

18 December 2023

More Than 1,100 Primary and Secondary School Students Show Creativity in CLP Power Low-Carbon Invention Competition to Promote Decarbonisation

More than 1,100 primary and secondary school students took part in a Low-Carbon Invention Competition organised by the CLP Power Low Carbon Energy Education Centre (LCEEC) to harness their creativity for environmentally friendly inventions using 3D printing technology. Winning entries were showcased on 16 December at an award presentation ceremony of the LCEEC, which was established jointly by CLP Power Hong Kong Limited (CLP Power) and the City University of Hong Kong (CityU).

The competition combined elements of creativity, STEM (Science, Technology, Engineering, Mathematics), and environmental awareness as students came up with eco-friendly ideas which could apply in daily life. In the first round, participants presented their inventions through drawings. In the second round, shortlisted students attended a 3D printing workshop organised by the LCEEC to transform their 2D drawings into 3D images using 3D drawing software and competed for a total of 16 awards in primary and secondary school categories.

The competition drew more than 1,100 entries from students in 80 primary schools and 23 secondary schools. Some winning entries featured renewable energy by harnessing wind and solar power together with energy storage devices. Other entries aimed to reduce carbon emissions through greening. Yu Tsz Yin, a secondary two student from the Hong Kong University Graduate Association College, won the championship in the secondary school category for her invention which featured a semi-spherical structure built with water pipes that spanned the city's skyline. The structure supported the growth of aquatic plants, absorbing carbon emissions and enhancing urban greening. Yu said, "Amidst the challenges posed by global warming, I am eager to contribute to environmental protection with my design, which mitigates the impact of urbanisation and enhances air quality." Jovi Chan, a primary four student from Ying Wa Primary School, was the champion in the primary school category. His winning entry used the wind tunnel effect to drive wind turbines built between high-rise buildings to generate electricity. Chan said, "I encountered strong wind between two buildings when typhoon signal No. 10 was hoisted. The experience inspired me to design this appliance and I hope my design will support decarbonisation in the community."

CLP Holdings Senior Director – Nuclear Mr Eddie Wu said at the ceremony, "CLP Power has a longstanding partnership with CityU to promote environmental protection and educate the public about a variety of low-carbon energy sources, including nuclear energy, through engaging

activities organised by the LCEEC. CLP Power will continue to promote energy saving and low-carbon living to the community through different platforms with the goal of supporting Hong Kong to achieve carbon neutrality by 2050.”

LCEEC Deputy Director and Laboratory Manager in the Department of Mechanical Engineering of CityU Dr Luk Bing-lam said, “The Low-Carbon Invention Competition aligns perfectly with the LCEEC's mission to raise awareness of climate change while introducing participants to the transformative power of STEM in driving sustainable development. The overwhelming response to the competition reflects the LCEEC’s achievement in environment education.”

Guest Judge Hong Kong Meteorological Society Spokesperson Professor Leung Wing-mo remarked, “I am very pleased to see that the competition entries demonstrate Hong Kong students’ enthusiasm for environmental protection, and their creativity in finding carbon reduction solutions. To successfully combat climate change, concerted efforts of different sectors and generations are essential. I believe this competition has contributed to promoting awareness of climate change among the younger generation.”

Since its launch in 2017, the LCEEC has provided members of the public with the latest information about the role of low-carbon energy in combating climate change. The LCEEC features interactive exhibits and five thematic zones showcasing nuclear energy, wind energy, solar energy, hydro energy, and natural gas. By introducing the power generation principles of different low-carbon energy sources along with their applications, advantages and limitations, the LCEEC inspires visitors to reflect on energy-related issues and the prospects for future development.

CityU strives to fulfill its social responsibilities and attaches great importance to sustainable development, which it continues to put into practice, while promoting research in related fields. Other than promoting low-carbon energy with CLP Power, it also carries out various initiatives on campus to encourage teachers and students to save energy and water resources, recycle and reuse, reduce carbon emissions, and so forth, to contribute to a sustainable future.

For more information about the CLP Power Low Carbon Energy Education Centre, please visit: <http://www.cityu.edu.hk/lowcarbon>.

