Introduction of Master Supervisors

In College of Electrical Engineering and New Energy

- (1) Ph.D. Shan Cheng 程杉;
- (2) Ph.D Fu Wenlong 付文龙;
- (3) Ph. D Huang Jingguang 黄景光;
- (4) Ph.D Li Zhenhua 李振华;
- (5) Ph. D Pu Ziheng 普子恒;
- (6) Ph.D Qiu Li 邱立;
- (7) Professor & Ph.D Tang Bo 唐波;
- (8) Ph.D Weng Hanli 翁汉琍;
- (9) Ph.D Wang Lingyun 王凌云;
- (10) Professor & Ph.D Wang Fangzong 汪芳宗;
- (11) Ph.D Xi Lei 席磊;
- (12) Ph.D Xiong Qi 熊奇;
- (13) Ph.D XuYanchun 徐艳春;
- (14) Ph.D Yang Nan 杨楠;
- (15) Ph.D Zhang Tao 张涛;
- (16) Ph.D Zhang Yujiao 张宇娇;
- (17) Ph.D Zhang Yunning 张赟宁;
- (18) Ph.D Zhu Binxin 邾玢鑫.

(1) Ph.D. Shan Cheng

IEEE member

Associate Professor, College of Electrical Engineering and New Energy, CTGU

Director, Microgrid Research Center

Chairman, Executive Committee of Microgrid Research Center

PIC, Major of Smart Grid & Its Information Engineering

Research Interests: power system optimization, smart grid energy management and operation optimization & control, intelligent optimization algorithm & its application to power system.

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Biography

Ph.D. Shan Cheng received the Bachelor's degree in electronic information engineering from Henan Polytechnic University and the Ph.D. degree in electrical engineering from Chongqing University in 2005 and 2013, respectively. He had been with Huanggang Normal University, Hubei Province, from July 2005 to August 2008. Since July 2013, he has been with China Three Gorges University, Hubei Province, where he is currently the Director of Microgrid Research Center and Chairman of Executive Committee of Microgrid Research Center. He has been the PI for 6 grants supported by National Science Foundation Committee, Hubei Provincial Department of Education, Key Laboratory of Hubei Province, and Yichang Municipal Department of Science and Technology. Since 2014, on optimal integration of renewable distributed resource and electric vehicles into the distribution network and the corresponding energy management, he published more than ten SCI indexed academic papers in international journals including IEEE/ACM Transactions on Computational Biology and Bioinformatics, International Journal of Electrical Power & Energy Systems, Neurocomputing, Journal of Renewable and Sustainable Energy, Automation of Electric Power Systems. Besides, he is much experienced in teaching. He was awarded "The Best Teacher in International Students' Mind" and "Distinguished Young Teaching Expert" by CTGU in 2015 and 2016, respectively. He won the third prize in Hubei Provincial Teaching Competition and the second prize in the National Teaching Competition of Electrotechnics in 2016 and 2017, respectively.

Educational Experience

July 2008-June 2013, Ph.D., Electrical Engineering, Chongqing University, China

(Aug. 2010-Aug. 2011, Visiting Scholar, Department of Electrical Engineering, YuanZe University, Taiwan)

Sept. 2001-June 2005, B.E., Electronic Information Engineering, Henan Polytechnic University, China

Work Experience

Nov. 2015-Present, Director of Microgrid Research Center and Chairman of Executive Committee of Microgrid Research Center

July 2013-Present, Associate Professor, College of Electrical Engineering and New Energy, CTGU

July 2005-Aug. 2008, Assistant Professor, Department of Physical Science and Electronic Technology, Huanggang Normal University, China

Selected Academic Funds

Sept. 2016 - present, Hierarchical Coordinated Dispatch and Optimization of Multi-microgrid with EV Integrated Station, National Science Foundation Committee.

Jan. 2016 - present, Multi-objective Operation Optimization of EV Charging Station with PV System, Hubei Provincial Department of Education.

Jan. 2016 - present, Integration & Its Economic Operation of EV and Renewable Resource in the Microgrid, Hubei Collaborative Innovation Centre.

Jan. 2014 – Dec. 2015, Dynamic Operation Optimization of Grid-connected Microgrid, Yichang Municipal Department of Science and Technology.

Selected International Journal Papers Since 2014

- 1. Shan Cheng, Xianning Wang, Yichen Feng. Decentralized Optimization of EV Charging Station Controlled Charging Schedule, Automation of Electric Power Systems, Accepted.
- 2. Shan Cheng, Gao Can Su, Long Long Zhao, Tian Li Huang. Dynamic Dispatch Optimization of Microgrid Based on a QS-PSO Algorithm. Journal of Renewable and Sustainable Energy, 2017, 9(4): 045505.(SCI: 000407827600025)
- 3. Shan Cheng, Wei-Bin Sun, Wen-Li Liu. Multi-Objective Configuration Optimization of a Hybrid Energy Storage System. Applied Sciences. 2017, 7(2), 163. (SCI: 000395488900055)
- 4. S. Cheng, L. L. Zhao, X. Y. Jiang. An Effective Application of Bacteria Quorum Sensing and Circular Elimination in MOPSO. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2017, 14(1): 56-63. (SCI: WOS000395676900006)
- 5. Shan Cheng, MinYou Chen, Peter J. Fleming. Improved Multi-objective Particle Swarm Optimization with Preference Strategy for Optimal DG Integration

into the Distribution System. Neurocompting, 2015, 148(4-5): 23-29. (SCI: 000343840000004)

- 6. Shan Cheng, Min-You Chen. Multi-objective Reactive Power Optimization Strategy for Distribution System with Penetration of Distributed Generation. International Journal of Electrical Power & Energy Systems, 2014, 62:221-228. (SCI: 000339601500025)
- 7. Shan Cheng, Min-you Chen, Rong-Jong Wai, Fang-zong Wang. Optimal placement of distributed generation units in distribution systems via an enhanced multi-objective particle swarm optimization algorithm. Journal of Zhejiang University-SCIENCE C (Computers & Electronics), 2014, 15(4): 300-311. (SCI:WOS000334522500007)
- 8. Shan Cheng, Tian-Ya Qin, Li-Bing Jing. Multi-objective optimization of accommodating distributed generation considering power loss, power quality and system stability. Journal of Industrial and Production Engineering. 2014, 31(3): 146-154. (EI: 20143118010385)
- 9. Rong-Jong Wai, Shan Cheng, Yeou-Fu Lin, Yi-Chang Chen. Installed capacity selection of hybrid energy generation system via improved particle-swarm-optimisation. IET Generation, Transmission & Distribution, 2014, 8(4): 742-752. (SCI: 000333641800017)
- 10. Shan Cheng, Min-You Chen, Gang Hu. Convergence Enhanced Multi-objective Particle Swarm Optimization with Introduction of Quorum-Sensing Inspired Turbulence. Lecture Notes in Computer Science, 2014, 8794, 2014: 394-403. (EI: 20150400452083)

Graduate Advising (Awards of the Students)

Nov. 2017, Weibin Sun, National Scholarship, Ministry of Education

July 2017, Longlong Zhao, Excellent M. S. Thesis of CTGU

July 2017, Pengfei Du, Excellent M. S. Thesis of CTGU

Nov. 2016, Longlong Zhao, National Scholarship, Ministry of Education

July 2016, Boyu Jiang, Excellent B. S. Graduate Project of Hubei Province

(2) Ph.D Fu Wenlong

Title: Lecturer

Research discipline:

Electrical Engineering and Automation

Research directions:

power plant condition monitoring and fault diagnosis; power generation system modeling and simulation and optimization control; signal processing of power devices.

