



Academic Education Programs Sponsored by Ministry of Commerce PRC

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**Xi'an Jiaotong University**

# **Master of Electrical Engineering**

## **2024**

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**2024 Xi'an Jiaotong University**  
**Master Program of Electrical Engineering**

## **I. Program Introduction**

### **i. Basic information**

#### **1. Brief Introduction**

Academic Education Programs sponsored by the Ministry of Commerce of People's Republic of China is designed in 2008 to foster high-end business officials and managerial personnel for the recipient countries, offering one-year and two-year master programs as well as three-year doctoral programs for the purpose of educating high-end and inter-disciplinary talent working in the applied fields of government, trade, foreign affairs, agriculture, technology, education, culture and health, building intellectual capacity and facilitating the economic and social development of the recipient countries. These programs provide assistance to governmental officials, research fellows, and senior managerial personnel on their master and doctor education in China, which are fully conducted in English. Admission requirements include a bachelor's degree, relevant working experiences, and decent physical conditions, essential for the high-compact curriculum needed for the degrees.

This program is playing an increasingly important role in economic and trade cooperation between China and graduates' home countries, getting high attention from the government.

Oriented by the national strategic need and international academic frontier, School of Electrical Engineering at Xi'an Jiaotong University focuses on the 3 national key secondary disciplines, including Electric Machinery and Electric Equipment, High Voltage and Insulation Technology, and Power System and Automation. Based on these disciplines, the school established 4 additional scientific directions including Dielectrics and Electrical Insulation, Advanced Power Equipment, Pulsed Power and the Discharge Plasma, and New Energy Power System. Those directions does not only cover the construction of UHV and smart grid power and equipment manufacturing, but also extend to the fields of national defense, space, marine and so on.

As for the positive effects and good results brought by these programs in strengthening economic ties and friendship between China and the recipient countries, the Ministry of Commerce of People's Republic of China will continuously intensify its efforts in enlarging the enrollment scale and improving the quality of education. We believe that by attending the programs and achieving the degrees, you will embrace a successful career and brighter future.



## **2. Prospective Students:**

Our prospective students are mid-to-senior level officials or managers from the government, universities and other institutes, who have demonstrated superior performance, both academically and in their work.

## **3. Program Objectives:**

Educating high-end and inter-disciplinary talent working in the applied fields of government, trade, foreign affairs, agriculture, technology, education, culture and health.

## **4. Enrollment Plan**

Major: Master program of Electrical Engineering

Seats: 20.

Teaching language: English.

Length of Program: 2 years.

## **5. Sponsorship**

- (1) Free of tuition fee, teaching materials, research, thesis defense and other instruction expenses.
- (2) Free on-campus accommodation.
- (3) Living allowance: 36,000 RMB/year for master.
- (4) Settlement allowance: 3,000 RMB

- (5) Comprehensive medical insurance
- (6) International flight ticket: 1 round ticket for 1 year program; 1 round ticket for 2 year program with n-1 (n=study duration) home visit round ticket.
- (7) All students must join the annual evaluation to get qualification for next year's scholarship.
- (8) Instead of issued to students, other expenses will be organized by Ministry of Commerce or University. Scholarship will only be offered for standard study duration, extension caused by students' personal reason will not be covered by scholarship.

## ii. Xi'an Jiaotong University

### 1. Brief Introduction to Xi'an Jiaotong University (XJTU)

Xi'an Jiaotong University is located in Xi'an—Ancient capital for 13 dynasties in Chinese history, including Zhou, Qin, Han, Tang, etc. Historically known as Chang'an, Xi'an is one of the World's Four Ancient Capitals alongside Athens, Cairo and Rome. It is also the cradle and epitome of Chinese culture. As the starting point of Silk Road, Xi'an is one of the best tourist cities in China. World-famous Terra-Cotta Warriors and Horses, Big Wild Goose Pagoda, Small Wild Goose Pagoda, Best-preserved City Wall of Ming Dynasty are all located in Xi'an. Xi'an is also the hometown of Chinese President Xi Jinping. More than 200 political and commercial leaders visited Xi'an in the past few years, including Ban Ki-moon, Vladimir Putin, Angela Dorothea Merkel, Park Geun-hye, Narendra Damodardas Modi, Mark Elliot Zuckerberg, etc.

