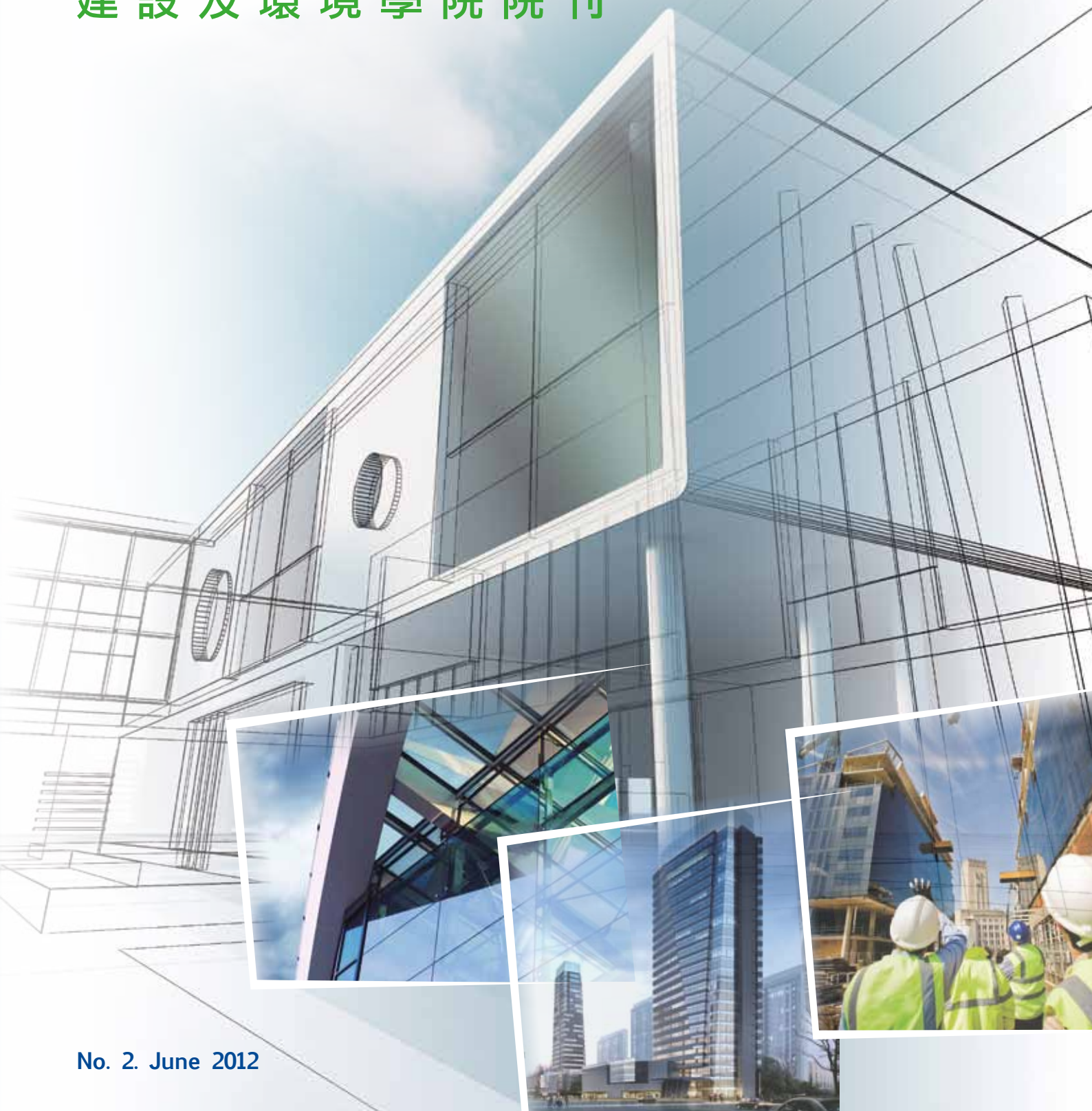


建設與環境

CONSTRUCTION & ENVIRONMENT

The Magazine of the Faculty of Construction and Environment

建設及環境學院院刊



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2012 is turning out to be a memorable year. As you may already know, the 75th Anniversary of The Hong Kong Polytechnic University was celebrated jointly by the five alumni associations of the Faculty on 18 February 2012. We take great pride in the fact that education in the construction field was part of this institution from its very beginning. The Government Trade School, the earliest predecessor of PolyU, admitted the first group of students to study the building course in 1937. We are proud to note that of the 51 graduates who received the Outstanding PolyU Alumni Award, nearly one-third of them are graduates of this Faculty.

Not only is it the 75th Anniversary of The Hong Kong Polytechnic University, it is also remarkable that one of our distinguished alumni, Mr Leung Chun Ying, has been elected to serve as Hong Kong's next Chief Executive. We are confident that he will lead with wisdom and make us proud.

Over the past 75 years, the building discipline that was first established in the 1930s has evolved into the present Faculty of Construction and Environment. We have about 110 teachers at Lecturer and above levels and over 4,500 students. We offer world-class academic programmes and conduct cutting edge research. Three years ago, a Taiwanese organization launched the first objective rankings of research in civil engineering around the world. For this purpose, the field of civil engineering was defined broadly to include almost all activities in the Faculty, from Environmental Engineering to Building Technology. They have by now published two rounds of ranking results, and in both rounds, PolyU was ranked within the top 10 institutions: the first time at number 3 and the second time at number 5. That is, our research achievements in the broad field of civil engineering have placed PolyU among the top ten civil engineering institutions in the world, together with such institutions as UC Berkeley and Imperial College. In Hong Kong, our Faculty routinely wins, through competitive bidding, more than 40% of all the government funding for academic research awarded through the Hong Kong Research Grants Council in construction-related disciplines.

In terms of attracting outstanding students to study for their PhDs with us, a record number of Hong Kong PhD Fellowships has recently been awarded to the Faculty of Construction and Environment (FCE). The 11 awardees represent nearly 40% of the 28 PhD Fellowship places secured by PolyU, testifying to our leading position in construction and environmental research. All but one of the awardees have accepted the Fellowship. These PhD Fellows will commence their studies at FCE in the 2012/2013 academic year.

Our research is not just about the publication of papers. The ultimate aim of our research has always been to solve real-world problems and to benefit society. For example, with funding support from Sun Hung Kai Properties, our experts developed effective energy-saving technologies for the tallest building in Hong Kong, the International Commerce Centre, which has led to an annual reduction of 15% of the electricity consumption there.

In the area of undergraduate education, the greatest challenge we are facing is the transition to the new 3-3-4 educational system. Colleagues in the Faculty have over the years devoted a great deal of effort in developing our four-year curricula for the new educational system, and are looking forward to welcoming the two cohorts of year-one students to campus in the coming summer.

Our academic programmes have remained popular and highly valued by the community. In particular, we have many degree programmes which are either unique such as our bachelor degree programmes in Building Services Engineering, Environment & Sustainable Development, Geomatics, or among the best in Hong Kong such as Surveying and Property Management.

Despite all the challenges we may face, we also see a bright future for the Faculty. Hong Kong is a unique metropolis and a model city for high-density urban living. All the major cities in the Chinese mainland and some other parts of Asia have been urbanizing following Hong Kong's model. This offers a great market for our expertise and experience as well as an unparalleled opportunity for the Faculty to further excel. To capture this opportunity, the university has recently established the Research Institute for Sustainable Urban Development (RISUD), within which our Faculty will play a leading role. With an expected budget of around HK\$40 million for the first three years, we have high hopes that RISUD will make a significant positive contribution to the sustainable development of Hong Kong as well as other high-density cities in China and the rest of the world.

Prof. Jin-Guang Teng

Dean of Faculty of Construction and Environment
The Hong Kong Polytechnic University

2012 將是教人難忘的一年。二月十八日，建設及環境學院五個校友會聯合舉辦晚餐舞會，同慶香港理工大學成立七十五周年。學院的前身「建築科」是大學創校時首批開辦的課程之一。1937 年，理大最早期的前身——香港官立高級工業學院成立，並取錄第一批修讀建築科的學生；在獲理大頒發傑出校友榮譽的五十一位畢業生中，建設及環境學院的校友佔了約三分之一。這些都是我們引以為榮的成就。

除了慶祝創校七十五周年，今年另一件大事是本院傑出校友梁振英先生獲選下屆特區行政長官，使我們引以自豪。我們深信梁先生將以智慧領導香港邁步向前。

七十五年過去了，彈指一揮間。上世紀三十年代創立的「建築科」，已成為擁有約一百一十位講師或以上職級教員、逾四千五百名學生的大學學院。我們貫徹教研並重的方針，不但課程質素享譽全球，科研水準亦躋身世界前列。三年前，一所台灣機構公佈了首個採用客觀標準的全球土木工程研究成果排名榜。該排名榜對土木工程採用了廣義的定義，其範圍包括環境工程及建築科技，幾乎涵蓋本學院所有學科。該排名榜已發佈過兩次，而理大兩次均名列十甲院校：第一次排名第三，第二次亦躋身五甲。換言之，以廣義土木工程學而言，我們的科研成就使理大在土木工程學科成為全球最頂尖的十大學府之一；其他的十大學府包括美國加州大學柏克萊分校及英國倫敦帝國學院。在香港，建設及環境學院亦能長期成功獲得逾四成政府透過香港研究資助局投放在建築及相關學科的研究資助金。

建設及環境學院是優異生修讀博士學位的熱門選擇。最近，便有十一位申請人獲「香港博士研究生獎學金計劃」批准到本院修業，人數不但創了新高，還佔了理大以這個途徑錄取的博士生總數(二十八人)的四成，足證我們是建築及環境學研究的翹楚。上述十一人裡，最終接受獎學金的有十人。他們將在 2012/13 學年到本院攻讀博士課程。

我們的研究絕非紙上談兵。出版論文固然重要，但科研的最終目的在於解決現實世界的切身問題，造福社會。舉例說，本院專家得到新鴻基地產的資助，為全港最高的建築物——環球貿易廣場研發了多項節能技術，使大廈每年的耗電量減少百分之十五。

在本科生教育方面，我們今年面對的最大挑戰自然是怎樣順利過渡到「三三四」學制。不少同事為了設計新的四年制大學課程而忙得不可開交。我們熱烈期盼在今年夏天迎接兩批一年級新生踏足理大校園，開展人生另一階段。

我們的課程依然深得各界歡迎和讚賞，尤其是一些獨一無二或屬全港一流水準的學士學位課程，如屋宇設備工程、環境與可持續發展、測繪及地理資訊學、地產建設測量學，以及物業管理學。

雖然前路不乏挑戰，建設及環境學院的前景卻是一片光明。香港是自成一格的國際大都會，也是實行高密度發展的模範城市。由於內地的大城市和亞洲部分地區均跟隨「香港模式」發展，我們的專長和經驗將大派用場，學院亦可善用這個黃金機遇再創高峰。有見及此，理大最近成立了由本院主導的「可持續城市發展研究院」。研究院首三年的預算經費約四千萬港元，我們有信心它可以發揮重要作用，幫助香港、內地以至其他地區的高密度城市達至可持續的發展。

滕錦光教授
建設及環境學院院長
香港理工大學



Research & Technology Transfer

研究與技術轉移

PolyU's research in civil engineering ranked 5th in the world

According to the latest Taiwan rankings (previously known as the rankings of the Higher Education Evaluation & Accreditation Council of Taiwan), civil engineering research at PolyU is the 5th strongest in the world based on a series of performance indicators for research publications. The field of civil engineering here is broadly defined to also include Construction and Building Technology, Environmental Engineering etc. Hence, all four departments in the Faculty have contributed to this strong performance of PolyU. This excellent result demonstrates the high international standing and recognition of our world-class research on many important issues.

The top five universities in their ranking order are as follows:

In addition to creating significant impact in the international scientific community, the Faculty's research has also brought many benefits for the city and the region. For example, the Department of Civil and Structural Engineering played an important role in ensuring the safety of landmark structures such as the Tsing Ma Bridge in Hong Kong and the Canton Tower in Guangzhou. Researchers in the Department of Building Services Engineering have also worked to reduce the energy consumption of building structures; most notably, the International Commerce Centre in West Kowloon, the tallest building in Hong Kong, achieved energy savings of about 15% with our new technology.

理大土木工程科研表現躋身全球五強

根據台灣最新的大學院系評鑑結果（前稱「台灣財團法人高等教育評鑑中心基金會排名」），香港理工大學的土木工程科研表現位居全球第五。上述排名是按照一系列有關科研著作的指標釐定，而土木工程的涵義亦包括建築及建造技術、環境工程等專科。理大今番得此佳績，建設及環境學院屬下四個學系均功不可沒。這顯示我們在不少重要科研領域已臻世界一流水平，成就得到國際認同。

是次躋身五甲的大學如下：

Rank 排名	Name of University 大學
1	University of California at Berkeley 美國加州大學柏克萊分校
2	Technical University of Denmark 丹麥科技大學
3	Swiss Federal Institute of Technology – Zurich 蘇黎世瑞士聯邦科技學院
4	Delft University of Technology 荷蘭代夫特理工大學
5	The Hong Kong Polytechnic University 香港理工大學

除了在國際學術界穩佔一席，本院的科研成果更切實惠澤香港及鄰近地區。以青馬大橋及廣州塔等為例，土木及結構工程學系對確保這些地標建築的安全可說貢獻良多；屋宇設備工程學系的學者孜孜不倦，研發林林總總的建築物節能方案，位處西九、全港最高的環球貿易廣場，就是因為採用了我們的新技術而減少耗電量約一成半之多。

Research Institute focuses on sustainable urban development

16 January 2012 marks the birth of the Research Institute for Sustainable Urban Development (RISUD), which was established by The Hong Kong Polytechnic University to develop and disseminate technologies and systems for sustainable high-density urban development. With the vision of being a world leader in the development and dissemination of technologies and systems for sustainable high-density urban development, the Institute comprises five divisions, viz, Urban Planning and Management, Urban Environment, Urban Infrastructure, Digital Technology in Urban Development, and Building Energy and Environmental Performance. Its primary roles are:

- (1) to create sustainable solutions to problems generated by high-density urban development through multi-disciplinary, cutting-edge research;
- (2) to engage in knowledge transfer activities through specialist consultancy and continuing professional training; and
- (3) to create significant positive impact on government policies and societal culture for sustainable urban development through services to professional and government organizations.

Ir Prof. Jin-Guang Teng, Dean of the Faculty of Construction and Environment, has been appointed as its Director, while Prof. Xiang-Dong Li, Associate Dean (Research) of the Faculty has been appointed as its Associate Director. While the key founding members of the Institute are all from the Faculty of Construction and Environment, it is expected that teams from other Faculties will join the Institute in the next few years to enhance the strength of the Institute in its multi-disciplinary research.

理大成立可持續城市發展研究院

理大於本年一月十六日成立「可持續城市發展研究院」，期望藉此研發及推廣持續發展高密度城市所需的技術和系統，並成為這方面的翹楚。研究院包括五個部門，分別為「城市規劃及管理」、「城市環境」、「城市基建」、「數碼科技與城市發展」，以及「建築物能源與環境績效」，其主要職能包括：

- (1) 以跨範疇的尖端研究，因應高密度城市發展衍生的問題提出可持續的解決方案；
- (2) 透過提供專家顧問服務及持續的專業進修機會，實踐知識轉移；以及
- (3) 向專業機構及政府提供服務，促使政府政策及社會文化體現可持續城市發展的原則和精神。

理大已委任本院院長滕錦光教授工程師及副院長(科研)李向東教授分別出任研究院正、副主管。研究院所有主要創院成員均來自建設及環境學院，而大學其他學院的專家預計在未來幾年會陸續加入，增強其跨學科研究實力。

HK PhD Fellowships 2012/13

A record number of Hong Kong PhD Fellowships has recently been awarded to the Faculty of Construction and Environment (FCE). These PhD Fellows will commence their studies at FCE in the 2012/2013 academic year. The 11 awardees represent nearly 40% of the 28 PhD Fellowship places secured by PolyU, testifying to our leading position in construction and environmental research. All but one of the awardees have accepted the Fellowship.

Established by the Research Grants Council (RGC) in 2009, the Hong Kong PhD Fellowship Scheme is a highly competitive programme that attracts academically talented students from all over the world to study in one of Hong Kong's institutions of higher learning for their PhDs. The awardees of this Scheme are each supported for three years with a monthly stipend of HK\$20,000 (approximately US\$2,600) and an annual travel allowance of HK\$10,000 (approximately US\$1,300). For awardees studying at PolyU, their tuition fees will also be waived.

