

06

Campus Development & Environmental Protection

校園發展與環境保護

BUILDING A GREEN CAMPUS 建設綠色校園



PolyU has continued to extend its campus and facilities for the University's growing community, and to actively move towards its goals of sustainable urban development and a greener Hong Kong.

理大持續擴展校園、增加設施，以配合不斷壯大的大學群體的需要。大學亦積極朝著城市可持續發展和綠色香港的目標進發。



Phase 8 Development 第八期校園發展

Jockey Club Innovation Tower 賽馬會創新樓

Student Hostel Phase 3 Project 第三期學生宿舍

EXPANDING UNIVERSITY CAMPUS

Capital projects

Major capital projects made good progress during 2011/12. The Phase 8 Development is scheduled to be completed in two phases: classroom and lecture theatres are due to be ready by the fourth quarter of 2012; and the remaining areas in early 2013. The additional space will provide around 26,000 square metres of net floor area for general teaching and research, conferences, staff offices and communal use.

The construction of Jockey Club Innovation Tower, located on the north-eastern side of the campus, is also well underway. It will provide approximately 15,000 square metres of net floor area, of which 3,000 square metres will be self-financed. The School of Design will be the major user. The Tower will also provide facilities and space for other departments and the PolyU community. It is scheduled for completion in the second quarter of 2013 (More on p.03, 09 & 15).

The Student Hostel Phase 3 project continued to move ahead during the year and was completed in August 2012. The hostel is situated at the junction of Chatham Road North and Fat Kwong Street, providing 1,650 places for students. It comprises six halls that share three "gardens-in-the-air" on bedroom floors.

A revamp of the Library has also been proposed to transform it into an interactive Learning Hub and to extend the space it provides. Subject to government and Legislative Council approval, an additional floor is targeted for completion in mid-2014, with the whole project finished by mid-2015.

IT services add to efficiency

A cloud-based communication system called PolyU Connect was launched for students, alumni and University retirees. This was followed by the start of a cloud-based email communication platform for staff. In addition, significant progress has been made in extending the PolyU

擴建大學校園

大型工程

二零一一至一二年度，主要大型工程進展順利。第八期校園發展計劃預期分兩期完成：教室和演講廳於二零一二年第四季落成，而其他設施則於二零一三年初完成。這將增加實用面積約二萬六千平方米的空間，用途包括一般教學及科研設施、會議設施、辦公室及公用空間。

位於校園東北面的賽馬會創新樓，工程亦進展順利。大樓將提供實用面積約一萬五千平方米，其中三千平方米為自資興建。大樓主要供設計學院使用，亦會為其他部門及理大社群提供設施及空間，預期於二零一三年第二季竣工（詳見第03、09及15頁）。

第三期學生宿舍在年內加緊興建，並於二零一二年八月竣工。宿舍位於漆咸道北及佛光街交界，為學生提供一千六百五十個宿位，設有六個舍堂，共用三個空中花園。

理大亦就改建圖書館發展成互動學習中心及增加空間提出建議。建議如能獲政府及立法會通過，在現有圖書館加建頂層的工程計劃將於二零一四年中期完成，而整個計劃預期於二零一五年中期竣工。

資訊科技服務提升效率

年內，為學生、校友及理大退休同事推出了以雲端為基礎的通訊系統，稱為PolyU Connect。這是在為教職員提供以雲端為基礎的電郵通訊平台後推出的服務。此外，本校在擴展理大私有雲端基礎架構方面取得很大進展，提高了營運效率和安全性。

Private Cloud Infrastructure (PCI), leading to improved operational efficiency and security.

Student-related administrative software systems were boosted by the establishment of a state-of-the-art platform catering for the new requirements of the 334 academic structure. To enhance IT security, a University Information Security Management Framework is being established.

THE ECO WAY AHEAD

Driving sustainability

PolyU strives to develop a sustainable way of life, proactively promoting environmental protection on and off campus.

The Campus Sustainability Committee was established in November 2011 to guide the University to achieve its goal of sustainable urban development and to coordinate related initiatives in education, research and community service activities. The committee will advise the President on environmental policy and oversee its implementation, promote a culture for environmental protection, and showcase PolyU's research and technology on campus.