“Low-Carbon Invention Competition” Winner List:

Primary school category:

Award	Name	Year	School	Winning Entry
Champion	Jovi Chan Yin Cho	P4	Ying Wa Primary School	Airvortex Dynamo
First runner-up	Yeung Hiu Yuet	P5	Pui Ching Primary School	Power Generation and Pressure Reduction Valve
Second runner-up	Tsui Siu Fong	P6	Hong Kong Baptist Convention Primary School	Energy Saving Freezing Bed
Merit	Ip Tsz Ching	P6	St. Paul's Primary Catholic School	Smart Shelter
	Eliz Tso Chek Fei	P6	G.T. (Ellen Yeung) College	Dynamic Fresh Air Duct
	Dero Cheuk Yi Tik	P5	Tai Po Old Market Public School (Plover Cove)	Pressure Sensor Energy Storage Device
	Ng Tsz Tung	P5	St. Eugene de Mazenod Oblate Primary School	Electric Vehicles Charging Road
	Cheng Ching Tung	P5	S.K.H. Chu Yan Primary School	Solar Power Wheelchair

Secondary school category:

Award	Name	Year	School	Winning Entry
Champion	Yu Tsz Yin	S2	Hong Kong University Graduate Association College	City Green Alveoli
First runner-up	Kwok Ka Wing	S5	Youth College (International)	Flexible PV Curtain
Second runner-up	Lee Ho Ching	S2	NLSI Peace Evangelical Secondary School	Eco-Friendly Irrigation System
Merit	Chu Tsz Long	S2	Tsung Tsin Christian Academy	Multi-functional Jacket
	Chau Yau	S5	Heung To Middle School	Electricity-generating Road
	Boonyapat Wong	S4	Youth College (International)	IOT Smart Pillow
	Huang Ho Wun	S3	Lok Sin Tong Leung Kau Kui College	Arctic Tram
	Chiu Pak Tung	S1	CNEC Christian College	Inflatable Logistics Box

Please click [here](#) to view the details of winning entries.

Most Supportive Educational Organisations:

1. Po Leung Kuk
2. Anglican (Hong Kong) Primary Schools Council Limited

Most Supportive Schools:

1. St. Eugene de Mazenod Oblate Primary School
2. Aldrich Bay Government Primary School
3. Baptist Rainbow Primary School
4. St. Peter's Secondary School
5. Lingnan Hang Yee Memorial Secondary School

About City University of Hong Kong

City University of Hong Kong (CityU) is an innovative hub for world-class research and education. We have 10 Colleges and Schools: Business, Engineering, Liberal Arts and Social Sciences, Science, Veterinary Medicine and Life Sciences, Creative Media, Data Science, Energy and Environment, Law, and Graduate Studies, together with 28 academic units.

We aim to unleash our students' passion for learning through inspirational learning, help them to work as a team through interactive learning, and encourage them to explore outside the academic world and embrace their inspiration and inventions through innovative learning. Moreover, we pursue research that has a scientific, technological and social impact. For more information about CityU, please visit: <http://www.cityu.edu.hk>.

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 services to more than six million people in its supply area.

Photo Captions:

Photo 1



(Left from the second row) CLP Power Low Carbon Energy Education Centre Deputy Director and Laboratory Manager in the Department of Mechanical Engineering of CityU Dr Luk Bing-lam, CLP Power Director – Corporate Affairs (Business Operations) Ms Elizabeth Tai, Hong Kong Meteorological Society Spokesperson Professor Leung Wing-mo, CLP Holdings Senior Director – Nuclear Mr Eddie Wu, CityU Head of Department of Mechanical Engineering, CLP Power Low Carbon Energy Education Centre Director and CLP Power Chair Professor of Nuclear Engineering Professor Pan Chin join competition winners, representatives of winning schools, guests and Alien Fox, mascot of CLP Power Low Carbon Energy Education Centre.

Photo 2



Primary school category winners: champion Jovi Chan Yin Cho (middle), first runner-up Yeung Hiu Yuet (fourth from left), second runner-up Tsui Siu Fong (fourth from right).

Photo 3



Secondary school category winners: champion Yu Tsz Yin (middle), first runner-up Kwok Ka Wing (fourth from left), second runner-up Lee Ho Ching (fourth from right).

Photo 4



Judging panel member Hong Kong Meteorological Society Spokesperson Professor Leung Wing-mo says climate change is a pressing issue and the competition has helped heighten the awareness of climate change among the younger generation.

Photo 5



CLP Holdings Senior Director – Nuclear Mr Eddie Wu is delighted that the competition attracted more than 1,100 entries from primary and secondary school students and hopes it will promote low-carbon living and encourage the community to support Hong Kong to achieve its carbon neutrality goal by 2050.

Photo 6



CLP Power Low Carbon Energy Education Centre Deputy Director and Laboratory Manager in the Department of Mechanical Engineering of CityU Dr Luk Bing-lam thanks CLP Power for its sponsorship and participating schools and organisations for their support.

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