Researching experience:

participated in a number of science and technology projects including the National Natural Science Foundation of China, State Grid Hubei Power Company and State Grid Xinyuan Company.

Learning experience:

2007-2011, Huazhong University of Science and Technology, undergraduate, received a bachelor's degree in engineering

2011-2016, Huazhong University of Science and Technology, straight attack Bo, received a doctorate of engineering

Recent research directions:

new energy power generation system modeling, simulation and control of large data-driven fault diagnosis method

Recent projects:

- 1. complex non-linear dynamic modeling and diagnosis of hydropower units, National Natural Science Foundation of China, participation
- 2. Integrated Fault Diagnosis of Pumped Storage Unit and Nonlinear Predictive Control, National Natural Science Foundation of China, Participation
- 3. equivalent model identification of small and medium-sized hydro-power units based on PMU or fault recording, National Grid Hubei Power Company science and technology projects, participation
 - 4. hydro-generator state diagnosis system, Nanjing NARI Hydropower

Papers:

- 1. WenlongFu, J Zhou, Y Zhang, et al. A state tendency measurement for a hydro-turbine generating unit based on aggregated EEMD and SVR. Measurement Science and Technology, 2015, 26(12): 125008.(SCI)
- 2. Jianzhong Zhou, Wenlong Fu*, Yongchuan Zhang, et al. Fault diagnosis of generator unit based on a novel weighted support vector data description with fuzzy adaptive threshold decision. Transactions of the Institute of Measurement and Control, 2016.(SCI)
- 3. Wenlong Fu, J Zhou, Y Zhang. Fault diagnosis for rolling element bearings with VMD time-frequency analysis and SVM. IMCCC 2015. (EI)
- 4. Vibrant Fault Diagnosis for Hydro-Electric Generating Unit Based on Support Vector Data Description Improved With Fuzzy K Nearest Neighbor. (EI)
- 5. Vibration trend prediction of hydroelectric generating unit based on OVMD and SVR. (EI)

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(3) Ph. D Huang Jingguang

PhD, Associate Professor, Department of Electrical Engineering, College of Electrical Engineering and New Energy, China Three Gorges University.

Educational Background:

2008/9 - 2013/6, Huazhong University of Science and Technology, Doctor candidate in Electrical Engineering;

1999/9 - 2002/6, Wuhan University, Master candidate in Electrical Engineering;

1987/9 - 1991/6, Shanghai Jiaotong University, Bachelor candidate in Power System and its Automation.

Occupational Experience:

1991/7 - , College of Electrical Engineering and New Energy, China Three Gorges University, Senior Engineer;

Research Fields:

Power system analysis and protective relaying.

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(4) Ph.D Li Zhenhua;

Professional qualification: University professor/Doctor;

Research subject: Electrical Engineering;

Main research directions: intelligent substation state monitoring, electric energy metering device and electromagnetic compatibility technology, intelligent distribution network;

Personal profile: Li Zhenhua, male, born in 1986, master tutor, Professor of China Three Gorges University. in June 2014, he received a doctorate from Huazhong University of Science and Technology. Since his graduation, he has been teaching at the Institute of electrical and new energy of China Three Gorges University, and is the party branch secretary of the high voltage technology department. At present, more than 20 invention patents have been declared, 2 invention patents are authorized, and nearly 20 utility model patents are authorized. More than 20 papers have been published, of which more than 10 have been retrieved from SCI and EI. he serves as the SCI journal "Review of Scientific and Instruments" and "Transactions of the Institute of Measurement and Control" Periodical reviewer. He also served as the EI journal "high voltage technology" and many other domestic and foreign periodicals reviewers. Host National Natural Science Fund project, Hubei natural science fund project, key laboratory open fund, Power Grid Corp science and technology project and so on.

Presided or undertaken major scientific research projects in the last five years

- 1. National Natural Science Foundation Project: Research on the theory and method of precision sensing for on-line calibration of electric energy metering device.
- 2. Hubei Natural Science Foundation Project: Research on precision sensing theory and method for non-contact voltage current measurement.
- 3. Gansu electric power company science and technology project: electrified check technology of electronic voltage transformer in Intelligent Substation.
- 4. The project of Yichang power supply company of state grid: Research on the field calibrator of digital electric energy meter.
- 5. The operation and control of cascade hydropower stations in Hubei Province Key Laboratory Fund Project: Research on the method and technology of state monitoring of hydropower units based on distributed magnetic field sensing.

Representative papers

- 1. Zhenhua Li, Hongbin Li, Zhi Zhang. An Accurate Online Calibration System Based on Combined Clamp-shape Coil for High Voltage Electronic Current Transformers. Review of Scientific and Instruments. 2013, 84(7): 075113. SCI
 - 2. Zhenhua Li, Hongbin Li, Zhi Zhang, et al. High-accuracy online calibration

system for electronic voltage transformers with digital output. Transactions of the Institute of Measurement and Control. 2014, 36(6): 734-742. SCI

- 3. Zhenhua Li, Hongbin Li, Zhi Zhang, et al. An Online Calibration Method for Electronic Voltage Transformers Based on IEC 61850-9-2. MAPAN-Journal of Metrology Society of India. 2014, 29(2): 97-105. SCI
- 4. Li Zhenhua, Yan Suhong, et al., High accuracy on-line calibration system for current transformers based on clamp-shape Rogowski coil and improved digital integrator, MAPAN-Journal of Metrology Society, 2016, 31(2), 119-127. SCI
- 5. Zhenhua Li, Shuang Zhao. High Accuracy Optical Voltage Transformer with Digital Output Based on Coaxial Capacitor Voltage Divider. Contractions of the Institute of the Measurement, 2017. SCI

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(5) Ph. D Pu Ziheng

Department of High voltage technology (Office) E2-505

Telephone number: 18271321077 E-mail: pzhdq@ctgu.edu.cn

Education:

Ph.D., High voltage and insulation technology, WuHan University, 2015

M.Phil, High voltage and insulation technology, WuHan University, 2012

B.Eng, Electrical engineering and automation, WuHan University, 2015

Short Biography:

Pu Ziheng was born in Wuhan, China, in 1987. Major research direction: Intelligent inspection technology for transmission line and Insulation test technology for high voltage electrical equipment.

