Dual Master's Degree Programme

(Future Energy and Power System Smart Operation and Management)

香港科技大學 THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

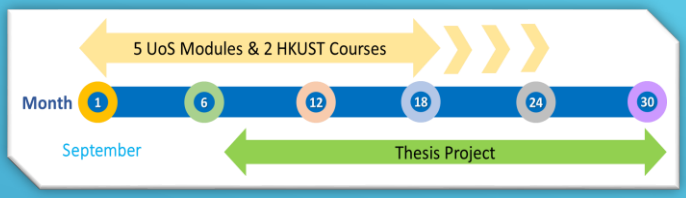
CLP Power Academy 中電學院

University of Strathclyde Glasgow

The programme features:

Application : Available NOW !

- 2.5 year part-time programme
- Online distance learning + taught modules
- 5 Strathclyde (UoS) modules + 2 HKUST courses
- Industry-based thesis project by applying state-of-the-art technologies such as big data analytics, IoT technology and AI to areas related to power system smart operation and management, including electrical, mechanical, power, energy and environmental engineering, etc



- Guidance from both academic advisors and industry mentors for thesis project
- Network building with industry practitioners

Please visit:
https://dualmsc.seng.ust.hk/

Entrance requirement:

- A first or second class Bachelor's degree in a relevant engineering (electronic, electrical, mechanical, energy, power, environmental or systems engineering) or physical sciences subject (mathematics, physics, computer science), from a recognised academic institution. Other academic subjects may be considered on a case-by-case basis
- Reach an appropriate level of English language proficiency (including reading, writing, speaking and listening). At HKUST and Strathclyde, IELTS (Academic) requirements are: 6.5 overall (no individual band less than 5.5)

Tuition fee:

- Students are required to pay the tuition fee of approximate HK$300,000 per programme for 2021/22 admission and miscellaneous student fees as required

Topics of modules/courses (subject to change):

Scholarships available

Strathclyde modules

(2 core, 2 optional, and 1 professional practice):

Core modules:

- Key power systems concepts and foundations
- Power system operation, control and protection

Optional modules (2 from 6):

- Power electronics conversion and control
- Communications and the smart grid
- Renewable energy systems
- Managing risk and uncertainty in power system operation
- Asset management and condition monitoring
- Power utility management – business module

Professional practice module

HKUST courses

(choose 2 courses* related to the topic of the thesis project):

Research areas: Big data analytics, artificial intelligence

Example of courses:

- COMP 5312 Introduction to Big Data
- COMP 5211 Advanced Artificial Intelligence
- COMP 6211 Advanced Topics in Artificial Intelligence
- MSBD 5003 Big Data Computing

Research areas: Internet of things, power control

Example of courses:

- COMP 5211 Advanced Artificial Intelligence
- ELEC 5650 Introduction to Networked Sensing, Estimation and Control
- IBTM 5060 Building Internet of Things: Technologies, Big Data and Strategies for the Building Manager

Research areas: Renewable energy sources and sustainability, energy policies

Example of courses:

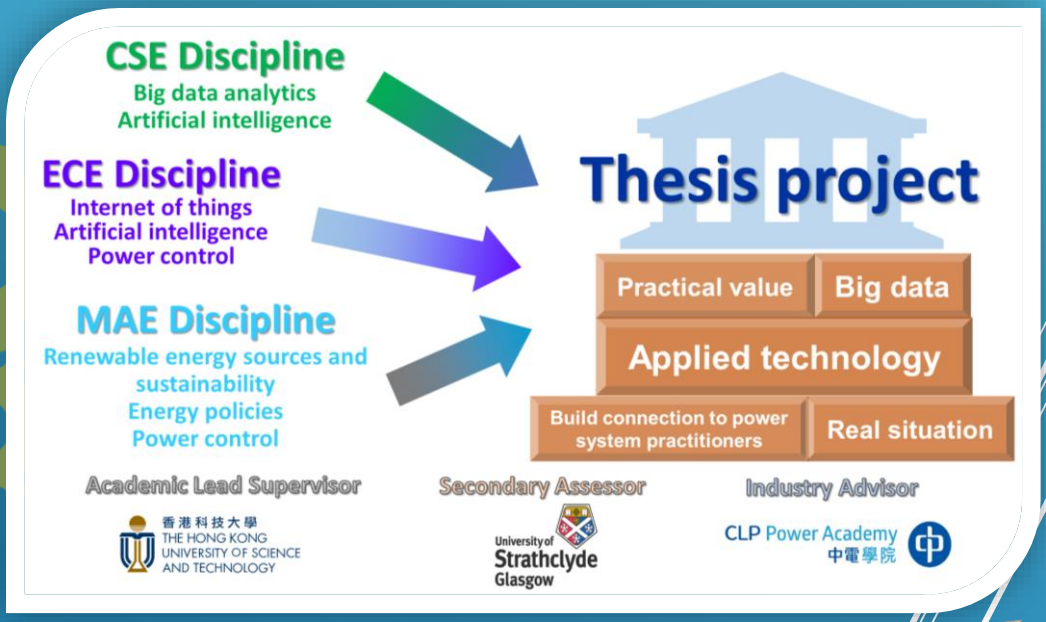
- MECH 5230 Computational Fluid Dynamics and Heat Transfer
- MECH 5430 Thermodynamics and Kinetics of Materials

**Remark: The offering schedule of specific courses will be confirmed shortly before the beginning of each academic term.*

Thesis Project

AI

BIG Data



Graduation:

- Upon successful completion of the thesis project and passing of all modules/courses, graduates will be awarded both a Master of Philosophy degree from the HKUST and a Master of Science degree from the University of Strathclyde.
- Graduate separately in Hong Kong and Glasgow

Last update: 2021-03