

IMPACT

PRESIDENT'S REMARK

Dear AOCABFE Members,

Happy Chinese New Year to all! As we welcome the arrival of spring, I wish everyone in our community a year filled with happiness, health, and great prosperity. On behalf of the AOCABFE board, I am pleased to share some important updates regarding our ongoing efforts to modernize our association and strengthen our organizational foundation.

One of our primary goals this year has been to streamline the process for our leadership elections. Traditionally, we have relied on in-person paper voting during the annual business meeting, which limited participation to only those in attendance. To make our process more formal and inclusive, the board has been working closely with ASABE to leverage the ASABE Engage online platform. This transition to an electronic ballot ensures that every AOCABFE member has the opportunity to vote, regardless of whether they are able to attend the annual meeting in person.

We recently conducted our first test run of this electronic system to complete the election of our current officers, which was a necessary step following the Toronto meeting in 2025. Moving forward, we aim to complete the officer elections for the 2026–2027 term using this electronic format before we gather for the annual business meeting in Indianapolis this July. By moving the voting process online, we are ensuring a more transparent and professional transition of leadership that reflects the voices of our entire membership.

I am also excited to share that the board is planning a new technical session for our upcoming gathering titled the AOCABFE Exchange Forum: Research and Technology Transfer. I would like to extend a special thanks to President-Elect Dr. Ce Yang for her leadership in organizing this forum at the ASABE Annual International Meeting this year. This session is designed to be a dynamic space where we can bridge the gap between academic innovation and practical application, fostering deeper collaborations between our researchers and industry partners. Additionally, I want to thank our Newsletter Editor, Dr. Jiating Li, for her dedicated leadership in ensuring the timely and high-quality publication of our IMPACT newsletter.

Finally, we are working diligently to re-establish the non-profit status of AOCABFE. While the organization held this status in the past under the AOC name, it was unfortunately lost due to discontinued tax filings. We are currently in the process of re-incorporating in Delaware, where the filing requirements are straightforward and efficient. Restoring our non-profit and tax-exempt status is a vital step for our long-term financial health. It will allow for more robust financial management, enable us to accept tax-deductible donations, and provide a professional framework for managing our association's resources as we continue to grow. We appreciate your continued support as we work toward these milestones.

Sincerely,

Yin Bao

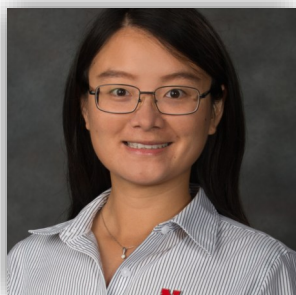
AOCABFE President (2025-2026)



INSIDE THIS ISSUE

President's Remark	1
AOC Executive Board	2
SAC Executive Board	3
AOC Interview	4
SAC Student Activity	6
Community News	7
Conferences	11
Job Openings	17

AOC 2025-2026 Executive Board



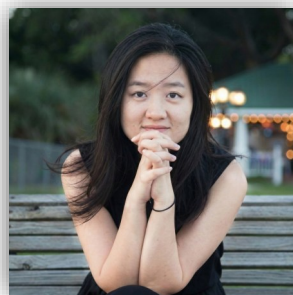
SHI, YEYIN

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
TREASURER & MEMBER-
SHIP CHAIR



LI, JIATING

University of Manitoba
NEWSLETTER EDITOR



LI, GUOMING

University of Georgia
SECRETARY



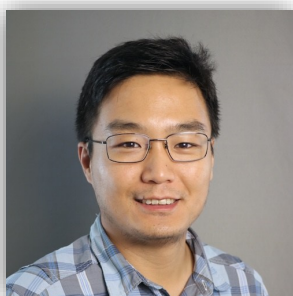
WANG, KE

Cornell University
PROGRAM & ENGAGE-
MENT CHAIR



LI, JOHNNY (LIUJUN)

University of Idaho
MEMBER-AT-LARGE



BAI, FRANK (GENG)