Publications:

- 1. Ziheng Pu, Jiangjun Ruan, Zhiye Du, et al. Analysis of voltage distribution characteristics in UHVDC converter transformer winding based on the reduced-scale model [J]. IEEE transactions on Magnetics, 2014, 50(11). (SCI 收录)
- 2. Ziheng Pu, Jiangjun Ruan, Daochun Huang, et al. Study on the breakdown characteristics of the transmission line under forest fire conditions [J]. International transactions on electrical energy systems, 2015, 25(11): 2731-2744.
- 3. Ziheng Pu, Jiangjun Ruan, Yadong Zhang, et al. Wave process in scale-down model winding of UHVDC converter transformer under the lightning impulse voltage [J]. IEEE transactions on Magnetics, 2015, 51(11). (SCI 收录)
- 4. 普子恒, 阮江军, 黄道春, 等. 火焰条件下间隙的直流电压击穿特性研究[J]. 中国电机工程学报, 2014, 34(3): 453-459.(EI 收录)
- 5. 普子恒,张宇娇,方春华,等. 雷电冲击下换流变压器绕组故障模拟与诊断方法研究[J]. 中国电机工程学报,2017,37(5): 1552-1559.(EI 收录)
 - 6. 普子恒, 阮江军, 吴田, 等. 火焰中颗粒对间隙放电特性的影响[J]. 高电

压技术, 2014, 40(1): 103-110.(EI 收录)

7. 普子恒, 阮江军, 杜志叶, 等. 同塔双回 500kV 高压直流线路感应过电压研究[J]. 高压电器, 2012, 48(10): 52-57.

(6) Ph.D Qiu Li

Title:

Associate Professor

Academic Discipline:

Electrical Engineering, Transmission Line Engineering

Major Research Direction:

High Voltage Technique, Analysis and Application of Electromagnetic Field of Transmission Line Equipment

Personal Resume:

Born in 1984, and worked in the Three Gorges University from 2012 to the present.

Education Information:

2003-2007, Huazhong University of Science and Technology, Undergraduate/Bachelor

2007-2012, Huazhong University of Science and Technology, Postgraduate/ Doctor

Recent Plans (Scientific Research):

High Voltage Technique, Analysis and Application of Electromagnetic Field of Transmission Line Equipment

The Major Research Projects Presided Over or Undertake in The Past Five Years:

- 1. Chair, Study on coupling mechanism of electromagnetic field-structure and forming performance in electromagnetic tube expansion with axial compress, National Fund. 2016/1-2018/12.
- 2. Chair, Analysis and application of infrared thermography in transmission line insulator status detection, Power Network Project, 2014.
- 3. Chair, Study on electric field characteristics of composite insulators for high voltage transmission line and rain-flash mechanism based on coupling analysis of electric field and Biphasic flow, Natural Science Research Project in Hubei Provincial Department, 2014/01-2015/12.
- 4. Chair, Research on coupling mechanism of electromagnetic field-structure and control strategy of electromagnetic force in reusable loaded electromagnetic sheet forming, Open Topic of State Key Laboratory of Advanced Electromagnetic Engineering and Technology, 2013/10-2015/09.
 - 5. Chair, Study on coupling mechanism of electromagnetic field-structure in

electromagnetic forming, Talent Scientific Research Fund Project in Three Gorges University, 2013/07-2016 /06.

Representative papers:

- 1. Li Qiu, Xiaotao Han, Tao Peng, Hongfa Ding, Qi Xiong, Zhongyu Zhou, Chengxi Jiang, Yiliang Lv, Liang Li. Design and Experiments of a High Field Electromagnetic Forming System [J], IEEE Transactions on Applied Superconductivity. Vol. 22, No. 3, pp. 3700504, 2012. SCI
- 2. Li Qiu, Yiliang Lv, Liang Li. Finite Element Analysis for Stress and Magnetic Field of a 40 kA Protection Inductor [J]. IEEE Transactions on Applied Superconductivity. Vol. 20, No. 3, pp. 1936-1939, 2010. SCI
- 3. Li Qiu, Xibo Wen, Hongsheng Li, Tiegang Li. Study on Effect of Material Property on Thermal Power in Induction Cooker System with Finite Element Method [J]. International Journal of Applied Electromagnetics and Mechanics. Vol. 46, No. 1, pp. 35-42, 2014. SCI
- 4. Yiliang Lv, Li Qiu, Liang Li. 25 kV/40 kA Protection Inductor for Capacitor Bank of the Wuhan Pulsed High Magnetic Field Facility [J]. IEEE Transactions on Applied Superconductivity. Vol. 20, No. 3, pp. 1211-1214, 2010. SCI
- 5. Li Qiu, Yao Xiao, Changzheng Deng, Zhenxing Li, Yihui Xu, Zhenhua Li, Peng Chang. Electromagnetic-structural analysis and improved loose coupling method in electromagnetic forming process [J]. Int J Adv Manuf Technol. 2016. SCI.
- 6. Li Qiu, Yao Xiao, Shuqin Wang, Changzheng Deng, Zhenxing Li, and Yongwei Huang. Design and Computation of Coil Inductance for Induction Cookers [J]. Russian Electrical Engineering, 2015, Vol. 86, No. 2, pp. 106–110. EI
- 7. Li Qiu, Xiaotao Han, Qi Xiong, Zhongyu Zhou, Liang Li. Effect of Workpiece Motion on Forming Velocity in Electromagnetic Forming [C]. the 5th International Conference on High Speed Forming (ICHSF2012), Dortmund, Germany, 2012, pp. 103-112.
- 8. 邱立, 径向与轴向双向加载式金属管件电磁成形方法及装置, 2015 年 1 月 7 日, 授权(发明专利), 中国, 201310336158.1(103406418B)。
- 9. 李亮,邱立,周中玉,韩小涛,多级多向脉冲电磁成形方法及装置,2013年7月24日,授权(发明专利),中国,201110162641.3 (102248059B)。
- 10. 李亮, 邱立, 一种电磁驱动成形方法及装置, 2014 年 9 月 24 日, 授权 (发明专利), 中国, 201110142693.4(102248693B)。

Tel: 13972600573

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(7) Professor & Ph.D. Tang Bo

Tang Bo was born in Hubei, China, in 1978.

Currently, he is a Vice Dean of the Electric Engineering and Renewable Energy S chool in China Three Gorges University, and is one of the members of science and tec hnology innovation team for State Grid Corporation of China (SG11013). In addition, he is a reviewer for EI Core J ournal of <High Voltage Engineering>.

He received the B.S. degree from Wuhan University of Hydraulic and Electric, Wuhan, China, in 2000, the M.S. degree from China Three Gorges University, Yichan g, China, in 2005, the Ph.D. degree from Huazhong University of Science and Techn ology, Wuhan, China, in 2011.