In this round of competition, the RGC awarded a total of 200 PhD Fellowships. The names of the 10 awardees who have accepted the Fellowships and their supervisors are as follows:

Department 學系	Name of Awardee 獎學金得主		Proposed Chief Supervisor 首席導師
BRE 建築及房地產學系	HONG Jing Ke 洪競科		Prof. Geoffrey Qiping SHEN 沈岐平教授
BSE 屋宇設備工程學系	GANG Wen Jie 剛文杰		Prof. Shengwei WANG 王盛衛教授
CSE 土木及結構工程學系	LUO Wei Li 羅威力		Dr Yong XIA 夏勇博士
CSE 土木及結構工程學系	PENG Yixin 彭怡欣		Prof. XU You-lin 徐幼麟教授
CSE 土木及結構工程學系	YANG Yi Nan 楊憶南		Prof. Jin-Guang TENG 滕錦光教授
CSE 土木及結構工程學系	ZHANG Li 張力		Prof. Tao WANG 王韜教授
LSGI 土地測量及地理資訊學系	CARRUS Emanuele		Prof. X.L. DING 丁曉利教授
LSGI 土地測量及地理資訊學系	WANG Qun Ming 王群明		Prof. Wen Zhong SHI 史文中教授
LSGI 土地測量及地理資訊學系	XU Ying 徐瑩		Prof. Wu CHEN 陳武教授
LSGI 土地測量及地理資訊學系	ZHOU Yu 周宇		Prof. X.L. DING 丁曉利教授

「香港博士研究生獎學金計劃」公佈 2012/13年度審批結果

「香港博士研究生獎學金計劃」日前公佈2012/13年度的審核結果，共有11人獲批獎學金入讀建設及環境學院，人數不但為歷年之冠，而且約佔理大今次取錄的28名準博士生的四成，足證我們在建築及環境科學研究上的領導地位。這11人裡，最終有10位接受獎學金，他們將於2012/13新學年成為理大的一員。

這個獎學金計劃是由研究資助局於2009年創立，旨在吸引各地的優秀人材到香港的專上學府攻讀博士學位課程，由於申請者眾，競爭非常激烈。每位獎學金得主可獲每月港幣\$20,000生活津貼(約\$2,600美元)，以及每年港幣\$10,000(約\$1,300美元)的會議及研究活動交通津貼，為期三年。入讀理大的得獎人更無需繳交學費。

在這一輪審批過程中，共有200名來自世界各地的高材生獲研資局批出獎學金。下表為將於新學年入讀本院的10名研究生及其論文導師：

FCE research capacity strengthened by addition of 16 postdocs

The first year of the FCE Postdoctoral Fellowship Scheme has attracted many applications, out of which 16 have been approved for funding support. FCE welcomes the following postdoctoral fellows who will spend the next two years working under the guidance of our faculty.

1. Dr Yue Ping GUO, BRE

Supervisor(s): Prof. Francis WONG (PI)
Prof. Albert CHAN/ Prof. Yi LI (ITC)
Project Title: Anti Heat Stress Clothing for Construction Workers in Hot and Humid Weather

「博士後研究獎學金計劃」大增建設及環境學院科研實力

建設及環境學院的「博士後研究獎學金計劃」推出首年已大受歡迎。在眾多申請中，我們將資助以下十六個項目；未來兩年，這些博士後研究員會在本院學者指導下工作。

郭月萍博士 (建築及房地產學系)

導師：黃君華教授 (首席研究員)
陳炳泉教授/李翼教授 (紡織及製衣學系)
研究專題：可預防建築工人悶熱天氣中暑的工作服飾研究



2. Dr Kun QIAN, BRE

Supervisor(s): Prof. Edwin CHAN (PI)
Dr Lennon CHOY/ Prof. Visscher HENK (Delft Univ.)
Project Title: Implementing a Typical Incentive Scheme for Promoting the Building Energy Efficiency Market in Hong Kong: A Transaction Cost Perspective

錢坤博士 (建築及房地產學系)

導師：陳漢雲教授 (首席研究員)
蔡鴻達博士/Visscher HENK 教授 (荷蘭台夫特科技大學)
研究專題：藉推行典型獎勵制度在香港推廣建築物節能的市場研究：從交易成本角度出發



3. Dr Ka Hung HON, BRE

Supervisor(s): Prof. Albert CHAN (PI)
Prof. Francis WONG
Project Title: Managing Construction Safety for Ethnic Minorities in Hong Kong

韓嘉紅博士 (建築及房地產學系)

導師：陳炳泉教授 (首席研究員)
黃君華教授
研究專題：香港少數族裔建築工人的安全管理



4. Dr Hai WANG, BSE

Supervisor(s): Prof. Hongxing YANG (PI)
Dr Lin LU
Project Title: Investigation on Hierarchically Nanostructured Rutile Titania-coated Hollow Glass Microbeads for Developing High Performance Solar Heat Reflectance and Insulation Coatings of Solar Cells

王海博士 (屋宇設備工程學系)

導師：楊洪興教授 (首席研究員)
呂琳博士
研究專題：為研發太陽能電池高效熱反射絕緣塗層而進行的鍍高階納米結構金紅石二氧化鈦中空玻璃微珠研究



5. Dr Xiaofeng NIU, BSE

Supervisor(s): Dr Fu XIAO (PI)
Prof. Jianlei NIU
Project Title: Investigation of Heat and Mass Transfer Characteristics and Performance of Membrane-based Liquid Desiccant Dehumidifier with Inter-cooler

牛曉峰博士 (屋宇設備工程學系)

導師：肖賦博士 (首席研究員)
牛建磊教授
研究專題：配置中冷器的薄膜式液體除濕器的熱傳及質傳特性與性能研究



6. Dr Dongmei PAN, BSE

Supervisor(s): Prof. Simon DENG (PI)
Dr Mingyin CHAN/ Dr Liang XIA
Project Title: An Experimental and Numerical Study on Thermal Comfort and Indoor Air Quality in a Multi-bed Sleeping Environment

潘冬梅博士 (屋宇設備工程學系)

導師：鄧仕明教授 (首席研究員)
陳銘賢博士/夏亮博士
研究專題：多床睡眠環境中熱舒適性及室內空氣質素的實驗及數值研究



7. Dr Yongjun SUN, BSE

Supervisor(s): Prof. Shengwei WANG (PI)
Project Title: Building Demand-side Cost Efficient Control Strategies for District Energy Management and Smart Grid

孫勇軍博士 (屋宇設備工程學系)

導師：王盛衛教授 (首席研究員)
研究專題：從需求方面為地區能源管理及智慧型電網制定具成本效益的控制策略



8. Dr Xiaoping LIU, BSE

Supervisor(s): Prof. Jianlei NIU (PI)
Dr Fu XIAO

Project Title: Numerical Investigation of Heat and Mass Transfer Mechanisms in a Novel Total Heat Exchanger

劉曉平博士 (屋宇設備工程學系)

導師：牛建磊教授 (首席研究員)
肖賦博士

研究專題：新式全效換熱器熱傳及質傳模式數值研究

**9. Dr Renxin ZHONG, CSE**

Supervisor(s): Dr Agachai SUMALEE (PI)
Prof. William LAM

Project Title: A Stochastic Learning Framework for Incident Detection and Management

鍾任新博士 (土木及結構工程學系)

導師：Dr Agachai SUMALEE (首席研究員)
林興強教授

研究專題：事故偵測及處理隨機學習框架

**10. Dr Long CANG, CSE**

Supervisor(s): Prof. Xiangdong LI (PI)
Project Title: The Impacts of Long-term Application of Biodegradable Chelants on Soil Nutrients, Trace Metal Speciation, Microbial Activities and Plant Roots during Phytoremediation Process

倉龍博士 (土木及結構工程學系)

導師：李向東教授 (首席研究員)
研究專題：植生治療過程中長期使用自然降解整合劑對泥土養份、微量金屬形態、微生物活動及植物根部的影響

**11. Dr Likun XUE, CSE**

Supervisor(s): Prof. Tao WANG (PI)
Dr Hai GUO/ Prof. Donald BLAKE (UC Irvine)
Project Title: Formation of Photochemical Smog and Atmospheric Oxidizing Capacity in 5 Chinese Megacities: An Observation-based Modelling Study

薛麗坤博士 (土木及結構工程學系)

導師：王韜教授 (首席研究員)
郭海博士 / Donald BLAKE 教授 (美國加州大學爾灣分校)
研究專題：中國五個巨型城市光化學煙霧的形式與大氣氧化能力：基於觀察的建模研究

**12. Dr Ka Lam CHEUNG, CSE**

Supervisor(s): Dr Hai GUO (PI)
Prof. Tao WANG
Project Title: Physico-chemical and Toxicological Characteristics of Ultrafine and Fine Particulate Matter and their Impacts on Human Health

張嘉琳博士 (土木及結構工程學系)

導師：郭海博士 (首席研究員)
王韜教授
研究專題：極細及細顆粒物的物理化學和毒理特性及其對人體健康的影響

**13. Dr Yu HUANG, CSE**

Supervisor(s): Prof. Shuncheng LEE (PI)
Project Title: The Effects of Coexistent Pollutants on Indoor Secondary Pollutants Formation during Ozonolysis of Emissions from Cleaning Products and Air Fresheners

黃宇博士 (土木及結構工程學系)

導師：李順誠教授 (首席研究員)
研究專題：清潔用品及空氣清新劑排放物臭氧分解過程中共存污染物對產生室內二次污染物的影響

**14. Dr Pattiyage Ishan Ayantha GOMES, CSE**

Supervisor(s): Prof. Onyx WAI (PI)
Project Title: Development of an Innovative Eco-flood Channel for the Integration of Ecological Sustainability and Flood Control

Dr Pattiyage Ishan Ayantha GOMES (土木及結構工程學系)

導師：韋永康教授 (首席研究員)
研究專題：開發能兼顧持續生態發展及防洪的新式水道

**15. Dr Vijayabaskar NARAYANAMURTHY, CSE**

Supervisor(s): Prof. Jin-Guang TENG
Project Title: Mechanics of Debonding Failures in FRP-Plated RC Beams

Dr Vijayabaskar NARAYANAMURTHY (土木及結構工程學系)

導師：滕錦光教授
研究專題：外貼纖維強化膠片材的加固混凝土樑的剝離力學研究

**16. Dr Lei ZHANG, LSGI**

Supervisor(s): Prof. Xiaoli DING
Project Title: Determination of Ionospheric Effects using Multiple Aperture InSAR

張磊博士 (土地測量及地理資訊學系)

導師：丁曉利教授
研究專題：使用合成孔徑雷達干涉測量技術推算電離層效應



Hong Kong Scholars Program attracts postdocs to FCE

In a cross-border initiative to attract mainland scholars to pursue postdoctoral research in Hong Kong, mainland authorities and the Society of Hong Kong Scholars jointly launched the Hong Kong Scholars Program in December 2010. From about 500 applications, 50 outstanding mainland PhD graduates were selected and matched with academics at UGC-funded universities in Hong Kong. PolyU has attracted 13 such scholars, the most out of all the local universities. Our Faculty is honored that 3 of them are supervised by 3 of our academic staff. The names of the scholars and their supervisors in FCE are listed below:

Postdoc Fellow 博士後研究員	Dept. 學系	Supervisor 導師	Project Title 研究專題
Dr Ronggang Zhou 周榮剛博士 	BRE 建築及房地產學系	Dr Patrick Fong 方識華博士	A knowledge-based network competence evaluation framework for the performance measurement system in the HK construction industry 引入知識型網絡能力評估框架加強香港建築行業績效評價體系
Dr Liang Pu 蒲亮博士 	BSE 屋宇設備工程學系	Prof. Jianlei Niu 牛建磊教授	Optimized design of phase change material (PCM) based thermal energy storage systems 以相變材料為介質的熱能儲存系統的優化設計
Dr Fei Qi 齊飛博士 	CSE 土木及結構工程學系	Prof. Wei Chu 朱威教授	Degradation of refractory chemical in water by using an advanced oxidation process 以高級氧化分解水中難降解化合物質的研究

The mainland scholars have been recommended by the Chinese Postdoctoral Council. Dr ZHOU is currently an Associate Professor at the School of Economics and Management, Beijing University of Aeronautics and Astronautics. Dr Pu is a Lecturer at the School of Energy and Power Engineering in Xian's Jiao Tong University, and Dr Qi is an Associate Professor in Environmental Engineering at Beijing Forestry University. They will be working in Hong Kong for 2 years and their salaries will be equally borne by the Hong Kong supervisors / institutions and the Chinese government.

For the second year of the Hong Kong Scholars Program, 12 academics from the Faculty of Construction and Environment have qualified to be supervisors of the mainland scholars. Let's hope they will all find suitable candidates to work with.

香江學者計劃安排三博士後研究員加入本院

內地有關當局與香港學者協會於2010年十二月推出「香江學者計劃」，安排內地學者來港進行博士後研究。主辦機構在約五百份申請中，揀選出五十位優秀的博士畢業生，按其專長，配對到獲大學教育資助委員會撥款的本港大學受訓。今次，理大將接待十三位內地學者，人數是參與的本地大學之冠；建設及環境學院的教員更會擔任其中三人的項目導師，詳情如下：

這些內地學者都是由全國博士後管委會辦公室選拔。周榮剛博士現任北京航空航天大学經濟管理學院副教授；蒲亮博士為西安交通大學能源與動力工程學院講師；齊飛博士則是北京林業大學環境工程學副教授。三人在港工作兩年期間的薪金，會由港方的負責導師/院校及中國政府各付一半。

今年是香江學者計劃第二年推行，本院已有十二位學者符合導師資格，希望他們都能物色到合適人選開展研究。

One-year Top-up Studentship Scheme benefits 16 postgrad students

Launched in 2010, the one-year top-up studentship scheme aims to attract outstanding postgraduates to study for research degrees in our Faculty. They are generously supported by both the department and the Faculty on a 50:50 basis for one year, or 8 months in the case of MPhil students. Below are the successful candidates for 2012/13 and their supervisors, who will use their external competitive grants to support their research students for the rest of the study period.

