

# Curriculum Vitae

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## PERSONAL INFORMATION:

**Date of Birth:** 07/31/1971

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### Organization:

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## EDUCATIONAL EXPERIENCES:

2014.9-2015.9      **Visiting scholar** in Texas A&M University, College Station, TX.

2008.9-2011.12      **Doctorate of Philosophy** in Key Laboratory of Key Technology on Agricultural Machine and Equipment (Ministry of Education), Guangzhou 510642; South China Agricultural University, Guangzhou, Guangdong, P. R. China.

1999.9-2002.6      **Master of Engineering** in Huazhong Agricultural University, No.1, Shizishan Street, Hongshan District, Wuhan, Hubei Province, 430070, P.R. China.

1989.9-1993.6      **Bachelor of Engineering** in Huazhong Agricultural University, No.1, Shizishan Street, Hongshan District, Wuhan, Hubei Province, 430070, P.R. China.

## PROFESSIONAL EXPERIENCES:

2016.01-present:

**Professor**, Vice director in Huazhong Agricultural University, College of Engineering, China.

2003.11-2015.12:

**Associate Professor** in Huazhong Agricultural University, China.

1997.11-2003.10:

**Lecturer in** Huazhong Agricultural University, China.

1993.7-1997.11:

**Assistant lecturer in** Huazhong Agricultural University, China.

### **Research Fields:**

1. Agricultural robotics
2. Soil mechanics and Paddy field ground machine system
3. Rice Mechanized production technology
4. Aquatic vegetables Mechanized production technology

### **Publications**

- [1] Zhihua Wan, **Guozhong Zhang\***, Ming Tu, Jun Jiao, Qunxi Hou, Zhou Guo, Zhao Dong. Compression properties and simulation analysis of water. (EI) caltrop. International Agricultural Engineering Journal, 2020 Vol. 29 (1): 17-23
- [2] Fu Jianwei, **Zhang Guozhong**, Xie Gan, Wang Yang, Gao Yuan, Zhou Yong. Development of double-channel feeding harvester for ratoon rice[J]. Transactions of the Chinese Society of Agricultural Engineering (Transactions of the CSAE), 2020, 36(3): 11–20. (EI)
- [3] Wu Hao, Xia Junfang, **Zhang Guozhong**, Wang Peitong, Lao Shanfeng, Zhang Xiumei. Design and experiment of spin-jet flow type lotus root digging machine based on EDEM-Fluent[J]. Transactions of the Chinese Society of Agricultural Engineering (Transactions of the CSAE), 2018, 34(5): 9–14. (EI)
- [4] **Zhang Guozhong**, Yang Ming, Zhou Yong. Design of a kind of Cross-Board Type Shear Strength Measuring Instrument for Paddy Soil[C]. 2017 ASABE Annual International Meeting, 2017/7/16-2017/7/19, Spokane, Washington, 2017/7/16. (EI)
- [5] LEI Zhiqiang, **ZHANG Guozhong\***, PENG Shaobing, LU Kang, FU Jianwei, ZHA Xiantao, ZHOU Yong. Simulation and analysis of the rate of stubble pushing by chassis of the completely tracked harvester for ratoon rice[J]. Journal of Anhui Agricultural University, 2017, 44(4): 738-743. (In Chinese)
- [6] **ZHANG Guozhong**, ZHOU Yong, LU Yuanshuang, ZHAXiantao. Torque experiment of the model rotary knife roller of double spiral rotary tillage and stubble-mulch machine[J]. Journal of Huazhong Agricultural University, 2017, 36(3), 101~106. (In Chinese)
- [7] Lu Kang, **Zhang Guozhong\***, Peng Shaobing, Lei Zhiqiang, Fu Jianwei, Zha Xiantao, Zhou Yong. Design and performance experiment of tracked combine for ratoon rice with double-headers and double-threshing cylinders[J]. Journal of Huazhong Agricultural University, 2017, 36(5): 108-114. (In Chinese)
- [8] **Zhang Guozhong\***, Li Yi, Zhang Yixiang, Zhang Shasha. Performance

evaluation of toothed chain pulling device on cotton stalks with different soil moistures[C] 2016 ASABE Annual International Meeting, 2016/7/17-7/20,Orlando, Florida. 2016/07/17.