Until now, his research interests include Extra/Ultra high voltage transmission t echnology and electromagnetic environment from power system.

He has presided over 1 National Nature Science Foundation, 4 provincial and mi nisterial science projects, and 13 others projects. Moreover, he has published over 60 research papers as the first author, and over 30 papers have been indexed by SCI/EI.

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(8) Ph.D Weng Hanli

Doctor of Engineering, Senior Engineer

Department of Electrical Engineering, College of Electrical Engineering and New Energy, China Three Gorges University.

Educational Background:

2004/9 - 2009/6, Huazhong University of Science and Technology, Doctor candidate in Electrical Engineering;

1998/9 - 2002/6, Huazhong University of Science and Technology, Bachelor candidate in Power System and its Automation.

Occupational Experience:

2014/8 - , College of Electrical Engineering and New Energy, China Three Gorges University, Senior Engineer;

2009/7 - 2014/8, Technology and Research Center, China Yangtze Power Co., Ltd., Senior Engineer.

Her Research Fields:

Power system analysis and protective relaying.

Personal Research Achievements:

She has published more than 50 papers on IEEE Transactions, Proceedings of the CSEE, High Voltage Engineering and Automation of Electric Power Systems, and so on, among which, 16 are indexed by SCI, 39 are indexed by EI. She is the coauthor of two professional books.

Representative Journal Articles:

- 1. Weng Hanli, Li Xuehua, Lu Jusheng, et al. The Symmetrical Inrush Current Mechanism of the UHV Converter Transformer and Its Impact on the Converter Connection-Transformer Differential Protection[J]. Automation of Electric Power Systems, 2017, 41(05): 153-158(EI).
- 2. Hanli Weng, Youping Li. Instance Analysis for the Error of Three-pivot Pressure Transducer Static Balancing Method for Hydraulic Turbine Runner[C]. Journal of Physics: Conference Series, 2017, 813(1): 012021.(EI)
- 3. Weng Hanli, Yang Guowen, Xiang Yanhui, et al. Effect of Transformer Saturation on the DC Distribution of AC Power System [J]. High Voltage Engineering,

2016, 42(10): 3295-3300.(EI)

- 4. Hanli Weng, Xuehua Li, Guowen Yang. Operation Behavior of Converter Bridge Differential Protection in Converter Station of HVDC System. The 5th International Conference on Electric Utility Deregulation and Restructuring and Power Technologies. 1-4.2015(EI)
- 5. Hanli Weng, Guowen Yang, Xuehua Li, Xiangning Lin. The Impact of GIC on System Voltage and Generator Output. 2015 The 5th International Conference on Electric Utility Deregulation and Restructuring and Power Technologies.1-5. (EI)
- 6. Hanli Weng and Xiangning Lin. Studies on the Unusual Maloperation of Transformer Differential Protection During the Nonlinear Load Switch-In. IIEEE Transactions on Power Delivery, 2009, 24(4):1824-1831. (SCI,EI)
- 7. Hanli Weng, Xiangning Lin, and Pei Liu.Studies on the Operation Behavior of Differential Protection During a Loaded Transformer Energization. IEEE Transactions on Power Delivery, 2007, 22(3):1386-1391. (SCI, EI)

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(9) Ph.D Wang Lingyun

Gender:

Male

Professional Title:

Associate Professor, Master tutor

Personal profile:

Graduated from: PhD in Central South University, China and Curtin University, Australia

Major: Control Science and Engineering

Professional Interests:

Optimization and control of renewable energy generation

Numerical computation of power system

Teaching experiences:

Associate professor, 2013-current

Visiting scholar in Curtin University, Australia from February - August 2016

Lecturer, 2010-2013

Courses taught

Electrical Machinery

Wind Power Generation Principle

Microgrid Operation and Control

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(10) Professor &Ph.D Wang Fangzong

Professor &Ph.D Wang Fangzong received a doctorate degree in Hua Zhong University of Science & Technology in 1991. In 1993 he got a post-doctoral degree. His areas of study include Electric Power System and Automation, new energy micro-grid, computational & applied mathematics in engineering and so on. He is Chair professor in CTGU Electrical Engineering and New Energy.

From now on, 3 NSFC projects and 3 national 863 projects have been conducted by Professor Fangzong Wang. He also published 2 academic monographs and 90 theses. 50 theses of those have been published by SCI and EI. He has the honor to win Hubei province scientific and technological advance award. Professor Fangzong Wang have conducted many projects of China Electric Power Research Institute, China South Electric Network Company and other units.

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(11) Ph.D Xi Lei

Title:

Associate professor

Research Subjects:

electrical engineering, new energy and micro-grid

Research Interests:

automatic generation control, reinforcement learning, multi-agent

Profile

Dr. Xi Lei, who was born in Kaiyuan, Liaoning Province, P.R.China, has published over 10 papers on SCI and EI. He is currently a referee for the SCI journal Scientia Iranica and EI journal International Journal of Electrical and Computer. And he is also the editorial member of national journal new industrialization. He establishes close academic communication relationships with South China University of Technology, Hunan University, Kunming University of Science and Technology, Shenzhen University and so on. Dr. Xi's scientific research team forges ahead in unity with strong academic atmosphere. The excellent undergraduates in the field of electric power system and electrical engineering related are greatly welcome to join in this team.

Life motto:

Gain trust before you gain success.

Recent research work:

energy internet; smart generation control; artificial intelligence

Education Experience

- Ph.D. South China University of Technology, Electric power system and automation, 2009
- M.S. Harbin University Of Science And Technology, Control theory and control engineering, 2009

Current Projects

- 1. A novel time tunnel and virtual wolf pack strategy based smart generation control for large-scale interconnected generation ecosystem. Supported by: National Natural Science Foundation of China. PI. Research funds: 250 thousand RMB.
- 2. Multi-time scale hierarchical and distributed coordinated control technology based on smart distribution network. Supported by: Guangdong Key Laboratory of Clean Energy Technology. PI. Research funds: 50 thousand RMB.
- 3. Exploration on the teaching reform of *dynamic electric power system theory* based on "Learn first teach Later". Supported by the teaching and research reform project of the pilot unit of the graduate course construction of the Ministry of Education. PI. Research funds:5 thousand RMB.
- 4. Basic research on energy management and operation control of smart grid with source network load coordination. Supported by the major state basic research development program of China (973 program). CO-PI. Research funds: 2.55 million RMB.
- 5. Mixed equilibrium state of smart generation control and multi-agent stochastic equilibrium game theory. Supported by: National Natural Science Foundation of China. CO-PI. Research funds: 800 thousand RMB.
- 6. Smart cooperative control theory of power system frequency autonomy and virtual generation tribes. Supported by: National Natural Science Foundation of China, CO-PI, Research funds: 800 thousand RMB.