「博士生一年制補助獎學金計劃」資助十六名優秀研究生

建設及環境學院於2010年推出「博士生一年制補助獎學金計劃」，吸引傑出學生在本院修讀研究學位。獎學金由本院與相關學系共同提供，為期一年(哲學碩士生為八個月)。下表詳列了2012/13年度的獎學金得主。負責導師會運用他們的校外競爭性撥款資助學生在餘下的修業期完成學位。

Name of Applicant 申請人	Degree 修讀學位	Dept 學系	Supervisor 導師	Status 資助安排
Mr Lee Pan 李彬	 PhD (initial admission as MPhil student) 哲學博士(先以哲學碩士生身份入學)	BRE 建築及房地產學系	Dr Patrick Lam 林俊業博士	Supported and allocated \$82,800 from FCE (release \$55,200 first) 獲本院資助 \$82,800 (首期發放 \$55,200)
Ms Li Meiling 李美玲	 PhD 哲學博士	BRE 建築及房地產學系	Dr Meng Ni 倪萌博士	Conditional offer and allocated \$82,800 from FCE 獲本院資助 \$82,800 (有條件發放)
Ms Jackie Yang Yang 楊揚	 PhD 哲學博士	BRE 建築及房地產學系	Prof. Albert Chan 陳炳泉教授	Supported and allocated \$93,850 from FCE 獲本院資助 \$93,850
Ms Gao Xiaoxia 高曉霞	 PhD 哲學博士	BSE 屋宇設備工程學系	Prof. HX Yang 楊洪興教授	Supported and allocated \$82,800 from FCE 獲本院資助 \$82,800
Mr Li Zhao 李釗	 PhD 哲學博士	BSE 屋宇設備工程學系	Prof. Simon Deng 鄧仕明教授	Conditional offer and allocated \$82,800 from FCE 獲本院資助 \$82,800 (有條件發放)
Ms Lu Yuehong 魯月紅	 PhD 哲學博士	BSE 屋宇設備工程學系	Prof. SW Wang 王盛衛教授	Conditional offer and allocated \$82,800 from FCE 獲本院資助 \$82,800 (有條件發放)
Mr Wang Lingshi 王凌士	 PhD 哲學博士	BSE 屋宇設備工程學系	Dr Xiao Fu 肖賦博士	Conditional offer and allocated \$82,800 from FCE 獲本院資助 \$82,800 (有條件發放)
Mr Zhang Xiyao 張希堯	 PhD 哲學博士	BSE 屋宇設備工程學系	Prof. JL Niu 牛建磊教授	Supported and allocated \$82,800 from FCE 獲本院資助 \$82,800
Mr Guo Mingzhi 郭明志	 MPhil 哲學碩士	CSE 土木及結構工程學系	Prof. CS Poon 潘智生教授	Supported and allocated \$55,200 from FCE 獲本院資助 \$55,200
Mr Jing Hai Quan 敬海泉	 PhD 哲學博士	CSE 土木及結構工程學系	Dr Yong Xia 夏勇博士	Conditional offer and allocated \$82,800 from FCE 獲本院資助 \$82,800 (有條件發放)
Ms Lee Sin Hang 李善恒	 MPhil 哲學碩士	CSE 土木及結構工程學系	Dr WT Hung 熊永達博士	Supported and allocated \$55,200 from FCE 獲本院資助 \$55,200
Mr Nie Xuefei 聶雪飛	 PhD (initial admission as MPhil student) 哲學博士(先以哲學碩士生身份入學)	CSE 土木及結構工程學系	Prof. JG Teng 滕錦光教授	Supported and allocated \$82,800 from FCE (release \$55,200 first) 獲本院資助 \$82,800 (首期發放 \$55,200)

Ms Wepulanon Piyanit		MPhil 哲學碩士	CSE 土木及結構工程學系	Dr Agachai Sumalee Agachai Sumalee 博士	Supported and allocated \$55,200 from FCE 獲本院資助 \$55,200
Mr Wang Nan 王楠		MPhil 哲學碩士	CSE 土木及結構工程學系	Dr Hai Guo 郭海博士	Supported and allocated \$62,567 from FCE 獲本院資助 \$62,567
Mr Zhang Junlong 張浚瀧		MPhil 哲學碩士	CSE 土木及結構工程學系	Prof. William Lam 林興強教授	Supported and allocated \$55,200 from FCE 獲本院資助 \$55,200
Mr Wang Jue 王珏		PhD 哲學博士	LSGI 土地測量及地理資訊學系	Dr Bo Wu 吳波博士	Supported and allocated \$82,800 from FCE 獲本院資助 \$82,800

PolyU part of research center in Bangkok

PolyU has joined forces with the King Mongkut's Institute of Technology Ladkrabang (KMITL) and the Expressway Authority of Thailand (EXAT) to establish a Research Center on Transportation Technology and Railway Engineering, which will be based in Bangkok, Thailand, on the campus of KMITL. Representatives from the three institutions were on hand to sign a Memorandum of Understanding (MoU) on 5 March 2012. They include PolyU's Deputy President and Provost, Prof. Philip Chan; our Faculty Dean, Prof. Jin-Guang Teng; Head of PolyU's Department of Civil and Structural Engineering (CSE), Prof. You-Lin Xu; colleagues from CSE, Prof. William Lam, Prof. Xiang-Dong Li, and Dr Agachai Sumalee; the Governor of the Expressway Authority of Thailand, Mr Aiyarat Tinapai; and the Dean of KMITL's Faculty of Engineering, Prof. Suchatvee Suwansawat.

The new center will focus on research related to Intelligent Transportation Systems, Bridge and Road Structures and their Maintenance, Transportation Engineering, and Environment. It is managed by three co-directors, one from each party to the MoU, which was spearheaded by Dr Agachai Sumalee, an assistant professor of CSE.

Besides collaborating on research, staff of EXAT and KMITL will also upgrade their knowledge and skills by attending PolyU's postgraduate programmes in transportation and engineering-related fields. They will be financially supported by Thai authorities.

理大與泰國政府籌組運輸技術及鐵路工程研究中心

理大將與泰國拉卡邦先皇技術學院 (KMITL) 及泰國高速公路管理局 (EXAT) 聯手，在 KMITL 位於曼谷的校園內成立運輸技術及鐵路工程研究中心。三方代表已於本年三月五日簽訂合作備忘錄，參與儀式者計有理大常務及學務副校長陳正豪教授、本院院長滕錦光教授、土木及結構工程學系系主任徐幼麟教授，以及同系的林興強教授、李向東教授及 Agachai Sumalee 博士；泰國方面，則有泰國高速公路管理局局長 Aiyarat Tinapai 先生，以及 KMITL 工程學院院長 Suchatvee Suwansawat 教授。

這次合作其實是由土木及結構工程學系助理教授 Agachai Sumalee 博士牽頭。新中心的研究範圍以智能運輸系統、橋樑及道路結構與保養、運輸工程學及環境學為主，並會由協約三方各派一人擔任聯席總監管理。

除了在科研領域合作，EXAT 及 KMITL 還會以公費保送職員到理大修讀與運輸及工程有關的深造課程，學習新知識和技能。



BSE researchers patented technology for monitoring water supply system

Hydro power has mainly been generated by large dams, but did you know it can also be harnessed inside narrow water pipes? The Water Supplies Department and PolyU researchers began collaborating in 2009 to study the feasibility of a hydro-powered generator to provide electricity for a system to monitor the water supply in remote, outlying areas. The prototype design was completed by the end of 2010. It was tested at four different locations in April 2011, including at Tseng Lan Shue in Clearwater Bay, Hoi Yuen Road in Kwun Tong, and the desalination plant in Tuen Mun. A patent for the technology was

屋宇設備工程學系發明供水監察系統獲技術專利

水力發電大多倚賴大型堤壩蓄水，但你有否想過窄長的水管也可發揮同樣效果？早於 2009 年，水務署與理大科研人員便開始合作研究怎樣在狹窄水管內，利用流水為監察偏遠地區供水情況的系統提供電力。研究人員於 2010 年底完成設計原型後，便在去年四月於清水灣牛欄樹、觀塘開源道，以及屯門海水化淡試驗廠等四個地點進行測試。負責這項目的屋宇設備工程學系楊洪興教授及陳建博士生，更在去年十二月初憑此取得技術專利，實在可喜可賀。

granted to the inventors, Mr Chen Jian and Prof. Yang Hongxing of the Department of Building Services Engineering, in early December 2011. Congratulations to both of them for their innovation.

A worthwhile project that costed about \$500,000 and lasted over a year, its significance laid in the invention of a mini spherical turbine that could convert the surplus water pressure head of the water flow in pipes into electricity. Prof. Yang added that the range of applications for this hydro-powered system was broad. Not only can it be used in Hong Kong, it can also function in mainland China with the existing network of pipes. It is not necessary to build new pipelines. Wherever there are pipelines, it can be installed. Such convenience can improve the power supply conditions of remote areas where grid electricity supply is not available.

這個極具意義的項目耗資約五十萬元，歷時超過一年，精妙之處在於研究人員發明的微型球狀渦輪，可以把水管內水流上的剩餘水壓轉換成電力。楊教授表示這個水力發電系統的靈活性強，除了香港，也可在中國內地使用而無需另建新水管。哪裡有水管，哪裡就可安裝。有了這套簡單方便的系統，便可改善未連接電網的偏遠地區的能源供應了。



Technology of CVP Lab improves site safety and project efficiency

2011 was a fruitful year for the Construction Virtual Prototyping (CVP) Lab at The Hong Kong Polytechnic University. As a high-tech leader in the construction industry, CVP has developed the “Proactive Construction Management System” (PCMS) [or 雲建管 in Chinese] which takes the application of Building Information Modelling (BIM) to a new level. The PCMS takes a 4D model as a control platform. Using sensor technologies, including GPS and wireless networks, the PCMS facilitates real-time tracking of the positions of workers and machinery, thus automatically alerting workers of possible fatal interactions/collisions while simultaneously comparing the 4D model with site situation to ensure smooth time and cost performances of a project. The concept of PCMS is illustrated in Figure 1. A video of PCMS is available online at: <http://www.youtube.com/watch?v=OMEgn0amzM0&feature=youtu.be>.

Each year in Hong Kong, around 20 fatal accidents happen on construction sites, the most serious of which are “body falling from height” and “collision by and/or with moving equipment”. PCMS can avoid these tragedies by tracking all the movements of workers and heavy equipment on site, which will be recorded automatically on computers and shown in simulation models. Thus collisions between equipment and workers and/or among equipment will be eliminated.

Moreover, PCMS has reinvented the way that project management is done. Traditionally, project managers have to be on site personally to make sure workers finish their jobs on time and with a certain quality. With PCMS, project managers can now sit in their offices to monitor workers on their computers. Real-time data of projects can be controlled by project managers, who can give orders to workers and correct their errors just when errors are about to happen. This will undoubtedly reduce the cost of management.

In short, CVP has been nothing but a leader of high-tech in the construction industry. It has undeniably changed project management for the better. No wonder the director of the CVP Lab, Prof. Heng LI, is one of the recent recipients of a Technological Improvement Prize from the Chinese Ministry of Education. Congratulations to him for his ground-breaking work.

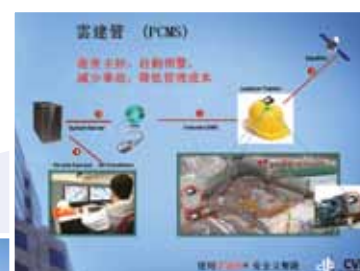
建築虛擬模型實驗室新技術改善工地安全及管理效率

2011 是理大建築虛擬模型實驗室收穫豐盈的一年。實驗室一向是研發高新建造技術的橋頭堡，而最近發展圓熟的「雲建管」技術，更把「建築信息建模」的應用推向新境界。「雲建管」以四維模型作控制平台，配合全球定位系統及無線電網絡等感應技術，可以實時顯示工人和機器的位置，自動提醒工人避開可能發生的致命意外或撞擊，並同時比照四維模型與工地狀況，確保項目按時施工，有效控制成本。圖一為雲建管的概念圖。有興趣的讀者亦可登入 <http://www.youtube.com/watch?v=OMEgn0amzM0&feature=youtu.be>，觀看有關短片。

在香港，每年在建築工地發生約二十宗可致命的意外，最嚴重的是「有人從高處墜下」和「與移動中的器械相撞/被撞擊」。「雲建管」可以追蹤工地上所有工人和重型器械的移動情況，自動記錄在電腦，並於模擬模型中顯示，消除器械撞向工人或機器互撞的可能，避免悲劇發生。

另外，它也為項目管理帶來新思維。從前，項目經理必須親身坐鎮工地，藉此確保工人準時完工和符合施工水平。有了「雲建管」，他們便可在辦公室利用電腦監察工人施工，由於系統能掌握實時數據，項目經理能在錯誤發生前向工人發出指示，及時修正，降低管理成本。

簡而言之，「建築虛擬模型實驗室」猶如建造業的高科技基地，毫無疑問把項目管理推向了新天地。無怪乎實驗室主管李恆教授最近獲國家教育部頒發科技進步獎。恭喜、恭喜！



BSE collaborates with industry in a lighting lab

The Department of Building Services Engineering and a lighting company, LEDARTIST, have opened Hong Kong's first laboratory for the study of lighting on 24 October 2011. Located in Kwun Tong, the lab would support research on sustainable lighting designs. Dr Chung Tse Ming, Associate Professor of BSE, estimates that appropriate lighting designs can reduce Hong Kong's light pollution by up to 50%. Previous research has shown the brightness from the bustling city at night on average exceeds 100 times that from the countryside, with the biggest contrast between areas like Mongkok and Causeway Bay with the eastern part of Saikung as well as the southern part of Lantau. The difference in brightness between these places is nearly 500 times.

Light pollution has become a serious problem in Hong Kong, with the Environmental Protection Department receiving about 40 complaints of it each year. According to Dr Chung, Hong Kong does not have comprehensive regulations for lighting design, leading to an over-abundance of lighting at night, thus causing a waste of lighting resources. He suggests reducing light pollution by changing the lighting angles, increasing the use of shades to block excessive lighting, as well as switching to LED lighting.

Research on high-speed rail gets a boost from ITF Fund

Prof. Yi-qing NI of the Department of Civil and Structural Engineering has been granted nearly HK\$ 1 million from the government's Innovation and Technology Fund (ITF) to conduct a study of semi-active control of high-speed trains using magnetorheological dampers. Administered by the Innovation and Technology Commission, the ITF aims to increase the added value, productivity and competitiveness of our economic activities.

With the rapid development of high-speed railways in mainland China, issues relating to train stability, passenger comfort and safety have been a top concern. Prof. Ni's project aims to develop a novel semi-active magnetorheological damper system for improving train stability by significantly suppressing unwanted vibrations during the high-speed operation. Two categories of MR dampers (annular flow and radial flow) will be designed and their dimensions and structures will be optimized. After prototyping and testing, a comprehensive dynamic model of a high-speed train system that incorporates MR dampers will be developed. Under various conditions, train performances will be simulated by this model, the results of which will be evaluated with laboratory and/or on-site experimental testing data. The proposed technology will resolve the problem of reduction and loss of vibration suppression capability in the conventional damping system of high-speed trains when the speed exceeds 300 km/h. It will provide an excellent assurance in train performance in terms of stability, safety, and comfort. The lifespan of trains will also be increased, which will greatly reduce their cost. Moreover, this technology can be easily extended to a wide variety of engineering structures and assets like tall buildings and offshore platforms etc.

With about 1000 square feet, the lab has several modeling areas to exhibit the impact of various lighting designs on the environment. It will also provide around 100 internships to BSE students each year to reinforce their ideas of lighting designs.

屋宇設備工程學系與業界創立照明實驗室

由屋宇設備工程學系與元創光藝有限公司合作創立、全港首個照明科技實驗室已於去年十月二十四日正式啟用。這項新設施位於觀塘，專注研發可持續的照明設計。該系副教授鍾謝明博士估計，採用合適的照明系統，足以減少本港的光污染達一半之多。早前的研究發現，市區入夜後的光度平均較鄉郊高出逾百倍，當中又以旺角、銅鑼灣等旺區與西貢東和南大嶼山的對比最大，其光度相差接近五百倍。

其實，光污染已成為香港的嚴重問題，環保署每年接獲的投訴約有四十宗。鍾博士指出，由於本地沒有全面立法規管照明設計，導致晚間燈光過剩，白白浪費資源。他認為改變照明角度、遮蓋過強燈光和改用發光二極管，都是減少光污染的好方法。

佔地約一千平方呎的實驗室裡，設有幾個模型區，以展示不同照明設計如何影響環境。另外，它每年會提供約一百個實習名額，讓屋宇設備工程學系學生實踐所學。

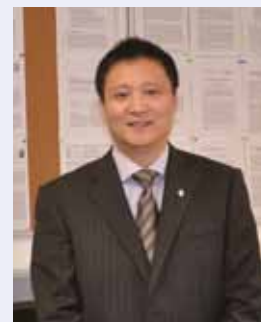
Congratulations to Prof. Ni and his team for such a meritorious project, which is expected to last 18 months from September 2012.

創新及科技基金撥款支持高鐵研究

土木及結構工程學系倪一清教授，最近獲特區政府創新及科技基金撥款約港幣一百萬元，開展利用磁流變阻尼器半主動控制高鐵列車振動的研究。該基金由創新科技署管理，旨在提升本土經濟活動的增值能力、生產力及競爭力。

隨著高速鐵路運輸系統在全球範圍內特別是在中國大陸的快速發展，高鐵的穩定性，旅客乘坐的舒適性和安全性等問題變得越來越重要。本課題將致力於開發一種適用於高速列車的新型可控磁流變阻尼器系統，能顯著降低列車在高速運行時產生的不利振動，從而有效地改善列車的運行穩定性。根據高速列車的型號和具體運行要求，本項目擬提供環狀流和徑向流兩種不同類型的磁流變阻尼器設計方案，優化其結構尺寸。通過建模仿真分析，並加工裝配不同尺寸和類型的阻尼器，實驗測試它們在不同工況下的動態特性。另外，該課題還開發一個綜合的包含磁流變阻尼器的高速列車動力學仿真模型，具體分析不同路況，不同工作環境下，不同控制策略下高速列車系統的動力學響應。仿真分析的結果將與實驗室建立的高鐵測試系統或現場實驗的結果相互驗證評估。該技術將解決現有的阻尼器在車速超過300km/h時減振失效這一關鍵問題，為高鐵的穩定性，安全性以及乘客的舒適性提供良好的保證，並且可以延長列車的使用壽命，從而產生良好的經濟和社會效益。另外該技術同樣適用於其它的需要抗震或減振的領域，如建築物、海洋石油平台等。

這項饒富意義的研究預計於2012年九月開始，為期年半。謹此預祝倪教授和研究團隊工作順利。



Projects funded by the NSFC / RGC Joint Research Scheme

Prof. Jian-lei NIU of the Department of Building Services Engineering and Prof. Xiang-dong LI of the Department of Civil & Structural Engineering have recently been awarded funding by the NSFC / RGC Joint Research Scheme, which is a highly competitive grant. For 2011/2012, 21 projects from 6 local universities were funded. Out of these, 2 came from PolyU and both were from our Faculty.

