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**Degree Education Programs Sponsored by Ministry of Commerce PRC**

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西南交通大学  
Southwest Jiaotong University

**2026 Master Program in**

**Rail Transit Electrification and Information Technology**

*Application Guide*

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February, 2026

# **Academic Education Programs Sponsored by the Ministry of Commerce of the People's Republic of China**

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## **I. Overview**

### **(I) Introduction to the Program**

#### **1. Profile**

With the support of foreign aid funds granted by Chinese government, the Academic Education Programs sponsored by the Ministry of Commerce of the People's Republic of China were initiated in 2008. The Program is committed to training high-end, versatile and application-oriented talents in politics, economy and trade, foreign affairs, agriculture, science, education, culture, health, energy, traffic, public management, and other fields for recipient countries in a bid to boost their economic and social development through education. The programs include one-year master's degree program, two-year master's degree program and four-year doctoral degree program, and mainly sponsor in-service officials from governmental departments, researchers from academic institutions and management professionals in relevant fields from recipient countries who pursue their English-taught master and doctoral degree education in China. Owing to the short duration of schooling, a bachelor's degree and a certain period of work experience in relevant fields are a prerequisite to ensure students to closely follow the instructors and timely make full sense of the lessons; the good health is another prerequisite to prepare them for fast-paced learning mode and ensure them to achieve the degree.

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

The program undertaken by Southwest Jiaotong University (SWJTU) aims to cultivate high-level, versatile and application-oriented specialists in rail transit electrification and information technology and its related fields. Through classroom teaching, students can better grasp the basic theory and professional knowledge of the subject, broaden their knowledge and improve their international perspective. The program also combines internship visits, case discussions, research practice, and other teaching methods to develop students' leadership, analytical and practical problem-solving skills, and good communication skills. Through the course, students can draw on the successful experiences and failures in the area of rail transit electrification and information technology in China, and fully grasp the modern techniques, methods, and practical skills to engage in rail transportation planning and management, thus meeting the needs of modern transportation development.

**2. Entry Requirements:** Governmental officials on or above department level, heads of academic institutions on or above director level, or administration staff with equal title from higher education institutions.

#### **3. Program Objectives:**

The Academic Education Programs sponsored by the Ministry of Commerce of the People's Republic of China for developing countries is devoted to cultivating

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high-end, versatile and application-oriented talents in politics, economy and trade, foreign affairs, agriculture, science, education, culture, health, energy, traffic, public management, and other fields.

The Master's Program in Rail Transit Electrification and Information Technology intends to cultivate high-level applied and versatile engineering and engineering management talents, innovative talents with broad theories in rail transit electrification and information technology, systematic expertise in this discipline, and the ability to undertake complex work. Specific objectives include:

(1) To master the basic theories and expertise systematically and thoroughly in the field of rail transit power supply, traction drive, and other rail transit equipment technology and application. To understand the current situation, development direction, and international frontier of the discipline.

(2) To understand the application of new technologies, methods, materials, and equipment in the field of rail transit electrification and information technology. To develop the ability to independently engage in engineering design, engineering practice, engineering research, engineering development, and engineering management in the specific direction of the training field. Be able to flexibly apply professional basic theories and expertise to creatively solve practical engineering problems.

(3) To develop organizational and management skills in professional engineering work.

### **4. Enrollment Scheme**

#### **Major**

Master of Rail Transit Electrification and Information Technology

#### **Duration of Schooling**

The duration of schooling for master students is **two** years, including one year for curriculum learning and another for thesis writing.

#### **Instruction Language**

The teaching language is English.

#### **Number of Enrollments**

20

### **5. Scholarship Coverage**

(1) Students are exempt from tuition fee, teaching material fee, research and survey fee, allowance of English-taught program, dissertation guidance fee.

(2) Free on-campus accommodation.

(3) Living allowance: 36,000 yuan/person/year for master's degree. It will be issued monthly according to the actual time that the students spend in China.

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- (4) One-time settlement fee: 3000RMB per person.
- (5) Free medical insurance for international students.
- (6) One round-trip international air ticket will be provided free of charge, along with one round-trip air ticket for home visit.
- (7) The annual review is compulsory for all students. Those who pass the review may continue to enjoy full scholarship next year.
- (8) Other expenses shall be managed and used by the Ministry of Commerce or the university as a whole, and shall not be distributed to students. The Ministry of Commerce only provides students with financial assistance within their enrolled academic duration. Students who postpone their graduation will not receive the continuing sponsorship.

