



# Master of Science in Electric Vehicles

## 電動汽車理學碩士學位

## About the University

### 關於大學

The Hong Kong Polytechnic 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 Master of Science in Electric Vehicles (MSc EV) is a comprehensive programme that focuses on research and practical application, encompassing all aspects of electric vehicle design and management. The programme places a particular emphasis on industrial design, development, and energy solutions within the electric vehicle sector. By enrolling in the MSc EV programme, students will gain valuable knowledge and skills that can significantly enhance their career prospects in electric vehicle technology, system operation, and management. The programme also offers a unique opportunity to delve into the intricacies of electric vehicles and explore innovative solutions within the field.

電動汽車理學碩士學位課程是一個綜合課程，專注於研究和實際應用，涵蓋電動車設計和管理。該課程特別強調電動車的工業設計、開發和解決能源方案。透過電動汽車理學碩士學位課程，學生將獲得寶貴的知識和技術，從而顯著提升學生在電動車技術、系統操作和管理方面的就業前景。該課程還提供了一個獨特的機會來深入研究電動車的複雜性，並探索該領域的創新解決方案。

## Programme Aims

### 課程目的

The programme aims to (1) provide graduates with a comprehensive understanding of electric vehicles, encompassing both research and practical applications. Through a well-rounded curriculum, students will gain in-depth knowledge of the various aspects of electric vehicles, including design, technology, energy solutions, and management; (2) address the increasing demand for highly skilled professionals in the field of electric vehicles, not only in Hong Kong, China but also on a global scale. By equipping students with specialized expertise and practical skills, the programme aims to meet the industry's growing need for qualified individuals who can contribute to the development and adoption of electric mobility solutions; and (3) prepare students for further study and research in the field of electric vehicles.

電動汽車理學碩士學位課程旨在 (1) 讓畢業生全面了解電動車，包括研究和實際應用。通過課程，學生可深入了解電動車各方面的知識，包括設計、技術、解決能源方案和管理；(2) 滿足電動車行業對高技術專業人員日益增長的需求，不僅在中國香港，而且涵蓋全球。透過為學生提供專業知識和實踐技能，課程旨在滿足行業對高技術專業人員增長需求和採納對電動車的解決方案；(3) 讓學生在電動車領域上作進一步學習和研究。

## Programme Structure

### 課程結構

Students who enrol in the MSc EV programme will learn a wide spectrum of knowledge in the field of electric vehicles. Full-time students normally take 3 to 5 subjects per semester. Part-time students normally take 2 subjects per semester. Each taught subject corresponds to 3 credits, and elective subjects include a Dissertation (9 credits). The programme requires 31 credits to complete.

報讀電動汽車理學碩士學位課程的學生可學習電動車領域的廣泛知識。全日制學生通常每學期選修 3 至 5 個科目。非全日制學生通常每學期選修 2 個科目。每個授課科目對應 3 個學分，選修科目包括論文（9 個學分）。該課程需要 31 個學分才能完成。

## List of Subjects

### 科目

#### Core Subjects

##### 核心科目

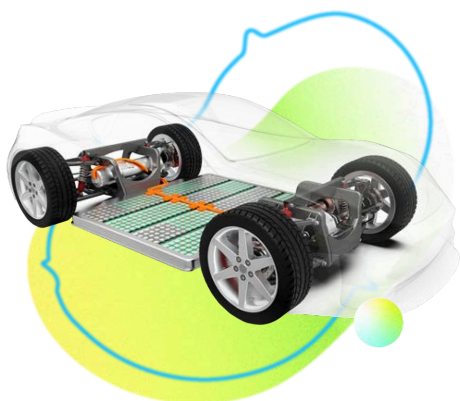
Electric Vehicles  
Tomorrow's Leader in Electric Vehicles

#### Elective Subjects

##### 選修科目

Intelligent Motion Systems  
Industrial Power Electronics  
System Modelling and Optimal Control  
Maintenance and Reliability Engineering  
Modern Generation and Grid Integration Technologies  
Electric Energy Storage and New Energy Sources for Electric Vehicles  
Advanced Electric Vehicle Technology  
IoT-Tools and Applications  
Vehicular Communications and Inter-Networking Technologies  
Autonomous Vehicles  
Economics and Markets in Power Systems and Electrified Transportation  
Green Technology and Policy in Electrical Engineering  
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.  
電機及電子工程學系保留不提供任何一個科目的權利。所提供的科目可能會受到審查和更改。