Prof. NIU is working with Prof. ZHANG Lizhi of the South China University of Technology to investigate heat and mass transfer mechanisms in a novel total heat exchanger that can recover both heat and moisture. Heat recovery is a key technology for reducing the energy used in the treatment of fresh air by making use of waste heat in the exhaust air from buildings. To recover heat, heat exchangers are employed to transfer heat from exhaust air streams to fresh air. Since the effectiveness of a heat exchange mainly depends on its material and structure, the novel total heat exchanger will have a newly developed membrane with very high vapour permeability and a novel channel structure with high convective heat and mass transfer coefficients. Prof. NIU and Prof. ZHANG will conduct numerical and experimental studies of heat and mass transfer mechanisms in the novel heat exchanger. It is expected that applications of the novel total heat exchangers in Guangdong province alone will save about 10.5 billion kWh electricity per year.

Prof. LI is collaborating with Dr ZHANG Gan of the Guangzhou Institute of Geochemistry in the Chinese Academy of Sciences. This is the second time that the two researchers have been awarded funding from the joint research scheme. They are studying the air-surface exchange of persistent organic pollutants and heavy metals in peri-urban agricultural ecosystems of the Pearl River Delta (PRD), which is a region with highly developed industrial operations. Using a combination of innovative field sampling programmes and laboratory modelling experiments, they will investigate the geochemical cycling of persistent organic pollutants in paddy fields for three years. The outcome of their research will contribute to a better understanding of the biogeochemical processes and dynamics of persistent organic and metal pollutants in peri-urban paddy ecosystems of a subtropical region, as well as their potential impact on the global fate of these chemicals. The important issues of regional soil quality and food safety will also be illuminated by their work. We look forward to the day when the results from these worthy projects will benefit our lives.

「國家自然科學基金委員會及香港研究資助局聯合研究計劃」新資助項目

在2011/12年度，「國家自然科學基金委員會及香港研究資助局聯合研究計劃」一共資助了六所香港大學的二十一個項目，而來自理大的兩個項目，都是由建設及環境學院提交，負責人分別為屋宇設備工程學系牛建磊教授，以及土木及結構工程學系李向東教授。

內地-香港聯合研究計劃的競爭一向激烈。今次成功取得撥款的牛建磊教授，聯同華南理工大學的張立志教授研究新一代換熱器的熱傳及質傳模式，同時完全回收廢熱和水氣。熱回收的原理，在於利用建築物廢氣中的廢熱來減少處理鮮風所耗用的能源，是重要的節能技術。進行熱回收，必須使用換熱器把廢氣中的廢熱轉化成處理新鮮空氣的能源。由於換熱器的效能高低主要視乎其用料及結構，研發中的新式全效換熱器會使用容易讓水氣滲透的新研發薄膜，以及對流熱傳及質傳係數極高的新型孔道結構。兩位教授會對新換熱器的熱傳及質傳模式進行數值測試及實驗。使用新換熱器後，預計單是廣東一省，每年將可節省高約105億度(千瓦)電力。

同樣獲得研究計劃資助的李向東教授，與中國科學院廣州地球化學研究所的張干博士合作，研究珠江三角洲城市外圍農業生態系統中持久性有機污染物及重金屬的空氣地表交換機制。這是兩位研究者第二次獲得該聯合研究計劃資助。研究區屬高度發展的工業及城市化地帶。研究團隊會結合新式的實地採樣方法和實驗室建模手段，連續三年監測稻田中持久性有機污染物的地球化學循環狀況。研究結果將有助瞭解持久性有機及金屬污染物在亞熱帶地區稻田生態系統的生物地球化學過程和動態，以及這些過程對有關化學物質在全球的潛在影響。另外，這個項目也會觸及地區土壤質素和食物安全這些重要課題，我們深信研究結果必然有助改善快速經濟發展區的環境質量。

Projects supported by CII-HK/ PolyU Innovation Fund

To support innovative research projects related to the construction process and/ or construction management, the Construction Industry Institute – Hong Kong (CII-HK)/ PolyU Innovation Fund was set up in 2009 with a \$HK 4 million donation from CII-HK and a matching amount from PolyU. For 2010/11, it is supporting, wholly or in part, the following 8 projects:

1. Project Title: Measuring the Impact of Prefabrication in the Construction Industry in Hong Kong

Investigators: Prof. Geoffrey SHEN, BRE
Dr XUE Xiaolong, Harbin Institute of Technology
Prof. Alshawi MUSTAFA, University of Salford

This research aims at measuring the economic, social, and environmental impact of implementation of prefabrication in the construction industry in Hong Kong, and contributing knowledge to support decision-making in the process of implementation of prefabrication. It will:

- Identify potential impact and sub-factors affected by the implementation of prefabrication;
- Map casual relationships among these factors; and
- Develop a measurement framework, including metrics, indicators and a systematic approach to evaluate the impact of prefabrication on the construction industry in Hong Kong.

2. Project Title: Assessment of a Fire Model in Simulating Combustion for Construction Projects with Fire Engineering Approach

Investigators: Prof. Wan-ki CHOW, BSE
Dr FONG Nai-kong, BSE

The objectives of this project are to assess the degree of importance of the combustion process within the set of fire development stages as well as select results already compiled on gasoline and diesel pool fires for justifying predictions by Fire Dynamics Simulator (FDS). It will further validate the model predicted results by full-scale burning tests of wood and polyu (methyl methacrylate) PMMA and investigate how the model can be applied in a fire engineering approach.

3. Project Title: Construction Guidelines for Green Roof Systems in Highly Urbanized Areas in Hong Kong

Investigators: Prof. Onyx WAI, CSE
Prof. C.W. LI, CSE
Dr Eddie LAM, CSE

This project aims to develop a set of green roof planning and design guidelines for Hong Kong from the engineering and environmental aspects, taking into consideration the unique building environment, structural capacity of unoccupied and wasted rooftops, and climatic and meteorological conditions.

香港建造業研究學會與理大成立 創新基金資助創新研究

為了鼓勵學者開展與建築流程及工程管理有關的創新研究，香港建造業研究學會及理大各出資港幣四百萬元，於2009年合作成立創新基金。在2010/11年度，有下述八個項目獲基金提供全額或部分資助：

1. 項目名稱： 預製組件對香港建造業影響評估
研究員： 沈岐平教授 (建築及房地產學系)
薛小龍博士 (哈爾濱工業大學)
Alshawi MUSTAFA 教授 (英國索爾福德大學)

這項研究旨在探討香港建造業使用預製組件對經濟、社會及環境的影響，並提供專業意見，支援施工者在應用預製組件的過程中作出正確決策；其具體目標包括

- 辨識使用預製組件的潛在影響及次因素；
- 分析這些因素的因果關係；以及
- 就預製組件對香港建造業的影響制定評估框架 (包括量度單位、指標及系統化的評估方法)。

2. 項目名稱： 為建築項目防火工程進行的模擬燃燒火災模型評估
研究員： 周允基教授 (屋宇設備工程學系) 方乃剛博士 (屋宇設備工程學系)

這項研究的目標包括評估燃燒過程在各個火災發展階段的重要性，以及篩選現有汽油及柴油火災的資料，以此驗證火災動態模擬軟體 (FDS) 所作預報的準確性。另外，他們會進行木材及聚甲基丙烯酸甲酯 (PMMA) 的全尺寸燃燒測試，藉此進一步確認模型的預測結果，並研究怎樣把這個模型運用於防火工程。

3. 項目名稱： 香港鬧市綠化屋頂建造指引
研究員： 韋永康教授 (土木及結構工程學系)
李志偉教授 (土木及結構工程學系)
林少書博士 (土木及結構工程學系)

這項計劃旨在從工程及環保角度，制訂一套在香港推動綠化屋頂的規劃及設計指引，過程中會充分考慮本地獨特的建築環境、閒置/未獲善用屋頂的結構能力，以及香港的氣候特點。

4. 項目名稱： 透過實時監測及階段分析提升高樓的建築精度及安全水平
研究員： 夏勇博士 (土木及結構工程學系)
倪一清教授 (土木及結構工程學系)

研究的目標是開發一套結合實地監察、數值分析及狀況評估的實時系統，以提升摩天大樓的施工準確度及安全水平。

5. 項目名稱： 通過為全球定位系統 (GPS) 網絡的本地誤差建模來改善 GPS 的建築測量生產力 - 香港衛星定位參考站網案例研究
研究員： 劉志趙博士 (土地測量及地理資訊學系)
丁曉利教授 (土地測量及地理資訊學系)
陳武教授 (土地測量及地理資訊學系)

研究團隊希望透過改善「香港衛星定位參考站網」實時全球定位系統 (GPS) 的測量準確度，提升香港的 GPS 測量生產力。他們會有系統地分析「香港衛星定位參考站網」本地誤差源頭的特徵，研發可以改正這些誤差的新模型，進一步提升參考站網的 GPS 定位準確度。另外，研究人員也會為 GPS 參考站網研發一套有關本地 GPS 誤差的建模方案。

4. Project Title: Improving Construction Precision and Safety of Skyscrapers through Real-time Monitoring and Stage Analysis

Investigators: Dr XIA Yong, CSE
Prof. NI Yi-qing, CSE

This project will develop a real-time framework integrating field monitoring, numerical analysis and condition assessment to improve the construction accuracy and safety of super-tall structures.

5. Project Title: Improving the GPS Surveying Productivity in Construction by Modeling the Localized Errors in the GPS Network - Case Study with Hong Kong's SatRef Network

Investigators: Dr George Zhizhao LIU, LSGI
Prof. XL DING, LSGI
Prof. CHEN Wu, LSGI

This project aims to enhance the GPS surveying productivity in Hong Kong by improving SatRef's real-time GPS surveying accuracy. It will systematically investigate the characteristics of the localized error sources in Hong Kong SatRef network as well as develop new models to correct the localized errors and further improve the SatRef's GPS positioning accuracy. It will also develop an approach to model localized GPS errors for GPS reference networks.

6. Project Title: An Interactive Virtual Environment for Training and Evaluating Construction Safety

Investigators: Prof. Heng LI, BRE
Dr Hong Qin FAN, BRE
Mr CHAN King Chun, BRE
Dr HUANG Ting, BRE

With a matching fund of \$500,000 from Gammon, this project aims to develop an innovative and virtual platform for construction safety training, namely SimSafety.

It will provide a virtual environment to integrate sufficient information needed for construction safety training and accidents prediction as well as visualize construction process by 4D simulation. The feasibility of construction processes would also be evaluated.

7. Project Title: Research on Air Quality Impact Assessment and Mitigation Measures Associated with Building Maintenance Work in Public Areas

Investigators: Prof. S.C. LEE, CSE
Prof. J.L. NIU, BSE
Prof. C.S. POON, CSE

This project will investigate potential air quality problems arising from execution of certain common maintenance works and advise on the possible health effects on tenants and contractors' workers by referring to or comparing with the most suitable health standards. It will recommend possible improvements in the maintenance works process so as to lower the pollutants concentrations and harmful emissions to acceptable levels. It will also develop highly efficient airborne pollutants control

products/machines by combining photocatalysis technique with the dust removal technique via collaboration with LIFA AIR company, which has contributed \$300,000 for the research.

8. Project Title: Development and Verification of an Innovative Optical Fibre Sensing Technique for Measuring the Length and Quality of Soil Nails

Investigator: Prof. YIN Jianhua, CSE

This project will develop, verify and apply an innovative BOTDA optical fiber sensing technology with a new data analysis method and required accessories for assessment of length and quality of soil nails through laboratory testing, field trials and evaluation, as well as comparison with results from TDR testing.

Another round of applications was due 16 March 2012, with HK\$2.9 million available for allocation.

6. 項目名稱: 建築安全培訓及評估互動虛擬平台
研究員: 李恆教授 (建築及房地產學系)
樊宏欽博士 (建築及房地產學系)
陳鏡源先生 (建築及房地產學系)
黃靈博士 (建築及房地產學系)

這項研究同時獲金門建築撥出五十萬元配對基金資助，目的是研發一個名為“SimSafety”的創新建築安全培訓虛擬平台。此平台除了可以綜合整理建築安全培訓和預防意外所需的資料，還能應用四維模擬技術把建築工程視像化，並評估施工程序的可行性。

7. 項目名稱: 公眾地方樓宇保養工程對空氣質素的影響及有關紓緩措施的研究

研究員: 李順誠教授 (土木及結構工程學系)
牛建磊教授 (屋宇設備工程學系)
潘智生教授 (土木及結構工程學系)

這項目旨在研究一些常見保養工程可能引發的空氣質素問題，比照最合用的人體健康標準，找出這對租客及工人構成的潛在影響，並提出改善施工流程的建議，從而降低污染物濃度，把有害物質排放控制在可接受的水平。另外，研究團隊會與捐助三十萬元研究經費的LIFA AIR公司合作，結合光觸媒及除塵技術，開發能有效控制空氣污染物的產品或器械。

8. 項目名稱: 開發及驗證用以量度泥釘長度及質素的創新光纖傳感技術

研究員: 殷建華教授 (土木及結構工程學系)

研究員會通過實驗室測試、實地試驗評估及比照時域反射分析的結果，開發、驗證及試用包含全新數據分析方法及附件的新式*BOTDA光纖傳感技術，以此量度泥釘的長度及質素。

另外，新一輪申請已於三月十六日截止，發放的總撥款最高達港幣二百九十萬元。

*布里淵時域分析技術

HKIS funds books to be written by BRE academics

As part of its book-writing sponsorship initiative for reference textbooks that are more relevant to local practice for the surveying profession and students, the Hong Kong Institute of Surveyors (HKIS) has agreed to donate \$100,000 to fund the publication of 2 books to be written by academics from the Department of Building and Real Estate (BRE). Half of that amount will go to Mr Stephen D. Mau, Lecturer, who will write the second edition of *Hong Kong Legal Principles: Important Topics for Students and Professions*. The other half is for Prof. Albert Chan and his coauthor, Dr Esther Cheung, who will pen a book entitled *Public Private Partnerships in International Construction: Learning from Case Studies*. The publication of these books within the next 2 years is eagerly anticipated.

BRE academic tackles problem of heat stress

Health and safety have long been a concern for the construction industry. Although numerous safety systems appropriate for Hong Kong's unique work environment have been implemented, there were still incidents of heat stress that were fatal for construction workers between 2008 and 2010. For example, when and how long breaks should be in certain circumstances is not clearly outlined by law. There are currently no comprehensive guidelines that specify the duration for construction workers to work in extremely hot conditions.

To ensure the health and safety of site personnel working in hot and humid weather, a set of good practices and indices have been jointly developed by researchers from PolyU's Department of Building and Real Estate, Department of Building Services Engineering and the Hong Kong Institute of Education's Department of Health and Physical Education. Ir Prof. Francis Wong, one of the investigators of the study, presented their findings in a seminar entitled "Heat Stress: A Study of Steel Bar Fixers in Hong Kong" on 23 November 2011 at the headquarters of the Hong Kong Institution of Engineers.

More than 280 sets of synchronized meteorological and physiological data were collected from 4 construction sites during the summer of 2010. The heat tolerance time was computed using a multiple regression model with various parameters. It was found the major factors that determined construction workers' physiological responses were age, drinking habits, and work duration. The heat stress model could also estimate the work and rest patterns for rebar workers with different parameters.

With the increasing awareness of health and safety in the construction industry, the findings from this study have supplemented current government guidelines. Prof. Wong added that in the future, the research would be extended to other trades besides rebar fixing. The results of this study have certainly been of value in reducing the occupational risk for construction workers.

