

Electrical Engineering Graduate Programs for International Students



COLLEGE OF
ELECTRICAL ENGINEERING
ZHEJIANG UNIVERSITY



About the EE College

The College of Electrical Engineering (the EE College) at Zhejiang University, one of the oldest electrical engineering departments in China, has since 1920 graduated over 25,000 students, including 22 academicians of the Chinese Academy of Science and the Chinese Academy of Engineering. With over 100 faculty members, the College currently has about 1500 registered full-time undergraduate students, 600 master students and 350 doctoral students. The mission of the College is to educate students with leadership, global vision, innovation awareness and full readiness for their chosen fields.

There are three undergraduate programs in the EE College, Electrical Engineering and its Automation, Electronic Information Engineering, and Automation. Its graduate programs include two disciplines, Electrical Engineering, and Control Science and Engineering. The Electrical Engineering discipline ranks consistently among the best nationwide, and was selected as one of the national first-class disciplines in 2017.

Belonging to one of the largest multidisciplinary universities in China, the EE College has developed vibrant and diverse research programs with a focus on national development demands and international technology frontiers. Due to its close relationship with industrial partners in the Yangtze River Delta, a center of Chinese economic development, the College collaborates closely with many state-owned enterprises, such as the State Grid of China, China Southern Power Grid, Shanghai Electric, and CRRC. With its rising international impact, the College also attracts research collaborations from world-renown industrial partners like Ford Motor, GE, BOSCH, Fuji Electric, Qualcomm and ALSTOM. So far, over 20 joint laboratories and research centers have been established by the College with industry and research institutions, and it has meanwhile hosted over 10 international conferences in the past 5 years.

History of the EE College

1920

Department of Electrical Engineering (EE Department) established, one of the oldest EE departments in China.

1937

Forced to move to Guizhou, a city in southwestern China, during the War of Resistance Against Japan.

1946

Moved back to Hangzhou.

1949

The Department of Electrical Engineering, National Yingshi University merged into the EE Department.

1953

The Department of Electrical Engineering, Xiamen University merged into the EE Department.

1958

Renamed as the Department of Electrical and Wireless Communication Engineering.

1960

Specialties of wireless communication, electrical vacuum, and semiconductor separated from the EE Department, and the Department of Wireless Communication Engineering established.

1961

The Department of Electrical Engineering, Hangzhou Institute of Technology merged into the EE Department.

1978

The specialty of thermal energy transferred to the Department of Thermal Physics of the University.

The teaching and research group of power engineering economy separated from the EE Department, and the Department of Industrial Management established.

1999

Renamed as College of Electrical Engineering.

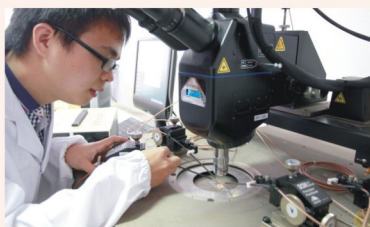
2015

Institute of VLSI Design separated from EE College, and School of Microelectronics co-established.



The EE College currently consists of Department of Electrical Engineering, Department of System Science and Engineering, Department of Applied Electronics, and Education Center of Electrical and Electronic Technology.





Research Fields

Generations of efforts by the EE College faculty members have yielded impressive scientific results such as the first double water inner-cooled electrical generator of China (in 1950s), the first thyristor-based medium-frequency induction heating power supplies (in 1960s) which enabled the industry of solid-state inductive heating power supplies in China, and the foundation of Industrial Electronics (in 1970s) which was the basis of modern power electronics in China. In 1980s, the EE College contributed to the key technologies of the first HVDC project in China, and in 1990s they designed the first set of fabric CAD system nationwide. Early in the 21st century, its electric machine team successfully developed electrical drive for environment control and life support system for space crafts and EVA space suits. The College currently aims at advancing key technologies such as smart grid, renewable energy, advanced power semiconductor devices, high-speed and high-efficiency motor drives, robots, cyber security, intelligent sensing and communication.

In the past 10 years, the EE College has been granted 384 national-level research projects with its annual research funding averaging 150 million RMB. The collaborative research efforts contributed to 43 major research awards, including 9 national awards. Meanwhile, over 3900 papers were published (more than 1000 of which were included in the Scientific Citation Index) and 436 patents were granted.



