

## PROGRAMME OVERVIEW

**DEGREE PROGRAMME**  
BEng Electrical Engineering

**AWARDING INSTITUTION**  
University of Liverpool, UK  
Xi'an Jiaotong-Liverpool University, China

**TUITION FEE**  
RMB 88,000 per year  
All international, Hong Kong, Macao and Taiwan students who accept their offer and pay the deposit by 1st May 2018 will automatically qualify for a RMB 8,000 early bird discount.

**PROGRAMME DURATION**  
3-4 years

**SCHOLARSHIPS**  
Scholarships of up to 50% are available for international students. For details, please visit:  
[www.xjtlu.edu.cn/en/study-with-us/admissions/scholarships](http://www.xjtlu.edu.cn/en/study-with-us/admissions/scholarships)

## INTERNATIONAL STUDENT ENTRY REQUIREMENTS

[www.xjtlu.edu.cn/en/study-with-us/admissions/entry-requirements](http://www.xjtlu.edu.cn/en/study-with-us/admissions/entry-requirements)

**ENTRY INTO YEAR ONE**  
We welcome applications from high-quality candidates in all subject areas with appropriate high school or equivalent qualifications. Students will normally be expected to have a high standing in their high school performance with a minimum "B" average in relevant subjects.

**ENTRY INTO YEAR TWO**  
Students who have completed A-levels or International Baccalaureate (or equivalent) will be considered for entry into Year Two.

- A-level: BBB
- IB: 30 points
- SAT: high school diploma with a GPA of 3.0, plus three SAT subject tests of at least 600 in each subject or redesigned SAT 1280
- AP: high school diploma with a GPA of 3.0, plus three AP subjects at Grade 4 or above

**HONG KONG, MACAO AND TAIWAN**  
Applicants from Hong Kong, Macao and Taiwan may also apply with the Joint Entrance Examination to Chinese Universities for Overseas Chinese Students and Students from Hong Kong, Macao and Taiwan, or the GSAT.

### ENGLISH LANGUAGE REQUIREMENTS

YEAR ONE ENTRY	IELTS 5.5	TOEFL iBT 72
YEAR TWO ENTRY	IELTS 6.5	TOEFL iBT 90

The University reserves the right to modify programmes at any time in response to unforeseen circumstances, feedback and review. The University also reserves the right to not offer programmes with low enrolments. For the latest information, please visit our website.

## HOW TO APPLY

[www.xjtlu.edu.cn/en/study-with-us/admissions/how-to-apply](http://www.xjtlu.edu.cn/en/study-with-us/admissions/how-to-apply)

**INTERNATIONAL, HONG KONG, MACAO AND TAIWAN**  
All international, Hong Kong, Macao and Taiwan applicants should apply via our online application system:

1. Choose your programme
2. Click/tap 'Apply' on the programme page
3. Create an account or log in to your existing account
4. Complete your application.

You may save and re-log in to your application form at any time and upload any remaining supporting documents.

We reserve the right to request additional documents or an interview to assess your academic qualifications.

### CHINESE NATIONALS

You should take the National College Entrance Examination (Gaokao) and achieve a score above the Tier One threshold of your home province. You can then apply for XJTLU through the National College Application System at the first tier.

### Comprehensive Evaluation Admission

XJTLU Comprehensive Evaluation Admission only applies to students in Jiangsu and Guangdong but will expand to other provinces in the future.

### APPLICATION DEADLINE

30 June 2018

# BEng

# ELECTRICAL ENGINEERING

# 电气工程及其 自动化



# 电气工程及其自动化

本专业培养学生对电气工程理论方面的基本理解能力, 学生将具备有关发电、输配电、控制、检测、保护和用电方面工程问题的解决能力。本专业将电气和电子基础知识与专业知识相结合, 涉及发电、输配电、功率电子学及计算机系统和集成电路等。

## 行业认证

西交利物浦大学电气与电子工程系的本科和硕士专业获得英国工程技术学会 (IET) 的全面认证。它是评定全球范围内达到英国专业工程技能标准(UK-SPEC) 要求的高质量专业教育是否可以得到国际认可的基准和标志。

