

Kaisen Yang

Email: yangkaisen@dlmu.edu.cn, Web: <https://ykaisen.github.io/>

Education

Dalian Maritime University, Dalian, China

Jun. 2024 (Expected)

B.E. in Electrical Engineering and its Automation, GPA: 92.0/100, Rank: 1/137

Related Courses and Grades:

Automatic Control Principle(97), Engineering Electromagnetic Fields(97), Electric Machinery(96), Power Electronic Technology(94), Signals and Systems(95), Fundamentals of Power Systems(95), High Voltage(95), Control Systems of Electric Drives(95), etc.

Project Experience

Four-module Three-Phase PMSM Drive Design

Jul. 2023

- A four-module three-phase PMSM model and its control system were constructed for simulation
- Carrier phase shift and RWPWM strategy were used to suppress motor torque pulsations and common-mode currents

DFIG Low-High Voltage Fault Ride-Through Strategy

Jul. 2022

- Established both mathematical and simulation models of DFIG and HVDC system
- The transient voltage of the feeder grid during a low-high voltage fault was analyzed using the segmented linear method
- Current commands were given to reduce over-voltage and increase under-voltage during faults

Automatic Water Cannons for Extinguishing Fires in Large Spaces

Apr. 2022

- Designed a motor drive board for an automatic water cannon system
 - Four motors were used to control the rotation of the water cannon and to regulate the valve
 - Control signals were isolated from the drive power supply by photodiodes, and relays were used to control the switching of the motor circuits
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Extra-curricular Activities

International Communication

Jul. 2023

- Participated in the 2023 Student Forum organized by the International Association of Maritime Universities, held at the HQ of the *International Maritime Organization* in London
- Discussed and reported on the theme of *Greener Shipping*, focusing on alternative fuels and the application of new technologies

Volunteer Experience

Sept. 2020–Aug. 2023

- Started the first student-founded non-profit organization in Wenshui County, Shanxi Province
 - More than 20 lectures have been held to share learning experiences for middle school students
 - About 400 people have joined our group and more than 10,000 people have attended our lectures
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Skills

- PCB design, circuit and control system design(AD, Multism, Proteus, Matlab/Simulink)
 - Programming with C language
 - Fusion 360, Origin, Visio and other software for drawing and 3D modelling
 - Efficient use of oscilloscopes, function signal generators, multimeters and other instruments
 - MCUs and DSPs for electronic design
 - Language: Mandarin (native), English (fluent); IELTS 7.5(6.5), GRE 323(Q170)
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Awards

- Meritorious Winner of 2023 Mathematical Contest in Modeling
- Second Prize of The 25th China Robotics and Artificial Intelligence Competition
- Bronze Award of The 8th China International College Students' 'Internet+' Innovation and Entrepreneurship Competition
- Dalian Maritime University Top Ten Students and President's Scholarship
- Chinese National Scholarship
- COSCO Shipping Excellence in Leadership Scholarship