Hangzhou, China
Birth Date: 08/09/2002
Tel: +86-18395958560
Email: zx_zhuys@outlook.com

Zixuan ZHU

Zhejiang University
College of Electrical Engineering

EDUCATION

- **Zhejiang University**, Bachelor of Engineering *(expected in 06/2025)*
  Major: Electrical Engineering and Automation ***09/2020 – Present***
- **Overall GPA: 3.89/4.0**
- **TOEFL iBT: 90**
  JLPT N1

EXPERIENCE

- **An Optimized Current Loop Control Strategy for Permanent Magnet Synchronous Motor Based on MCU**
  Team leader, under supervision of Prof. Yan Yan (ZJU) *11/2023 - 04/2024*
  - We introduced a novel PWM update methodology leveraging current oversampling, significantly reducing the delay to under a quarter of that encountered with conventional methods. MATLAB/Simulink simulations and practical experiments confirmed that our approach enhances the current loop bandwidth to exceed 2 kHz, with a carrier frequency set at 10 kHz.
  - Responsible for establishing the mathematical model of the current loop and conducting a detailed analysis of the factors affecting the current loop bandwidth. Took charge of verifying the effectiveness of the strategy through Simulink simulations and set up a platform for experiments referencing TI's design.
- **Research on The Life Cycle Cost and Investment Return Mechanism of Novel Energy Storage Systems**
  Team leader, under supervision of Prof. Fushuan Wen (IEEE Fellow, ZJU) *05/2023 - 05/2024*
  - I was responsible for investigating novel energy storage policies and technologies in several countries. After analyzing several typical Li-ion battery energy storage systems from America, Australia, and China, I, together with my teammate, constructed an energy storage cost estimation model based on life cycle theory.
  - The result of this study became the key finding of a manuscript accepted by CFEEE 2023 as a conference paper which I joined as a co-author.
- **Research on Data-Driven Identification of Three-Phase Transformer-Meter Relationship in Distribution Networks**
  Research member, under supervision of Prof. Pengfei Hu (ZJU) *10/2021 - 08/2022*
  - The research, conducted by 3 students, analyzed 30,000 sets of simulated data with 52 data points per set and successfully predicted the transformer-meter relationship with an accuracy rate of 87% after training and learning.

ACHIEVEMENT

- National Encouragement Scholarship of the Academic Year 2022-2023 *10/2023*
- Zhejiang University - Alumni Inspiration Scholarship of the Academic Year 2022-2023 *04/2024*
- Zhejiang University Scholarship - Third Prize of the Academic Year 2022-2023 and 2020-2021 *10/2023 & 10/2021*
- Zhejiang University - Academic Excellence Award & Student Leadership Award & Academic Progress Award of Academic Year 2022-2023 and 2020-2021 *10/2023 & 10/2021*
- The First Prize in the East China Regional Competition of the 2nd Electrical & Electronic Engineering Innovation Competition *06/2023*

ACTIVITY

- Leader of Student Education Project: Construction of College Academic Assistance Website and WeChat Official Account *10/2023 - 05/2024*
- Volunteer in The Trinity System (an admission plan) of Zhejiang University *06/2021*
- Member of the Global Engagement Program of Zhejiang University *03/2021 - Present*
- Member of Zhejiang University Student Tennis Team *09/2020 - 06/2021*

SKILL & INTEREST

- **Soft Skills**: C, MATLAB, Markdown, LaTeX
- **Developer Tools**: MATLAB/Simulink, Code Composer Studio, Pspice, AutoCAD, ANSYS
- **Interests**: Japanese ACG, Tokusatsu, Tennis, Music, Diving