## 专业特色

- 英国工程技术学会 (IET) 的全面认证
- 本专业配备一系列设备先进、功能完善的专业实验室, 拥有四十套电力系统设备, 学生/工作站比例为1: 3, 为学生进行独立实验提供了优越的技术条件;
- 本专业还为学生提供前往苏州工业园区发电厂实地考察的机会, 以及前往合作伙伴 Little-fuse和REnergy电气 (苏州) 等企业实习的机会。
- 同时获得中国教育部认可的西交利物浦大学学位与全球著名的罗素教育集团成员——英国利物浦大学学位。

## 知识与技能

- 掌握电子与电气工程的理论知识与技能;
- 掌握数学、软件工程、设计和管理的知识与技能;
- 掌握分析、解决问题、团队沟通、合作和项目管理等通用技能。

## 就业

- 本专业毕业生就业前景广阔, 领域涉及电气工程, 电力系统工程、控制系统工程和管理 and 仪器仪表使用工程等;
- 本专业毕业生掌握微电子及通信方面的基础知识与技能, 可从事电子科学与技术 and 通信工程等相关领域的工作;
- 毕业生也可选择在电气工程或可再生能源技术方面继续攻读硕士或博士研究生。



扫描二维码  
获取更多专业信息

咨询邮箱  
[international@xjtlu.edu.cn](mailto:international@xjtlu.edu.cn) (国际学生)  
[admissions@xjtlu.edu.cn](mailto:admissions@xjtlu.edu.cn) (中国学生)

在线申请  
[www.xjtlu.edu.cn/zh/find-a-programme/undergraduate/electrical-engineering](http://www.xjtlu.edu.cn/zh/find-a-programme/undergraduate/electrical-engineering)

# BEng ELECTRICAL ENGINEERING

The BEng Electrical Engineering programme will equip you with a fundamental understanding of electrical engineering theory and the ability to solve engineering problems relating to power generation, transmission, distribution, control, protection and consumption. The programme blends the fundamentals of electrical engineering and electronics in Year Two with more specialist knowledge in the following two years.

## ACCREDITATION

This programme has been accredited by the Institution of Engineering and Technology (IET). IET is a leading professional organisation working to share and advance knowledge and promote science, engineering and technology across the world.

Students graduating from this accredited programme can enjoy a more straightforward registration process for incorporated engineer (IEng) or chartered engineer (CEng) registration, important benchmarks professionally.



SCAN THE QR CODE  
TO VISIT THE  
PROGRAMME  
WEBSITE

GENERAL ENQUIRIES  
[international@xjtlu.edu.cn](mailto:international@xjtlu.edu.cn) (International)  
[admissions@xjtlu.edu.cn](mailto:admissions@xjtlu.edu.cn) (Chinese nationals)

APPLY  
[www.xjtlu.edu.cn/en/find-a-programme/undergraduate/electrical-engineering](http://www.xjtlu.edu.cn/en/find-a-programme/undergraduate/electrical-engineering)

## DISTINCTIVE FEATURES

- Accreditation by the Institution of Engineering Technology; an internationally respected benchmark awarded to high-quality programmes within and outside the UK that meet the educational requirements of the UK Standard for Professional Engineering Competence (UK-SPEC).

- Labs specifically designed for the electrical engineering degree.

- Exceptionally low student to workstation ratio (1:3) that gives you the opportunity to perform individual experiments using cutting-edge technology.

- Field trips to power stations in Suzhou and surrounding cities.

- Partnerships with companies such as Littlefuse and REnergy Electric (Suzhou) Co., Ltd.

- Earn two degrees: an XJTLU degree from the Chinese Ministry of Education and a globally recognised degree from the University of Liverpool, a member of the Russell Group of leading UK universities.

## CAREERS

BEng Electrical Engineering graduates can find employment as electric engineers, control and instrumentation engineers, electronic engineers or process engineers. The programme's quantitative and transferable skills also equip you for a wide variety of roles in other sectors related to electronic science and technology and telecommunications engineering. The programme also provides a sound basis for further studies at masters and PhD levels in electrical engineering or renewable energy technology.

