



中國農業大學
China Agricultural University



中国农业大学 2024 年暑期国际智能农机装备培训项目

China Agricultural University

2024' Summer International Intelligent Agricultural
Machinery and Equipment Training Program

课程安排

Agenda

Date	Events	Venue and transportation arrangement	Contacts
August 13 (Tue.)	<p>Lectures:</p> <ul style="list-style-type: none">● 09:00-10:20 China's Agricultural Mechanization Development and International Cooperation Dr. YANG Minli, Professor of COE, Director of China Research Center for Agricultural Mechanization, CAU● 10:30-11:50 Agricultural Modernization and Rural Revitalization in China Dr. LIU Jinping, Associate Research, Fellow/ Director, Administration and Management Institute, MARA, China	Room 159, 1 st floor of COE	LIU Ran 13810609824
August 14 (Wed.)	<p>Lectures:</p> <ul style="list-style-type: none">● 09:00-10:20 Key Technologies of New Energy Agricultural Power Machinery and Equipment Dr. SONE Zhenghe, Dean & Professor of COE, CAU● 10:30-11:50 Agricultural Machinery Digitization and Development Trend Dr. JIN Xiaoping, Associate Professor of COE, CAU	Room 159, 1 st floor of COE	LIU Ran 13810609824

<p>August 16 (Fri.)</p>	<p>Lectures:</p> <ul style="list-style-type: none"> ● 09:00-10:20 Conservation Tillage Technology and Application Dr. LI Hongwen, Professor of COE, CAU ● 10:30-11:50 China's Agricultural Mechanization Development Experience Sharing Mr. ZHANG Lei, Director of Western European Market, Weichai LOVOL Intelligent Agricultural Technology CO.,LTD ● 14:30-15:50 Corn Mechanized Production Technology and Intelligent Equipment Mr. ZHANG Dongxing, Professor of COE, CAU ● 16:00-17:20 Fruit Mechanized Production Technology and Intelligent Equipment Dr. MA Shuai, Associate Professor of COE, CAU 	<p>Room 159, 1st floor of COE</p>	<p>LIU Ran 13810609824</p>
<p>August 19 (Mon.)</p>	<p>Lectures:</p> <ul style="list-style-type: none"> ● 09:00-10:20 Wheat Mechanized Production Technology and Intelligent Equipment Dr. HE Jin, Professor of COE, CAU ● 10:30-11:50 Sugarcane Mechanized Production Technology and Intelligent Equipment Dr. MA Shaochun, Professor of COE, CAU ● 14:00-15:20 Agricultural Product Processing Mechanization Technology and Intelligent Equipment Dr. LIU Yanhong, Professor of COE, CAU <p>Discussion:</p> <ul style="list-style-type: none"> ● 15:30-17:30 Report and exchange - Power and Machinery theme All of trainees, teachers and students of COE in related fields to participate 	<p>Room 159, 1st floor of COE</p>	<p>LIU Yanhong 13521779392</p>
<p>August 20 (Tue.)</p>	<p>Lectures:</p> <ul style="list-style-type: none"> ● 09:00-11:50 Promotion and Application of Agricultural Mechanization Technology in China Mr. XU Zhenxing, Deputy director of China Agricultural Mechanization Center, MARA, China ● 14:30-15:50 Agricultural Robots/Smart Agriculture Dr. YANG Shuofei, Associate Professor of COE, 	<p>Room 159, 1st floor of COE</p>	<p>YANG Minli 13701326650</p>