Solar-energy air conditioning

The Solar-powered Air-conditioning System, developed by Department of Electrical Engineering researchers, can provide air conditioning inside a vehicle even when the engine is switched off (More on p.60 & 69).

Launch of Hong Kong's first lighting lab

The Department of Building Services Engineering, in collaboration with lighting company Ledartist, opened a laboratory for research into sustainable lighting design in October 2011. The laboratory, located in Kwun Tong, will address light pollution and related issues and is the first of its kind in Hong Kong.

Recognition for PolyU indoor air quality

Indoor air quality (IAQ) in all PolyU offices, classrooms and library areas on campus achieved the "Good Class" level under the Government's IAQ Certification Scheme for Offices and Public Places. Air quality parameters under the scheme include temperature, relative humidity, air movement, and concentrations of various air contaminants.

Energy-saving modifications

The Facilities Management Office installed differential pressure controllers with water-balancing valves in some buildings on campus to enable uniform distribution of chilled water to users. The arrangement minimizes wasted energy in areas with a lower demand for chilled water. A new type of refrigerant has been piloted to reduce electricity consumption in air conditioning chiller units.

為配合三三四學制的新需求，理大建立了先進的平台，提升與學生相關的行政軟件系統。理大正建立一個大學資訊安全管理架構，以提升資訊科技系統的安全。

邁向環保之路

推動可持續發展

理大致力推動有利持續發展的生活方式，並積極在校園內外推廣環保。

本校在二零一一年十一月成立校園可持續發展委員會，引領大學實現城市可持續發展的目標，並統籌在教育、研究及社會服務方面相關的新猷。該委員會將就環保政策向校長提出意見並監督其執行情況，促進環保文化，以及在校內展示理大的科研和技術。

太陽能冷氣系統

由電機工程學系研究人員研發的太陽能汽車冷氣系統，在汽車引擎關掉後，仍可提供冷氣保持車廂涼快（詳見第60及69頁）。



香港首個照明實驗室

屋宇設備工程學系與元創光藝有限公司合作，於二零一一年十月開設了一家研究可持續照明設計的實驗室。該實驗室位於觀塘，致力解決光污染及相關問題，是香港首家同類型實驗室。

理大室內空氣質素獲認可

在政府推出的「辦公室及公眾場所室內空氣質素檢定計劃」中，理大所有辦公室、課室及圖書館範圍獲評為「良好級」。該計劃的空氣質素參數包括溫度、相對濕度、空氣流量及不同空氣污染物的濃度。

節能措施調整

物業管理處在校內一些建築物安裝了具備水平衡閥的壓差控制器，有助分配冷水供用戶使用。在對冷水需求較低的地方，這能盡量減少浪費能源。該處亦試行一種新的製冷劑，以減少空調冷水機組的電力消耗。



Recycling and reducing waste

Recycling was extended to glass bottles with collection boxes placed on campus. Other waste materials already being recycled include metal, plastic, paper, and re-chargeable batteries. PolyU collaborates with Greeners Action to provide recycling bins for printer cartridges. In line with the University's ongoing efforts to achieve sustainable development, only building materials with no/extra-low volatile organic compounds are used in maintenance work.

Green living

The University also organized and participated in a variety of activities to raise eco-awareness among students and the wider community.

The Faculty of Engineering held a summer camp with a theme of Engineering Goes Green, Brings a Better Life in July 2011. About 300 students from 13 local secondary schools attended. Projects included an environmentally friendly CD player, energy-saving lights, and a solar amphibious vehicle (photo 01).

Students showcase eco-friendly design

In October 2011, a selection of green plastic products designed by Department of Mechanical Engineering students was showcased at Eco Expo Asia held in Hong Kong (photo 02). Ten innovative product prototypes on the theme of Educating Our Next Generation on Green Development – Industry/University Education Programme were displayed at the event.

PolyU students' innovative kitchenware products went on display at the Hong Kong Houseware Fair in April 2012 (photo 03). The products were designed by engineering students under the KitchenGala project, an industry-university collaboration between PolyU and King's Flair Development Ltd to nurture creative and environmentally friendly design and development.