- [9] **Zhang Guozhong**,Zhang Shasha,Yang Wenping,Lu Kang,Lei Zhiqiang,Yang Ming.Design and experiment of double cavity side-filled precision hole seed metering device for rice[J].Transactions of the Chinese Society of Agricultural Engineering (Transactions of the CSAE),2016,32(8):9-17.
- [10] **Zhang Guozhong**, Zang Ying, Luo Xiwen\*, Wang Zaiman, Zhang Qiang, Zhang Shasha. Design and indoor simulated experiment of pneumatic rice seed metering device[J].Int J Agric & Biol Eng, 2015,8(4):1-9 (SCI,EI)
- [11] **ZHANG Guozhong**,ZHANG Yixiang, HUANG Jianliang,ZHAI KangYi,ZHOU Yong, HUANG Haidong,FAN Qizhou.Designing and performance testing a novel head spike harvester of ratoon rice[J]. Journal of Huazhong Agricultural University ,2015,(01):131-136. (In Chinese)
- [12] **Zhang Guozhong**,Zang Ying,Luo Xiwen,Wang Zaiman,Li Zhaodong.Line-churning tooth design and metering accuracy experiment of rice pneumatic precision hill-drop seed metering device on pregnant Japonica rice seed[J].Transactions of the Chinese Society of Agricultural Engineering (Transactions of the CSAE),2014,30(17):1-9.
- [13] **GuoZhong Z.**, Ying Z., XiWen L. \*, Zhaodong L., Qiang z. ,Experiment of precision rice pneumatic seed metering device on the thickness of seed layer[C].2014 ASABE Annual International Meeting, Montreal, Quebec Canada,Jul,2014. (Paper Number: 1912438)
- [14] **Guozhong Z.**, Yi L., Zhaodong L. , Yixiang Z., Kangyi Z. ,Measuring System of Cotton Stalk Real-Time Pull Force in The Field Based on LabVIEW[C].2014 ASABE Annual International Meeting, Montreal, Quebec Canada,Jul,2014. (Paper Number: 1912493)
- [15] **Zhang** Guozhong, Luo Xiwen, Zang Ying, et al.Experiment of sucking precision of sucking plate with group holes on rice pneumatic metering device[J]. Transactions of the CSAE, 2013, 29(6):13-20. (in Chinese with English abstract)
- [16] **Zhang** Guozhong, Zang Ying, Luo Xiwen, et al.Design and experiment of oriented seed churning device on pneumatic seed metering device for rice [J]. Transactions of the CSAE, 2013,29(12):1-8. (in Chinese with English abstract)
- [17] Li Yi, **Zhang Guozhong\***, Zhou Yong, et al. Design and field experiment of drawing resistance measurement system for cotton stalk [J]. Transactions of the Chinese Society of Agricultural Engineering (Transactions of the CSAE), 2013, 29(18):43-50. (in Chinese with English abstract)
- [18] **Guozhong Z.**,Yong Z,Junfang X.,Qichuan X.,Research of the Torque

Testing System in the Spiral Rotary tillage and stubble-mulch roller based on virtual instrument [C].2012 ASABE Annual International Meeting, Dallas, Texas,Jul,2012. (Paper Number: 1341193)