	<p>CAU</p> <ul style="list-style-type: none"> ● 16:00-17:20 Flexible Electronic Sensing Dr. HE Zhizhu, Professor of COE, CAU 		
<p>August 21 (Wed.)</p>	<p>Lectures:</p> <ul style="list-style-type: none"> ● 09:00-10:20 Agricultural Drones/Precision Agriculture Production Based on Beidou Satellite Navigation Dr. ZHENG Yongjun, Professor of COE, CAU ● 10:30-11:50 How Digital Technology Changes the Future of Agriculture -- Experience Sharing Based on the XAG Practices Dr. GONG Justin, Co-founder of XAG Co., Ltd. 	<p>Room 159, 1st floor of COE</p>	<p>YANG Minli 13701326650</p>
<p>August 22 (Thur.)</p>	<p>Lectures:</p> <ul style="list-style-type: none"> ● 09:00-10:20 Animal Husbandry Mechanization Technology and Intelligent Equipment Dr. WANG Liangju, Associate Professor of COE, CAU ● 10:30-11:50 Agricultural Organic Solid Waste Production Organic Fertilizer and Returning Equipment Technology Dr. HE Xueqin, Associate Professor of COE, CAU ● 14:00-15:20 Biogas Technology and Equipment Dr. ZHOU Yuguang, Associate Professor of COE, CAU <p>Discussion:</p> <ul style="list-style-type: none"> ● 15:30-17:30 Report and exchange – Informatization and Processing theme All of trainees, teachers and students of COE in related fields to participate 	<p>Room 159, 1st floor of COE</p>	<p>LIU Yanhong 13521779392</p>

Experts/Professors

Dr. YANG Minli, Professor/Director



Dr. YANG Minli, is the leading professor in Agricultural Engineering field of China Agricultural University, the Director of China Research Center for Agricultural Mechanization, the Director of National Agricultural Mechanization Information Center, and the Dean of "Belt and Road" International Innovation Institute of Agricultural Equipment and Smart Agriculture. She also serves as the Deputy secretary-general of the Expert Steering Group for Whole-process Mechanization of Crop Production of Ministry of Agriculture and Rural Affairs of China, the Deputy secretary- general of Chinese Society of Agricultural

Machinery and the Chairman of Agricultural Mechanization Branch of CSAM, etc.

Dr. YANG's research fields focus on rural development and agricultural mechanization, crop mechanized production modes and systematic evaluation, agricultural machinery informatization and big data analysis, and agricultural machinery service cooperatives and industrial development. She has established close cooperation with the "Belt and Road" countries, especially Brazil, Argentina, Laos, Myanmar, Thailand, Turkey, and the African Union, etc. She was awarded Top 10 Heroine in China Agricultural Machinery Industry in 2007, and has won 8 provincial and ministerial science and technology achievements awards and multiple individual achievement awards. She is also the expert with special government allowance from the State Council of China.

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Dr. LIU Jinping, Associate Researcher/Director



Dr. LIU Jinping, is an associate research professor and division director of International Cooperation, Administration and Management Institute, Ministry of Agriculture and Rural Affairs. His research fields include the Development of Modern Agriculture and the Agricultural Operation and Management. He has been engaging in the training of agricultural officials and China Aid training. He is co-researcher of Soft Science Projects of the Ministry of Agriculture on A Typical Case Study on the Construction of National Modern Agriculture

Demonstration Zones, and Research on Improving and Innovating Policies for the Urbanization of Migrant Workers. His publication includes papers on Deepening of Tax Preferential Policies for Farmers' Cooperatives, Exploration and Practice of Modernization of Agriculture with Chinese Characteristics-Development Report on National Modern Agriculture Demonstration Zones, Scaled Operation and Land Concentration, the Road to Agricultural Modernization in a Traditional Agricultural Area.

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Dr. SONG Zhenghe, Professor/Dean



Dr. SONG Zhenghe, is a professor of Mechanical Engineering, the dean of College of Engineering, China Agricultural University. He is also deputy director of the National Key Laboratory of Intelligent Agricultural Power Equipment, director of the Beijing Key Laboratory of Optimization Design of Modern Agricultural Equipment, director of the National Virtual Simulation Experiment Teaching Center of Mechanical and Agricultural Engineering, and concurrently serves as the executive director of the Chinese Agricultural Machinery Society, the director of the Chinese Agricultural Engineering Society, and the vice chairman of the Tractor Society of the Chinese Agricultural Machinery Society. Dr. Song's research direction mainly focuses on the design and test methods of agricultural machinery and equipment, and has presided over or participated in more than 30 scientific research projects including national key research and development projects, published more than 200 peer reviewed papers, authorized more than 30 patents, and won 4 provincial and ministerial science and technology awards.