香港測量師學會資助建築及房地產學系學者出版學術參考書籍

為了鼓勵學者編撰以本地測量從業員及學生為對象的學術參考書籍，香港測量師學會捐出十萬港元，資助出版兩本由本院建築及房地產學系學者的新作。將編寫《香港法律原則：學生及專業人士須知的重要課題》第二版的繆嘉榮先生，為該系講師，他會獲當中五萬港元；同時獲得資助的陳炳泉教授，將會與張泳沁博士合著《國際建築工程的公私合營案例研究》。兩書預計可於兩年內面世。

建築及房地產學系學者就工人中暑問題提出建議

如何保障工人的健康和 safety，一直是建造業關注的課題。雖然業界已針對香港獨特工作環境而實施不少的安全措施，但在 2008 至 2010 年間，仍有建築工人中暑斃命的個案。舉例說，法例並沒清楚說明在某些場合應該何時休息和休息多久；至於工人在酷熱天氣下的工作時數，現時亦欠周詳指引。

有見及此，本院轄下的建築及房地產學系與屋宇設備工程學系，聯同香港教育學院健康與體育學系制訂了一套良好守則及指數，希望保障建築工人在悶熱天氣下工作的健康和 safety。去年十一月二十三日，計劃其中一位研究員黃君華教授工程師就應香港工程師學會之邀，在該會總部主講一個題為「香港紮鐵工人中暑情況研究」的研討會，講述有關研究結果。

黃教授表示，研究人員在 2010 年夏季，於四個建築工地收集了逾二百八十組同步氣象及生理數據，然後把不同參數套入多元迴歸模型計算工人的耐熱時間，結果發現影響建築工人生理反應的主要因素為年齡、飲水習慣及工作時間。模型亦可推算不同紮鐵工人的工作及休息模式。

業界越來越重視工人的健康和 safety，上述研究結果實可補現行政府指引的不足，並有助降低建築工人面對的職業風險。黃教授更表示日後可把研究範圍擴展至工地的其他工種。



2nd Industry Forum on Heat Stress Studies

On the morning of 9 March 2012, about 50 prominent practitioners converged on the campus of PolyU for the second Industry Forum on health and safety measures for working in hot weather. Prof. Albert Chan of the Department of Building and Real Estate and his research team shared their experimental findings of nineteen field studies to determine the best recovery time for rebar workers who have worked to exhaustion in a hot and humid environment. Based on 411 sets of meteorological and physiological data collected over nineteen hot and humid days in July and August 2011, they developed a model to compute an optimal recovery time that takes into consideration individual characteristics like age, respiratory exchange rate, smoking and drinking habits etc. It was found that on average, a rebar worker could achieve 58% recovery in 5 minutes, 68% in 10 minutes, 78% in 15 minutes, 84% in 20 minutes, 88% in 25 minutes, 92% in 30 minutes etc. The rate of recovery beyond the upper range of the observed data was estimated by extrapolation. Details of the research findings and their implications have been published in *Building and Environment*, an international journal of building science and its applications.

Congratulations to Prof. Chan and his team of researchers for completing this General Research Fund (GRF) project, which included colleagues Prof. Francis Wong, Dr Michael Yam, Dr Daniel Chan, Dr Edmond Lam from BRE; and Dr Del Wong from the Department of Health and Physical Education at the Hong Kong Institute of Education. They have since embarked on another GRF project to improve the working conditions for construction workers by investigating and designing a particular type of clothing that can mitigate the effects of heat stress.

第二屆《建築工人高溫作業》業界論壇

本年三月九日上午，第二屆“建築工人在高溫環境下的健康安全措施”業界論壇在理大隆重召開。約五十位來自建造業的資深從業員齊聚一堂，共同探討建築工人在高溫環境下的健康安全措施。作為該項目的總負責人，建築及房地產學系的陳炳泉教授對研究成果和項目進展進行了闡述與匯報。自去年七月及八月，由他領導的團隊在地盤進行實地調查，在十九個高溫高濕的工作天，採集了四百一十一組氣象及生理數據。通過數據分析與模擬，該團隊編寫出建築工人在高溫下作業體能恢復的方程式，從而推算出建築工人在高溫高濕環境下工作至極限的最佳休息時間。此程式考慮了建築工人的年齡、呼吸交換率、吸煙飲酒習慣等個人特徵。結果顯示紮鐵工人平均可在五分鐘內體能恢復到最初狀態的58%，十分鐘升至68%，十五、二十、二十五及三十分鐘則分別增至78%、84%、88%及92%。研究的詳細結果已刊登在國際學術期刊《建築與環境》。

上述研究獲香港研究資助局的優配研究金撥款，由陳炳泉教授負責，參與者包括同系的黃君華教授、任志浩博士、陳煒明博士、林偉明博士，以及香港教育學院健康與體育學系的王培林博士等。該團隊的另一項相關研究也獲優配研究金資助，其目標是研發抗高溫高濕的建築施工防護服，降低高溫高濕對建築工人的危害及引起的不適症狀，保障建築工人在夏季作業的安全與健康。



Awards & Achievements

優秀學者 成績斐然

Dean's Awards for Outstanding Achievement in Research Funding 2012

On account of their track records in securing external competitive research funding in the past few years, 3 FCE colleagues have qualified for the Dean's Award for Outstanding Achievement in Research Funding this year. They are Prof. Albert Chan of the Department of Building and Real Estate, Prof. Jian-lei Niu of the Department of Building Services Engineering, and Prof. Chi-sun Poon of the Department of Civil and Structural Engineering. Below are the titles of their projects and their funding sources:

1) Prof. Albert Chan, BRE

- Experimental Research on Health and Safety Measures for Working in Hot Weather
(Allocated \$778,516 on 1 July 2009 from the RGC General Research Fund 2009/10)
- Evaluating the Social, Economical, Cultural and Heritage Impacts of the 'Revitalising Historic Buildings through Partnership Scheme' in Hong Kong
(Allocated \$295,983 on 30 Sept. 2010 from the RGC Public Policy Research 2010/11)

- Anti Heat Stress Clothing for Construction Workers in Hot and Humid Weather
(Allocated \$1,153,686 on 1 July 2011 from the RGC General Research Fund 2011/12)

2012年院長特設卓越表現獎(科研經費)

今年，有三位同事因最近三年成功取得可觀的校外研究撥款，獲院長頒發卓越表現獎(科研經費)，以資鼓勵。他們是建築及房地產學系陳炳泉教授、屋宇設備工程學系牛建磊教授，以及土木及結構工程學系潘智生教授。以下是三人獲資助的研究項目及經費來源：

1) 陳炳泉教授(建築及房地產學系)

- 酷熱天氣下工作的保健及安全措施實驗性研究
(於2009年七月一日獲研資局2009/10年度「優配研究金」撥款\$778,516)
- 評估香港「活化歷史建築夥伴計劃」對社會、經濟、文化及古蹟保育的影響
(於2010年九月三十日獲研資局2010/11年度「公共政策研究資助計劃」撥款\$295,983)
- 可預防建築工人悶熱天氣中暑的工作服飾研究
(於2011年七月一日獲研資局2011/12年度「優配研究金」撥款\$1,153,686)



2) Prof. Jian-lei Niu, BSE

- Experimental and Simulation Study of Spatial Distribution of Human Respiratory Droplets under Typical Indoor Air Distribution Patterns
(Allocated \$473,147 on 1 July 2008 from the RGC General Research Fund 2008/09)
- Development of Method and Database of Space Cooling Load Factors of Stratified Air Distribution Systems
(Allocated \$892,776 on 1 July 2009 from the RGC General Research Fund 2009/10)
- Developing Thermal Energy Storage using PCM/ Water Emulsion: Media Preparation and Optimized Design
(Allocated \$508,452 on 1 July 2011 from the RGC General Research Fund 2011/12)
- Investigation of Heat and Mass Transfer Mechanisms in a Novel Total Heat Exchanger
(Allocated \$780,480 on 18 Nov. 2011 from the NSFC/ RGC Joint Research Scheme)

3) Prof. Chi-sun Poon, CSE

- A Study of Durability of the Adhesive Bonding System within Externally Bonded CFRP Laminates to Concrete using Full-field Nondestructive, Non-contact and Quantitative Infrared Thermography (QIRT)
(Allocated \$431,810 on 1 July 2008 from the RGC General Research Fund 2008/09)
- Recycling of CRT Glass from Discarded Computer Monitors and TV Sets
(Allocated \$441,400 on 19 June 2009 from the Environment and Conservation Fund 2008/09)
- Quantitative Analysis of External Wall Debond using Non-contact and Nondestructive Infrared Thermography
(Allocated \$980,000 on 23 Sept. 2011 from the Innovation and Technology Support Programme)
- Utilizing Recycled Waste Glass in Architectural Mortar with Self-cleaning and Anti-bacterial Function
(Allocated \$782,900 on 9 Nov. 2011 from the Environment and Conservation Fund 2011/12)

The award comes with a cash prize of \$15,000 and a research grant of \$200,000. This is the second time that Prof. Chan and Prof. Niu have received this award since it began in 2008/09. Congratulations to all three professors for their hard work in advancing the frontiers of knowledge.

2) 牛建磊教授 (屋宇設備工程學系)

- 典型室內氣流分佈模式下呼吸飛沫空間分佈的實驗及模擬研究
(於2008年七月一日獲研資局2008/09年度「優配研究金」撥款\$473,147)
- 分層送風空調系統的冷負荷計算方法及負荷系數的數據庫研究
(於2009年七月一日獲研資局2009/10年度「優配研究金」撥款\$892,776)
- 利用相變材料/水混合乳狀液儲存熱能的研究：乳狀液的制備及儲能裝置的優化設計
(於2011年七月一日獲研資局2011/12年度「優配研究金」撥款\$508,452)
- 新式全效換熱器的傳熱及傳質機理研究
(於2011年十一月十八日獲「國家自然科學基金委員會及研究資助局聯合研究計劃」撥款\$780,480)



3) 潘智生教授 (土木及結構工程學系)

- 使用全視野、無創及非接觸式量化紅外線熱影像法(QIRT)檢查外部黏合碳纖維貼片加固混凝土構件的黏合系統耐用性研究
(於2008年七月一日獲研資局2008/09年度「優配研究金」撥款\$431,810)
- 從廢棄電腦顯示屏及電視機回收顯像管玻璃再用的研究
(於2009年六月十九日獲環境及自然保育基金2008/09年度資助計劃撥款\$441,400)
- 使用非接觸式無創紅外線熱影像法進行外牆剝落量化分析
(於2011年九月二十三日獲「創新及科技支援計劃」撥款\$980,000)
- 使用回收廢玻璃製造具自潔及防菌功能的建築用灰漿研究
(於2011年十一月九日獲環境及自然保育基金2011/12年度資助計劃撥款\$782,900)



每位得獎者可獲現金獎一萬五千元及二十萬元科研資助。此計劃於2008/09年度推出以來，陳炳泉教授和牛建磊教授已是二度獲獎。三位教授以孜孜不倦的精神，在科研世界幹出成績，實在可喜可賀。

JM KO Medal to be awarded to best papers of engineering journal starting 2013

A medal honouring the founding Editor-in-Chief of *Advances in Structural Engineering*, Prof. Emeritus Jan-Ming Ko, has been established earlier this year. Since its inaugural issue in 1997, the international journal has provided an important forum for the dissemination of the latest research in the area of structural engineering.

The medal will be awarded to the most outstanding paper in terms of quality and impact out of all those published three years ago, i.e. in 2013, papers published in 2010 will be considered for the medal. This three-year gap between publication and assessment allows evidence of citation data to accumulate, serving as a benchmark in assessing the impact of a paper.

The eponymous medal commemorates the significant contributions made by Prof. J. M. Ko, who started the journal from scratch and guided it during its early years. Since his retirement from PolyU in 2010, he has remained active as an Advisory Editor of the journal.



工程學期刊 2013 年起頒發「高贊明獎」予最佳論文

為了表揚國際學術期刊《結構工程進展》創刊總編輯高贊明榮休教授的貢獻，期刊在去年初設立了以高教授命名的獎項，頒發予曾在過去三年前發表、而質素及影響力同樣稱冠的論文。

《結構工程進展》於1997年創刊，是結構工程界發表最新研究成果的重要渠道。按照上述規定，在2010年出版的論文將角逐2013年的獎項。發表與評審年份相隔三年，是為累積論文獲引述的數據，並以此作為評估文章影響力的基準。

高教授除了是期刊創辦人，早年亦一直親身參與編務；自2010年於理大榮休後，仍然擔任期刊的顧問編輯。

BRE PhD dissertation wins double awards

Ms Hon Ka-hung Carol was honoured at the Best Project Award Prize Presentation Ceremony organized by the Occupational Safety and Health Council on 16 December 2011. Her winning project was about the relationships between the safety climate and safety performance of repair, maintenance, minor alteration and addition (RMAA) works, which she has documented in her PhD thesis. A newly-minted PhD graduate from the Department of Building and Real Estate, Carol is pleased that her research has been considered useful and of significance to the construction industry.

In addition, the Safety Specialist Committee (SSC) of the Hong Kong Institution of Engineers (HKIE) also selected Carol's project as the champion in their 2011 Student Project Competition. She was honoured at the HKIE - SSC annual dinner on 11 January 2012 with the Construction Industry Council Award, which comes with a certificate and a cheque for HK\$2000. Congratulations to Carol for these well deserved awards.

建築及房地產學系博士生論文獲兩重要獎項

在去年十二月十六日的職業安全健康局頒獎禮上，剛完成博士課程的建築及房地產學系畢業生韓嘉紅獲頒「最佳研究項目獎」。其得獎論文探討了維修、保養、小型改動及加建工程的安全績效與企業安全文化的關係。對於自己的研究獲業界重視和嘉許，她自然深感鼓舞。

另外，香港工程師學會屬下的安全工程專責事務委員會，亦選出韓同學的項目為「去年大專學生專題研究比賽」冠軍。委員會於今年一月十一日的香港工程師學會周年晚宴上向其頒發冠軍獎——建造業議會獎，除獎狀外，還有現金獎港幣二千元。韓同學多次獲獎，乃實至名歸，我們在此衷心祝賀。



New academic staff

Dr Daniel Tsang is the latest addition to the Department of Civil and Structural Engineering. Before joining PolyU as an Assistant Professor in March 2012, Dan was a Senior Lecturer in the Department of Civil and Natural Resources Engineering at the University of Canterbury in New Zealand. He received his PhD from the Hong Kong University of Science and Technology in 2006. He was



Dr Daniel Tsang
曾超華博士

a post-doctoral fellow at Imperial College London in 2007-2008 and a visiting scholar at Stanford University in early 2011. His area of teaching and research is environmental engineering, with particular interests in waste management, contaminated site remediation, and industrial pollution control. Dan is a Chartered Environmentalist in the UK, serves on the Management Committee of Specialist Groups of International Water Association, and as a peer reviewer for fifteen journals.

學院新教員

曾超華博士於2012年3月起出任土木及結構工程學系助理教授，成為該系最新的成員。履新前，曾博士為新西蘭坎特伯雷大學土木及天然資源工程學高級講師，2006年取得香港科技大學博士學位，2007至2008年於倫敦帝國理工學院任博士後研究員，並在2011年初到美國史丹福大學擔任訪問學人。他是英國特許環境師，專注教授和研究環境工程學，對廢物管理、污染場址整治，以及工業污染控制等課題尤感興趣，除了擔任國際水協會專家小組管理委員會委員，也是十五份期刊的論文評審員。

Farewell to our colleague

On 8 March 2012, the Faculty Office reluctantly said goodbye to one of our Executive Officers, Kennis Ng, who was in charge of the promotion and administration of our undergraduate programmes. During the three years or so that she worked for us, she was also the Secretary for the Faculty's Teaching and Learning Committee. We remember her as caring, competent, and efficient in performing her duties. She will be sorely missed by us. We wish her the best of luck in her future endeavours.

歡送好同事

本年三月八日，是學院辦公室行政主任吳妙君小姐在理大最後一天上班的日子。這三年裡，她一直負責本科課程的推廣及行政事宜，兼任學院轄下教學委員會秘書。妙君能幹細心、行事利落，我們雖感不捨，但衷心祝願她鵬程萬里、生活愉快。



Student News

學生消息

BRE students prepped for future careers

To familiarize building engineering students with their career prospects, the Department of Building and Real Estate, the Hong Kong Institution of Engineers, and the Building and Real Estate Students' Society jointly organized a forum where Ir Philip KWOK and Ir K.Y. Ma talked about the development of an engineer and the route to corporate membership respectively. About 60 students studying for their BSc (Hons) in Building Engineering and Management and Higher Diploma in Building Technology and Management attended the forum on 9 November 2011. The speakers gave students some pointers on what to expect at the start of their careers. Their talk was very helpful to those who attended in planning for their future.

