



campus development and  
environmental protection  
校園發展與環境保護

## Where Sustainability Drives Green Solutions 持續發展 締造綠色校園

Numerous infrastructure projects are underway or in the planning stage as PolyU prepares for the four-year degree programme in 2012. The year under review also saw a series of eco-friendly ventures to boost green development on campus and the wider community.

理大正進行或籌劃多項大型基建項目，以應付二零一二年推行四年制大學課程。年內，理大亦進行一連串環保活動，致力促進校園及社會的環保發展。



Phase 8 Campus Development (above and centre spread).

第八期校園發展計劃（上圖及中間跨頁圖）。

### Facilities take shape for 2012

Work for Phase 8 of our campus development commenced after funding approval was received from the government in April 2009. The project will provide approximately 26,000 square metres net floor area for general teaching and research facilities, staff offices, conference facilities, cafeteria and communal space. Phase 8 is scheduled for completion in mid-2012.

Plans for the construction of Innovation Tower, a new development on the north-eastern side of the campus were finalized, with work commencing in August 2009. On completion, also in mid-2012, the tower will create approximately 15,000 square metres of net floor area, of which 3,000 square metres is self-financed. The School of Design will be the major user while facilities and space for other departments and the PolyU community will also be provided.

The government confirmed funding support as well as a land grant for the Student Hostel Phase 3 Development at the junction of Chatham Road North and Fat Kwong Street. Foundation work is due to start in November 2009 and the building is expected to be ready in the second quarter of 2012. The hostel will provide 1,650 places to cope with the increased number of exchange students and accommodation needs created by the new academic structure.

Another project in progress is the redevelopment of the Pak Sui Yuen Staff Quarters in Tsim Sha Tsui East into the

### 籌劃工程迎接 二零一二

隨著二零零九年四月政府落實有關財政撥款，理大第八期校園發展計劃已如期動工。大樓將提供約二萬六千平方米實用面積，設有一般教學及科研設施、辦公室、會議設施、餐廳及公用空間。該工程預期於二零一二年中竣工。

創新樓的發展計劃經已落實，該建築物位於校園東北面，將於二零零九年八月動工，預期於二零一二年中竣工。大樓將提供約一萬五千平方米實用面積，其中三千平方米為自資興建面積。創新樓的主要使用部門為設計學院，但亦會為其他部門及理大社群提供設施及空間。

政府亦已落實位於漆咸道北及佛光街交界的第三期學生宿舍發展計劃的財政撥款及批地。該宿舍的基礎工程將於二零零九年十一月動工，預期可於二零一二年第二季竣工。在新學制下，交流生的數目及學生的住宿需要均會增加，該宿舍提供一千六百五十個宿位，正好應付有關需要。

School of Hotel and Tourism Management's Teaching Hotel. The premises will contain around 270 guest rooms. There will also be conference, teaching and research facilities, offices and staff quarters. The project is scheduled for completion in 2010.

Outside Hong Kong, construction of the PolyU Campus at Shenzhen Virtual University is in full swing. The building is due to be finished by the end of 2009. It will provide around 8,200 square metres of usable floor area for research, offices, teaching and collaboration with business and industry.

另一項正在進行的大型工程是把位於尖沙咀東的百粹苑教職員宿舍重建為酒店及旅遊業管理學院的教學酒店大樓。大樓將有約二百七十間客房、會議、教學及研究設施、辦公室和教職員宿舍。工程預期於二零一零年竣工。

在香港境外，理大於深圳虛擬大學園的工程正全速推行，預期於二零零九年底竣工。大樓將提供約八千二百平方米實用面積，作為科研、辦公室、教學及與工商界協作用途。

Designs on the future: Innovation Tower (top row); Student Hostel Phase 3 Development (middle row); Teaching Hotel (bottom row).

未來設計：創新樓（上）；第三期學生宿舍發展計劃（中）、教學酒店大樓（下）。



## Effective monitoring ensures health and safety

PolyU places strong emphasis on appropriate health, safety and environmental measures for the university community. In this regard, internal consultants were engaged to monitor air emissions from the laboratory cluster in Lee Shau Kee Building during the year. The results confirmed that the emissions do not affect nearby buildings.

## IT upgrades enhance services

To provide sufficient bandwidth to support the University's business operations, now heavily network-based, the campus network was upgraded to Gigabit Ethernet for enhanced performance and capacity.

The year saw implementation and extensive enhancement of e-services to support the University's administrative activities. Student-related e-services have been a special focus given the changes ahead with the four-year degree programme.

## Library accelerates into digital era

With more than 2.58 million people traffic and 1.1 million circulation transactions in 2008/09, PolyU Pao Yue-Kong Library is by far the busiest academic library in Hong Kong. In the year under review, the Library implemented a number of new initiatives in collection development, digitalization of resources and technology virtualization.

A new three-tiered Collection Development Model was introduced to assist development and maintenance of Library collections. The system seeks to effectively sieve out or retain items to optimize the budget while balancing academic needs and usage.