### **(II) Introduction to SWJTU**

#### **1. Profile**

Southwest Jiaotong University is a key national university directly under the Ministry of Education of China. It is one of the first universities to be included in the “Double First-Class” initiative, the “211 Project,” the “985 Project Advantageous Discipline Innovation Platform,” and the “2011 Collaborative Innovation Program.” The university is home to a graduate school and is located in Chengdu, a city renowned for its historical and cultural significance, as well as its status as a national central city and a core city in the “Chengdu-Chongqing Twin City Economic Circle.”

The university boasts distinctive educational features and its rail transportation discipline ranks among the top in China. It has established the most comprehensive academic, talent training, and research innovation systems in the field of global rail transportation. Southwest Jiaotong University consists of 34 schools (centers) and other secondary educational units. It is home to two national key disciplines at the first level—Transportation Engineering and Mechanical Engineering—along with 10 second-level key disciplines, including Vehicle Engineering and Bridge & Tunnel Engineering. Additionally, it offers 20 doctoral degree programs in first-level disciplines, 5 doctoral professional degree categories, 43 master’s degree programs in first-level disciplines, 25 master’s professional degree categories, and 17 postdoctoral research stations.

The university is committed to building a world-class disciplinary system. Its Transportation Engineering discipline ranks first (A+) in China and is included in the national "Double First-Class" initiative. Civil Engineering ranks in the A category nationwide, and disciplines such as Transportation Engineering, Civil Engineering,

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Mechanical Engineering, Electrical Engineering, Instrument Science, and Remote Sensing Technology rank among the top 50 in the world (according to Soft Science World University Rankings and US News Subject Rankings). Engineering, Computer Science, Materials Science, Chemistry, Social Sciences, Earth Sciences, Environmental/Ecological Science, Physics, Economics and Business, and Clinical Medicine all rank within the top 1% of the world in the ESI rankings, with Engineering ranking in the top 0.172%.

The university places great importance on building a world-class faculty and is dedicated to implementing a core strategy of strengthening the institution through talent. It ranks 28th in the national index of faculty development. The faculty consists of over 2,500 full-time teachers, including 2 academicians of the Chinese Academy of Sciences, 4 academicians of the Chinese Academy of Engineering, 1 foreign academician of the U.S. National Academy of Engineering, and nearly 200 recipients of the national high-level talent program. Currently, there are 29,368 full-time undergraduates, 13,436 master's students, and 3,666 doctoral students enrolled.

Southwest Jiaotong University upholds an internationalized approach to education, balancing both "bringing in" and "going out" strategies, continuously enhancing its global influence and competitiveness. It has established cooperative relationships with over 200 universities and research institutions in 60 countries and regions. The university has partnered with the University of Leeds (UK) to establish the "Southwest Jiaotong University-Leeds College" and is a leading member of the "Belt and Road" Railway International Education Alliance. It has also created the "Tianyou Railway School" brand in collaboration with Khon Kaen University in Thailand, building the first overseas Tianyou Railway School. The university is committed to high-quality construction of its Eastern (International) Campus in Chengdu. Its study abroad programs, including "2+2," "4+1," "4+4" programs with France, and "Summer International Course Week," are available to students across all academic years. The university has established seven national foreign expert innovation and intelligence bases (under the "111 Program") and publishes six international academic journals.

### **2. Introduction to the Undertaking School**

The School of Electrical Engineering boasts a strong educational foundation and is home to four departments: Power Engineering, Electrical and Electronic Engineering, Power Electronics and Power Transmission, and Electronic Information Engineering. It is equipped with several prestigious research and teaching centers, including the National Railway Electrification and Automation Engineering Technology Research Center, the Railway Electrification and Automation Discipline Intelligence Base ("111" Talent Program), the National Experimental Teaching Demonstration Center for Electrical Engineering Fundamentals, the National Experimental Teaching Center for Railway Electrification and Automation Virtual Simulation, the Ministry of

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Education Key Laboratory for Magnetic Levitation Technology and Maglev Trains, the Ministry of Railways Key Laboratory for Railway Electrification and Automation, the Sichuan Provincial Key Laboratory for Maglev Trains and Magnetic Applications, the Sichuan Provincial Laboratory for Urban Rail Transit Energy Conversion and Control Engineering (co-established), the Sichuan Provincial Fuel Cell Engineering Technology Research Center (co-established), the Electrical Engineering Professional Experimental Center, and the Traction Power Supply Functional Laboratory of the Railway Transportation Laboratory.