Under direct administration of Ministry of Education of China, Xi'an Jiaotong University is one of the universities with the longest history and global reputation in China. The Predecessor of Xi'an Jiaotong University was Nanyang College, which was founded in 1896 in Shanghai and renamed Jiaotong University in 1921. In 1956, the main body of Jiaotong University was moved to Xi'an according to the decision issued by the State Council, and was formally named Xi'an Jiaotong University in 1959, which was listed as a national key university. In April 2000, approved by the State Council, the original Xi'an Medical University and original Shaanxi Institute of Finance and Economics were integrated into Xi'an Jiaotong University.



Currently Xi'an Jiaotong University is a comprehensive research university with scientific focus. It is composed of 10 branches of learning, namely: science, engineering, medicine, economics, management, literature, law, philosophy, education and art. The university, currently, consists of 26 full-time colleges and schools, 8

schools for undergraduates and 12 affiliated teaching hospitals. XJTU boasts a high-level staff of 5,561, including 2,861 full-time teachers, among which are 1,700 professors and associated professors.

In this new century, Xi'an Jiaotong University continues to renew itself to adapt to the ever-changing landscape of higher education, domestically and internationally, gradually evolving a model of higher education that is suited to international developments, while constructing at the same time a modern scientific approach to policy-making, policy execution and supervision, so as to provide the university with a management structure meeting international standards. Together, the two lay a firm foundation for building Xi'an Jiaotong University into a top-flight international university.

## 2. School of Electrical Engineering

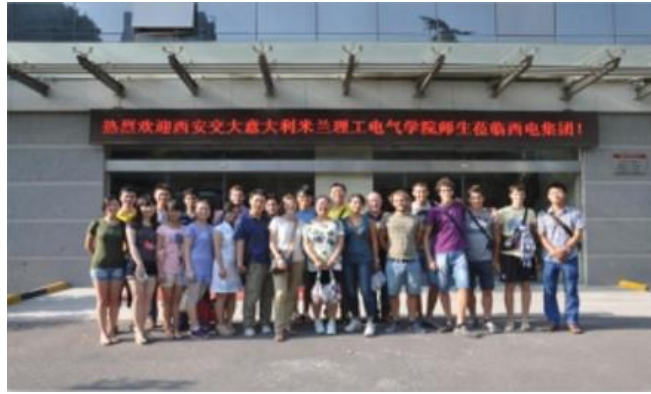
School of Electrical Engineering in Xi'an Jiaotong University is one of the most important bases for talents training and research innovation in the field of electrical engineering.

The main disciplines of the school include state key discipline Electric Engineering, and other two first-level disciplines of Control Science and Engineering as well as Instrument Science and Technology. We have advanced research laboratories and teaching bases such as *State Key Laboratory of Electrical Insulation and Power Equipment*, and *State Teaching Base for Electrical and Electronical Engineering Fundamental Courses*. We also have various research centers approved by MOE, National Energy Administration, and Shaanxi Province.



The school has also been very active in international affairs. The school has held 3 top-level (e.g., IEEE) international conferences in the past, and held 6 other important international conferences in the past 5 years. In 2011, the school started to recruit international graduate students, coming from 12 countries including Italy, Germany and so on.

School of Electrical Engineering is currently in the process of internationalization and research diversification. It is striving to become one of the leading education and research centers worldwide in the field of electrical engineering.



### iii. Program Arrangement

#### 1. Teaching Arrangement

##### (1) Course Schedule

Course Modules	Course Code	Course Name	Credit	Credit Required
University Fundamentals	LITE6102	Comprehensive Chinese	2	4
	LITE6101	The Outline of China	2	
Fundamental EE Module	ELEC6401	Control System & Application of Microcomputer	2	5
	ELEC6402	Power Electronics	3	
	ELEC6403	Modern Control Engineering	3	
Advanced EE Module	ELEC7133	Dielectric Physics for Electrical Insulation	2	11
	ELEC8102	Power Semiconductor Devices and Application Criteria	2	
	043002	Advanced Power Conversion Techniques	2	
	ELEC7123	Modeling and Control of High-Frequency Power Electronic Circuits	3	
	042102	Analysis and Simulation for Power System Transients	3	
	ELEC6406	Design of Power Electronic Equipment	3	
	ELEC7138	Renewable Energy and Smart Grid	2	
	042105	Research Frontiers of Electromagnetic Compatibility	2	
	042110	Power System Communications	3	
	042112	Optimization Methods and Its Applications in Power Systems	2	
	042113	Electric Power System	2	