Recent Publication List

- **1. Lei Xi**, Tao Yu*, Bo Yang, Xiaoshun Zhang, Xuanyu Qiu. A wolf pack hunting strategy based virtual tribes control for automatic generation control of smart grid. Applied Energy. 2016,178: 198-211. **SCI (TOP, JCR:Q1, IF:7.182)**
- **2.** Lei Xi, Zeyu Zhang, Bo Yang, Linni Huang, Tao Yu*. Wolf pack hunting strategy for automatic generation control of an islanding smart distribution network. Energy Conversion and Management. 2016,122: 10-24. SCI (TOP, JCR:Q1, IF:5.589)
- **3. Lei Xi**, Tao Yu*, Bo Yang, Xiaoshun Zhang. A novel multi-agent decentralized win or learn fast policy hill-climbing with eligibility trace algorithm for smart generation control of interconnected complex power grids. Energy Conversion and Management. 2015,103(10): 82-93. **SCI (TOP, JCR:Q1, IF:5.589)**
- **4.** Tao Yu, **Lei Xi***, Bo Yang, Zhao Xu, Lin Jiang. Multiagent Stochastic Dynamic Game for Smart Generation Control. Journal of Energy Engineering.2016,142(1), 04015012. **SCI (JCR:Q2, IF:1.944)**

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(12) Ph.D Xiong Qi

Lecturer of CTGU, Doctor of Electrical Engineer
College of Electrical Engineering & New Energy
China Three Gorge University
Yichang, Hubei Province, China



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Education Background Information

2010.9 till 2016.6	Huazhong University of Science and Technology(PhD program)
	(The Wuhan National High Magnetic Field Center)
	Major: Electrical Engineering
200.6 till 2010.6	Huazhong University of Science and Technology(Bachlor)
	Major: Electrical Engineering and Automation

Scientific Research Background

2011 till now Electromagnetic Forming Technology

As PI

- 1. Study on the spatial and temporal distribution characteristics of electromagnetic force and forming quality in electromagnetic attractive forming of sheet metals. **Funded by National Natural Science Foundation of China**. 2018/01-2020/12.
- 2. Study on the distribution characteristics of electromagnetic force and forming quality in electromagnetic forming of Al alloy sheet metals, **Funded by Research Foundation of Education Bureau of Hubei Province, China**, 2017/01-2018/12;
- 3. Study on deep drawing process based on controlled radial-axial force, **Funded by HUST Innovation Research Institution.** 2014/01-2015/12

As Participator

1. Space-time-controlled multi-stage pulsed magnetic field forming and

manufacturing technology. Funder by National Program on Key Basic Research Project of China (973 Program). 2011/11~2016/09

Papers in Proceedings

- 1. Qi Xiong, Quanliang Cao, Xiaotao Han. Axially Movable Electromagnetic Forming System for Large-scale Metallic Sheet[J]. IEEE Transactions on Applied Superconductivity, 2016:1-1.
- 2. Qi Xiong, Xiao-tao Han, Quan-liang Cao. Bulging of 1420 Al-Li alloy based on Pulse Current[J]. Procedia Engineering, 2014, 81:808-812.

Patents

1. Li Liang, Xiong Qi. "An electromagnetic force for driving the metal material plastic forming method", CN Patent: 103962437

(13) Ph.D Yanchun Xu

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13618694083

Personal profile:

Graduated from: Harbin Institute of Technology

Major:

Electrical Engineering

Professional Interests:

- 1. signal processing and harmonics detection
- 2. power matrix converter applied in power system
- 3. power system analysis and protective relays
- 4. partial discharge detection in large-scale electric devices

Education:

1. 2006-2010 Harbin Institute of Technology, School of Electrical Engineering and Automation.

Graduated in July, 2010 with a Ph.D. degree in Power Electronics and Power Drives.

2. 2004-2006 Harbin Institute of Technology, School of Electrical Engineering and Automation.

Graduated in July, 2006 with a master's degree in electric theory and new technology.

3. 1995-1999. Hohai University, School of Electrical Engineering and Automation.

Graduated in July, 1999 with a undergraduate's degree in power system and automation.

Teaching experiences:

- 1. visiting scholar in Texas A&M University in America in 2011- 2013
- 2. Associate professor, 2010-current
- **3.** Lecturer, 2004-2010
- 4. Assistant professor, 1999-2004

Courses taught





- 1. Power System Analysis
- 2. electric Circuit Analysis
- 3. Power System Relay Protection

Selected Publications:

- 1. Yan-chun, Xu, Yu-long, Liu, Zhen-xing, Li, Zhen-hua, Li, Quan Wang, Harmonic Estimation Base on Center Frequency Shift Algorithm, MAPAN-Journal of Metrology Society of India,2017,1(32),43-50 (**Included by SCI**, **IDS Number**: EN7VU)
- **2.** Y.C.Xu, X. D Qu, Frequency Detection of Self-adaption Control Based on Chaotic Theory. Chinese. Phys. B, 2015,24 (3), 034301-1~034301-5 (**Included by SCI, IDS Number: CD4MH**)
- **3.** Y.C.Xu, C.L. Yang, X.D.Qu.The New Approach to Detecting Weak Signal in Strong Noise Based on Chaos System Control.Chin. Phys. B, 2010, 19(3),030516-1 \sim 030516-5(**Included by SCI, IDS Number:570GQ**)
- 4. Xu Yanchun, Yang Chunling. New method of weak signal frequency detection using high-level chaotic oscillator. Journal of Harbin Institute of Technology. 2010,42(3),446~450 (Included by EI, Accession Number: 2010 2012933002)
- 5. Y.C.Xu,C.L.Yang.The Study of Weak Signal Detection Based on Chaotic Oscillator.2007International Conference on Communications, Circuits and Systems Proceedings, Kokura, Japan ,2007, $693\sim696$.(Included by EI, Accession Number: 081211153589)
- 6. Y.C.Xu, C.L. Yang, M.Zhu, X.D.Qu.The Study of Low Temperature Target Weak Signal Detection Technique Based on Power. Spectrum. 4th IEEE Conference on Industrial Electronics and Applications, Xi'an, China,2009, 1430 \sim 1434.(Included by EI, Accession Number: 20094012351451)
- 7. QU Xiaodong, XU Yanchun.Indirect Matrix Converter Based on Investigations of Field-oriented Control for Induction Motor.4th IEEE Conference on Industrial Electronics and Applications.Xi'an, 2009, 709~714. (**Included by EI, Accession Number: 20094012351**)
- 8 Xu Yanchun, Qu Xiaodong. The characteristic parameter estimation of low temperature target weak signal based on VanderPol-Duffing system. International Conference on Energy and Environment. Shenzhen. 2011, 425~428
- 8. Xu Yanchun, Yanch Chunling, Qu Xiaodong. The study of weak signal detection arithmetic based on chaotic oscillator. Chines Journal of Science Instrument. $2007,28,391\sim394$
- 9. Xu Yanchun, Yang Chunling, Song Tiesuo. Design of acquisition system for weak signal based on USB. Electrical Application. 2008,24(8), $161\sim162$

Researched Project:

- 1. The Scientific Research Fund for the Returned Overseas Chinese Scholars, State Education Ministry (**Grant Number: KJ2015QT007**).
- 2. The Fund for Hubei Key Laboratory of Cascaded Hydropower Stations Operation & Control in China (**Grant Number:2015KJX08**)
- 3. The R&D Research and Development Fund in Yichang Science and Technology Bureau (**Grant Number: A15-302-a12**)
- 4. The Scientific Research Fund for the Talent in China Three Gorges University(Grant Number:KJ2013B079)

(14) Ph.D Yang Nan

Title:

Associate Professor, Doctor, MA student adviser;

Research subject:

Power System and Automation

Main Research Direction:

Power system dispatching automation with new energy, Power system analysis and modeling, Power system planning, Operation and control of micro-grid, Active distribution network.

