

Postdoctoral Researcher Position
Plasma-Based Nitrogen Fertilizer Production

Position Description

We invite applications for a full-time Postdoctoral Researcher to join a dynamic, multidisciplinary research team focused on the development of sustainable nitrogen fertilizer production from air, water, and renewable electricity using plasma technologies. This position is part of a cutting-edge project investigating the conversion of nitrogen in air to nitrogen fertilizer using plasma technologies, and the practical applications. The successful candidate will contribute to multiple aspects of the project, including:

- Thermodynamic and kinetic analysis of chemical reactions in plasma environments
- Development of catalysts tailored for plasma-assisted processes
- System integration and performance optimization
- Techno-economic analysis of the developed systems

Required Qualifications and Skills

- Ph.D. in Agricultural/Biosystems Engineering, Chemical Engineering, Mechanical Engineering, or a closely related field
- Solid understanding of plasma physics and chemistry
- Demonstrated experience in applied chemical catalysis
- Hands-on experience with high-voltage plasma technologies
- Excellent written and spoken English
- Strong motivation, independence, and the ability to work effectively in a collaborative team environment

Desirable Qualifications

Applicants with experience in one or more of the following areas will be strongly preferred:

- Electrical characterization of plasma discharges
- Plasma diagnostics via optical emission or Raman spectroscopy
- Chemical product analysis (e.g., GC, UV-Vis, FTIR)
- Application of AI or machine learning techniques to reaction system optimization
- Techno-economic analysis

Application Submission & Contact

For application or inquiry about the position, please contact:
Prof. X. Philip Ye
Department of Biosystems Engineering and Soil Science, University of Tennessee, Knoxville, TN 37996
Email: xye2@utk.edu
Voice: (865)974-7129

MICHIGAN STATE UNIVERSITY

Postdoctoral Scholar Position

Biosystems And Agricultural Engineering , Michigan State University

Position Description

The Department of Biosystems & Agricultural Engineering at Michigan State University is seeking a Postdoctoral Scholar whose work focuses on harvest automation of specialty crops. The selected candidate will work with Dr. Yuzhen Lu to develop and test automated field-deployed sensing/harvesting systems that may integrate machine vision, artificial intelligence, and mechanisms for specialty crops and to generate high-quality peer-reviewed publications. The successful candidate will meet with Dr. Lu and collaborators regularly to review progress and discuss best practices in design, prototyping, algorithm development and testing, manuscript preparation, mentoring, and lab management. The selected candidate may engage in other activities such as grant proposal development and instructional responsibilities as needed for their professional development.

Minimum Qualifications

The candidate must have formal training experience in mechanical/robotic harvesting, machine vision, and system integration. It is essential that the candidate has excellent speaking and writing skills and the ability to work effectively in an interdisciplinary research team. The candidate must also establish and conduct a research program resulting in high-quality journal publications.

Preferred Qualifications

The preferred candidate is expected to have solid skills in engineering design, prototyping, and integration, and have experience in developing a machine vision-based automation system for selective harvesting of specialty crops.

Application Materials

Cover letter, a complete CV, academic transcripts, and contact information (name, address, phone number, and email) for three references.

Contact Information

Dr. Yuzhen Lu
Email: luyuzhen@msu.edu
Website: https://www.yuzhenlu.com/

PennState

Ph.D. opportunity in food engineering & AI at Penn State

Two fully funded Ph.D. positions are available in the Department of Food Science at The Pennsylvania State University, with an expected start date in Fall 2027. The students will join the Food Engineering & AI Lab led by Dr. Xu Zhou. Each position includes full tuition coverage, a competitive monthly stipend, and benefits.

About the Lab

Dr. Zhou is an Assistant Professor at Penn State, with background in mechanical engineering, food engineering, and AI. The Food Engineering & AI Lab develops advanced food processing technologies and AI systems for next-generation food manufacturing. The lab combines food science, engineering, sensing, simulation, modeling, and AI to understand, predict, and improve food systems. Our long-term goal is to develop autonomous, self-driving food engineering laboratories and factories. Current research focuses on digital twins for food processing and supply chains. This includes sensing, simulation, physics-informed AI, machine learning, and robotics for food quality, safety, and process control.

The lab is equipped with food engineering devices and equipment, as well as local computing resources for AI training and model development. Students will also have access to Penn State high-performance computing resources, including H100 GPUs. The Department of Food Science has three pilot plants that support food engineering research, product development, and process scale-up. Penn State is a leading public research university; in the 2027 QS World University Rankings, Penn State is No. 7 among U.S. public institutions and No. 92 globally.

Required Qualifications

- B.S. and M.S. in food science, food engineering, mechanical engineering, agricultural engineering, computer science or a closely related field.
- Strong motivation to conduct independent and creative research.
- Eligibility for admission to the Penn State Graduate School and Department of Food Science.
- For international applicants, ability to meet Penn State English proficiency requirements (such as TOEFL iBT 4.5+ or IELTS 6.5+) before formal application.
- Minimum cumulative GPA of 3.0/4.0.

Preferred Qualifications

- Experience or strong interest in food engineering, both computational and web-lab research.
- Hands-on experience in AI/ML coding, mechanical design, and electrical design.
- First-author peer-reviewed publication(s).
- Good communication, problem-solving, and teamwork skills.

How to Apply

Interested students should email Dr. Xu Zhou at xbz5414@psu.edu with a single PDF that includes: CV, Transcript(s), A one-page cover letter describing past research experience and research interests.

Strong candidates will be invited to online interviews. To be considered for Fall 2027 funding, applicants should submit a formal application to the Penn State Food Science Graduate Program by December 1, 2026.

The 2025-2026 AOC IMPACT Editorial Board

Call for
News & Activity Reports

The 2025-2026 IMPACT editorial Board earnestly invites you to submit news and activity reports related to ASABE and AOC. Please send your write-up and/ or picture news to the Editorial Board at aoc.impact@gmail.com. The IMPACT Board will work with you to put your news into the publication.

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

征稿启事