- [19] **Guozhong Z.**,Ying Z\*,,Xiwen L.,Zaiman W.,Shan Z.,Zhiyan Z.,Xiangru T.,Design of a pneumatic feed mechanism for precision rice hill-drop drilling machine. 2011 ASAE Annual International Meeting[C].Louisville, Kentucky, Aug, 2011 (Paper Number: 1111364)
- [20] Zhaodong Li, **Guozhong Zhang\***, Zhou Yong, Yuanshuang Lu, Jianbo Zhai, Li Yi. Motion Simulation of a Boat Shaped Grass Burying Rotary Tilling Blade Roller by Pro/E[C].The International Workshop on Mechanical and Material Engineering (IWMME 2012), 2012/11/16-2012/11/18, Wuhan, Hubei, 2012/11/16.
- [21] Ying Z.,**Guozhong Z.**,Shan z.,et al.,Investigation on Methane Emission in the Precision Rice Hill-drop Drilled Field During the Early Tillering Stage[C].2011 International Conference on Fuzzy Systems and Neural Computing,Hongkong.
- [22] **GuoZhong Z.**, XiWen L., Ying Z., Zaiman W., Shan Z., Lian H., Pei W., The pneumatic feed mechanism research overview of rice seeds[C]. 2011 CSAE annual academia meeting, Chongqing, 2011. (In Chinese)
- [23] **GuoZhong Z.**, XiWen L., Ying Z., Zaiman W., Shan Z., ZhiYan Z., XiangRu T.,The suck characteristic research of rice pneumatic feed mechanism on slow speed[C].2011 CSAE annual academia meeting, Chongqing,2011. (In Chinese)
- [24] **Guozhong Z.**, Yong Z., Mao S., Yuanshuang L., Zhaodong L., Yi L., The design and simulation study on chain-slide rail type clamping-pulling mechanism of cotton stalks[C].2011 CSAE annual academia meeting, Chongqing, 2011. (In Chinese)
- [25] Xinglin Y.,**Guozhong Z\***.,Junfang X., Yong Z., Mao S., Experiment on the double spiral and stubble mulch knife roller's torque[J].The research of agricultural mechanization ,2010,12:133~136. (In Chinese)
- [26] Ming Z., **Guozhong Z.\***, Qichuan X., Junfang X., Study on Viscous Soil Rectangular Cutting FEM Simulation [J]. Journal of Huazhong Agricultural University ,Vol.28 No.4, Aug,2009, 491~494. (In Chinese)
- [27] Ming Z., **Guozhong Z.\***, Qichuan X., Junfang X.,Yong Z,Finite Element Simulation Analysis on Cutting Progress of Right-angle transverse Knife [C].2009 CSAE annual academia meeting, Sanxi,Taiyuan, 2009. (In Chinese)
- [28] **Guozhong Z.**, Qichuan X., Junfang X., Haidong H., Yong Z., Design of the type 1GMC-70 boat-rot tiller [J]. Transactions of the CSAE, 2008, 39 (10):214-217. (In Chinese)

### **Funded Projects:**

- [1] CARS-24-D-02: Foundation of Aquatic vegetable production mechanization (Principal Investigator, RMB 2800,000.00, 2017.01-2020.12), the Fundamental Research Funds for the technical system of national characteristic vegetable industry.
- [2] 2017YFD0301400: Middle, lower and northern Yangtze river in 2017 Technical innovation report on ratooning rice mechanization (Principal Investigator, RMB 1480,000.00, 2017.01-2020.12), the Fundamental Research Funds for National key research and development program
- [3] 51775220: Contract-Rheology-Resistance coupling mechanism between the flat plate soil working parts and disturbed paddy soil (Principal Investigator, RMB 600,000.00, 2018.01-2021.12), the National Natural Science Foundation of China.
- [4] 2014AA10A605-8: Renewable green super rice harvested technology and equipment development, (Principal Investigator, RMB 400,000.00, 2014.01-2018.12) Sub projects of National High Technology Research and Development Program 863.
- [5] 2014PY-043: Key techniques of ratooning rice combine harvester (Principal Investigator, RMB 240,000.00, 2014.01-2016.12), the Fundamental Research Funds for the Central Universities.
- [6] 50975115: The dynamic mechanism research of the cutting process in the paddy field with the high stalks (Principal Investigator, RMB 360,000.00, 2010.01-2012.12), the National Natural Science Foundation of China.
- [7] 2011AA100704: Cotton straw biomechanical characteristics and drag reduction technology research (Principal Investigator, RMB100, 000.00, 2011.01-2012.12), the Fundamental Research Funds for the Central Universities.

### **Patents of China**

- [1] **Zhang Guozhong**; Zhou yong, Fan QiZhou; et al. A double cavity pneumatic device. China utility model patents, Authorization number: ZL 201320193226.9
- [2] **Zhang Guozhong**, Zhou yong, Fan Qi Zhou, et al. A slide type cast pot seedling manipulator. China utility model patents, Authorization number: ZL201210460435.5.
- [3] **Zhang Guozhong**, Li Zhaodong, Cheng Jianping, et al. Used for rice planter furrowing seeding mechanism assembly. China utility model patents, Authorization number: ZL201320054172.8.