The school has established a National Engineering Practice Education Center in collaboration with institutions such as the Zhuzhou Electric Locomotive Research Institute and Sichuan Changhong Electric Co., Ltd. This partnership aims to promote the development of teaching, research, talent cultivation, and industry advancement.

The School offers doctoral and master's degree programs in two first-level disciplines: Electrical Engineering and Control Science and Engineering. Among them, Power Systems and Automation is a national key discipline, and Power Electronics and Power Transmission is a national key (cultivated) discipline. Both Electrical Engineering and Control Science and Engineering are key first-level disciplines in Sichuan Province. The school also grants master's degrees in specialized fields such as Energy and Power Engineering and Electronic Information Engineering. Additionally, it offers two undergraduate programs: Electrical Engineering and Automation, and Electronic Information Engineering, both of which are national-level distinctive programs and are part of the Excellent Engineer Training Program. These programs have received national engineering education accreditation, and Electrical Engineering and Automation is also a key national program.

The school has established a postdoctoral research station in Electrical Engineering and has created a comprehensive educational system for cultivating students from bachelor's to master's and doctoral levels. Currently, the school has 2,364 undergraduate students, 1,166 master's students, and 341 doctoral students. The school has been recognized with ten National First-Class Undergraduate Courses, 23 Provincial First-Class Undergraduate Courses, and three provincial-level advanced courses.

### **3. Introduction to Living Conditions**

Chengdu, where SWJTU is located, has a subtropical monsoon climate. The main climatic characteristics are four distinct seasons (early spring, hot summer, cool autumn, warm winter), with the average annual temperature of 16°C. The price level in Chengdu is medium, with an average monthly consumption of 1500-2000 RMB.

The university currently has four campuses, of which the main campus is located in Pidu District, Chengdu, with a beautiful campus environment. The international student flats built around the lake houses students from all over the world. The

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university provides free single-room accommodation for students in this program, offering international students a comfortable and peaceful living environment.

### (III) Teaching Schedule

#### 1. Course Arrangement

Course Category	Course Name	Credits	Semester	College	Required Credits	Introduction
Public Courses	Chinese 1 & 2	4	I	School of Foreign Languages	8	Through the study, students will be equipped with certain Chinese communication ability, and understand China's history, geography, society, economy and other basic knowledge of China's national conditions and culture.
	Chinese 3	4	I & II			
	Chinese 4	4	II			
	China Overview	2	I		2	
	Advanced Analysis of Power System	3	I	School of Electrical Engineering	9	Students will systematically learn the content and methods of

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Professional Courses						advanced analysis of power system, understand the problems and solutions of existing analysis methods, so that students can master and have the knowledge and ability to engage in power system analysis, EMS system research, design and management after graduation.
	Theory and Technology of Traction Power Supply System	3	II			Students learn to master the basic theory and application tools of traction power supply

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Professional Courses					<p>system, master the traction power supply theory and power quality analysis methods, understand the current situation of electric railway power quality, familiar with the measurement and analysis methods combined with power quality test examples, master a variety of integrated control schemes of power quality, which can be used to solve problems in practical engineering</p>
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Professional Courses						g application of traction power supply system.
	Modern Power Electronics and Electrical Drives	3	II			This course mainly teaches the topology, modeling, modulation and control methods of power electronics conversion circuit, theory, new methods and cutting-edge technology of motor control.

### Training Links

Training Sessions	Credits	Requirements	Notes
Academic Activity	2	Students should attend at least 10 academic reports including 2 reports given by students as speakers. Students should write a summary of not less than 500 words for every report.	
Research Group Seminars	3	Students should attend at least 10 times of research group seminars and fill in recording forms.	
Literature Reading and	2	Students should read at least 10 high-level literatures	

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Review		related to the discipline and write a summary for each literature.	
Thesis Proposal	2	Thesis proposal should generally be completed in the third semester.	
Interim Assessment of Thesis	2		

### School Faculty:

The school currently has 267 faculty and staff members, including 218 full-time teachers, with 49 professors (researchers), 97 associate professors (associate researchers), and 57 doctoral supervisors. Among the faculty, there are 2 academicians of the Chinese Academy of Engineering, 6 national-level talents, 2 nationally recognized teaching experts, 2 IEEE Fellows, 12 national-level young talents, and over 30 provincial and ministerial-level talents. The school also boasts 1 key innovation team in strategic sectors supported by the Ministry of Science and Technology and 1 innovation team supported by the Ministry of Education.