建築及房地產學系同學作好開展事業準備

為了協助建築工程同學了解事業前景，建築及房地產學系聯同香港工程師學會及該系學生會於去年十一月九日舉辦論壇，邀請 Philip KWOK 及 K.Y. Ma 兩位工程師分別講述該專業的事業階梯，以及如何成為香港工程師學會的法定會員。論壇吸引約六十名修讀建築工程及管理學(榮譽)理學士或建築科技及管理學高級文憑的同學出席。講者提醒同學一些事業剛起步時的要點，對這群快要踏足社會的年輕人非常實用。



Leighton Fellowship Programme grooms 2 BRE students for future employment

In the first ever Leighton Fellowship Programme, two students from the Department of Building and Real Estate, Lam Wing Ching, Jois, and Ma Wai Ki, Kimmy, were each selected for a Fellowship worth HK\$25,000. Exclusively for 2011/12 graduates studying quantity surveying, the Fellowship began with an internship last summer to foster a deeper understanding of the culture and projects at Leighton Contractors (Asia) Ltd. Students were chosen based on their academic results and participation in extra-curricular activities.

During the 3-month summer internship, our students were exposed to various stages of the tender process in the express railway link project. They both gained practical experience from the training offered by the company and thought that it was a good start for their professional careers. The Fellowship Programme commits Jois and Kimmy to a 3-year employment period with Leighton after graduation.

Although not considered employees yet, our students have also been invited to various internal events, such as the inauguration dinner of the Young Professional Club as well as the company's annual dinner. Such activities were conducive to their being 'a part of the family,' serving as substantiation and linkage of their summer's practical training to their future career at Leighton. Way to go, Jois and Kimmy!

禮頓獎學金計劃助建築及房地產學系學生踏上專業青雲路

建築及房地產學系學生林穎楨同學及馬慧琪同學脫穎而出，成為「禮頓獎學金計劃」首兩位得獎者，各獲獎學金港幣二萬五千元。

這項計劃是為2011/12年度的工料測量學畢業生而設，根據同學的學業成績及課外活動表現選出得獎者。他們獲安排在2011年暑假到禮頓建築(亞洲)有限公司實習，從而認識公司的文化和業務。

在三個月的實習期裡，兩位同學接觸到高鐵工程的各個投標程序，公司更提供實用的在職培訓。兩人均認為這是好的開始，對自己的專業發展大有裨益。他們將在畢業後到禮頓工作，為期三年。

雖然仍未正式成為禮頓的一份子，兩人已獲邀參與多項內部活動，如「年輕專業人員會」成立晚宴及公司周年晚會。這不僅有助培養她們對公司的歸屬感，也延續了兩人在暑期實習時所建立的聯繫，讓她們為畢業後正式到禮頓工作作好準備。兩位同學，加油！



Winner of TECO Scholarship 2011/12

Miss Karin Wong Hau Wing, a full-time 2nd year student for the MSc degree in Environmental Management and Engineering has won a \$5000 scholarship from the Taipei Economic and Cultural Office (TECO).

Awarded based on academic merit, the scholarship is a testimony of Karin's achievements in both her studies and extra-curricular activities. She has been a Climateer Ambassador for the World Wild Fund in 2010 and is active with the Conservancy Association as an eco-tour guide on night safaris and as a tree ambassador. She holds a B.Sc. in Environmental Science from the Chinese University of Hong Kong.

台北經濟文化辦事處 2011/12 獎學金得主

修讀環境管理及工程學全日制理學碩士課程的二年級生黃巧詠同學，最近憑優異成績獲台北經濟文化辦事處頒發五千元獎學金。

黃同學是香港中文大學環境科學理學學士，除了學業成績出眾，亦積極參與課外活動，資兼文武，曾任世界自然基金會2010年「氣候正能量大使」，現為長春社夜行生態動物導賞員及樹木大使。

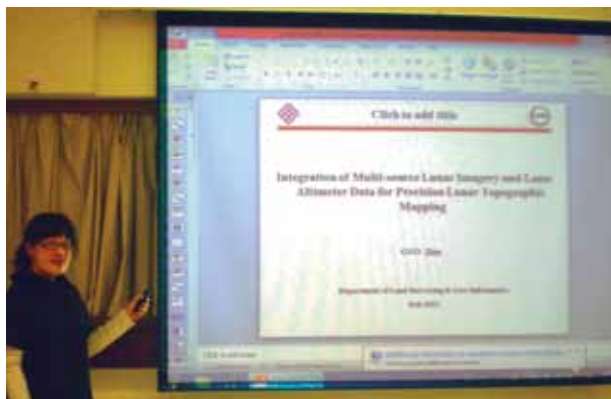
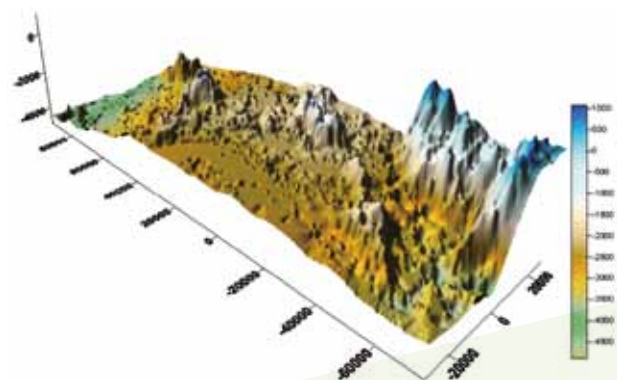


PhD candidate shares results of her research

Since the launch of China's first lunar probe in 2007, the moon has renewed its allure for a new generation, including Jian GUO, a PhD candidate in the Department of Land Surveying and Geo-Informatics, who gave a presentation on the integration of Chang'E-1 imagery and laser altimetry data for precise lunar topographic modeling on 10 February 2012. Lunar orbital imagery and laser altimeter data provide vital information for lunar exploration missions and lunar scientific investigations.

In her presentation, Jian talked about the aims and methodology of integrating Chang'E-1 Imagery and Laser Altimetry data. With a combined adjustment model that takes into consideration the laser altimeter points, image exterior orientation (EO) parameters, and tie points collected from the stereo images, the image EO parameters and laser ground points are refined. Experimental results using the Chang'E-1 data from the Apollo 15 and 16 landing site areas show that the proposed combined adjustment approach can reduce the mis-registrations between the imagery and the laser altimeter data by a maximum of 1- 18 pixels in image space.

Following the presentation, Jian answered a few questions from the audience, which included Prof. CHEN and Prof. KING. On the whole, the seminar was a good way for them to exchange ideas.



博士生研討會上分享探月研究結果

中國於2007年啟動首個探月項目後，再次燃起新一代對月球的興趣，當中包括土地測量及地理資訊學系的博士生郭健。在本年二月十日的一個研討會上，她講解怎樣把嫦娥一號衛星的數位圖像與鐳射測高儀數據結合，用以製作精確的月球地形模型。不論進行探月任務或開展有關月球的科學研究，月球軌道圖像和鐳射測高儀提供的資料都是必不可少的。

郭同學當天首先解釋結合嫦娥一號數位圖像和鐳射測高儀數據的目的和方法。利用參考鐳射測高點、影像外方位參數，以及從立體影像取得的連結點而製成的聯合調整模型，可以提升影像外方位參數及鐳射地面點的精確度。以嫦娥一號從亞波羅15及16登陸區採集的數據進行實驗，結果顯示建議採用的聯合調整策略，可以把圖像與鐳射測高儀數據之間影像的疊合落差最多減少1-18像素。

講解完畢後，郭同學回答了包括陳武教授及Professor Bruce King等在座者的一些提問。總的來說，聽、講雙方都能善用這次機會交流意見。

Gammon introduces 5 BRE students to the workplace

A handful of final-year BRE students were selected for the Gammon Fellowship Programme 2011/12, which is a comprehensive one-year development programme that offers career-enhancement opportunities for undergraduates of tertiary institutions in Hong Kong, Singapore and Mainland China. The participating students were Li Yuen Fung, Oscar; Lee Pui Yi, Cathy; Law Ka Yee, Joane; Tong Yan Pui, Amee; and Lam Sze Man, Vincy, who all cherish the experience, not to mention the scholarship of \$27,000 that they each received and an entry position in Quantity Surveying waiting for them upon graduation.

As Gammon Fellows, students had the chance to work as interns in the summer of 2011. The fellowship began with an orientation and the Zero Harm induction program, which testify to the company's core value of safety. Students were assigned to different construction sites and a mentor to guide them in the daily routine of an on-site Quantity Surveyor, from the preparation of sub-contract documents to attending tender and sub-contractor meetings to measurement exercises. Putting theoretical knowledge into practice gave them a better picture of the profession and the skills that are necessary to excel in it.



After the 8-week internship, students were invited to several company activities, including the coastal cleanup at Lei Yue Mun Beach, the spring dinner 2012 and the Gammon Family Fun Day at the Fung Yuen Butterfly Reserve. They were grateful for the opportunity to broaden their social network at these gatherings, meeting many professionals in the process. The Fellowship Programme has exceeded all their expectations, and is highly recommended for future students, not only as a great learning opportunity, but also as a stepping stone to the world of work.

建築及房地產學系五優秀學生獲選於金門建築實習

李源峰、李佩怡、羅嘉儀、唐茵蓓及林詩敏五位建築及房地產學系的畢業班同學，有幸獲選參加2011/12年度「金門英才計劃」，接受為期一年的全面培訓。此計劃開放予香港、新加坡及中國內地的準學士畢業生申請，旨在幫助他們爭取實戰經驗，為日後在業內發展作好準備。每位得獎者除了獲發獎學金二萬七千元，還可在畢業後加入金門建築，晉身工料測量專業。因此，他們都十分珍惜這個寶貴機會。

幾位同學於2011年暑假到金門建築實習。眾人首先參加迎新及「零傷害」政策講座，了解公司的核心價值——安全，接著便獲分派到不同建築工地，由導師講解駐場工料測量師的日常工作，如準備分判文件、參與投標及分判商會議，以及實地度尺。有了這個實踐理論、學以致用的機會，同學得以更了解測量專業的實況和要求。

完成八星期實習後，同學繼續獲金門邀請參加多項活動，如鯉魚門海濱清潔運動、2012年春節聯歡，以及於鳳園蝴蝶保育區舉行的家庭同樂日。同學很高興透過這些活動認識不少專業人士，擴闊了自己的社交圈子。「金門英才計劃」帶給他們的豐富收穫，直可用「喜出望外」形容——這不僅是寶貴的學習機會，也是初窺專業世界的門徑。因此，他們都建議一眾師弟妹把握良機，千萬不要錯過。

West African PhD student adjusts to life at PolyU

Ernest Effah Ameyaw has come a long way from home. Originally from Ghana, he is the recipient of an International Postgraduate Scholarship and is now working for a PhD in the Department of Building and Real Estate. He enjoys his studies at PolyU, which attracted him for three reasons: the excellent reputation of his supervisor, Prof. Albert Chan; the status of PolyU; and the opportunity to explore this part of the world. His research pertains to public-private partnerships (PPP) and he is exploring a risk allocation model for PPP water supply projects in Ghana. After getting a MSc in Urban Water Systems (with Distinction) from Exeter Univ. in the UK, he chose to continue his studies in the above area because it is an emerging market in his home country. He finds it difficult to communicate with his family and friends back home sometimes, since Hong Kong is 8 hours ahead of Ghana, but he has adjusted to life at PolyU, thanks to the support he has received from the campus community.

International Postgraduate Scholarships for PhD studies are awarded

to academically strong applicants who can contribute to the internationalization of PolyU and add cultural diversity to the university. They normally cover tuition fees for 3 years.

西非博士生融入理大生活

Ernest Effah Ameyaw是理大「國際研究生獎學金」的得主。他來自非洲加納，現時在建築及房地產學系修讀博士學位。Ernest選擇在理大深造，是因為敬慕其論文導師陳炳泉教授和理大的學術成就，也為了有機會探索與家鄉截然不同的東方世界。他對公私合營(PPP)這課題極感興趣，現正就加納的公私合營供水項目研究一個風險分配模式。來港前，他在英國艾克斯特大學修讀都市水務系統理學碩士，並以優等成績畢業，由於感到水務工程在加納大有發展空間，故決定繼續鑽研這門學問。香港與加納有八小時的時差，Ernest要跟家人和朋友聯絡，難免時有不便，但校方的適切支援，使他很快已融入理大的學習和社交生活。

「國際研究生獎學金」是頒發予學業成績優秀、有助理大國際化和發展多元文化的準博士生，得主一般可獲資助三年學費。



CSE exchange student in London

One of our top undergraduate students in the Department of Civil and Structural Engineering, Qian Xin, is currently spending her final year as an exchange student in London's Imperial College, a leading institute of higher learning, particularly in the field of civil engineering. She believes luck and hard work play a part in getting her to where she is now. The chance to study in the U.K. has given her an insight into the education system there, where students are more motivated and independent in their studies and research. By contrast, her peers at PolyU value practice more and gaining experience from industry. She plans to continue her studies at the University of California at Berkeley, where she has been admitted to a MSc programme, but first she has to finish her final year project, which is on electromagnetic shunt dampers.

土木及結構工程學系高材生倫敦交流

土木及結構工程學系其中一位優材生錢馨，現正以交換生身份在倫敦帝國學院修讀最後一年本科課程。帝國學院是國際頂級學府，轄下的土木工程學院尤其著名。能入讀帝大，小妮子認為幸運與努力同樣重要。留學生活使她有機會觀察英國的教育制度，

發現不論是唸書或研究，當地學生都較主動和獨立；理大同學則偏向實習，重視從業界爭取經驗。她已獲加州大學柏克萊分校取錄收讀理學碩士課程，目前的首要目標是完成有關電磁分流阻尼器的畢業專題研究。



LSGI student wins Swire Polytechnic Scholarship 2011/12

Miss NG Wan Yin, a second-year Higher Diploma student in the Department of Land Surveying and Geo-Informatics (LSGI) has won the Swire Polytechnic Scholarship 2011/12 for the second consecutive year. Sponsored by John Swire & Sons (HK) Ltd., the scholarship of HK\$31,575 is awarded annually to a UGC-funded Higher Diploma student who excels in academic performance and other achievements in the first semester of study. Wan Yin has demonstrated outstanding results in her studies and personal growth. Her positive attitude is a driving force behind her success. She tries to do her best work by seeking help from her teachers whenever she comes across any difficulties. Her guiding philosophy is give more, gain more, which reflects the truism that one's efforts are directly proportional to the outcome one gets.

Congratulations Wan Yin! We wish her a bright future after her graduation this year.

土地測量及地理資訊學系學生再獲太古獎學金

在土地測量及地理資訊學系修讀高級文憑二年級課程的吳韻然同學，於2011/12年度連續第二年成為太古獎學金的得主！該獎學金由香港太古集團有限公司捐款設立，每年頒發給一位在教資會資助高級文憑課程首學期表現突出的學生，金額為港幣\$31,575。不論是學業或個人學養，韻然都顯得出類拔萃，其樂觀積極的個性，是推動小妮子奮發向上的動力。她做事全情投入，懂得遇上困難時向老師求助，並深信努力可以幹出一番成績，與「一分耕耘、一分收穫」的傳統智慧不謀而合。

我們再次恭喜韻然，並祝她今年畢業後前途似錦、鵬程萬里。



Rise in postgraduate applications for 2012/13

The Faculty of Construction and Environment has witnessed an increased demand for our taught postgraduate programmes for the 2012/13 academic year. Despite the introduction of a new tuition fee scale for non-local applicants, the total number of applications so far is over 2,000, representing a 30% growth over the same application period of last year.

To attract applicants with excellent academic background to the Postgraduate Scheme in Construction and Environment, Entry Scholarships have been set up since 2009. A maximum of 2 scholarships will be awarded in each MSc programme for each academic year.