North Carolina State
University
MEMBER-AT-LARGE



XIANG, ZHAOCHENG

University of Nebraska-
Lincoln
SAC President

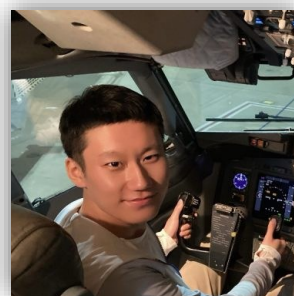
SAC 2025-2026 Executive Board



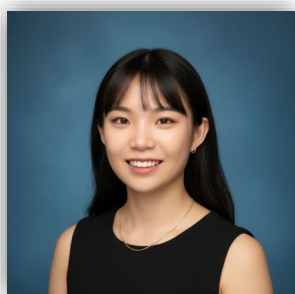
XIANG, ZHAOCHENG
University of Nebraska-
Lincoln
SAC CHAIR



HE, WEILONG
Cornell University
PAST-SAC CHAIR



LIU, WENHAO
University of Florida
SAC VICE CHAIR



JI, LIYIKE
University of Florida
SAC VICE CHAIR



DU, RUIPING
Cornell University
SECRETARY



TAN, YING
Kansas State University
TREASURER

AOC Interview—Dr. Bob (Zhiwei) Zeng

My name is Bob Zeng. I am a professional engineer and currently an associate professor in Biosystems and Agricultural Engineering at Oklahoma State University. My research focuses on agricultural machinery systems, particularly in areas like soil-machine interaction, digital twins, and precision agriculture.

I teach courses related to machinery systems, including advanced instrumentation such as CANBus, as well as introductory courses in Agricultural Systems Technology. One thing I care deeply about is helping students connect theory with real-world applications and preparing them for professional careers.

On the personal side, I'm happily married to my college sweetheart, and we have two young kids who keep life fun and busy.

What's your educational background and professional experience?

I received my bachelor's degree in Mechanical Engineering from Northwest A&F University in China, and my PhD in Biosystems Engineering from the University of Manitoba in Canada. I also completed a Certificate in Higher Education Teaching, which helped shape my approach to teaching and mentoring.

Before joining Oklahoma State University, I spent several years at the University of Wisconsin–River Falls, where I progressed from assistant professor to associate professor with tenure. That experience gave me a strong foundation in mentoring and teaching.

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

My journey really started during a summer research internship at the University of Manitoba in my junior year. That experience opened my eyes to a different research culture and lifestyle, and it made me realize how much I enjoyed that environment.

I ended up returning to the same university for my graduate studies—partly because it was a great fit academically, and also because it allowed my girlfriend (now my wife) and me to stay together, which turned out to be one of the best decisions I've made.

During my PhD, my advisor, Dr. Ying Chen, introduced me to soil dynamics and advanced agricultural machinery systems. That became the foundation of my research. Over time, I've been fortunate to expand into areas like precision agriculture through collaborations with colleagues and industry partners.

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

One ongoing challenge is navigating international collaborations, especially given the current geopolitical climate. As someone trained internationally and working in the U.S., I value global collaboration, but it requires careful consideration.

I've learned to be proactive in seeking guidance—from colleagues, department leadership, and international offices—before engaging in collaborations. It's a balancing act between staying connected globally while making sure everything is aligned with institutional and national policies.

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

In my research and teaching, I really enjoy building things with students—whether it's a prototype, a sensor system, or even just an idea. Some of the best moments are when students take ownership of a project and run with it. That's when you know real learning is happening.

Outside of work, I'm a proud girl dad. Recently, I even completed a parenting training program—so I like to joke that I'm learning just as much at home as I am at work. Being a dad has actually made me a better mentor—more patient, more aware that everyone learns differently.



AOC Interview—Dr. Bob (Zhiwei) Zeng (continued)

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

First, be patient and persistent. The process can be long and sometimes frustrating, but consistency really matters.

Second, take every opportunity to grow—not just in research, but also in teaching, mentoring, communication, and building your professional network. Those experiences add up and make a big difference.

One piece of advice that has stayed with me is: “everything happens for a reason.” It’s especially helpful during the ups and downs of the job search process. Stay focused, keep improving, and trust that things will come together.