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Dr. JIN Xiaoping, Associate Professor



Dr. JIN Xiaoping, is an associate professor of Mechanical Engineering at College of Engineering, China Agricultural University. She is also Secretary General of the Ergonomics Sub-committee of the Chinese Society of Ergonomics, and a member of the National Technical Committee for Ergonomics Standardization. She conducts research in a variety of areas relating to human factors and human-machine interaction including vehicle ergonomics and digital design of agricultural machinery and equipment. She has published over 40 research papers in the International Journal of Human Computer Interaction, Biosystems Engineering, etc., obtained four patent authorizations and hosted over 20 research projects.

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Dr. LI Hongwen, Professor



Dr. LI Hongwen, is a distinguished professor, Changjiang Scholar, of Agricultural Mechanization Engineering at College of Engineering, China Agricultural University. He has started conservation tillage research from 1992, received 4 Awards of National second prize for scientific and technological progress, published more than 200 academic papers and achieved more than 100 patents, all on conservation tillage. Dr. Li is also director of Conservation Tillage Research Center (CTRC), Ministry of Agriculture and Rural Affairs (MOA), P.R.C; Director of China institute for Conservation Tillage in China Agricultural University; Chairman of Mechanical Soil Cultivation Professional Group, MOA, P.R.C;

Leader of MOE (Ministry of Education) and MOA Innovative Research Team “Conservation Tillage Technology and Equipment”; as well as Vice Chairman of Conservation Agriculture Alliance for Asia and Pacific (CAAAP).

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Mr. ZHANG Lei, Director of Western European Market



Mr. ZHANG Lei, is the director of Western European market of Weichai LOVOL Intelligent Agricultural Technology CO.,LTD, an important strategic business unit of Weichai Group. Its harvesting machinery, tractors and other businesses have maintained industry leadership for many years, making it one of the few brands in China that can provide fully mechanized overall solutions for modern agriculture.

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Mr. ZHANG Dongxing, Professor



Mr. ZHANG Dongxing, is a professor of Agricultural Mechanization Engineering at College of Engineering, China Agricultural University. He is the head of the MOA&RA' expert group on corn mechanization production, member of national experts on soybean production capacity improvement project, member of American Society of Agricultural and Biological Engineering, the Chinese Society of Agricultural Machinery, as well as the Chinese Society of Agricultural Engineering. Mr. Zhang has been PI of more than 20 national and provincial research projects, published more than 200 papers, 15 textbooks, 30 invention patents, and obtained 1 second prize in the National Science and Technology Advancement awards, 4 provincial-level awards. Dr. Zhang has been awarded national advanced individual in grain production, expert in the outstanding contribution of the whole process of maize mechanization, one of the 10 best teachers of agricultural machinery in China, leading talent in Taishan of Shandong Province.

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Dr. MA Shuai, Associate Professor



Dr. MA Shuai, is an associate Professor of Agricultural Mechanization Engineering at College of Engineering, China Agricultural University. Postdoctoral fellow of Tsinghua University. Member of the mechanization research laboratory of the national grape industry technology system. Mainly engaged in research on fruit (grape) production automation technology, agricultural robot technology, etc. Currently hosting 4 national and provincial-level scientific research projects, including the national natural science foundation youth fund,

China postdoctoral science foundation special funding project, Jiangsu province excellent postdoctoral program funding project, etc. Participated in 4 national and provincial-level scientific research projects as a key member, including national key research and development plan project sub-projects, provincial key research and development plan projects. Published more than 10 SCI/EI papers in well-known academic journals. Applied for more than 20 patents, formulated and published 6 group standards.