All applicants who submit their applications on or before 1 March 2012 were considered automatically for an Entry Scholarship, which covers tuition fees for one academic year. Recipients who undertake full-time study without any employment can also apply for a subsistence allowance. The following applicants have been selected for entry scholarships to study in their chosen MSc programme:

2012/13 年度碩士課程入學申請宗數大幅增長

申請在2012/13學年入讀建設及環境學院授課式碩士課程的人數再創新高。雖然新學年的非本地生學費將有所調整，但本院目前已接獲超過二千宗入學申請，較去年同期增長三成。

為了鼓勵成績優秀的同學在本院深造，我們特於2009年設立「碩士組合課程新生獎學金計劃」，每年向每項理學碩士課程最多兩位同學頒發獎學金。

凡於本年三月一日或之前申請入學的新生，都會自動成為上述計劃的候選者。獎學金得主將獲一年學費資助，修讀全日制課程的全職學生更可申請生活津貼。下表詳列了最新一批獲得「碩士組合課程新生獎學金」的同學及其選修課程：

Awardees 獎學金得主		Programme 課程		
LAU Ki Cheong 劉祈昌		SUEN Wing Yee 孫詠怡		MSc in Building Services Engineering 屋宇設備工程學碩士課程
FUNG Ho Kit 馮浩傑		LU Hua 陸化		MSc in Civil Engineering 土木工程學碩士課程
HO Pak Ting 何百定		MIN Rui 閔銳		MSc in Construction and Real Estate 建築及房地產學理碩士課程
WANG Jia Ping 王佳萍		Zheng Qinmin 鄭沁敏		MSc in Environmental Management and Engineering 環境管理及工程學碩士課程
CHUI Ho Sang 徐浩笙		KWOK Fung Wai Raiko 郭逢偉		MSc in Fire and Safety Engineering 消防及安全工程學碩士課程
YANG Zhiyuan 楊志遠		ZHANG Minjuan 張敏娟		MSc in Project Management 項目管理碩士課程
CHONG Hoi Kwa 莊凱瑋		LAM Suen Man Schuman 林宣文		MSc in Sustainable Urban Development 可持續城市發展學碩士課程
NG Ka Lok 伍家樂				MSc in Facility Management 設施管理碩士課程
HE Wei 何薇				MSc in Geomatics (Geographic Information Systems) 測繪及地理資訊學(地理資訊)碩士課程

BSE student triumphs in Inter-Collegiate Contest as part of winning Debate Team

In the final round matches of the 29th Hong Kong Inter-collegiate Debate Competition on 14 April 2012 at the Hong Kong Cultural Centre, the team representing PolyU beat its opponents from Baptist University to take the Championship again after 14 long years. Members of the winning team include Tang Ho Lap [BSc (Hons) in Biomedical Engineering], Captain and Winner of 'The Best Debater' award; Kwan Man Yee [BA (Hons) in Bilingual Studies]; Lee Chi Yiu [BEng (Hons) in Product Engineering with Marketing]; and Chan Fu Chung [HD in Building Services Engineering], who had three days to prepare their arguments as a team before the showdown.

Co-organized by RTHK and the Hong Kong Federation of Students, the annual competition is conducted in Cantonese and aims to nurture an interest in current affairs in the students of the nine local tertiary institutes. The motion for the final debate was "The Individual Visit Scheme brings more benefits than harms to Hong Kong," with the PolyU team arguing for the negative side. The panel of judges included Mr Martin Liao Cheung-kong, Chairman of the Hong Kong Council for Accreditation of Academic and Vocational Qualifications; Mr Jat Sew-Tong, Chairman of the Independent Police Complaints Council; Mr Roy Tang Yun-kwong, Director of Broadcasting; His Honour Judge S. T. Poon, Acting Chief District Judge; and Mr Paul Shieh, Vice-Chairman of the Hong Kong Bar Association.

After more than an hour of sharp exchanges and rebuttals between the contestants, the PolyU team emerged as the winner with its outstanding debating skills. It is currently affiliated with the General Education Centre, and its advisor is Dr Yu Kam Por. Besides Chan Fu Chung, who plans to continue his studies in BSE, the 19-strong Debate Team includes three other FCE students, namely, Cheung Siu Keung [BSc (Hons) in Environmental & Sustainable Development]; Lo Pik Fei [BSc (Hons) in Property Management]; and Pang Wing Shan [BSc (Hons) in Environmental & Sustainable Development].

屋宇設備工程學系學生與隊友奪大專辯論賽冠軍

在本年四月十四日假香港文化中心舉行的第二十九屆香港大專辯論賽決賽中，理大辯論隊勇挫對手浸會大學，重奪失落十四年的冠軍獎盃。當日出戰的理大辯論隊成員包括修讀生物醫學工程(榮譽)理學士的隊長兼「最佳辯論員」鄧可立、雙語(榮譽)文學士課程學生關敏兒、產品工程兼市場學(榮譽)工學士學生李芝瑤，以及在本院修讀屋宇設備工程學高級文憑的陳富松。四人在決戰前只有三天時間準備論據和應對策略。

一年一度的大專辯論賽是由香港電台與香港專上學生聯合會合辦，以粵語進行，希望鼓勵本地九家專上院校的學生多關心時事。本年度的決賽以「自由行對香港利多於弊」為辯題，理大辯論隊為反方。為賽事擔任評判的嘉賓計有：香港學術及職業資歷評審局主席廖長江先生、獨立監察警方處理投訴委員會主席翟紹唐先生、廣播處長鄧詠光先生、署理首席區域法院法官潘兆童先生，以及香港大律師公會副主席石永泰先生。

雙方經過一個多小時的唇槍舌劍，理大同學最終憑出色的辯才贏得錦標。理大辯論隊現時附屬通識教育中心，由余錦波博士擔任顧問，合共有十九名成員，除了計劃在屋宇設備工程學系繼續進修的陳富松，還有三人來自建設及環境學院，分別為修讀環境與可持續發展學(榮譽)理學士的張少強和彭穎珊，以及修讀物業管理學(榮譽)理學士的羅碧菲。



2011 Outstanding Student of FCE

At the Outstanding Student Awards Presentation Ceremony on 8 March 2012, the Faculty of Construction and Environment was represented by Mr LI Pui Hang, a final year student from the Department of Land Surveying and Geo-Informatics (LSGI) studying for a double degree in Geomatics (Geo-Information Technology) and Computing. The recipient of numerous scholarships, including the Li Po Chun Charitable Trust Fund Scholarship 2010/11, the HKSAR Government Scholarship 2009/10 – 2010/11 and the Hong Kong Institute of Surveyors Scholarship 2008/09, Mr LI is also skilled in martial arts, winning a string of awards in the Hong Kong Open Wushu Championships in the last few years. He is honoured that his various achievements have not gone unnoticed, and would like to take this opportunity to thank all his professors and tutors at LSGI, especially his supervisor, Dr Eric Guilbert, without whose guidance and support he would not have learnt so much.

Congratulations to Mr Li for being the 2011 Outstanding Student of FCE. He plans to continue his MPhil studies in Spatial Data Services in the Department of Computing at PolyU. His advice for other students who would like to do well in their studies is to overcome any fears they may have about their courses. With patience and hard work, they will eventually understand what was previously unknown to them.

The Outstanding Student Awards recognize full-time undergraduates who have excelled not only academically, but also in extracurricular activities. They are selected at two levels: first from each department, then from each faculty, one of whom will ultimately be PolyU's Outstanding Student of the Year. The other candidates for FCE outstanding student were Lee Mun Wai Wendy of the Department of Building and Real Estate, Xing Zhipeng of the Department of Building Services Engineering, and Lee Yi Yan of the Department of Civil and Structural Engineering.

建設及環境學院 2011 年度卓越學生

理大於本年三月八日舉行 2011 年度「卓越學生獎」頒獎典禮，代表建設及環境學院的是修讀測繪及地理資訊學(地理資訊科技)及電子計算學雙學位最後一年課程的李沛恆同學。這位高材生資兼文武，既是 2010/11 年度李寶椿慈善信託基金獎學金、2009/10 年度及 2010/11 年度香港特別行政區政府獎學金，以及 2008/09 年度香港測量師學會獎學金的得主，也是一位「武林高手」，最近幾年多次在全港公開武術錦標賽奪獎。沛恆為自己的成績獲嘉許感到高興，並希望借此感謝學系全體教授和導師——特別是論文導師 Dr Eric Guilbert。他認為沒有師長的悉心指導和支持，自己斷不可能學到大量寶貴的知識。

身為本院 2011 年度最卓越學生，沛恆計劃繼續深造，於理大電子計算學系修讀空間數據服務哲學碩士課程。他寄語一眾希望學業有成的師弟妹切勿畏難，只要用功學習，持之以恆，最難懂的課題最終都可融會貫通。

理大頒發「卓越學生獎」，是為了鼓勵全日制本科生兼顧學業和課外活動，兩者均衡發展。評選工作分為兩個階段：每個學系會提名一位優異生競逐所屬學院的「卓越學生獎」，而大學就會從各學院的代表中，選出理大的「最卓越學生獎」得主。其他角逐建設及環境學院「最卓越學生」榮譽的候選同學，分別是建築及房地產學系的李敏慧、屋宇設備工程學系的邢志鵬，以及土木及結構工程學系的李懿恩。



Mr C.Y. Leung, alumnus of FCE, elected Chief Executive of HK

The Faculty of Construction and Environment (FCE) of PolyU takes great pride in the election of one of our outstanding alumni, Mr Leung Chun Ying, as the next Chief Executive of Hong Kong. Mr Leung studied surveying at FCE's predecessor in the early 70s, graduating with a higher diploma in surveying in 1974 before furthering his education in the U.K. at Bristol Polytechnic, now the University of the West of England. Upon his return to Hong Kong, he began a career in real estate consultancy at Jones Lang Wootton, rising through its ranks to become the youngest partner in the history of the British company in 1982. With his drive and determination, he launched his own surveying practice in 1993. He was the Asia Pacific Chairman of DTZ and Convener of the Executive Council



of Hong Kong before he devoted all his energies to his election campaign towards the end of 2011.

We would like to take this opportunity to offer our warmest congratulations to Mr Leung, whose stunning success in the political arena has been an inspiration for us all.

理大校友梁振英先生獲選 香港特別行政區行政長官

梁振英先生獲選下一任香港特別行政區行政長官，香港理工大學亦與有榮焉！梁先生於1997年獲理大頒發傑出校友榮譽，其政途就是一個不平凡的奮鬥故事。他出身基層，卻努力不懈，七十年代初已在理大的前身——香港理工學院修讀測量學高級文憑課程，畢業後遠赴英國布里斯托理工學院（現正名為西英格蘭大學）深造。回後港，他加入仲量行工作，在1982年晉升為這家英國房地產顧問歷來最年輕的合夥人，其後更憑著衝勁和毅力，於1993年創辦自己的公司。在2011年底開始全力競選行政長官前，梁先生為戴德梁行亞太區主席及特區政府行政會議成員。

謹此祝賀梁先生當選！他在政壇的卓越成就實在令我們鼓舞不已。

Never too old for an honorary degree

The oldest recipient of an honorary degree at the 17th Congregation of PolyU on 29 October 2011 was Mr NG Wing Hong, who was given a Doctor of Engineering degree at the ripe old age of 95. An old-timer in the construction industry, he has spent more than half a century plying his trade since graduating in 1939 with a Diploma in Building (with Distinction) from the Government Trade School, the earliest forerunner of PolyU. His long and fruitful career included stints as Vice Chairman of Po Leung Kuk, President of the Hong Kong Building Contractors Association, Director of the Building Contractors Association School, Managing Director of Tai Hing (Engineers and Builders) Ltd., Chairman of Kwong Yuet Tong (Lu Pan Temple) as well as Director of Strong Fine Holdings Company Ltd. He undertook at an early age the pivotal role played by education in bettering one's lot in life and has shown his gratitude to his alma mater by actively supporting many



of its initiatives, including the "Walk of Friends," the 70th Anniversary Brick Sponsorship Programme, and the Monthly Donation Programme.

As a result of his accomplishments and philanthropy, Mr NG was conferred a University Fellowship in 2005 and received the Outstanding PolyU Alumni Award in 2009. A tree and a building on campus have also been named after him. He is truly an inspiration to everyone.

百歲「大師兄」成最年長榮譽博士

在去年十月二十九日舉行的理大第十七屆畢業典禮，校友伍永康先生獲授榮譽工程學博士榮銜，成為大學歷來最年長的榮譽學位得主。已屆九十五高齡的伍博士，堪稱本地建築業「老行尊」，縱橫業界逾半世紀。他就讀於理大最早的前身——香港官立高級工業學院，1939年以優異成績取得建築學文憑，是學院首屆畢業生。伍博士發展事業之餘，不忘回饋社會，先後出任保良局副主席、香港建造商會會長、建造商會學校校董、太興營造有限公司董事總經理、香港廣悅堂（魯班廟）主席，以及安發集團有限公司董事。他早年已深明「知識改變命運」的至理，對母校的栽培十分感激，故一向積極參與理大活動，如「與你同行捐助計劃」、「七十周年紅磚贊助計劃」，以及「每月定額捐款計劃」。

伍博士憑卓越成就和對社會的貢獻，在2005年獲理大頒授大學院士榮銜，並於2009年獲選為傑出理大校友。為向這位「大師兄」表示敬重和謝意，大學把校園內一株大樹和一幢教學大樓以他命名。無論做人或處事，伍博士都是後進的好榜樣。

University Fellowship bestowed on Ir Mak

The latest batch of distinguished individuals to receive the title of University Fellowship includes an ex-Permanent Secretary for Development (Works), Ir Mak Chai Kwong. On 5 January 2012, he attended a conferment ceremony that was presided by the Honourable Ms Marjorie Yang, Chairman of the University Council, at the Jockey Club Auditorium on the PolyU campus. A long-serving civil servant of the Hong Kong government, Ir Mak recently retired after more than three decades of service. Dedicated to the university community, he has served as Chairman of the Advisory Committee for the Department of Civil and Structural Engineering at PolyU.

For his speech at the ceremony, please go to:

<http://www.polyu.edu.hk/cpa/FellowShip/2011/e-mck-speech.html>

麥齊光工程師獲頒理大院士榮銜

本年一月五日，理大於校園內的賽馬會綜藝館舉行大學院士頒授儀式。從校董會主席楊敏德議員手中接過這項榮譽的幾位傑出人士中，包括特區政府發展局前常任秘書長(工務)麥齊光工程師。剛榮休的麥工程師是資深公務員，服務市民逾三十年，對大學教育尤其關注，並曾任本院土木及結構工程學系顧問委員會主席。



詳閱麥先生在頒授典禮上的講辭全文，請連結以下網址：

<http://www.polyu.edu.hk/cpa/FellowShip/2011/e-mck-speech.html>

FCE Alumni teaching overseas

PhD graduates from the Faculty of Construction and Environment have been widely sought after by various academic and industrial organizations. Apart from securing teaching posts in leading universities in China, a significant number of our PhD graduates have been offered teaching posts outside China. Below are the profiles of several recent PhD graduates of the Faculty who are now teaching at universities outside China.

Dr Chen Zhen

Building on his expertise in construction engineering and management, Dr Chen is now a Lecturer in Facilities Management at the School of the Built Environment at Heriot-Watt University, dubbed by the *Sunday Times* as the Scottish University of the Year 2011-12. He is on the editorial board of several international journals. He is also a management committee member of the European Cooperation in Science and Technology (COST) Action on Megaprojects. A visiting scholar to ETH Zurich in 2011, Dr Chen's PhD study on environmental management in construction was supervised by Prof. Heng Li and Prof. Conrad T. C. Wong.

Dr Paul Bo Xia

Supervised by Prof. Albert Chan, Paul received his PhD in 2010 and has started his career as a Lecturer at the School of Civil Engineering and Built Environment of the Queensland University of Technology (QUT). His research interests are project-delivery systems (design-build in particular), construction management, and sustainable buildings. Supported by the Education Trust of the Royal Institution of Chartered Surveyors (RICS), he is currently investigating case studies of green retirement villages in Australia.