SAC Student Activities - AOC Seminar Panel

A Dialogue on Student Hiring: Navigating the Changing Landscape of Doctoral Recruitment

Feb. 10, 2025 | 8:00 - 9:30 PM US EDT | Zoom Online Meeting



Dr. Jian Jin
Assoc. Prof.
ABE, Purdue



Dr. Zhou Zhang
Assoc. Prof.
BSE, UW-Madison



Dr. Jiangong Li
Assoc. Prof.
CAST, CAU

This meeting centered on a simple but important idea: in research, people's intrinsic qualities often matter more than standardized evaluation metrics. Better equipment and larger grants can certainly help, but without the right students and mentors, they rarely translate into meaningful research progress.

The discussion pointed out that for a PI, recruiting a PhD student is not just filling an open position. It is a long-term investment in the lab's culture, productivity, and future. For a student, choosing an advisor is also a major decision because it shapes not only research training but also daily work style and life experience.

A key topic was the limits of common application metrics such as GPA, TOEFL scores, and publication counts. These numbers are useful, but they do not fully show a person's research potential. The panel emphasized the importance of qualities that are harder to measure, such as curiosity, independence, resilience, and fit.

The discussion covered three main areas. First, with the decline in willingness to study abroad and fluctuations in applicant quality, how should we adjust our hiring expectations? Has the "Application-Assessment System" in China truly changed the logic of selection? Overall, the meeting encouraged both students and faculty to look beyond numbers and think more carefully about the human side of research recruitment. Second, The "Efficient Employee" vs. The "Thinking Student." How do PIs balance project deadlines with mentorship? If a mismatch occurs after enrollment, should one cut losses immediately or be patient and coach? Third, from CV screening to interview questions, we attempt to reconstruct the real decision-making chain. Specifically for interdisciplinary applicants, how can you maximize your edge?

Overall, the discussion encouraged both students and faculty to look beyond metrics and think more carefully about the less quantifiable factors that shape successful research recruitment.

China Agricultural University Unveils “Shennong 3.0” AI Model to Support Smart Farming

At the opening ceremony of the 2025 World Agricultural Science and Technology Innovation Conference, China Agricultural University officially released the “Shennong 3.0” large-scale AI model. The model is described as one of the most comprehensive agricultural AI systems in China, covering a wide range of disciplines and application scenarios. It is capable of answering agricultural knowledge queries and supporting production decision-making, such as providing weather-based harvesting advice. Notably, the system can operate even without an internet connection, enabling farmers to access expert-level guidance in the field while ensuring data privacy and security.

Compared with earlier versions, Shennong 3.0 achieves improved performance with significantly reduced computing requirements, lowering the barrier for practical use in agriculture. The model integrates technologies such as knowledge graphs, vector databases, and connections with IoT devices and smart agricultural equipment, improving accuracy and reducing common AI issues like hallucinations. It supports multimodal data processing—including images, voice, and video—and has already been applied across breeding, planting, livestock farming, remote sensing, and agricultural meteorology. According to the developers, the upgrade marks a shift toward more accessible, efficient, and widely deployable agricultural AI, promoting the transition from experimental use to large-scale, real-world application.



Source for the original news: https://ciee.cau.edu.cn/art/2025/10/14/art_50389_1084886.html

Smart and Green Technologies Drive Agricultural Innovation at 2025 Annual Conference in Nanjing

In November 2025, the Annual Academic Conference of the Chinese Society for Agricultural Machinery was held in Nanjing, bringing together more than 600 experts from universities, research institutes, and industry. The event focused on the theme of intelligent and green technologies empowering modern agricultural equipment. Keynote speeches by leading scholars covered topics such as smart agricultural machinery, full-process mechanization in crop production, agricultural robotics, and bio-fertilizers. Among them, Professor He Yong from Zhejiang University delivered a report on the current status and future prospects of low-altitude economy applications in agriculture, highlighting the growing role of drones and aerial technologies in modern farming. The conference also highlighted international developments, including advancements in smart farming from countries like South Korea, reflecting the increasingly global nature of agricultural technology.