Library Week 2009 kicked off virtualization initiatives.

二零零九年圖書館週啟動虛擬發展項目。



The Pao Yue-kong Library in Second Life, the first 3D virtual academic library in Asia.

包玉剛圖書館在 Second Life 建立了亞洲首間三維虛擬圖書館。

## 有效監察確保健康安全

理大一向重視大學社群的健康安全及校園的環境。為此，理大在年內安排內部顧問監測李兆基樓內多個實驗室的空氣排放質素，結果證明有關的空氣質素不會影響周圍的建築物。

## 資訊科技提升服務水平

為提供足夠頻寬以支援大學現時越趨網絡為本的業務運作，理大的校園網絡已提升至十億位元乙太網，以增強其性能及容量。

年內，理大大力推行電子服務，並提升相關效能，以支援大學的行政工作。為配合四年制課程的轉變，推行與學生有關的電子服務，亦是理大的重點項目。

## 圖書館進入數碼年代

二零零八至二零零九年度，理大包玉剛圖書館有超過二百五十八萬人次到訪，借閱總量多達一百一十萬次，是香港最繁忙的學術圖書館。年內，圖書館在館藏發展、資源數碼化及技術虛擬化方面，推出多項新猷。

圖書館採用了三層組織架構的館藏發展新模式，以優化館藏。該模式旨在有效地剔除或保留館藏，在配合財政預算之餘，也平衡教學需要。

為方便讀者享用圖書館的網上資源及進一步利用虛擬技術，理大於二零零九年四月舉行圖書館週期間，推出多項工具及服務，如資料搜尋工具 SuperCat 及 Research Pro，並且在 Second Life (意即「第二生命」) 建立虛擬圖書館。

To facilitate online access to library resources and to further the use of virtual technology, the Library launched a number of products and services during Library Week in April 2009, including search tools "SuperCat" and "Research Pro" and the Pao Yue-kong Library in *Second Life*.

## Green initiatives boost environmental awareness

PolyU continued to work hard throughout 2008/09 to further sustainable development and to create greater awareness on campus of environmentally friendly practices.

### Reducing energy consumption

The Hung Hom Bay campus of the Hong Kong Community College (an affiliate of PolyU) won a Merit Award in the 2008 Green Building Awards (New Construction Category), organized by the Professional Green Building Council.

In University buildings, some air-cooled chillers reaching the end of their lifespan have been replaced with more energy-efficient water-cooled chillers, while those not due for replacement have been retrofitted with water-mist saver installations to raise their energy efficiency. T8 fluorescent lamps have been replaced with more energy-efficient T5 fluorescent lamps, and fluorescent lamps used to illuminate exit signs have been changed to light-emitting diode (LED) lamps, which have a longer life span and lower power consumption.

Further measures include regular cleaning of cooling coils and fins of air-handling units to maintain their operating efficiency; announcements to students and staff promoting awareness of energy saving; and participation in energy-saving campaigns organized by the government and other organizations, such as Earth Hour by WWF.

### Signing up to carbon reduction charter

In July 2008, the University signed the "Carbon Reduction Charter" launched by the Environmental Protection Department and became a "Carbon Audit–Green Partner". Together with other local organizations, PolyU has undertaken to conduct carbon audits on campus buildings and to initiate carbon reduction programmes in accordance with the charter.

To reduce PolyU's carbon footprint, the University has set up an Energy Management Sub-committee. An internal Environmental Management Working Group has also been formed by the Facilities Management Office to look for ways to contribute more to carbon reduction.

## 綠色活動提升環保意識

二零零八至二零零九年度，理大繼續致力於校園的可持續發展，並推行環保措施，提升環保意識。

### 推動節能措施

香港專上學院（理大附屬機構）位於紅磡灣的校園，榮獲環保建築專業議會頒發二零零八年環保建築大獎（全新建築類別）優異獎。

校內建築物方面，理大以更節省能源的冷凝機組替代一些到期的冷凝機組；而未到期的冷凝機組則加裝水霧裝置以提高能源效益。理大以更節能的T5螢光燈取代T8螢光燈，而採用熒光燈照明的出口標誌已改為採用較耐用及低耗能的LED燈。

其他措施包括定期清洗空氣處理機組的冷卻設備，以提升其營運效率；向師生作出呼籲提高他們的節能意識；以及參與政府和其他組織舉辦的節約能源活動，如世界自然基金會舉辦的地球一小時活動。

### 簽署「減碳約章」

二零零八年七月，理大簽署「減碳約章」，成為由環境保護署推行的「碳審計—綠色機構」。理大將與其他本地機構一起根據約章對校園的建築物進行碳排放審計，以及開展相關的減碳活動。

為減少大學的碳足印，理大已成立能源管理小組委員會。此外，物業管理處亦



Hong Kong Community College Hung Hom Bay Campus receives a merit award for its energy-efficient design.

