



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

Opening Minds • Shaping the Future • 啟迪思維 • 成就未來

Master of Science in
ELECTRICAL ENGINEERING
電機工程學理學碩士

Master of Science in ELECTRICAL ENGINEERING
電機工程學理學碩士

*With specialism study options in "Electrical Power Systems" and
"Railway Systems"*

備有「電力系統」和「鐵路系統」專修



DEPARTMENT OF
ELECTRICAL AND
ELECTRONIC ENGINEERING
電機及電子工程學系

About the University 關於大學

The University aims to pursue impactful research that benefits the world, to nurture critical thinkers, effective communicators, innovative problem solvers and socially responsible global citizens, and to foster a University community in which all members can excel in their aspirations with a strong sense of belonging and pride. The vision of the University is to be a leading university that advances and transfers knowledge and provide the best holistic education for the benefit of Hong Kong, the nation and the world.

香港理工大學致力於追求富有影響及造福世界的研究；培育敏於思辨、善於溝通、富於創見、精於解難，且勇於承擔社會責任的世界公民；營造讓師生志存高遠、心有歸屬、樂於以大學為榮的環境。香港理工大學的願景是矢志成為一所在開拓及轉化知識、提供優質全人教育等方面均領先的大學，為香港、國家及世界作出貢獻。



Programme Characteristics 課程特色

The multidisciplinary nature of this programme encourages you to develop a broad outlook and allow you to take subjects in related technical fields, such as communications or computers, management or information sciences. The programme also allows you to take a combination of subjects that lead to specialisation options in Electrical Power Systems[#] or Railway Systems*.

該課程的多學科交叉特點將鼓勵您發展廣闊的視野，允許您學習各種相關技術領域科目，例如通訊或計算機、管理或資訊科學。該課程還允許您學習一系列課程組合，進而選擇電力系統[#]或鐵路系統*專業。

[#] HK Electric Institute assists in teaching some of the designated subjects.
港燈學院參與一些指定科目的教學。

* MTR Academy assists in teaching some of the designated subjects.
港鐵學院參與一些指定科目的教學。

Programme Aims 課程目的

We provide advanced study opportunities for electrical engineers who work in the power and electricity utilisation industries, electrical product manufacturing industries, government organisations and contracting and consulting companies. We will provide students with an in-depth knowledge of state-of-the-art advances in modern electrical science and technology such as power systems, the industrial utilisation of electrical energy, power electronics, railway systems and drive control, automation and optoelectronics.

我們為在電力行業、電器製造行業、政府組織以及承包和諮詢公司領域的電機工程師提供深入學習機會。本課程將深入學習現代電機科學與技術的最新發展，如電力系統、電能工業應用、電力電子、鐵路系統及驅動控制、自動化及光電子學等。



Programme Structure 課程結構

After enrolling in the MSc in Electrical Engineering programme, you can select from a wide range of subjects including core Engineering subjects and other subjects from Accounting, Computing, Construction and Environment, and Logistics. You can also select a combination of subjects that will allow you to graduate with a Specialism Award. Full-time students normally take three to five subjects in a semester. Each taught subject corresponds to three credits, and the Dissertation corresponds to nine credits.

報讀電機工程碩士課程後，您可以選擇理學碩士課程所提供的各種科目，包括核心工程科目和會計、計算機、建設及環境和物流等其他科目。您還可以選擇一系列專業科目，以獲取相關專業證書。全日制學生通常在一個學期內學習三至五門科目，每個科目對應三個學分，論文對應九個學分。

List of Core Subjects 核心科目列表

EE502 Modern Protection Methods
EE505 Power System Control and Operation
EE509 High Voltage Engineering
EE512 Electric Vehicles
EE514 Real Time Computing
EE520 Intelligent Motion Systems
EE521 Industrial Power Electronics
EE522 Optical Fibre Systems
EE526 Power System Analysis & Dynamics
EE528 System Modelling and Optimal Control
EE530 Electrical Energy Saving Systems

EE533 Railway Power Supply Systems
EE535 Maintenance and Reliability Engineering
EE536 Signalling and Train Control Systems
EE537 Railway Vehicles
EE545 Modern Generation and Grid Integration Technologies
EE546 Electric Energy Storage and New Energy Sources for Electric Vehicles
EE548 Advanced Electric Vehicle Technology
EE549 Modern Sensor Technologies
EE570 Design and Analysis of Smart Grids
EEE523 Economics and Market in Power Systems and Electrified Transportation
EEE525 Smart Transportation for Green Cities

The Department reserves the right not to offer any one of the subjects. The offer of subjects is subject to review and change if deemed appropriate by the Department.
電機與電子工程系保留不提供任何科目的權利，所提供的科目可能會受到審查和更改。

Award Requirements 學位授予要求

For the MSc in Electrical Engineering 對於電機工程學理學碩士

Students must complete 學生必須完成：

- 7 taught subjects, including at least 4 Core Subjects, a Dissertation; and a 1-credit AIE* Subject ; OR
7個授課科目（包括最少4個核心科目），1篇學位論文及完成1個學分的AIE*科目；或
- 10 taught subjects, including at least 6 Core Subjects and a 1-credit AIE* Subject.
10個授課科目，包括最少6個核心科目及完成1個學分的AIE*科目。