### 2. Teaching Methods

The school adopts flexible and diverse teaching methods, such as classroom teaching, experiential learning, case discussion and simulation training.

### 3. Semester Schedule

Date of Starting School	Every early September	Please refer to the <i>Letter of Admission</i> for scheduled dates.
Enrollment	Every late August	Please refer to the <i>Letter of Admission</i> for scheduled dates.
Vacations	Every July and January	Summer vacation: every mid-July to late August Winter vacation: every mid-January to late February
Graduation	Every June	Specific dates subjected to the schedule of the school.

### 4. Graduation Dissertation

#### (1) Topics

Topics should have critical application value or theoretical significance in the development of national economy and be related to the scientific research projects of supervisors as much as possible. Topics shall be selected after the approval of supervisors and demonstration.

#### (2) Dissertation Proposal

Master students generally shall accomplish dissertation proposal during the third semester. Opinions should be widely solicited in the dissertation proposal meeting and topics will be determined after the approval of experts in relative subjects.

Dissertation proposal should include the development and trend of intended topics at home and abroad, the purpose and significance of the topics, the research contents and methodology, hypothesis, dissertation schedule, and the requisite conditions for

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the research.

### **(3) Dissertation Working Plan**

Dissertation working plan shall be formulated under the guidance of supervisors. The arrangement and demonstration of research methodology, experiment scheme and methods, expenditure and equipment, paper writing, deadline for completion and expected results should be elaborated in the working plan.

**(4) The publication, evaluation and defense of dissertation and the degree awarding is subject to the relevant provisions of Southwest Jiaotong University.**

### **5. Degree Awarding**

Students who have obtained required credits, passed all the examinations, and successfully accomplished dissertation and defense will be awarded master's degree after the review by the Academic Degree Evaluation Committee of Southwest Jiaotong University.

## **II. Application**

### **(I) Application Requirements**

1. Applicants must be non-Chinese citizens from developing countries, in good physical conditions. Normally, applicants are expected to be aged under 45 (applicants must be born after Sep. 1st, 1981).
2. Applicants shall obey the laws and regulations of the People's Republic of China and the rules and regulations of Southwest Jiaotong University and respecting the tradition and habits of China.
3. The applicant shall be in good health, without diseases with which entry to China and long-term residence are not allowed by China's laws and regulations, without severe chronic diseases such as serious high blood pressure, cardiovascular/cerebrovascular diseases and diabetes, mental diseases or epidemic diseases that are likely to cause serious threat to public health; the applicant shall not be in the process of recovering after a major operation or in the process of acute diseases or seriously disabled. Non-Pregnancy. If a female student becomes pregnant during her study period in China, she will be subject to withdrawal from the program.
4. Applicants must have obtained a bachelor degree or above, and at least 3 years of working experience are required.
5. Applicants with related professional study or working background are preferred.
6. Applicants must be public officials in the government departments at director's level and above (or corresponding levels), senior directors of various institutions or enterprises, and key professional figures of the universities or research institutions
7. The applicant shall have good command of English and can use English for professional courses. Reference Standard: An IELTS score of 6.0 or above, or a TOEFL iBT score of 80 or above.

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8. Applicants shall be equipped with a strong career development capacity and intend to promote the communication and cooperation between host countries and China.

9. Applicants shall be qualified for the major requirements of the enrollment information of intended university.

10. Students who are already studying in China or have been admitted to other Chinese government scholarship programs are not allowed to apply.

11. Spouse or relatives of the applicant shall not be taken to China.

12. The applicant must be introduced by the Embassy of the PRC in the host country.

### **(II) Application Procedure**

#### **1. Application for Admission**

##### **(1) Procedures**

- Electronic editions of all the application materials should be submitted through the application system of Southwest Jiaotong University:

<https://admission.swjtu.edu.cn>

**Note:** At the time of registration, applicants must bring the original certificate of their highest level of education and degree used for applying to this program.

##### **2. Material Preparation**

A whole set of application materials is required. Please read carefully and prepare the application materials as required. Incomplete materials will not be accepted.