香港專上學院紅磡灣校園的節能設計贏得一項優異獎。

## Helping low-income groups through recycling

PolyU Staff Association and non-profit-making body Industrial Relations Institute (IRI) jointly organized two used-item collections on campus in November 2008 and January 2009. Staff members donated items ranging from electrical appliances to clothing and bags for re-sale by IRI to low-income groups.

## Digging in for a greener Hong Kong

More than 1,000 PolyU alumni, friends and family members were mobilized to take part in a tree-planting event, jointly organized by PolyU, the Federation of PolyU Alumni Associations and the Leisure and Cultural Services Department, on 30 November 2008. They planted more than 5,000 shrubs and saplings at Shing Mun Valley Park. The Hon. Edward Yau Tang-wah, Secretary for the Environment of the HKSAR Government, and PolyU alumnus and artiste Miss Gigi Leung were among those who attended.

The Hon. Edward Yau Tang-wah (fourth from left), Miss Gigi Leung (fourth from right), and PolyU representatives plant a tree together.

邱騰華局長（左四）、梁詠琪小姐（右四）與理大代表合力栽種一棵樹。



## Students gear up for eco-innovation

PolyU students have also made contributions towards environmental protection, showcasing their innovative capability and concern for the environment at several different events during the year.

Students from the Department of Mechanical Engineering developed a number of bio home products which went on display at the Hong Kong Houseware Fair at the Hong Kong Convention and Exhibition Centre in April 2009. The products included energy-saving lights, a solar plant feeder, a vegetable washer and an ionic dust cleaner. The series of eco-friendly household products were created as part of the Bio Home project, the first industry-university collaborative project initiated by PolyU and Bunhoi Group.

已成立內部環境管理工作小組，尋求更多減碳方法。

### 鼓勵循環再用

理大教職員協會及非牟利團體勞資關係協進會於二零零八年十一月及二零零九年一月在校园舉行兩次二手物品回收活動。教職員捐出電器、衣物至手袋等物品，讓該協會轉售予低收入人士。

### 齊心綠化香港

本校、理大校友會聯會和康樂及文化事務署於二零零八年十一月三十日合辦植樹活動，吸引超過一千名理大校友、其友好和家人參與。他們在荃灣城門谷公園合力栽植了五千多棵花苗。出席活動嘉賓包括香港特別行政區政府環境局局長邱騰華先生及理大校友兼藝人梁詠琪小姐。



The Hon. Rita Lau Ng Wai-lan, Secretary for Commerce and Economic Development of the HKSAR Government, expresses interest in the student-designed vegetable washer which can help reduce water consumption.



### 理大學生發揮環保創意

理大學生在保護環境方面亦有所貢獻。他們在年內參與多項活動，充分展現他們的創意才華和環保意識。

機械工程學系學生發明多項環保家居產品，並於二零零九年四月在香港會議展覽中心舉行的香港家庭用品展中展出。設計作品包括光暗控電燈、太陽能盆栽、蔬菜洗淨機及靜電吸塵筆等。理大與濱海集團首次合辦業界與大學的協作項目：「環保家居產品設計項目」，有關設計作品源自該協作項目。

In addition, a team of PolyU students defeated 428 other teams to take the Best Recycling Material Award at the Hong Kong Technology and Renewable Energy Events 2008 for their solar car. The contest was organized by Hong Kong Science and Technology Parks Corporation, and China Light & Power, and the solar car designed by Mr Har Wai, Mr Wong Yui-man and Mr Leung Pak-ho.

Three students also won the Most Outstanding Award at the 2008 Samsung Joint Universities Creative Technology Talents Awards for their design "Cheorio", a hand rehabilitation exercise device. The contest required students to use outdated or worn-out items to design a completely different product with new functions. Miss Ma Wing-yan, Miss Lau Shuk-man and Mr Lam Yiu-hang created their gadget from discarded bamboo steamers, an old mahjong table and Christmas lights to help patients with hand injuries. It also included modern touches such as LED and radio frequency identification.

此外，理大學生憑其設計的太陽能車輛，擊敗其餘四百二十八支參賽隊伍，在「二零零八應用可再生能源設計暨競技大賽」中勇奪「最佳循環材料獎」。該比賽由香港科技園公司及中華電力有限公司合辦，設計該太陽能車輛的學生包括夏偉、黃銳文及梁柏豪。

三名學生憑其設計的手部康復訓練儀器在二零零八年Samsung聯校精英創意科技設計比賽中勇奪「最傑出大獎」。比賽要求學生利用過時或已損壞的物件製作完全不同的儀器，並賦以嶄新功能。馬泳欣、劉淑敏及林耀鏗利用蒸籠、舊麻雀檯及聖誕燈飾，配合藍芽及無線射頻辨識系統，製成專為手部受傷人士而設的康復運動儀器。

*Shining examples:*  
PolyU's award-winning Solar Car (right); PolyU winners at the Samsung Joint Universities Creative Technology Talents Awards (below).

傑出例子：  
理大設計的太陽能車輛獲獎（右圖）；理大學生在Samsung聯校精英創意科技設計比賽中勝出（下圖）。