During the conference, a series of thematic forums explored emerging areas such as smart farming systems, multi-machine coordination, low-altitude agricultural applications, and robotics. Ten specialized sub-forums addressed various aspects of the agricultural machinery sector, including precision operations, intelligent harvesting, post-harvest processing, biomass energy, and smart irrigation. The event also featured sessions for young scholars and international collaboration, along with technical visits to local agricultural innovation parks, further strengthening the connection between research, industry, and talent development. Overall, the conference underscored the rapid shift of China's agricultural machinery sector toward intelligent, green, and high-end development.



Source for the original news: https://www.cast.org.cn/xw/qgqh/XSJL/art/2025/art_10fd15ebfca247ae93aac267c397caed.html

Shenzhen International Modern Green Agriculture Expo (IGIE 2025)

The Shenzhen International Modern Green Agriculture Expo in December 2025 focused on sustainable agricultural practices and green supply chains. It presented a wide range of eco-friendly agricultural products alongside innovations in cold-chain logistics and agri-food distribution systems. The exhibition also highlighted the increasing importance of branding and value-added processing in agriculture, while emphasizing low-carbon production models and resource-efficient farming, demonstrating the integration of environmental sustainability with market-oriented agricultural development.



Source for the original news: <http://www.szigie.com/>

International Modern Agricultural Science and Technology Expo (AgTech 2026)

The AgTech Expo, held alongside CAC in March 2026, showcased cutting-edge developments in smart agriculture and digital farming technologies. Key innovations included AI-driven decision-making systems, agricultural drones, remote sensing technologies, and precision irrigation solutions aimed at improving water-use efficiency. The integration of big data platforms and digital farm management systems highlighted the growing importance of data-driven agriculture, emphasizing enhanced productivity, resource optimization, and resilience in modern farming systems.



Source for the original news: <https://www.eccpit.com/event/3658/detail>



AI in Agriculture 2026

Mar 31–Apr 2, 2026 | StateView Hotel & Conference Center | NC State University | Raleigh, NC

Building on the momentum of past conferences hosted by Auburn Univ (2022), U of Florida (2023), Texas A&M (2024), and Mississippi State (2025), this year’s event will bring together researchers, industry leaders, and students to explore how AI, data science, and engineering are transforming agricultural systems. We aim to highlight a wide spectrum of topics—from molecular and genetic research to production, processing, and supply chain analytics—spanning plant, animal, and environmental systems.

This year’s theme—Advancing Artificial Intelligence and Data-Driven Innovations for Resilient and Competitive Agricultural Systems—emphasizes how integrative, AI-enabled solutions can enhance productivity, profitability, and environmental stewardship across crop, livestock, and supply-chain domains.

Conference Focus Areas

Presentations and workshops span the full spectrum of agricultural research and application:

- **Plants & Crops:** Precision agriculture, phenotyping, pest and disease detection, crop management, and AI-based modeling from gene to field.
- **Animals & Livestock:** Sensing, automation, health and welfare monitoring, and production optimization for poultry, swine, dairy, beef, and aquaculture.
- **Soils, Water, Air & Environment:** AI for soil health, nutrient and water management, climate adaptation, and environmental monitoring.
- **Food, Postharvest & Supply Chains:** Intelligent sensing and analytics for food quality, safety, processing, packaging, logistics, and traceability.
- **AI Systems & Integrative Approaches:** Robotics, automation, digital twins, decision-support systems, and responsible AI frameworks for multi-scale integration.
- **Cross-Cutting Topics:** Extension and outreach, workforce development, education, policy, and socioeconomic adoption of AI technologies.

Purpose: The conference provides a national forum for collaboration among academia, industry, and government, fostering partnerships that drive responsible and impactful AI adoption across agricultural sectors.

Organizing Committee: Hosted by North Carolina State University, the conference is coordinated by an inter-university planning committee representing leading land-grant institutions, government agencies, and industry partners. (Full committee listed on the “Committee” page.)

Who Should Attend: The event welcomes academic researchers, graduate and undergraduate students, ag-tech and analytics professionals, biotech investors, extension agents, and public-sector stakeholders interested in practical, data-driven innovations for modern agriculture.