Personal profile:

Born in May, 1987. 2005-2009 studied at Taiyuan University of Technology. 2009-2014 attended Wuhan University. He is teaching at the new energy micro-grid research center of the Institute of electrical and new energy of China Three Gorges University (CTGU) from June 2014 to now. Since his coaching, he has been devoted to graduate education and scientific research in the field of power system, which has achieved fruitful results. Currently, he has presided over 1 project of National Natural Science Foundation of China Youth Fund and 7 national key power projects of State Grid and China Southern Power Grid. His cumulative research fund is nearly 2 million RMB. In recent years, through the cooperation with scientific research projects, he has formed good cooperative relations with the provincial and municipal companies of the State Grid and China Southern Power Grid. Thus, he can provide a good platform for postgraduates to study, research and employment. As of now, he has published more than 10 articles, 8 of them were indexed by the Engineering Index (EI).

Learning experiences:

From September 2005 to June 2009, he graduated with a bachelor's degree in Electrical engineering and automation in the college of electrical engineering, Taiyuan University of Technology. From September 2009 to June 2014, he graduated with a doctor's degree in the Power system and automation in the College of electrical engineering, Wuhan University.

The main scientific research projects have been presided in the past five years:

5. The National Natural Science Foundation of China: Study on unit combination model and numerical solution method of random deterministic coupled power system considering AC power flow safety constraints.

- 6. State Grid Corporation of science and technology projects: Development of a micro-grid pilot system for the national Lanzhou New District Smart Grid integrated construction project with AC/DC hybrid multi-level micro-grid.
- 7. State Grid Hunan Electric Power Company Science and Technology Project: Research on Key Technologies for Improving the Safe, Stable Operation and Transmission Capability of Hunan Power Grid after Jiuquan to Hunan UHVVDC Access-System and the Test of Power Peak regulation and Power Consumption Balance Comprehensive Analysis.
- 8. State Grid Sichuan Electric Power Company Science and Technology Project: Research on Distribution Network Planning Standards for Low Density Load Areas who's Facing Voltage Quality.
- 9. China Southern Power Grid Yunnan Power Company Science and Technology Project: Research on Intelligent Test and Data Management Technology of Control and Protection System Motherboard Card.
- 10. State Grid Hubei Electric Power Company Science and Technology Project: Construction of distribution network planning system based on SEC and Research on Key Technology.
- 11. State Grid Gansu Electric Power Company Science and Technology Project: Research on New Large Users' Direct Power Purchase and other Promotion Strategy Based on the Reform Background.

Representative papers:

- 1. Yang Nan, Wang Bo, Liu Dichen, Zhao Jie, Wang He. An Integrated Supply-demand Stochastic Optimization Method Considering Large-scale Wind Power and Flexible Load [J]. Proceedings of the CSEE. 2013.33(16):63-69.
- 2. Yang Nan, Wang Bo, Liu Dichen, Zhao Jie, Wang He. Large-Scale Wind Power Stochastic Optimization Scheduling Method Considering Flexible Load Peaking [J]. Transactions of China Electrotechnical Society. 2013.28(11):231-238.
- 3. Yang Nan, Cui Jiazhan, Zhou Zheng, Zhang Shanyong, Zhang Liufeng, Liu Dichen, Hu Weiyi. Research on Nonparametric Kernel Density Estimation for Modeling of Wind Power Probability Characteristics Based on Fuzzy Ordinal Optimization[J], Power System Technology, 2015, 39 (12): 1-6.
- 4. Yang Nan, Liu Dichen, Dong Kaisong, Wang Bo, Wei Daqian, Zhu Zhenshan, Yang Yunlei. An Integrated Stochastic Scheduling Method for Wind Power Supply and Demand Side Considering Flexible Load Compensation / Excitation Mechanism [J]. Electric Power Automation Equipment.2015.35(2):15-20.
- 5. Yang Nan, Liu Di-chen, Sun Wentao, Zhao Jie, Dong Chao, Wang Qiang. Research about photovoltaic power's penetration limit based on the peak load balance

constraint [J]. Power System Protection and Control.2013.41(4):1-6.

- 6. Yang Nan, Zhou Zheng, Dong Kaisong, Zhang Shanyong, Cui Jiazhan. Simultaneous probability distribution characteristics of wind farm output power[J], Renewable Energy Resources, 2015, (11): 1646-1651.
- 7. Yang Nan, Zhou Zheng, Li Zhen, Cui Jiazhan, Zheng Xiangyu, Yang Jun. Combined Model Based on EEMD and Improved Elman Neural Network for Wind Power Prediction[J], Power System and Clean Energy, 2015, (10): 112-117+122.

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(15) Ph.D Zhang Tao

Zhang Tao received his B.S degree from the Henan Polytechnic University in 2004, and a Ph.D of Electrical Engineering from Fuzhou University in 2010.

Since 2010 he has been a faculty member in College of Electrical Engineering & New Energy at China Three Gorges University, where he is currently an Associate Professor and Vice Dean, and is a senior member of Chinese Electrotechnical Society.

He arrived at Taiwan University of Science and Technology in November 2017 as a Visiting Scholar for six months.

His current research interests include high voltage insulation diagnosis technology, power system optimization and economic operation, micro-grid & active distribution network.

He has been the PI of more than 10 academic and industrial projects, including one national Natural Science Foundation project. He was awarded forty most influential papers.