Graduate Programs

The EE College offers the following degrees to its international students who have successfully completed Electrical Engineering graduate programs.

Master of Science (MSc)

Doctor of Philosophy (PhD)

Both the MSc & PhD Programs in Electrical Engineering are designed for international students who are interested in Electrical Engineering, including the areas of Electrical Machines and Electrical Apparatus, Power Systems and Automation, High Voltage and Insulation Technology, Power Electronics and Electrical Drives, Theory of Electrical Engineering and New Technology, and Electrical Information Technology.

The course modules are tailored to prepare student for careers in diverse research fields in Electrical Engineering. All the selected courses are taught in English by teachers with years of overseas experiences. The following is a list of course modules (subject to change).

- Modern Electromagnetic Field
- Modern Permanent Magnet Electrical Machines - Theory and Control
- Power System Operation and Control
- Smart Electric Power Distribution Systems
- Semiconductor Material and Device Characterization
- Power Semiconductor Devices and Application
- Frontiers in Power Semiconductor Devices
- Advanced Technology of Power Electronics Devices
- Power Electronics (Step-2)
- Sub-Micro Devices and Nanoelectronics
- System Identification
- Intelligent Control and Intelligent Systems
- Electric and Hybrid Vehicle Propulsion Systems

Note: Electrical Engineering courses instructed in Chinese are also available to international students with proficiency in Chinese.

MSc Program in Electrical Engineering

The MSc program takes 2.5 years on average for MSc candidates to complete the program and obtain the Master Degree. Requirements for the Master degree fall into three categories, namely, course requirements, research, and the dissertation. Completion of the program requires a minimum of 24 credits of coursework during the first academic year of the program. The courses should be approved in consultation with the candidates' supervisors. The candidates are required to spend 2+ years on research. After completing the research and dissertation, the candidates must do the defense in a public presentation that demonstrates their ability to perform original and independent research.

PhD Program in Electrical Engineering

The PhD program takes 3.5+ years for PhD candidates to complete and obtain the PhD Degree. Requirements for the PhD degree fall into three categories, namely, course requirements, research, and the dissertation. Completion of the program requires a minimum of 12 credits of coursework during the first academic year of the program. The courses should be approved in consultation with the candidates' supervisors. The candidates are required to spend 3+ years on research. After completing the research and dissertation, the candidates must do the defense in a public presentation that demonstrates their ability to perform original, independent research and expand the knowledge in their field of study.



Entry Requirements

Applicants must be non-Chinese citizens. MSc candidates must have a bachelor's degree and PhD candidates must have a master's degree.

Applicants should be fluent in English. Those from a non-English speaking country or who do not have a degree conducted entirely in English require a minimum score of 90 in internet-based TOEFL or 6.5 in IELTS.

Applicants are encouraged to contact their prospective supervisors prior to application.

Tuitions and Scholarships

For tuitions of MSc program and PhD program, please check on the "admissions" webpage of the International College of Zhejiang University. (<http://iczu.zju.edu.cn/english/>)

Scholarships Applicable:

Full Scholarships (Chinese Government Scholarship & Zhejiang University Scholarship Type A):

- Tuition waiver;
- Free accommodation on campus;
- Monthly living allowance based on the relevant standard;
- Comprehensive medical insurance.

Partial Scholarships (Zhejiang University Scholarship Type B):

- Free accommodation on campus;
- Monthly living allowance based on the relevant standard;
- Comprehensive medical insurance.

For details, please visit the "Scholarships" webpage of the International College of Zhejiang University.

Accommodation

Students will be offered accommodation on campus. For accommodation details, please refer to the "Campus Life Guide" on the website of the International College of Zhejiang University.

Documents for Application

Application Deadline: May 20 of each year (subject to change).