For More Details, Please Check <https://harvest.cals.ncsu.edu/2026-ai-ag-conference/>



2026年第二届智慧农业和人工智能国际学术会议将于2026年5月29-31日在中国哈尔滨召开，本届会议由东北农业大学主办，云南农业大学支持。此次会议旨在为全球学者、研究人员、行业专家和从业者提供一个交流与合作的平台，深入探讨人工智能技术在智慧农业领域的应用与发展。随着全球人口的不断增长和农业生产面临的多重挑战，智慧农业的概念应运而生，通过现代科技手段提升传统农业的生产效率和可持续性已成为行业共识。

会议将涵盖多个前沿主题，包括人工智能、智能农机、精准农业、农业大数据分析、农业中的新兴技术融合、物联网在农业中的应用等。我们邀请了众多国内外知名专家作主题演讲，分享他们在智慧农业和人工智能领域的最新研究成果和实践经验。提供学者们展示其研究成果和探讨的机会，促进学术界与产业界的深度合作。

本次会议将是一个重要的学术盛会，不仅能帮助与会者开拓视野、寻找合作机会，还将推动智慧农业的发展与创新。我们期待着您的参与，共同探索如何利用人工智能技术提升农业生产效率，实现可持续发展。让我们共同致力于推动智慧农业的未来发展，为全球农业的转型与升级贡献智慧和力量。诚邀国内外高校、科研机构的专家、学者、商界人士及其他相关人士到哈尔滨线下参会！

热门征稿主题：智能感知与农业物联网技术、农业中的机器学习与数据挖掘技术、农业计算机视觉与图像智能处理、农业机器人与自动化装备、农业信息系统与智慧管理平台、大数据分析 with 可持续农业规划、农业中的新兴技术融合、农业智能决策与优化调度、水分等环境参数的智能监测、农业大数据挖掘与分析、病虫害预测与识别中的深度学习方法、农作物病害图像识别与分级、智能农机的路径规划与导航控制等与计算机结合稿件

会议官网：www.icsaai.org

会议时间：2026年5月29-31日

会议地点：中国-哈尔滨

截稿时间：2025年12月26日（会前均可投稿，如需投稿请联系会议秘书）

审核周期：3-7个工作日

联系方式：

大会秘书：董老师（推荐码：D226） 17320189207

（同微信，加好友备注“SAAI2026+姓名”）



東北農業大學
Northeast Agricultural University

（主办单位）



雲南農業大學
Yunnan Agricultural University

（支持单位）



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/>



The banner features the ASABE logo (a globe) and the text "ASABE Engineering a Sustainable Future". The main title is "ASABE Annual International Meeting" in large orange letters, followed by "JW Marriott Indianapolis Indianapolis, Indiana" in white. Below this is a calendar icon and the dates "July 12 - 15, 2026". The background shows a field of crops with wind turbines in the distance. Two circular inset images are on the right: the top one shows a city skyline at night reflected in water, and the bottom one shows a race track with several cars.

ASABE Foundation CNH JOHN DEERE Kubota

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/>



国际农业与生物工程师大会（**ICABE2026**）将于2026年8月29日至30日在中国武汉举行。**ICABE2026**的目标是为世界各地的研究人员、工程师、院士以及工业专业人士提供一个平台，展示他们在农业工程和生物工程的鉴定和讨论方面的研究成果以及开发活动，会议出版农业工程和生物工程的应用，解决农业、食品、生物系统的问题的研究，以及农业与生物工程相结合的相关领域的科研成果；它为代表们提供了交流新思想和应用经验、建立业务或研究关系以及寻找全球合作伙伴的机会。本次大会所有接受的论文将提交给**SCI/EI**期刊正刊出版。

热门征稿主题：农业工程、农机工程、农业装备与机械化、农业经济、生物工程、农业安全与健康、生物科学与技术、农业生态学、农业信息化与电气化等有关主题。

会议官网：www.icabe.cn

会议时间：2026年8月29-30日

会议地点：中国·武汉

截稿时间：2026年3月30日（本次录用见刊时间：2026年7月；当期卷期将顺延至下一期）

审核周期：投稿后一周内

收录检索：**SCI, EI, Scopus**

联系方式：王老师 13387663722（同微信）

办公电话：027-88189858

咨询邮箱：eiei2012@163.com



（参会单位）



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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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



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.

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 bio-sensing 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

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

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



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.



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



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

- Programming 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:





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