Fundraiser for renewable energy research

PolyU co-organized the Konica Minolta Green Concert in November 2011 to raise public awareness of environmental protection and energy conservation. In the days prior to the event, a Power-generating Challenge was held on campus (photo 04), with businesses and school teams generating electricity by cycling, reflecting the concert's carbon-free theme. The money raised was donated to the University to fund renewable energy research.

回收和減少廢物

本校在校園設置收集箱回收玻璃瓶，其他已作回收安排的廢料包括金屬、塑膠、紙張及可再充電電池。理大與綠領行動合作，回收打印機墨盒。為配合大學致力推動可持續發展，本校只採用無/特低揮發性有機化合物的建築材料進行維修工程。

綠色生活

理大亦舉辦和參加各種活動，以期提高學生和社會各界的環保意識。

理大工程學院於二零一一年七月以「綠色工程，帶來更美好生活」為題舉辦了一個夏令營，吸引了十三間本地中學超過三百名學生參加。項目包括環保CD播放機、慳電燈及太陽能水陸兩用模型車(圖01)。

學生展示環保設計

二零一一年十月，機械工程學系學生在香港舉行的國際環保博覽中，展出他們設計的環保塑膠產品(圖02)。活動展出十件產品，響應「培育年青新一代推動綠色發展」的主題。

理大學生設計的創新廚具產品，於二零一二年四月舉辦的香港家庭用品展中展出(圖03)。產品由工程學院學生設計，他們均參與了理大與科勁發展有限公司合辦的「創意廚具產品設計項目」，屬大學與業界協作的項目之一。

籌款資助再生能源研究

理大於二零一一年十一月合辦柯尼卡美能達綠色音樂會，以提高公眾的環保和節能意識。在活動前數天，主辦單位在理大校園內舉行「儲電大行動」比賽(圖04)，商界及學校隊伍透過踏單車發電，配合音樂會以零碳排放作為主題。所籌得的款項捐予大學資助再生能源的研究。



Exploring energy efficiency at InnoAsia 2011

PolyU again partnered with Hong Kong Science and Technology Parks Corporation to organize InnoAsia 2011. The theme for this year was "Energy Efficiency, Sustainable Future" (photo 05). InnoAsia provided a platform for participants to exchange insights on sustainable development and green technologies, and to explore innovation and commercialization opportunities for Hong Kong and the Pearl River Delta region.

Alumni plant more trees

In November 2011, about 1,200 enthusiastic PolyU alumni, together with their friends and family members, planted more than 5,000 shrubs and saplings at Jordan Valley Park, Kowloon. It was the seventh time the annual event had been held. The planting was jointly organized by PolyU, the Federation of PolyU Alumni Associations and the Leisure and Cultural Services Department (photo 06).

Inspiring a sustainable lifestyle

PolyU Environmental Week 2012, organized by the Health, Safety and Environment Office, was held in March on campus. This year's focus was the promotion of a sustainable lifestyle, with activities including environmental talks, a green film show, an indoor plant workshop (photo 07) and a green photo competition. Staff and students were actively involved.

創新科技亞洲會議探索能源效益

理大再度與香港科技園合辦二零一一年創新科技亞洲會議，主題是「能源效益、可持續未來」(圖05)。會議為參加者提供了一個平台，就可持續發展及綠色科技交換意見，並探索創新及科研成果商品化的機會，以助香港及珠江三角洲區域的發展。

校友積極種樹

二零一一年十一月，約一千二百名熱心的理大校友及其親友齊集九龍佐敦谷公園，合力栽種逾五千棵花苗。這是每年一度的活動，至今舉行了七屆。活動由理大、理大校友會聯會和康樂及文化事務署合辦(圖06)。

推動有利持續發展的生活方式

理大健康安全及環境事務處於二零一二年三月舉行了環保周活動。今年的重點是促進可持續發展的生活方式，活動包括環保講座、放映環保電影、室內種植工作坊(圖07)及綠色攝影比賽，教職員和學生均積極參與其中。

