新聞稿
Media Release

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CLP Power Hong Kong Limited

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Inspiring Future Engineers: CLP Power's Tree-Pruning Robot Challenge Sparks Creativity and Innovation in Students

CLP Power Hong Kong Limited (CLP Power) held the capstone event of its 2024/25 **Engineer In School Programme** – the **Tree-Pruning Robot Challenge** (the Challenge) on 3 July 2025. Nearly 100 junior secondary students from various schools participated, integrating artificial intelligence (AI), big data, cloud computing, and power engineering to assemble and programme robotic arms. Participants also utilised large language models to analyse data, exploring the potential and challenges of applying technology in the power industry.

Amid the increasing frequency of extreme weather events, overhead lines and power equipment face heightened risks from typhoons, lightning, and encroaching vegetation. The Challenge began with CLP engineer explaining the crucial role of maintaining power quality for supply reliability. Students then simulated tree pruning by programming robotic arms based on CLP's Predictive Vegetation Management System (PVMS). This hands-on experience demonstrated how technology can anticipate vegetation growth to prevent outages, while honing students' creativity, technical skills, teamwork, and strategic thinking.

CLP Power Academy Vice Chancellor Ir Chris Cheung said, "CLP Power is driving energy transformation and carbon reduction through innovation. Beyond the PVMS, we are strengthening grid performance and resilience against adverse weather events and other external factors with technologies such as drone inspections and smart grid management. I hope students recognise how AI and engineering can jointly drive a low-carbon future, inspiring them to pursue careers in the power industry."

The judging panel comprised CLP Power Academy Vice Chancellor Ir Chris Cheung, the Hong Kong Institution of Engineers Electrical Division Chairman Ir Tim Leung, CLP Power Director - North Region, Power Systems Mr Michael Lau and The Chinese University of Hong Kong's Department of Mechanical and Automation Engineering Dr Kerney Wu. They provided insights on students' performance and the application of innovative technologies in engineering and power supply operations.

Lai Tsz-yan, a student from Lingnan Secondary School which won the Challenge, said, "The theoretical lessons and guidance from tutors gave me valuable insights beyond the classroom and deepened my interest in sustainable development and the power

industry. The Challenge also taught me how to apply AI, big data, and cloud computing. It was an incredibly rewarding experience."

This year's **Engineer in School Programme**, themed "Decarbonisation: Dare to Create" featured talks, STEM workshops, and site visits designed to deepen students' understanding of clean energy and sustainability, while cultivating their interest in power engineering. Since its launch in 2016, the Programme has reached approximately 240 secondary schools and over 75,000 students.

About CLP Power Hong Kong Limited

CLP Power Hong Kong Limited (CLP Power) is the Hong Kong utility subsidiary wholly owned by CLP Holdings Limited, a company listed on the Hong Kong Stock Exchange and one of the largest investor-owned power businesses in Asia. CLP Power operates a vertically integrated electricity supply business in Hong Kong, and provides a highly reliable supply of electricity and excellent customer service to more than six million people in its supply area.

Photo captions:

Photo 1

CLP Power Academy Vice Chancellor Ir Chris Cheung hopes students can experience how the integration of AI and engineering could promote a low-carbon future through the **Tree-Pruning Robot Challenge**, inspiring them to pursue careers in the energy sector to collectively build a smarter energy future.

Photos 2, 3 & 4

Students assemble robotic arms and develop team strategies.

Photo 5

CLP Power Academy Vice Chancellor Ir Chris Cheung (first from right) and the Hong Kong Institution of Engineers Electrical Division Chairman Ir Tim Leung (first from left) present the trophy to champion team from Lingnan Secondary School.

Photo 6

Judges share insights on the application and challenges of innovative technologies in power supply operations with the students.
(From right: CLP Power Director - North Region, Power Systems Mr Michael Lau, CLP Power Academy Vice Chancellor Ir Chris Cheung, the Hong Kong Institution of Engineers Electrical Division Chairman Ir Tim Leung and The Chinese University of Hong Kong's Department of Mechanical and Automation Engineering Dr Kerney Wu)

Photo 7

Nearly 100 junior secondary students from various schools participate in the **Tree-Pruning Robot Challenge** under the **Engineer In School Programme**.

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