## Career Prospect

### 就業前景

By enrolling in the programme, students will gain valuable knowledge and skills that can significantly enhance their career prospects in electric vehicle technology, system operation, and management. As there is an increase in demand for highly skilled professionals in the field of electric vehicles, not only in Hong Kong, China but also on a global scale, professionals and engineers with training in the field of electric vehicles are very highly sought after. Graduates with specialized expertise and practical skills can meet the industry's growing need for qualified individuals who can contribute to the development of electric mobility solutions.

通過本課程，學生將獲得寶貴的知識和技能，從而顯着提升他們在電動汽車技術、系統操作和管理方面的職業前景。隨着電動汽車領域對高技能專業人員的需求不斷增加，不僅在中國香港，而且在全球範圍內，接受過電動汽車領域培訓的專業人士和工程師都非常搶手。具有專業知識和實踐技能的畢業生可滿足行業對開發電動汽車解決方案的人材需求。

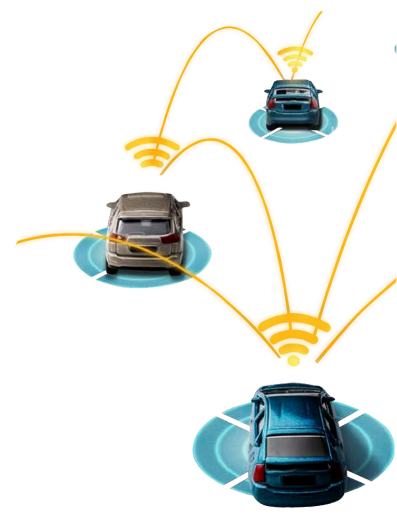
## Award Requirements

### 學位授予要求

Students must complete 學生必須完成：

- 7 taught subjects, including at least 2 core subjects, 5 elective subjects, a 9-credit Dissertation and 1-credit AIE subject; OR  
7 個授課科目（包括最少2個核心科目和5個選修科目），1篇9個學分學位論文，以及1個學分的AIE\*科目；或
- 10 taught subjects, including at least 2 core subjects, 8 elective subjects and 1-credit AIE subject  
10 個授課科目（包括最少2個核心科目和8個選修科目），以及1個學分的AIE\*科目

\*AIE = Academic Integrity and Ethics (AIE) Requirement



## 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 in Electrical Engineering, Electronics Engineering, Automation Engineering, Transportation Engineering, Engineering Science or related disciplines. Applicants with a Bachelor's degree in other disciplines who have at least three years of significant electric vehicles relevant work experience will also be considered.

擁有電機工程、電子工程、自動化工程、交通工程、工程科學或相關學科學士學位。擁有其他學科學士學位且具有至少三年重要電動車相關工作經驗的申請人也將被考慮。

Consideration will also be given to candidates without honours degrees who have other relevant qualifications and/or appropriate work experience.  
沒有榮譽學位但具有其他相關資格和/或適當工作經驗的候選人也將考慮。

## 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 in a single sitting within 2 years) for fulfill 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，並且一次性完成），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；
- 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。

Individual cases will be considered on their own merits. Applicants may be required to attend interviews or take tests to further demonstrate their language proficiency.  
個別案件將根據其本身的情況進行考慮。申請人可能需要參加面試或參加測試以進一步證明其語言能力。

## Important Dates

### 重要日期

Application Period:

Early Round Application Deadline: 19 November 2024

Main Round Application Deadline: 30 April 2025

Commencement of Study: Early September 2025

## Other Information

### 其他信息

Online applications can be submitted through this website:  
<https://www.polyu.edu.hk/study/pg/tpg/2025/46012-ev-evt>

Programme Leader:  
Prof. CHAU Kwok-tong  
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Email: k.t.chau@polyu.edu.hk

General Enquiry:  
EEE General Office  
Tel: (852) 2766 6221  
Email: eee.tpg@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.