Refereed Journal Publications:

- 1. Zhang Tao, Li XiaoQin, Lv Haoyun and Tan XiaoRui. Parameter Identification and Calculation of Return Voltage Curve Based on FDS Data [J]. IEEE Transactions on Applied Superconductivity, 2014, Vol.24 , No.5,pp.9002405 (SCI,EI).
- 2. Zhang Tao, Sun LiuXue, and Zhang Yin. Study on Switching Overvoltage in Off-Shore Wind Farms [J]. IEEE Transactions on Applied Superconductivity, 2014, Vol.24, No.5, pp.0601005 (SCI,EI).
- 3. Zhang Tao,Cai Jin-ding.A Novel Hybrid Particle Swarm Optimisation Method Applied to Economic Dispatch[J]. International Journal of Bio-inspired Computation. 2010,2(1),pp.9–17. (SCI)
- 4. Zhang Tao, Tan XiaoRui, Zhang Bin and Xu Xueqin. Study on Moisture and Aging of Oil-Paper Insulation using Relative Initial Slope of Recovery Voltage [J]. IEEE Transactions on Applied Superconductivity, 2016, Vol.26, No.7, pp. 0609404 (SCI,EI).
- 5. Zhang Tao, Xu Xueqin and Ran Huanjun. Multi-objective Optimal Allocation of FACTS Devices Based on Improved Differential Evolution Harmony Search Algorithm [J]. Proceedings of the CSEE, 2018, (EI) (in Chinese)
- 6. Zhang Tao, Xu Xueqin and Shi Suyi. Optimal Location and Parameter Setting of STATCOM Based on Improved Multiple Population Quantum Particle Swarm Optimization Algorithm [J]. Proceedings of the CSEE,,2015. 35(S1): 75–81. (EI) (in Chinese)

- 7. Zhang Tao, Tan XiaoRu. Analysis on Transient Temperature Rise of UHVDC Common Grounding Electrode [J]. High Voltage Engineering, 2015, 41 (11):3672-3678 (EI) (in Chinese)
- 8. Zhang Tao, Sun Xiaowei and Xu Xueqin. Identification of Critical Lines in Power Grid Based on Active Power Flow Betweenness [J]. Power System Technology, 2016, 40(1): 193-198 (EI) (in Chinese)
- 9. Zhang Tao, and Zuo Qian. Central time constant of nonstandard polarization spectrum of oil-paper insulation [J]. Electric machines and control, 2018, 49(1): 97-101. (EI) (in Chinese)
- 10.]Zhang Tao, Cai Jinding and Zhang Konglin.Application of Voltage Response Method for Condition Assessment of Power Trans- former. High Voltage Engineering, 2008, 34(12): 2674–2680. (EI) (in Chinese)
- 11. Zhang Tao, Shi Suyi and Xu Xueqin.Distribution Network Reconfiguration with Distributed Generation Based on Improved Quantum Binary Particle Swarm Optimization [J]. Power System Protection and Control, 2016,44(3):22-28. (in Chinese)

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(16) Ph.D Zhang Yujiao

Zhang Yujiao was born in Wuhan, China, in 1979. She became a teacher in 2005, in the college of electrical engineering and new energy after receiving the M.Sc. degree from Wuhan University. In 2009, she came back to Wuhan University for learning further. Then she received the Ph.D. degree in 2012. She became an Associate Professor in 2013. From September 2014 to April 2015, she was a Visiting Scientist in Department of Electrical Engineering, Tsinghua University, Beijing, China. In 2016, she became the University Professor and Doctoral Supervisor. Currently, she is the Department Chair of Transmission Line Engineering, CTGU. Her research interests include advanced design and intelligent maintain for electrical equipment. She presided over two projects supported by the National Natural Science Foundation of China and tens of projects supported by electric power company. She is the author of 50 technical papers and 10 patents for invention. In 2017, she awarded First Prize of Science and Technology Progress in Hubei Province.

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(17) Ph.D Zhang, Yunning

Name:

Zhang, Yunning

Title:

Associate Professor

Research Interests:

Networked Control Systems, Wide-area Control for Power Systems

Educations:

1. Ph.D., 2014 — Huazhong University of Science and Technology, China

M.S., 2006 — Chongqing University, China

- 2. B.S., 2003 Chongqing University, China
- 3. Visiting Scholar (Dec. 2016 Dec. 2017). University of California, Merced, USA

Funding History:

Distributed Voltage Control and Reactive Power Optimization Methods of Micro-grid Based on ADMM, National Natural Science Foundation of China (61603212), PI, ¥20,000, 2017/01/01~2019/12/31.

Articles:

- 1. **Zhang Yunning**, Yue Dong, Hu Songlin. Wide-Area H_{∞} Control for Damping Interarea Oscillations with Event-Triggered Scheme. Mathematical Problems in Engineering, vol. 2013, Article ID 517608, 2013. (SCI)
- 2 . Hu Songlin, **Zhang Yunning**, Du Zhaoping. Network-based H_{∞} tracking control with event-triggering sampling scheme, IET Control Theory & Applications, 2012, 6(4): 533-544.
- 3 . Hu Songlin, **Zhang Yunning** , Du Zhaoping. Robust H_{∞} control for T-S fuzzy systems with probabilistic interval time varying delay, Nonlinear Analysis: Hybrid Systems 2012, 6: 871-884.



- 4. **Zhang Yunning**, Yue Dong, Huang Yuehua. Wide-Area Damping Controller Design for Power System via Dynamic Output Feedback, In Proc. of the 33rd Chinese Control Conference, 2014.
- 5 . **Zhang Yunning**, Yue Dong, Hu Songlin. Digital PID based load frequency control through open communication networks. In Proc. of the 27th Chinese Control and Decision Conference, 2015.
- 6 . **Zhang Yunning**, Yue Dong, Hu Songlin. WAMS-based dynamic output-feedback control of power systems with network-induced delay and random data missing, In Proc. of the 34rd Chinese Control Conference, 2015.
- 7. Hu Songlin, **Zhang Yunning**, YinXiuxia, Du Zhaoping. T-S fuzzy-model-based robust stabilization for a class of nonlinear discrete-time networked control systems, Nonlinear Analysis: Hybrid Systems, 2013, (3): 69-82.
- 8 . Hu Songlin., YinXiuxia, **Zhang Yunning**, TianEngang. Event-triggered guaranteed cost control for uncertain discrete-time networked control systems with time-varying transmission delays, IET Control Theory & Applications, 2012, 6(18): 2793-2804.

Patent

CN201210408752.2, Wide-area Damping Control System for Power Systems Based on Event-triggered Scheme

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(18)Ph.D Zhu Binxin

PERSONAL INFORMATION

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Address: College of Electrical Engineering & New Energy,

China Three Gorges University, P.R. China



ACADEMIC POSITION

2016.8 - Current: Associate Professor, College of Electrical Engineering & New

Energy, China Three Gorges University, P.R. China

2014.1 – 2016.7: Instructor, College of Electrical Engineering & New Energy,

China Three Gorges University, P.R. China

EDUCATION

Chongqing University, College of Electrical Engineering, Chongqing, P.R. China Ph.D. Electrical Engineering (2009-2013)

Dissertation: Study on the Low Voltage Stress and High Step-up dc/dc Converters

Chongqing University, College of Electrical Engineering, Chongqing, P.R. China Master Electrical Engineering (2008-2009)

Hefei University of Technology, College of Electrical Engineering, Hefei, P.R. China

Bachelor Power System and It's Automation (2004-2008)