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		Reliability Evaluation		
	043007	Smart High Voltage Dielectrics Engineering- Fusion of Dielectric Materials Science with Physics and Chemistry	2	
	042109	Scientific Writing	1	
	042123	Fast Transient Electromagnetic Sensors and Measurements	2	
Optional Courses	Any graduate course(s) offered in the university			Remaining credits
Compulsory	BXHJ6003	Seminar	1	29
	BXHJ6007	Mid-term Assessment	3	
	BXHJ6008	Thesis	25	
Total				51

*Note: Students should get permission from academic instructor and course teacher before choosing courses from other schools, annual course list will be updated after university authorization every year.*

#### **(2) Teaching Staff**

There are 237 faculty and staff members in School of Electrical Engineering including 2 academicians, 3 scholars of “Thousands of People Plan”, 4 special term professors of “Cheung Kong Scholar”, 2 chair professors of “Cheung Kong Scholar”, 4 winners of “National Science Foundation for Distinguished Young Scholars”, 3 winners of “National Science Foundation for Outstanding Young Scholars”, 3 Shaanxi Province outstanding teachers, 23 New Century Talents, 52 professors, 2 researchers, 55 associate professors, 16 senior engineers, 3 Double hired academicians, and 5 overseas part-time professors. The school also has an innovation research group of National Natural Science Foundation, a national teaching team, a innovation team of Ministry of Education, a Shaanxi Province innovation team, a Shaanxi Province outstanding teaching team.

#### **2. Teaching Methods**

All of the courses for foreign students are given in English. The training mode adopts supervisor responsibility system. According to the students’ Specific situations and personal interests, their supervisors will make a training plan for them in the first semester.





### 3. Term Arrangement

Students will study at the school for 2 years, consists of 4 semesters. The courses are given in the first 3 semesters, and student start to write dissertations in the fourth semester.

### 4. Graduation Thesis

#### (1) Requirements on Thesis Writing

- a. After the completion of dissertation and the requirements of the program, the postgraduate student can submit his or her academic dissertation for reviewing.
- b. The academic dissertation should be finished by the student him/herself under the guidance of the academic supervisor. The duration of time for a Mater's dissertation is around one academic year.
- c. Student dissertations can be written either in Chinese or in English. For the dissertations in Chinese, they must accord with the rules and regulations specified in *Graduate Student Dissertation Standard of Xi'an Jiaotong University*; but for the dissertations in English, they must accord with the international conventions and have Chinese abstract.
- d. For a student, the research articles contributing to the rewarding of a degree must be first authored or second authored by the student (when the student is the second author, the first author must be his or her academic supervisor) and Xi'an Jiaotong University should be the first authored institution.

#### (2) Requirements on Thesis Defense

International postgraduates are required to submit the application for reviewing their academic dissertation. After the approvals of the academic school and the Graduate School, routine approving can be conducted. After the reviewers confirm that the dissertation satisfied the requirements, the student can file an application for dissertation defense. After the student defends his/her dissertation successfully, he/she can apply for granting a degree.

### 5. Degree Awarding

The Subcommittee for Academic Degrees Conferring of the academic school will review the degree application materials and will make a final decision of whether or not granting a Master's degree to the student. Then, the results will be reported to the University Committee for Academic Degrees Conferring, and will make a





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final decision of whether or not granting a Master's degree to the student. The school of international Education issues the graduation diploma to those who have got the certificate of degree first. Only certificate of completion of courses studies will be issued to those who are not qualified to be conferred a degree.

## **II. Application**

### **i. Eligibility**

1. Non-Chinese citizen from developing countries with good health condition and under the age of 45 (born after September 1<sup>st</sup>, 1979).
2. Be healthy, capable of studying, and not carrying diseases which are classified as “prohibited entry into China” under Chinese laws and regulations. Applicants with infectious disease and severe disability, in major operation recovery period and pregnant women are not suggested to apply the program.
3. Having bachelor degree or above, with 3 years or more job experience.
4. Having academic or job background related to Electrical Engineering will get prior consideration.
5. Being government officials with rank of division chief, department directors, or senior level-managers or equivalent or higher rank; and academic member in university or scientific research institute.
6. Having a new TOEFL score higher than 80, or IELTS higher than 6.0, to proficiently study the program in English.
7. Having career potential and willingness to promote cooperation between China and student's home country.