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Dr. HE Jin, Professor



Dr. HE Jin, is a professor of Agricultural Mechanization Engineering at College of Engineering, China Agricultural University. He is also vice dean of Conservation Tillage Research Center (CTRC), Chinese Ministry of Agriculture and Rural Affairs. Dr. He has worked in the field of Agricultural Mechanization, and his expertise is in Tillage and seeding technology, Conservation agriculture (CA) machines development and CA's effects on soil property, productivity, etc. He has led and involved in over 20 international and national scientific projects, published over 100 peer-reviewed papers and 4 books in the field of agricultural mechanization, and achieved more than 50 Chinese patents. He was honored the second-class prize for National Award of Progress in Science and Technology for his dynamic contributions in the field of CA for environmentally sustainable production.

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Dr. MA Shaochun, Professor



Dr. MA Shaochun, is a professor of Mechanical Engineering at College of Engineering, China Agricultural University. He joined CAU as a talent in 2016. His research group was selected as Hainan Science Foundation innovation team in 2022 and Guangxi Academy of Science talents program in 2021. Dr. Ma's research focus is on sugarcane harvesting and technology, agricultural machinery. He leads two professor's workstations and one CAU science and technology residence for sugarcane harvesting technology and equipment development. Dr. Ma authored more than 80 journal papers and edited one book. His research also resulted in more than 20 invention patents. Ma serves as executive board member of Sugar Tech journal. His research and agricultural extension service were reported by national and provincial media more than 10 times which includes CCTV.

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Dr. LIU Yanhong, Professor



Dr. LIU Yanhong, is a professor of Agricultural Engineering at College of Engineering, China Agricultural University. She is also a member of the Packaging and Food Engineering Branch of Chinese Mechanical Engineering Society, the Grain and Oil Machinery Branch of Chinese Agricultural Machinery Society, and a visiting scholar at Washington State University and Purdue University in the United States. Dr. Liu's research focus is on drying, storage, and sterilization technologies and equipment for agricultural products,

especially prominent in the drying of Chinese herbal medicines, grain seeds, fruits and vegetables, sterilization, pest control and toxin degradation of agricultural products and food based on radio frequency technology, as well as dielectric loss mechanism for radio frequency and microwave applications. She has published more than 80 peer reviewed papers, authorized 10 invention patents and two standards, and achieved one municipal Teaching Achievement Award.

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Mr. XU Zhenxing, Researcher/Deputy Director



Mr. XU Zhenxing, is a researcher and deputy director of China Agricultural Mechanization Center, Ministry of Agriculture and Rural Affairs. His research field focus on Agricultural mechanization technology testing & extension. As a member of the National Crop Variety Approval Committee, the Complete mechanization expert guidance group, the leader of the Northeast Black Soil Conservation Cultivation Expert Group of the Ministry of Agriculture and Rural Affairs, and a member of the expert database for the Ministry of Science and Technology, Ministry of Finance, Ministry of

Commerce, Ministry of Agriculture and Rural Affairs, and China Association for Science and Technology. Mr. Xu has completed over 50 industry planning feasibility reports, authored more than 10 professional books, published over 50 papers, got the Science & Technology Progress Reward and the first level of Bumper Harvest Programs Reward from Ministry of Agriculture and Rural Affairs multiple times as the first author, awarded as an agricultural science and technology personnel with outstanding contributions to national grain production and was commended by the National Model Worker of the State Council.

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Dr. YANG Shuofei, Associate Professor



Dr. YANG Shuofei is an Associate Professor of Mechanical Engineering in College of Engineering at China Agricultural University. His research interests are mainly focused on Mechanisms and Robotics, which involve parallel, hybrid, multi-loop mechanisms and their applications in industrial, agricultural, mobile robots, leading to some novel robots based upon type synthesis, dynamic modeling, and parameter optimization. He has served as PI and Co-I of many research projects, such as projects granted by the National Natural Science Foundation of China, Chinese Hong Kong Research Grants Council, Engineering and

Physical Sciences Research Council of the UK. He has published some journal papers on IEEE Transactions on Robotics, IEEE-ASME Transactions on Mechatronics, Mechanism and Machine Theory, etc, and one book entitled “Finite and Instantaneous Screw Theory in Robotic Mechanism” in Springer Tracts in Mechanical Engineering. He has obtained some journal and conference best paper awards. Dr. Yang is IEEE member, and in editorial board of Journal of Robotics and Journal of Mechanical Transmission. He is now organizing a special issue “The Kinematics and Dynamics of Mechanisms and Robots” in MDPI Machines.

