

Li Zhekai

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EDUCATION

Shanghai Jiao Tong University, School of Electronic Information and Electrical Engineering 2022.09-2025.06

- Has received the offer of the master program in electrical engineering from Shanghai Jiao Tong University, and will enter Shanghai Jiao Tong University for further study in 2022.

Huazhong University of Science and Technology, School of Electrical and Electronic Engineering 2018.09-2022.06

- GPA: 3.94/4.00 | Ranking: 8/419 (2%)
- Courses: Circuit Theory (100), Electromagnetic Field and Wave (91), Analog Electronics Technology (93), Digital Electronics Technology (96), Signals and Systems (97), Microcontroller Principles and Applications (97), Fundamentals of Electrical Engineering (98), Automatic Control Theory (96), Mathematical Analysis (97), Mathematical Equations (99).
- Achievements: **National Scholarship (Twice); Outstanding Undergraduates in Term of Academic Performance**; School Merit Student; Second Prize in National Mathematics Competition for College Students; Second Prize in MCM/ICM; **First Prize in Electrical Cup Mathematical Modeling Competition; First Prize in "Challenge Cup" National Extracurricular Academic Science and Technology Works Competition for College Students.**

RESEARCH EXPERIENCE

Graduation Project: VSC-HVDC System with Offshore Wind Farm Integration **Wu Han, China**
Project Leader 2021.10-2022.06

- Completed system modeling and related analysis; carried out simulation relying on PSCAD platform; researched SEC optimization control strategy and **published the core journal of Electric Power as the first author.**

Challenge Cup Project: High Reliability UAV Power System with Fault Tolerance Ability **Wu Han, China**
Major Participant 2020.10-2021.11

- Responsible for the modeling of mechanical devices and auxiliary devices; Independently designed the structures such as motor seat, electric adjusting fixing device and motor test bracket;
- Completed three patents (two invention patents)** as the primary inventor (lead writer) and **published a paper at ECCE international Conference** as the third author.

Challenge Cup Project: Power-Signal Wireless Transmission Device for CT Equipment **Wu Han, China**
Major Participant 2020.03-2020.09

- In charge of the electromagnetic direction, responsible for the electromagnetic simulation and parameter optimization of the transmission device; studied the influence of air gap size and other parameters on the performance of the device;
- Responsible for topology selection of transmission circuit; completed topology simulation and analysis of resonant compensation circuit; designed the signal modulation and demodulation unit circuit based on carrier modulation principle.

College Students' Innovative Entrepreneurial Training:

Integrated System of Vibration Monitoring and Self-Power Supply for Overhead Transmission Line **Wu Han, China**
Project Leader 2019.12-2020.04

- Responsible for modeling the vibration energy collection device, which was put into experiment after processing; completed the electromagnetic simulation and multi-physical field simulation coupled with mechanical movement;
- Responsible for building the experimental platform and carrying out experiments; completing the experimental verification; responsible for writing two invention patents as the chief inventor (lead writer).

PERSONAL SKILLS

Languages

- CET-6 (577 in written test and B+ in oral test)**; have good oral English communication and reading and writing skills.

Computer

- The rank-2, rank-3, rank-4 certificate of NCRE**; have basic Python program reading and writing skills;
- Proficient in **Photoshop**; have rich experience in graphic design.

Professional Skill

- Proficient in **CCS and Keil**; master **Altium Designer**; able to draw the schematic diagram and PCB;
- Proficient in **MATLAB/Simulink**; master **Multisim** and **PSIM** simulation software;
- Proficient in **ANSOFT Maxwell, JMAG, COMSOL**; able to conduct finite element modeling and analysis;
- Proficient in using **SolidWorks, AutoCAD, Inventor** and other engineering modeling software.

SOCIAL PRACTICE | VOLUNTARY SERVICE | STUDENT WORK

- Served as the leader of the practice team, organized the team members to investigate the situation of new energy power generation in Gansu province, had an in-depth understanding of the development of new energy in northwest China;
- Participated in the international evaluation volunteer activity of HUST, and communicated face-to-face with internationally renowned scholars such as Professor Philip T.Krein of University of Illinois at Urbana-Champaign, Professor Georg Mueller of Karlsruhe Institute of Technology;
- Served as the class commissary in charge of studies.

OTHERS

- Specialize in volleyball, football, and badminton with more than four years of professional training experience; joined the Men's Volleyball Team of HUST; joined the school football team in high school and obtained the qualification certificate of provincial athletes; won third place in the national go competition.