RESEARCH INTERESTS

- High voltage gain dc-dc converters
- Multiple-input dc-dc converters for DC micro grid application
- Improvement of power-conversion efficiency of DC–DC Converter and soft switching technology

RESEARCH EXPERIENCE

China Three Gorges University, College of Electrical Engineering & New Energy, Yichang city, P.R. China

Research leader (2014-present)

- Research on power electronics applications in renewable energy
- DC micro grid testing system design which contains photovoltaic power generation and energy storage system

Major Research Projects:

- Research on Series Hybrid High Step-up Multiple-Port DC-DC Converter for Multiple-source DC Microgrid supported by China National Natural Science Foundation (2018-2020)
- Research on green electric vehicle battery replacement station supported by Foundation of Education Department of Hubei Province, P.R. China (2014-2016)
- Research on the key technology of new energy balancing and large scale

application of electric vehicles supported by Hubei Provincial Research Center on Micro grid Engineering Technology, P.R. China (2015-2016)

Chongqing University, College of Electrical Engineering, Chongqing, P.R. China PhD Candidate (2009-2013)

- Research on high step-up dc-dc converters especially on how to construct the topology and how to realize the mathematical modeling and controller design.
- Bidirectional ac-dc converter used for electric vehicle charger. Both high power factor and high efficiency are the design objectives. A 2.5kw prototype had been built and the power factor is close to 0.99 when load changes from 10% to 100%. The maximum efficiency is nearly to 95% when the output power equals to 2.2kw.

Major Research Projects:

- Study on the Variable Structure Multiple-Input DC/DC Converters for Grid-connected Hybrid Renewable Energy Power System supported by China National Natural Science Foundation (2013-2015)
- Research on the interactive technology of electric vehicle and power grid supported by The National High Technology Research and Development Program of China (863 Program) (2011-2013)
- Research on key technologies of high frequency ac distributed power supply system supported by China National Natural Science Foundation (2009-2011)

Chongqing University, College of Electrical Engineering, Chongqing, P.R. China Master Candidate (2008-2009)

Research on application of digital control technology in dc-dc power electronic converters.

JOURNAL PAPERS

2017:

- 1. **Binxin Zhu**, Lulu Ren and Xi Wu. Kind of high step-up dc/dc converter using a novel voltage multiplier cell [J]. Power Electronics, IET, 2017, 10(1):129-133. (SCI&EI)
- 2. **Binxin Zhu**, Lulu Ren, Xi Wu and Kun Song. ZVT high step-up DC/DC converter with a novel passive snubber cell [J]. Power Electronics, IET, 2017, 10(5):599-605. (SCI&EI)
- 3. **Zhu Binxin**, Ren Lu-lu, Wu Xi. A novel non-isolated high step-up dc-dc converter [J]. Electric Machines and Control, 2017, 21(4):25-30. (EI)
 - 4. 2015:
- 5. **ZHU Binxin**, CHENG Shan and TAN Chao. ZVS isolated high step-up DC/DC converter [J]. Electric Power Automation Equipment, 35(5): 70-76, 2015. (EI Accession number: 20152901039041)
- 6. **ZHU Bin-xin**, TAN Chao, CHENG Shan and SHE Xiao-li. The ZVT High Step-up Multiple input Converter [J]. Power Electronics, 49(3):50-54, 2015.
- 7. **ZHU Binxin**, YANG Nan, REN Lulu and SHE Xiaoli. A Zero-Voltage and Zero-Current Switching Interleaved Boost Converter [J]. Power System and Clean Energy, 31(12):12-17, 2015.

2014:

- 8. Zhou L.-W., **Zhu B.-X.**, Luo Q.-M. and Si Chen. Interleaved non-isolated high step-up DC/DC converter based on the diode–capacitor multiplier [J]. Power Electronics, IET, 7(2):390-397, 2014. (SCI Accession number: 000331517100016) **2013**:
- 9. **Zhu Binxin**, Luo Quanming, Wang Yang and Zhou Luowei. High Step-Down Constant Current LED Driver with Multiple-Output [J]. Transactions of China Electro-technical Society, 28(6): 178-183, 2013. (EI Accession number: 20133516671031)

2012:

- 10. Quanming Luo., **Binxin Zhu.**, Weiguo Lu. and Luowei Zhou. High Step Down Multiple Output LED Driver with the Current Auto-Balance Characteristic [J].Journal of Power Electronics, 12(4):519-527, 2012. (SCI Accession number: 000306614200001)
- 11. Zhou L.-W., **Zhu B.-X**. and Luo Q.-M. High step-up converter with capacity of multiple input [J]. Power Electronics, IET, 5(5):524-531, 2012. (SCI Accession number: 000310999200002)

CONFERENCE PAPER

■ Binxin Zhu, Xiaoli She, Yuehua Huang, Chao Tan. A novel research on green electric vehicle battery[C]. 2014 International Conference on Power System Technology, Chengdu city, China, 2014:3129-3134. (EI Accession number: 20151200671523)

PATENT

- 1. **Zhu Binxin**, Yang yuliang, Huang Yuehua, et al. A high step-down constant current LED driver with multiple-output. **China National Invention Patent** (patent number: ZL201410499908.1)
- 2. **Zhu Binxin**, Ren lulu, Yang yuliang, et al. A non-isolated high step-down dc-dc converter. **China National Invention Patent** (patent number: ZL201410499922.1)
- 3. **Zhu Binxin**, Pan hailong, Huang Yuehua, et al. A zero voltage turn-off interleaved boost converter with a novel auxiliary circuit. **China National Invention Patent** (patent number: ZL201410312143.6)
- 4. **Zhu Binxin**, Huang Yuehua, She Xiaoli, et al. A novel DC power distribution network for important load and electric vehicle access. **China National Invention Patent** (patent number: ZL 201410758584.9)
- **5. Zhu Binxin**, Ren lulu, Wu Xi, et al. A non-isolated high step-up dc-dc converter. **China national practical new-type patent** (patent number: ZL201520742957.3)
- 6. **Zhu Binxin**. A power amplifier circuit based on energy storage cell. **China national practical new-type patent** (patent number: ZL201520395584.7)
- 7. **Zhu Binxin**, She Xiaoli, Ran Huajun, et al.A dc power distribution system which is suitable for large-scale access of electric vehicle. **China national practical new-type patent** (patent number: ZL 201420779829.1)
 - 8. Zhu Binxin, Yang yuliang, Huang Yuehua, et al. A lossless auxiliary circuit

for interleaved boost converter. **China national practical new-type patent** (patent number: ZL 201420365195.5)

- 9. **Zhu Binxin**, Yang yuliang, Tan Chao, et al. A non-isolated high step-down dc/dc converter. **China national practical new-type patent** (patent number: ZL 201420557625.3)
- 10. **Zhu Binxin**, Chen Chen, Tan Chao, et al. An isolated high step-up dc/dc converter. **China national practical new-type patent** (patent number: ZL201420367144.6)