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Dr. HE Zhizhu, Professor



Dr. HE Zhizhu is currently a professor of Mechanical Engineering at College of Engineering, China Agricultural University. His research interests focus on self-powered flexible electronics, including manufacturing processes for flexible electronics and sensing technology, tactile sensing technology for intelligent and unmanned driving (including power batteries, intelligent cockpit, and intelligent tires), flexible sensing technology and its application in biological systems (including crops, microenvironment, and food health). He has published over 60 SCI papers as the first/corresponding author,

including Nature Reviews Materials, Nature Communications, Advanced Materials, Applied Energy, and Computers and Electronics in Agriculture journals.

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Dr. ZHENG Yongjun, Professor



Dr. ZHENG Yongjun is currently a professor of Mechanical Engineering at College of Engineering, China Agricultural University. He is mainly engaged in the research field of agricultural intelligent equipment, agricultural aviation and UAV application technology, detection big data analysis and application technology. He presided over 5 research projects at provincial and ministerial level or above, including the national key research and development plan of "Key technology and equipment optimization of precise plant protection of forest fruits in hilly and mountainous areas" and

the sub-project of "Research system development of low-altitude obstacles and ground crop profiling technology". Dr. Zheng has completed 6 systems such as common parameter measurement and control of agricultural equipment, wireless testing of the working performance of seeding equipment, and online welding deformation detection of the chassis frame of large harvester, realizing automated intelligent testing of complex products in the field of agricultural equipment manufacturing; developed UAV wind field model and laser detection technology of spray system to realize rapid evaluation of plant protection UAV products, and three basic databases, including resistance detection of animal-derived pathogens and biogas engineering, to provide basic data platform services for 7 key laboratories at or above provincial and ministerial level and large breeding enterprises.

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Dr. GONG Justin, Co-founder & Senior Vice President of XAG



Dr. GONG Justin Graduated from Université Paris Dauphine, specialized in rural economics and agricultural innovation research. He is now the 11th Council Board Member of Chinese Society of Agricultural Engineering. For more than 10 years, he has been dedicated to promoting and scaling up digital technology in agricultural production world-wide. In 2016, Dr. Gong founded XAG Academy, which so far has trained more than 140,000 talents for smart agricultural application. Before joining XAG, he was a documentary film producer in Australia.

- **About XAG**

Founded in 2007, XAG is an agricultural technology company with the mission of advancing agriculture, focusing on the research and development, manufacturing, sales, and service of smart agricultural equipment. XAG's vision is to build the infrastructure of agriculture for the next 100 years, that will provide the world with sufficient, diversified, and safe food.

Up to December 31, 2023, XAG's smart agriculture technologies and solutions have been introduced across 63 countries and regions. With over 120,000 units of agricultural robots delivered globally, XAG together with its partners has provided precision seeding, fertilization, and crop spraying services on 11.5 million hectares of farmland.

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Dr. WANG Liangju, Associate Professor



Dr. WANG Liangju is an Associate Professor of Agricultural Engineering at College of Engineering, China Agricultural University. His postdoctoral research at Purdue University in the United States honed his expertise in plant phenotyping, and he developed a hyperspectral leaf scanner, LeafSpec, which received the 2021 Davidson Prize and the 2021 ASABE AE50 Award. Dr. Wang has actively participated in major research initiatives including the National Key Research and Development Program, Science and Technology Innovation 2030, and the Modern Agricultural Industry System for Rabbit Facilities and Equipment. He has published over ten SCI-indexed papers and serves as a reviewer for journals like Computers and Electronics in Agriculture and Plant Methods, focusing on high-throughput detection and operational equipment technology for advanced farming systems. Currently his research interest is machine vision and robotics technology in livestock and poultry farming.