<b>Application materials</b>		<b>Requirements</b>	<b>Original</b>	<b>Copy</b>
1	Graduation Certificate Degree Certificate	1. Graduation Certificate and Degree Certificate must be original or the notarized Chinese or English copy. 2. For current students, the certificate with expected date of graduation issued by the school is required.	1	1
2	Official Transcripts	1. The transcripts must be the Chinese or English original or notarized Chinese or English copy. 2. The transcripts must cover all the studied courses and the final results.	1	1
3	Personal Statement	The word limit of personal statement is 1500 words. The statement should include the academic background, the working experience and achievements related to the applied major, the study and research plan for the master's degree and the development objectives after graduation.	1	1
4	Resume	The resume shall be written in English, including personal information and education background.	1	1
5	Recommendation Letter	1. Two recommendation letters from the government, regional education administrative departments, universities, or senior officials of the country which the applicant is from are required. 2. The recommendation letters shall be Chinese or English	2	2

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Application materials		Requirements	Original	Copy
		original. 3. The recommendation letters shall be issued in 2025 or 2026.		
6	English Proficiency Certificate	The applicant who is not native English speaker or taught in English in undergraduate courses shall submit English proficiency certificate.	1	1
7	Valid Passport Copy	The passport must be general passport and valid at least for 6 months. <b>Note:</b> The passport held by all the enrolled candidates for entering China and registration must be identical with the original of the copy.	0	1
8	Recent Passport Photo		1	0
9	Foreigner Physical Examination Form	1. The original copy should be kept by the applicant. The form is uniformly printed by Chinese healthy quarantine departments. It must be written in English. The physical examinations must cover all items listed in the form. Incomplete forms or forms without the signature of the attending physician, or the official stamp of the hospital, or a sealed photograph of the applicant are considered as invalid. 2. Please carefully plan your physical examination schedule as the result is valid for only 6 months.	1	1
10	Non-Criminal Record Report	The applicant shall submit a valid certificate of Non-Criminal Record issued by the local public security authority, usually issued within 6 months prior to the submission date of the application.	1	1

### 3. Application Submission

(1) Applicants can submit the application for this scholarship program only after getting the approval and recommendation from relevant government authorities. Applicants shall submit all the application materials according to the specific requirement of relevant authority in their countries.

(2) If the government in applicants' country allows applicants to submit the application materials directly to the Chinese Embassy, applicants shall have relevant approval or recommendation letter issued by relevant authority in their countries. Please submit the originals and scanned electronic copies mentioned in the Step 1-3 above to the Economic and Commercial Counsellor's Office of Chinese Embassy in the host country. The addresses and contacts of all the Economic and Commercial Counsellor's Offices can be reached out in the official website (English version) of Academy for International Business Officials (AIBO) of the Ministry of Commerce of PRC: <https://www.china-aibo.cn/en/>.

(3) The dispatching authorities of the home country shall submit a written request to the Economic and Commercial Counsellor's Office for the recommendation letter for the recommended applicants. In this written document, it shall be clearly stated that if

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the planned enrollment figure of SWJTU is run out, whether accepting the same or similar major of different university. Other special requests shall also be raised if any.

### **Key Notes:**

(1) All the submitted materials shall be written (printed) in Chinese or English. Non-Chinese or Non-English documents shall be submitted with notarized Chinese or English translated copies.

(2) Originals and copies of important documents, such as *Graduation Certificate*, *Degree Certificate*, *Academic Transcripts*, *Language Proficiency Certificate*, *Foreigner Physical Examination Form* and *Non-Criminal Record Report* shall be submitted for verification by the Economic and Commercial Counsellor's Office of Chinese Embassy. After verification, the applicants should scan the application materials and upload through the application systems.

(3) All the paper materials (originals and copies) shall be reclaimed and kept after the verification by the Economic and Commercial Counsellor's Office of Chinese Embassy. The paper documents shall be taken to China and submitted to the assigned departments of the university for verification and filing once you are admitted.

(4) All the application materials are not returned.

### **(III) Deadline**

6 June, 2026. All the materials provided after the deadline will not be accepted.

### **III. Other Key Notes**

#### **(I) Contact**

Contact person of the university

**Ms. ZENG**

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Fax: +86-28-66366346

E-mail: MOFCOM\_SWJTU@swjtu.edu.cn

Website: <https://en.swjtu.edu.cn>

Address: Room 448, International Students Office, Office of International Cooperation and Exchanges, Comprehensive Building, Southwest Jiaotong University, Xipu Campus, No. 999, Xi'an Road, Pidu District, Chengdu, China

#### **(II) Other Notes**

1. All the application materials will not be returned no matter what results are.
2. The Chinese government will not give any explanation for the results.
3. Spouse and children are not allowed to come to China as study companions.

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Expenses or fees for spouse's or relatives' visit will not be assumed by Chinese side.

4. The procedures and requirements for entering China will be explained in the letter of admission.