### **ii. Application Procedure**

#### **1. Application Procedure:**

- 1) Applicants need to log in <http://isso.xjtu.edu.cn/recruit/login> and register an account;
- 2) After registration, applicant should enter the system and select “Programs Selection”;
- 3) Select “Degree Program”, “Master Program”, and “MOFCOM”;
- 4) Click “Apply”;
- 5) Fill in basic information, choose “School of Electrical Engineering” in the Study Plan, and upload all the scanned copies of required documents;
- 6) Click “Submit” to complete the online application;

#### **2. Application Documents**

Please prepare the following documents before submitting application:

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- (1) Highest diploma. If the highest diploma is not bachelor, please attach the bachelor diploma at the same time.
- (2) Transcripts of study for highest diploma. If the highest diploma is not bachelor, please attach the transcript for bachelor diploma at the same time.
- (3) Institute recommendation letter. Issued by the applicant's institute, introducing basic information of the applicant and its' willingness of recommending the applicant to study in China.
- (4) Academic recommendation letter. Issued by individual who is associate professor or above, introducing applicant's academic background, research area, past achievements and research ability.
- (5) Personal Statement. Personal statement must be written in English and be some 1000 words in length. It shall cover such essential elements as applicant's academic background, work experience, achievements, and future career plans, including a research plan at Xi'an Jiaotong University.
- (6) Photocopy of ordinary passport: should be the personal information page with applicant's photo, information including name and passport number should be clear. Please do not submit diplomatic passport or public affairs passport for application.
- (7) English language ability certificate: not necessary for native English speakers, should be the transcript of applicant's recent TOFEL, GRE test.
- (8) Two 2-inch bareheaded photo taken within 3 months.
- (9) Physical Examination Record: examination should be taken within 1 month, proving applicant is not affected by severe infectious disease or other disability that may affect study in China. Other diseases that are prevented by Chinese government from entrance should also be checked.

### **3. Submission**

- (1) Student can apply the program only after getting permission and recommendation from corresponding department in home government, prepare documents according to the department's requirement.
- (2) Submit all the application materials listed in part 1, 2 in both hard copy and soft copy to the Economic and Commercial Counsellor's Office of Chinese Embassy. Each Office's address and contact of can be found at <http://www.china-aibo.cn/>.
- (3) Submit a written request to the Economic and Commercial Counsellor Office of Chinese Embassy for an official recommendation letter and clearly state: whether the applicant is willing to be considered for a similar program at other universities if the program at XJTU is already full. Other special requests should also be raised if any.

### **Reminders:**

- a) All the documents to be submitted should be in Chinese or English. Otherwise, a notarized copy in Chinese or English is required.

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- b) An original copy of degrees, transcripts and language certificates must be presented for on-site verification at Economic and Commercial Counsellor's Office of Chinese Embassy. After verification, students should send scanned copies to university contact person.
- c) Applicants will get back all the hard-copy materials, both original copies and photocopies from the Economic and Commercial Counsellor's Office. If admitted, they must take the documents to China and submit them to the School of International Education during registration in early September.

**iii. Application Deadline:**

**June 7, 2024**

**III. Useful Information**

**i. Contact**

Contact person: Ms. LUO Kun

Telephone: 0086-29-82668812

E-mail: luokun@xjtu.edu.com

Website: <http://sie.xjtu.edu.cn>

Address: Admission Office of International Students, School of International Education, Xi'an Jiaotong University, No.28 Xianning West Road, Xi'an, Shaanxi 710049, P.R.China

**ii. Other Notices**

1. None of the materials submitted will be returned.
2. Regardless of the admission result, no explanation will be provided by Chinese government.
3. Spouse and children are not allowed to come to China as study companion. If a student expects to have his/her spouse, children, relatives or friends to visit him/her during the stay in Beijing, the visitor will have to bear all the expenses by him/herself.
4. Visa Application and other requirements will be stated in admission letters.