高科院 The

CONSTRUCTION, ENVIRONMENT & ENGINEERING

建诰、環境及工程學系



Programme Aims

Provides students with cutting-edge knowledge and technical expertise on design, integration and manufacturing of electric vehicles and sub-systems, including in the areas of electric and hybrid propulsion, battery management, vehicle control, autonomous driving, intelligent networked vehicle, charging infrastructure and smart power grid, as well as automotive software and emerging applications by artificial intelligence technology.

Equips students with professional knowledge or skills on project and quality management, industry policy, which are crucial for being an automotive professional, sustainable transportation planning and design of green mobility solutions.

課程焦點

為學生提供關於電動汽車及子系統設計、集成與製造的前沿知識和專業技術,涵蓋電動與混合動力推進、電池管理、車輛控制、自動駕駛、智能網聯汽車、充電基礎設施與智能電網,以及汽車軟件和新興的人工智能技術應用等領域。

使學生具備項目與質量管理、產業政策方面的專業知識或技能,這些對於成為汽車行業專業人士、進行可持續交通規劃和 設計綠色出行解決方案至關重要。





Core Courses

Automobile Theory, Introduction to Electric Vehicle, Electric Vehicle Drive Motors & Controls, Electric Vehicle Control System Integration Development, Power Battery & Capacity Management, Embedded Systems & Automotive Software, Artificial Intelligence for Electric Vehicles, Intelligent Networked Vehicle Technology, Electric Vehicle Design & Manufacturing etc..

核心課程

汽車理論、電動汽車技術概論、電動汽車驅動電機與控制系統、電動汽車控制系統整合開發技術、動力電池與容量管理、嵌入式 系統與汽車軟件、電動汽車人工智能、智能網聯汽車技術、電動汽車設計與製造等。

Career Prospectus

Graduates can pursue careers in the automotive industries, including automobile manufacturers, automotive component suppliers and manufacturers, vehicle testing and certification service providers, automotive research institutes.

就業前景

畢業生可在汽車行業謀求職業發展,包括汽車製造商、汽車零部件供應商及製造商、車輛測試與認證服務商、汽車研究院等。

Industry Endorsement

The programme has been supported by enterprises in the automotive industry, GAC Motor/AlON, XPeng and Halo Energy

行業認可

本課程已獲得廣汽埃安、小鵬汽車、希路能源等汽車行業的企業支持

Supporting Industrial Partners: (In Alphabetical Order)

GAC Motor/AION, Halo Energy, XPeng

工作綜合學習合作機構:

廣汽埃安、希路能源、小鵬汽車

Work-integrated Learning

Work-integrated Learning (WIL) modules are directed industry attachments that provide learning experiences by integrating theoretical with its applications in the workplace. Students are required to complete 126 hours of WIL to be eligible for the Bachelor of Engineering (Honours) in Electric Vehicle Design and Technology

工作綜合學習

工作綜合學習單元為學生提供實習機會,結合理論學習及於實際工作的應用。學生必須完成126小時的工作綜合學習,以符合獲 頒電動汽車設計及技術(榮譽)工學士。

Career Prospects

Graduates may pursue in the following careers:

- System Engineer
- Manufacturing Engineer
- Design Engineer
- Software Engineer
- Project Engineer
- Production Engineer
- Industrial Engineer
- Research & Development Engineer
- Test Engineer
- Quality Engineer etc.

- 系統工程師
- 製造工程師
- 設計工程師
- 軟件工程師
- - 項目工程師
- 生産工程師
- 工業工程師
- 研發工程師
- 測試工程師
- 質量工程師等