## KNOWLEDGE AND SKILLS

By the time you graduate, you will:

- have acquired a thorough understanding of the fundamentals of electrical and electronic engineering

- possess knowledge and skills in mathematics, software engineering, design and management

- possess transferable analytical, problem solving, communications, teamwork and project management skills.

## MODULES

### YEAR ONE

Year One provides you with a range of interesting modules, language classes and core skills for your degree. International students who meet academic and English language requirements may enter directly into Year Two, which is the start of the main academic programme.

### YEAR TWO

ELECTRONIC CIRCUITS
ELECTRICAL CIRCUITS I
C AND C++ PROGRAMMING AND SOFTWARE ENGINEERING/ENGINEERING DRAWING
ENGINEERING MATHEMATICS
ELECTROMAGNETISM AND ELECTROMECHANICS
DIGITAL ELECTRONICS I
INTEGRATED ELECTRONICS AND DESIGN
EXPERIMENTAL, COMPUTER SKILLS AND SUSTAINABILITY
ENGLISH LANGUAGE AND STUDY SKILLS FOR ENGINEERING

### YEAR THREE

ELECTRONIC CIRCUITS AND SYSTEMS
ELECTROMAGNETICS
CONTINUOUS AND DISCRETE TIME SIGNALS AND SYSTEMS
ELECTRICAL CIRCUITS II
CMO INTEGRATED CIRCUITS
DIGITAL ELECTRONICS II
ENGINEERING MATHEMATICS
MICROPROCESSOR SYSTEMS
INDUSTRIAL AWARENESS AND GROUP PROJECT
POWER ELECTRONICS AND ELECTROMECHANICS
ENERGY CONVERSION AND POWER SYSTEMS
ANALOGUE AND DIGITAL COMMUNICATIONS
INSTRUMENTATION AND CONTROL SYSTEMS

## YEAR FOUR

Compulsory modules:
DIGITAL CONTROL AND AUTOMATIC CONTROL
OPTIMISATION
DRIVES, POWER GENERATION, TRANSMISSION AND RELAYING
PROTECTIVE RELAYING
FINAL YEAR PROJECT

Elective modules:
ANALOGUE AND DIGITAL COMMUNICATIONS
ANTENNAS
DIGITAL SYSTEM DESIGN WITH HDL
ELECTRONICS FOR COMMUNICATIONS
ELECTRONICS FOR INSTRUMENTATION
INFORMATION THEORY AND CODING
INTEGRATED CIRCUITS – CONCEPTS AND DESIGN
SIGNAL PROCESSING AND DIGITAL FILTERING
DATA COMMUNICATIONS
EMBEDDED COMPUTER SYSTEMS
INTRODUCTION TO OPTOELECTRONICS AND PHOTONICS
PHOTONICS AND OPTICAL COMMUNICATION SYSTEMS
WIRELESS SYSTEMS
IMAGE PROCESSING
MICRO AND NANO-MANUFACTURING TECHNOLOGY
THERMAL POWER PLANT TECHNOLOGY
SIGNAL PROCESSING AND DIGITAL FILTERING

# XJTLU

## UNDERGRADUATE

### DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING 电气与电子工程系

The Department of Electrical and Electronic Engineering is committed to research and teaching excellence. Our highly qualified academic staff includes full professors, associate professors and lecturers. We aim to develop graduates who are competent in the fundamentals of electrical and electronic engineering with wider transferable skills in communication, team-working, organisational awareness and project management. Our students are able to meet the needs of a wide spectrum of employers both within and outside the specialised sector. Our strong research background has a positive impact on the quality of teaching - our students are exposed to the latest cutting-edge knowledge.

电气与电子工程系致力于追求卓越学术研究及教学水平。我系具备高质量学术人才, 由教授、副教授和讲师组成。我系以培养在电气与电子工程系方面拥有足够竞争力, 在沟通、团队合作、组织意识和项目管理方面拥有广泛通用技能的毕业生为目标。不论是专业知识或非专业领域能力, 我系学生都能满足雇主的广泛需求。

### XI'AN JIAOTONG-LIVERPOOL UNIVERSITY 西交利物浦大学

Xi'an Jiaotong-Liverpool University is the largest international joint venture university in China, combining the best of East and West, awarding English-taught University of Liverpool degrees.