*AIE=Academic Integrity and Ethics (AIE) Requirement

For the MSc in Electrical Engineering with Specialism 對於指定專業的電機工程學理學碩士

(Specialisms Electrical Power Systems or Railway Systems)
(專業包括：電力系統、鐵路系統)

Students must complete 學生必須完成：

- 7 taught subjects, including at least 4 Core Subjects specified for the respective specialism, a Dissertation and a 1-credit AIE* Subject ; OR
7個授課科目（包括最少4個為各專業指定的核心科目），1篇與該專業相關的學位論文及完成1個學分的AIE*科目；或
- 10 taught subjects, including at least 8 Core Subjects, with at least 6 specified for the respective specialism and a 1-credit AIE* Subject.
10個授課科目，包括最少8個核心科目，其中最少有6個為各專業指定的核心科目及完成1個學分的AIE*科目。

Graduate messages 畢業生的話

KO Yik Yan

I am a graduate of the BEng(Hons) in Electrical Engineering at PolyU. I Joined a power company after graduating, and found that what I had learnt on the undergraduate programme was very practical and useful in my workplace. Hence, I further pursued the MSc in Electrical Engineering programme to enrich myself with specialist skills and solid knowledge of electrical engineering.

The programme included practical engineering in different fields, such as high voltage engineering and power system analysis, which were very useful in my workplace. During the course, I gained specialist skills required in my career and it was undoubtedly a valuable experience.

Many of my colleagues also chose to study the MSc programme due to their Job requirements. The programme has helped to develop my networks and I have gained new contacts in my field, which is valuable for my career development.



ZHANG Yunpeng

Before I started the study of MSc programme in PolyU, I had worked in a power company for about four years. Through this working experience, I realized my weakness the professional knowledge and chose to return to campus.

As the traditional electrical engineering school in Hong Kong, PolyU is my first choice. Subjects provided in EE department of PolyU cover several fields, such as power utilization, power system, power electronics, railway systems, transportation system, automation and optoelectronics. Then this programme is flexible and suitable for students from various industries. Research subject is also available in this programme, which developed my research and academic writing skills.

Thanks to the MSc study, I got the opportunity to further pursue the PhD in electrical engineering. In addition to me, there are three more classmates who continues their studies in PolyU. Other classmates also got Job offers from power grid company, research institutes and design institutes.



MSc Studentship Project Scheme 碩士助學金計劃

The Department has set up MSc Studentship for students with good academic performance and potential to pursue the MSc dissertations and research works at the same time. Each student being awarded the Studentship will receive a monthly support of HK\$6,000 for a period of 12 months to do the MSc dissertation and carry out research project work simultaneously under the same supervisor in the capacity of a part-time Research Assistant.

本系設立助學金以鼓勵學業成績優異和有潛質的同學同時選修理學碩士論文及進行研究工作。成功申請的學生將受聘為兼任研究助理，可獲取為期一年每月港幣6,000元之助學金，以同時選修論文和協助指導教授從事研究。

PolyU reserves the right to change or withdraw the studentship at any time. In case of any dispute/disagreement, PolyU's decision is final.

香港理工大學保留隨時更改或取消助學金的權利。如有任何爭議/意見分歧，香港理工大學擁有最終決定權。

Entrance Requirements 入學要求

You must satisfy the English language requirements of the University, and the following specific requirements of this programme: 您必須滿足香港理工大學的英語語言要求，以及下述該課程的具體要求：

- A Bachelor's degree with Honours in engineering, science or technology, or qualifications that satisfy the academic requirements for Corporate Membership of the Hong Kong Institution of Engineers (HKIE), or the equivalent
擁有工程，科學或技術榮譽學士學位，或符合香港工程師學會 (HKIE) 企業會員學歷要求資格證書，或同等學歷要求的資格證書。

English Language Requirement 英語語言要求

If you are not a native speaker of English, and your Bachelor's degree or equivalent qualification is awarded by institutions where the medium of instruction is not English, you are expected to provide one of the following proficiency test results (taken within 2 years) for fulfil the minimum English language requirement for admission purpose:

如果您不以英語為母語，並且您的學士學位或同等學歷是由教學語言不是英語的機構頒發，則您需要提供以下能力測試結果之一（2年內獲得），以完成入學的最低英語語言要求：

- A score of 80 or above in the Test of English as a Foreign Language (TOEFL) Internet-based test; OR
英語作為外語 (托福) 網絡考試成績達到80分或以上，或
- An Overall Band score of 6.0 or above in the International English Language Testing System (IELTS) Academic module.
國際英語語言測試系統 (雅思) 學術模塊的總分達到 6.0 或以上。

Important Dates 重要日期

Early Round Deadline 早期申請截止日期：15 October 2025
Main Round Deadline 主輪申請截止日期：15 January 2026

Commencement of Study 開學日期：
Early September 2026

Other Information 其他資訊

Online applications can be submitted through this website:
<https://www.polyu.edu.hk/study/pg/tpg/2026/46010-ee-eet>



For further information on application and admission matters related to taught postgraduate programmes, please contact:
EEE General Office (Tel: 2766 6260; email: eee.tpg@polyu.edu.hk)

For further information on academic matters, please contact: Prof. Shuang-xia Niu (Tel 2766 6183; email: shuangxia.niu@polyu.edu.hk)

Student Visa Application: Upon admission, PolyU will help to apply for a student visa. You are strongly advised to submit your application as early as possible, as it typically takes 8 to 10 weeks to process student visa application.