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Dr. HE Xueqin, Associate Professor



Dr. HE Xueqin, is an associate professor of Agricultural Engineering at College of Engineering, China Agricultural University. She is a council member of CAE Animal Husbandry Eng. Society. Dr. He's research covers biomass utilization mechanisms, anaerobic valorization, & fertilizer development. She has published over 30 SCI paper, in Chemical Engineering Journal, Bioresource Technology, Journal of Cleaner Production, etc. These groundbreaking studies have been published in reputable journals, demonstrating her profound impact on the field (H index = 15).

Dr. He's research achievements have garnered international recognition, though specific awards and honors may not be detailed here. However, it is evident that her work has significantly contributed to advancing scientific knowledge and practical applications in sustainable agriculture.

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Dr. ZHOU Yuguang, Associate Professor



Dr. ZHOU Yuguang, is currently an Associate Professor of Bioenergy and Environmental Science and Technology Laboratory, at College of Engineering, China Agricultural University. He is also secretary of Key Technologies for Cleaner Utilization of Renewable Energy by the Ministry of Agriculture and Rural Affairs, and National International Joint Research Center for Bioenergy Science and Technology, Executive Secretary of ISO/TC255 (Biogas) Secretariate, Chinese expert of ISO/TC285, senior member of Chinese Society of Agricultural Engineering, and member of

Beijing Society of Agricultural Engineering. Dr. Zhou's research focus is related to the biomass feedstock utilization, clean combustion of biofuel, and bioenergy engineering equipment. He is assigned as one implementer for UNDP South-South tri-lateral cooperation renewable energy technology transfer project in Ghana/Zambia/Ethiopia/Sri Lanka, and he is responsible to provide technical support in the field of bioenergy utilization.

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List of Trainees

No.	Nationality	Name	Position/Unite
1	Brazil	Luis Henrique Conti Tasca	Doctoral Student, State University of Campinas/Unicamp
2	Brazil	Gelton Fernando De Morais	Doctoral Student, State University of Campinas/Unicamp
3	Brazil	Jo ão Paulo Eguea	Assistant Professor, University of S ão Paulo/USP
4	Brazil	Saulo Da Paz Almeida	Undergraduate, University of S ão Paulo/USP
5	Brazil	Olympio Cipriano Da Silva Filho	Professor, Federal Rural University of the Semi- Arid Region /UFERSA
6	Brazil	Francisco Chagas De Lima Junior	Professor and Researcher, State University of Rio Grande Do Norte/UERN
7	Brazil	Jos é Geraldo Bezerra Galv ão Junior	Professor, Federal Institute of Science and Technology of Rio Grande Do Norte/IFRN
8	Kenya	Patrick Wafula Wamalwa	Lecture, Egerton University
9	Kenya	Peter Mecha	Lecture, Egerton University
10	Laos	Duangnaly Keokanya	Lecturer, National University of Laos
11	Laos	Khambay Khamphilavong	Lecturer, National University of Laos
12	Laos	Metmany Soukhavong	Lecturer, National University of Laos
13	Thailand	Nitirong Pongpanich	Researcher, Kasetsart University
14	Thailand	Watcharachan Sukcharoenvipharat	Lecturer, Kasetsart University
15	Thailand	Chanasorn Somwhong	Master Student, Kasetsart University
16	Turkey	Omer Aydogan	Lecturer, Ege University
17	Turkey	Oguz Kuru	Master, Ege University
18	Zimbabwe	Jinya Jeffrey	Lecturer, Gwebi Agricultural College
19	Zimbabwe	Madhovi Onias	Lecturer, Gwebi Agricultural College
20	Zimbabwe	Derembwe Monica Tashaya	Lecturer, Gwebi Agricultural College