1. Application Form for Admission to Zhejiang University with a recent photograph (white background, 35mm×45mm in size). Applicants shall fill in and submit the application form via the online application system first (<http://iczu.zju.edu.cn/english/>), then print and sign the Application Form produced by the online application system.
2. A photocopy of passport.
3. Form for Provisional Acceptance of International Student by ZJU Professor (if any).
4. Highest degree certificates, which must be original documents or notarized copies. If applicants are university students, they shall provide an official pre-graduation certificate showing their student status and stating expected graduation date. Documents in languages other than Chinese or English must be attached with notarized translations in Chinese or English.
5. Academic transcripts during Bachelor's degree study, which must be original documents or notarized copies. Documents in languages other than Chinese or English must be attached with notarized translations in Chinese or English.
6. Photocopies of language (Chinese or English) proficiency certificates. Applicants for Chinese-instructed programs must provide the photocopy of HSK certificate. Applicants for English-instructed programs must provide the certificate of TOEFL or IELTS test score (not required for English native speakers).
7. Personal statement, in Chinese or English, should include study and work experience, reasons for application and study proposal. No less than 1200 Chinese characters or 1500 English words.
8. Two letters of recommendation from full professors or associate professors, in Chinese or English, with professors' signature, contact phone number and email address.
9. Published academic papers or other academic achievements (if any).
10. Remittance receipt of the application fee (RMB 400 Yuan).

Go through the webpage (<http://iczu.zju.edu.cn/english>) of the International College of Zhejiang University before starting application.

Enrollment

The university enrollment will be made on the basis of competitive selection according to the students' academic performance, and personal study plan, etc.

The name list of admitted applicants will be announced on the International College website in late July. Admission Notice with other relevant documents will be sent out to the candidates before the end of July each year.

Contact Us

About the programs:

Ms Zhou Office of International Relations, College of Electrical Engineering,
Zhejiang University

Tel: +86-571-87951867

Email: lianazhou@zju.edu.cn

About the admission and scholarship:

Ms Pan International College, Zhejiang University

Tel: +86-571-87951456

Email: admission1@zju.edu.cn

Mailing Address: Room 4500/3504, International College Building, Yuquan
Campus, Zhejiang University, Hangzhou, China, 310027

Web: <http://iczu.zju.edu.cn/english/>

About Zhejiang University



Located in the historical and picturesque city of Hangzhou, Zhejiang University is a prestigious institution of higher education with a long history since its foundation as Qiushi Academy in 1897. It has remained one of mainland China's top 5 universities for more than a decade.

Zhejiang University is a comprehensive research university with a national and international reputation. Research at Zhejiang University spans 12 academic disciplines, covering philosophy, economics, law, education, literature, history, art, science, engineering, agriculture, medicine, management and etc. More than 47,000 full-time students are admitted to ZJU each year, over 3,500 of which are international students for degrees.

As a national university standing by the River Qiantang, Zhejiang University is striving to become a leading research university with a world-class status. With its motto "seeking the truth and pursuing innovativeness", the University has been committed to its core mission of education, research, social service and cultural transmission. It is dedicated to promote leadership, global vision and social responsibility among students; to interdisciplinary & innovative research that addresses pressing issues and challenges that face the world today; and also to translating knowledge and creativity to benefit the people in the country, the region and the global community.



Travel and Living in the city of Hangzhou



Situated in the southern end of the Beijing-Hangzhou Grand Canal, the city of Hangzhou, one of the seven ancient national capitals in China, is endowed with over 2,000-year history, rich culture, and breathtaking scenery.

Hangzhou has long been a famous tourist attraction. There were inhabitants in the Hangzhou area since ancient Liangzhu Culture known as "the Dawn of Civilization". The widely expressed Chinese proverb, "in heaven there is paradise and on earth there are Hangzhou and Suzhou" perfectly combines with the words of Marco Polo, an ancient Italian tourist who described this place as "the most beautiful and magnificent city in the world", which have helped to make Hangzhou one of the popular tourist attractions worldwide. The City perfectly integrates canal, rivers, lakes, and hills in harmony. The River Qiantang, renowned for its magnificent tide, cuts the city in half; the tranquil, willow-shaded West Lake, a UNESCO World Heritage Site, provides a spiritual retreat for its residents and visitors; adjacent to the lake, are hills which accounts for over a half of the City area.

The city has great climate with four distinct seasons. It is rich in local specialties and agricultural products, with a reputation of being the Land of Fish and Rice and the Capital of Silk. It now develops into a magnificent metropolitan city with relatively low living costs. People can enjoy all the attractions of a major modern city, from famous bars and restaurants, to shopping malls, cinemas and music venues.





ZHEJIANG UNIVERSITY
COLLEGE OF ELECTRICAL ENGINEERING

Add: 38 Zheda Road, Hangzhou, China, 310027

Tel: +86-571-87951867

<http://ee.zju.edu.cn/english>