- [4] **Zhang Guozhong**, Li Yi, Zhou yong, et al. The motor adjustable biological straw pulling force measuring device. China utility model patents, Authorization number: ZL201320300499.9
- [5] FanQiZhou, **Zhang Guozhong**, Cheng Jianping, et al. Ship type rice planter. China utility model patents, Authorization number: ZL201320054236.4.
- [6] XiWen L., **GuoZhong Z.**, Zaiman W., ea al. A kind of synchronous ridging, ditch and fertilization seeder in Paddy field, Invention patent, china, Authorization number: CN101622923B
- [7] XiWen L., Zaiman W., **GuoZhong Z.**, Shan Z., et al. A kind of synchronous ridging, ditch and spraying seeder, Practicality patent, china, Authorization number: CN201571308U
- [8] XiWen L., **GuoZhong Z.**, Zaiman W., et al. A kind of opener for deep fertilization, Practicality patent, china, Authorization number: CN201450798U
- [9] XiWen L., **GuoZhong Z.**, Zaiman W., et al. A kind of synchronous ridging, ditch and fertilization seeder in Paddy field, Practicality patent, china, Authorization number: CN201450798U
- [10] XiWen L., **GuoZhong Z.**, Zaiman W., et al. A kind of cleaning device in Pneumatic metering device, Invention patent, china, Application number: 201110252782.4
- [11] XiWen L., **GuoZhong Z.**, Ying Z., et al. A kind of precision hill-drop Pneumatic metering device, Invention patent, china, Application number: 201110252782.4
- [12] XiWen L., **GuoZhong Z.**, Ying Z., et al. A kind of rapid transformation sucking plate's Pneumatic metering device, Invention patent, china, Application number: 201110265569.7
- [13] XiWen L., **GuoZhong Z.**, Ying Z., et al. A kind of rapid transformation sucking plate's Pneumatic metering device, Invention patent, china, Application number: 201110265569.7
- [14] XiWen L., Ying Z., **GuoZhong Z.**, et al. A kind of paddy field deep fertilization ditch device, Practicality patent, china, Application number: 2011120332154.2
- [15] **GuoZhong Z.**, Ying Z., Zaiman W., et al. A kind of sucking plate with oriented churner, Invention patent, china, Application number: 201210460434.0
- [16] Junfang X., Shun Z., Yong Z., **GuoZhong Z.**, et al. A kind of Pneumatic metering device for pregnant rice seed, Invention patent, china, Application number: 201220603868.7
- [17] Junfang X., Yong Z., Qichuan X., **GuoZhong Z.**, et al. A kind of burying high straw device with twin rotary tillage, Practicality patent, china, Authorization number: CN202135463U

[18] Junfang X., Yong Z., Qichuan X., **GuoZhong Z.**, et al. A kind of burying high straw device with single rotary tillage in paddy field, Practicality patent, china, Authorization number: CN202374648U

### **Supervisor for the Following Master Students:**

- [1] Mr. Ming Zhou, Master, College of Engineering, Huazhong Agricultural University, Guangzhou, China (9/2006-6/2009)
- [2] Mr. Xinglin Yao, Master, College of Engineering, Huazhong Agricultural University, Guangzhou, China (9/2007-6/2010)
- [3] Mr. Mao Shen, Master, College of Engineering, Huazhong Agricultural University, Guangzhou, China (9/2007-6/2010)
- [4] Mr. Yuanshuang Lu, Master, College of Engineering, Huazhong Agricultural University, Guangzhou, China (9/2008-12/2011)
- [5] Ms. Yi Li, Master, College of Engineering, Huazhong Agricultural University, Guangzhou, China (9/2011-6/2014)
- [6] Mr. Zhaodong Li, Master candidate, College of Engineering, Huazhong Agricultural University, Guangzhou, China (9/2011-present)
- [7] Mr. Yixiang Zhang, Master candidate, College of Engineering, Huazhong Agricultural University, Guangzhou, China (9/2012-present)
- [8] Ms. Qiang Zhang, Master candidate, College of Engineering, Huazhong Agricultural University, Guangzhou, China (9/2013-present)
- [9] Mr. Shasha Zhang, Master candidate, College of Engineering, Huazhong Agricultural University, Guangzhou, China (9/2013-present)
- [10] Mr. Kangyi Zhai, Master candidate, College of Engineering, Huazhong Agricultural University, Guangzhou, China (9/2013-present)

### **Teaching Experience:**

- [1] Engineering Technology Economics
- [2] Agricultural machinery.
- [3] Metal Materials and Heat Treatment, Metal-Cutting Principles and cutters,

### **Rewards:**

The first "Hao Feng Bei" National Top Ten Agricultural Machinery Teachers Honor. 2013, Chinese Society of Agricultural Engineering, China Agricultural Machinery Institute, China Agricultural Mmechanization Guides.