建設及環境學院校友執教海外大學

建設及環境學院的博士畢業生一向深得學界和業界器重，除了在內地的頂級大學任教，不少校友均獲海外學府羅致。以下幾位都是近年在本院取得博士學位後受聘於海外大學的菁英：

陳震博士

擅長建築工程及管理的陳博士，現於獲英國《星期日泰晤士報》選為「2011-12年度蘇格蘭最佳大學」的赫瑞瓦特大學擔任建築環境學院設施管理學講師。他除了出任多本國際學術期刊的編輯委員，也是歐洲科技合作組織大型項目管理委員會的成員，曾於2011年到瑞士蘇黎世聯邦理工學院擔任訪問學人。陳博士在理大修讀博士時的導師為李恆教授及黃天祥教授，研究專題是建築工程的环境管理。



夏波博士



夏波博士是陳炳泉教授的高足，於2010年取得博士學位，現時為澳洲昆士蘭科技大學土木工程及建築環境學系講師。其研究興趣包括項目交付系統(尤其是設計與興建)、建築管理及環保建築。他獲英國皇家特許測量師學會教育信託基金資助，現時正就澳洲的可持續退休社區進行個案研究。

Dr Rebecca Yang

Since receiving her PhD from the Department of Building and Real Estate in 2010, Dr Yang has worked as a Lecturer in Construction Management at the School of Architecture and Building in Deakin University, where she teaches Project Management and Stakeholder Management. Her PhD on the same subjects was supervised by Prof. Geoffrey Shen. Her main research explores the social ecology system by applying scientific methods to the study of a wide array of recurring social, behavioral, and environmental problems. Currently, she is investigating community engagement and leadership on two government-funded projects.

Dr Yu Tao

After getting his PhD from the Department of Civil and Structural Engineering in 2007, Dr Yu stayed on to work as a Research Associate, Postdoctoral Fellow, and Research Fellow under the supervision of Prof. Jin-Guang Teng until February 2012. He then left for the University of Wollongong in Australia, where he now teaches Engineering Computing. He is grateful to his supervisors, particularly Dr Yuk-Lung Wong and Prof. Jin-Guang Teng, for the opportunities he has been given at PolyU, which has allowed him to pursue his research interests in emerging structural materials and systems.

We wish all our graduates the best in their respective careers and look forward to their accomplishments in the future.

楊靜博士

楊博士於2010年在建築及房地產學系完成學業後，旋即獲聘於澳洲迪肯大學建築學院擔任建築管理學講師，講授「項目管理」及「利益相關者管理」。她是沈岐平教授的高足，修讀博士學位時也是以上述兩個範疇為研究專題。其研究旨在探討社會生態系統，應用科學方法來探索社會、行為及環境的相關聯性問題。現時，她負責研究關於社區參與城市改造及領導質素的兩項政府資助項目。



余濤博士



余濤是土木及結構工程學系2007年的博士畢業生，取得學位後一直留在理大工作，在滕錦光教授指導下先後擔任副研究員、博士後研究員及研究員。2012年2月，他展開事業的新一頁，獲聘於澳洲臥龍崗大學教授工程與信息技術。Yu Tao博士非常感激眾位導師，尤其是黃玉龍教授和滕錦光教授的扶持，讓他有機會鑽研自己深感興趣的新興結構物料和系統。

本刊同仁謹此祝願全體校友事業順利，在各自的崗位幹出一番成績！

Where's PolyU's Best Athlete now?

Lam Mei, a 2011 graduate of the BSc (Hons) in Environmental and Occupational Safety & Health, had the honour of representing PolyU as the best athlete in 2010-2011. Having played volleyball for more than a decade, she has honed her skills in the sport ever since she began secondary school. The encouragement of her P.E. teacher intensified her interest in the game. Her mastery of it has made her Hong Kong's representative at the AVC Eastern Zonal Volleyball Championship, the East Asian Games, and the 2011 World University Games. She could easily have turned into a professional volleyball player, but she is making good use of her education as an Assistant Safety Officer at China Geo-Engineering Corporation, where she started working full-time in September 2011. She misses playing volleyball, and plays it with her friends whenever she can. If anything, the sport has made her appreciate the art of teamwork more.

理大最佳運動員近況

在2011年修畢環境及職業安全與健康(榮譽)理學士課程的林媚，是出色的排球健將，曾於2010/11年度勇奪最佳運動員美譽。她早於初中時代已與排球結緣，至今超過十載。體育老師的循循善誘，使小妮子愛上這項運動，先後代表港隊出戰亞洲排球聯合會東亞排球錦標賽、東亞運動會，以及2011年世界大學生運動會。

林媚球技精湛，不難成為職業排球員，但她選擇學以致用，於2011年九月加入中國地質工程集團公司，擔任全職的助理安全主任。不過，她對排球的熱情不減，總是盡可能抽空與朋友練習，要說排球帶給她的最大得著，就是使她深深體會團隊精神的可貴。



Events 活動剪影

17th Congregation of FCE

On 17-18 November 2011, the 17th Congregation and Prize Presentation Ceremony of the Faculty of Construction and Environment was held in the Jockey Club Auditorium of the PolyU campus. It was eagerly anticipated by both graduates and their families, who packed the auditorium along with the invited guests. There were six sessions in all, one for each of our four departments, and two sessions for graduates from our postgraduate programmes. A total of 1388 students were honoured at the ceremony, which had its share of memorable moments. Besides inspirational speeches from the guests of honour, who included Prof. Liu Sing Cheong, Prof. Tsang Chiu Kwan, Ir Prof. Reuben Chu, and Mr Wong Chung Hang, outstanding students from our departments also delivered heartfelt valedictory speeches.

Prof. Jin-Guang Teng, Dean of the Faculty, urged the graduates to move on to the next phase in their lives. He cited the ample opportunities before them, including the West Kowloon Cultural District Project, the Hong Kong – Zhuhai – Macao Bridge, and the Guangzhou – Shenzhen – Hong Kong Express Rail Link. With their skills and knowledge, graduates were told they all have a role to play in ensuring that the problems posed by urbanization, by pollution, by global warming, and by technological changes do not threaten our future.

All who attended found the occasion memorable and edifying. Following are the full texts of speeches:

建設及環境學院第十七屆畢業典禮

去年十一月十七至十八日，建設及環境學院於理大賽馬會綜藝館舉行第十七屆畢業暨頒獎典禮，畢業生、家長和應邀出席的來賓聚首一堂，熱鬧非常。典禮分六節，學院轄下四個學系各佔一節，餘下兩節則專為研究院的畢業同學而設，獲頒授學位的畢業生達一千三百八十八人。主禮嘉賓廖勝昌教授、曾昭群教授、朱沛坤教授工程師及黃仲衡先生分別在四個學系的畢業禮上致辭，鼓勵畢業同學把握機遇，精益求精；多位優異生亦上台致畢業謝辭，表達對母校和老師的謝意。

本院院長滕錦光教授致辭時鼓勵畢業同學勇敢迎接人生的一頁。他特別提到西九文化區發展計劃、港珠澳大橋及廣深港高速鐵路等項目，指出這些工程能為本院畢業生提供一展所長的機會，讓他們以專業技術和知識，回饋社會，協助解決城市化、污染、全球暖化、科技轉變等引起的問題，共建美好將來。

出席者深感這是一個難忘和別具意義的盛會。以下是各主禮嘉賓的講辭全文：



Prof. Liu Sing Cheong's address to BRE graduates

Faculty Dean Prof. Teng, distinguished guests, colleagues, graduates, ladies and gentlemen:

Good afternoon.

It gives me great pleasure to take part in your congregation ceremony today. More than three decades ago, I graduated from the predecessor of this University, the Hong Kong Polytechnic. Today, I have come back to give you a talk in my alma mater. Not only am I greatly honored, I also feel like coming home.

Your Faculty Dean, Prof. Teng, has asked me to share with you my professional development, and offer some advice and encouragement to the new graduates. I find this task both meaningful and challenging. Life experience is a rather personal matter. I find it hard, if ever possible, to summarize it into a few overriding principles. Of course, a successful professional career requires some common personal traits, such as hardworking, intelligence, stamina, and so on. But many situational factors, such as luck, friends, changes in society and business environment, can also cast a significant bearing on one's career path. Therefore, I find it somewhat imprudent, if not irresponsible, inviting you to follow my footsteps. This is not my purpose today. All I wish to do here is to share with you some of my humble personal stories, all of which happened as a matter of chance.

The first story happened some 20 years ago when I was invited by my alma mater to give a talk about the Hong Kong property market to a delegation of real estate administrators from Guangzhou. That marked the beginning of my real estate consulting business in the mainland. Had I not been involved in the talk, I would not have befriended this group of mainland professionals and started my mainland business. Without this opportunity, I don't know whether I would still have a chance to meet these mainland friends later in my life again. My business and professional development might have taken an entirely different route.

I also want to mention another incident. As you all know, the real estate market, especially in the mainland, is greatly affected by government policy. The duration and strength of policy adjustment imposed directly impacts the well-being of relevant companies. In some cases, it may even be a matter of life and death. If Mr Deng Xiaoping's southern tour was held in 1995 instead of 1992, I might have already given up my mainland business by 1995 as a result of prolonged losses.

My involvement in giving a talk to the Guangzhou delegates was not planned by me. The timing of Mr Deng Xiaoping's southern tour was part of the national strategy, which was also beyond my control. Yet, these two incidents had a far-reaching impact on my personal career development. Consider two equally competent persons. If they are brought up in two different families, they would likely follow different paths and have different achievements. No matter how we diligently plan everything ahead, only time can tell the results we will finally get. The Chinese saying is "謀事在人，成事在天".

As an alumnus of this University, I encourage you all to put the best effort in your chosen endeavors. However, we should also be prepared in case success may not come as quickly as we want. Rewards may not always be commensurate with investment, especially when the going is tough. In this age of uncertainties, we all need to be able to sustain ourselves in adversity. That makes the choice of your career path extremely important. If you can engage in a career of your own interest and are passionate and enthusiastic in what you do, you are going to have stronger resilience and perseverance to enhance the chance of success. You will find satisfaction and remain positive from overcoming challenges in life. All successful personalities are motivated first and foremost by their enjoyment in what they do. The monetary rewards just happen to follow. Look at Liu Xiang when he jumps over the hurdles and Nadal when he plays tennis. Money cannot fully explain their commitment and top performance in these games. When a certain level of affluence is reached, passion and satisfaction become the key motivations to really excel in one's work. The late Steve Jobs of Apple Computer was a typical example.

Dear graduates, you will today receive your graduation parchments and turn a new chapter in your life. I hope every one of you will participate actively in your lifelong marathon. Do not worry too much about temporary setbacks and short-term losses. Live in the present. Open your eyes to the future. Leave no regrets. In Chinese, "活在當下，放眼未來，無悔今生"！

Finally, I wish you all a brilliant and promising future!



廖勝昌教授講詞【建築及房地產學系畢業禮】

尊敬的滕院長、各位教授、嘉賓、同學們：

你們好！很高興受邀參加今天的畢業典禮，30多年前，我畢業於理工大學的前身理工學院。今次故地重遊，有種回家的感覺，榮幸之餘，亦感親切非常。

滕院長希望我同大家分享以往專業生涯的經歷，與各位同學共勉。這是一個極有意思，亦頗具挑戰性的課題。人生的遭遇極其微妙，很難簡單概括。事業的發展當然有其必然因素，例如個人的努力、智慧、忍耐力等等，但間接因素如機緣巧合、朋友的適時幫助、社會大環境的變遷等對個人事業發展的影響可能更深遠。所以單憑他人遭遇來總結經驗是不科學，甚至是危險的。我想以個人的親身經歷略談一下事業發展的不確定性。

20年前我回國內做房地產顧問生意的起因是當時受邀回母校，為一群來自廣州的地產行政人員講解香港房地產市場，從而認識第一批國內朋友，就是這批朋友促成我回國內發展。如果當時未有回母校演講，可能無緣認識這些朋友，我以後還會不會有其他機會到國內發展是個未知數，我個人的專業發展也可能大不一樣。

另一個例子是，眾所周知，國內房地產市場受政府政策影響極大，政策調整期的長短和力度直接影響有關公司的盛衰。如果鄧小平先生的南巡是發生在95年而非92年，我可能會因虧損太久而意興闌珊，在95年之前結束在內地的生意。

第一個例子中我受邀是偶然的，亦不知道受訓者是誰，整個事情的發展均非我控制之內。而鄧小平先生的南巡是國家宏觀政策，與我個人的努力完全無關，但這件事情發生的時與地對我個人事業發展卻有極其深遠的影響。再者，大家可能都同意，兩位能力相當的人，如果生活在不同的家庭，就算生於同一個年代，他的人生軌跡都不會一樣，成就也不可能一樣。這就是人們常說的“謀事在人，成事在天”。

Prof. Tsang Chiu Kwan's address to BSE graduates

Dear Graduates

I am so happy to see all of you here with high expectations of your future, getting a job in one of the fields that building services engineering will offer, or further your studies with aspirations to offer your skills to the community. Today, I like to focus on the contributions to society made by building services engineers.

Do not think that I, personally being an engineer by profession, trained many years ago, am now speaking to you on the virtues of engineers. In my many many years in engineering, a large part of my career is actually managing a company and meeting with business people across many domains but I am still proud to be an engineer who has been trained with logical thinking and analytical skills. Maybe not many of you have heard what the founding President of Singapore, Mr Lee Kuan Yew said to reporters during one interview. He was asked what he thought the greatest invention in the 20th Century was and he, without thinking for a second, said air-conditioning, not computers or anything else. Without air-conditioning, he said, people in the tropics might still be lying near a coconut tree or on a banana farm, dozing off and just waiting for the fruits to ripen and eat and pass the day. Economic advancement in the last several hundred years mainly took place in temperate climates. Only with the invention and application of air-conditioning did tropical and sub-tropical places gain economic prominence.

Building Services Engineering is an evolution of the application of various engineering techniques to the many necessary details required of a building, such as lifts and escalators, lighting, heating, ventilation and cooling etc. Your predecessors, before formal education was available for building services engineers in HK or elsewhere, are conversions from electrical and mechanical disciplines. I studied electrical engineering at HKU many years ago, joined the profession of electrical engineering and gradually expanded myself across the various disciplines of building services engineering. I was amazed at the vast black hole of knowledge that I have not mastered. What I can say about building services engineers' contributions to society

作為大家的學長，我勸大家凡事盡力而為，堅持到底，但亦要有充分的心理準備。如果沒有適當的客觀條件配合和支持，起碼從短中期看，一分耕耘未必即時有一分收穫。當然耕耘越多，將來收穫的機會就越大。由於不確定因素的存在，我們可能長時間處於逆境之中，所以選擇從事自己有興趣的事業至關重要，你對你的工作越感興趣，越有熱忱，越能把工作當作享受，那麼你的抗逆能力和毅力也會越大，因此成功機會也越高。無論順境或逆勢，希望大家都能以積極的心態從各種挑戰中尋找滿足感。相信在事業上有所成就的人士都是全情投入和熱愛他們的事業，即使沒有豐厚的回報，劉翔也會繼續跨欄，拿度也會繼續打網球。因為當財富積累到某種程度時，工作的動力便來源於興趣及能力，蘋果的喬布斯就是個很好的例子。

今天大家拿到畢業證書，從此揭開人生新的一頁，希望大家積極參與人生這場長跑，不要太計較暫時的名次和得失，儘量做到活在當下，放眼未來，無悔今生！

最後，祝願大家展翅高飛，鵬程萬裏！

in the last 3 decades are the improved expectations of the requirements of home and office comfort. But in a city like Hong Kong, buildings actually use up to 90% of energy of the entire city. This is a similar situation for other major cities around the world. Building services engineers have helped to enhance the comfort, convenience and productivity of many people through their various disciplines. This, I believe, you have been told many times by your Professors and Lecturers why you have so correctly chosen building services engineering and you should be proud of yourselves.

But if we take a step back and look into the future, are we still satisfied with what we are contributing to society in the way that your big brothers have been doing in the last 20-30 years? Obviously, the answer is no. Because there are so many cities springing up everywhere, especially in up and coming countries like China, India, Brazil etc. Energy usage is actually posing a threat to the depletion of energy sources, even though some innovations of solar and wind energy are now catching on quickly. What we building services engineers have to contribute better to society is to integrate innovative ways of energy conservation and reduction. Obviously PolyU has played a very significant role in preparing you for the road ahead. But remember, the difficulty ahead of you is not how you should apply your engineering skills, the real difficulty, in my opinion, is to convince so many existing owners of building premises to change their habits or to invest more to save. Trust me, this is an easier-said-than-done proposition. You will always be asked by existing owners, why change? What is in there for me? If you just tell them that this will be good for the next generation, how do you counter the argument about how the next generation would be good to me now? I urge you to think deeply into this, which maybe a little beyond engineering and I have become a little philosophical here, but I personally have encountered such challenges many times when trying to persuade potential clients to pay upfront in order to save in the future.

It has already been proven that energy-saving in buildings can be achieved to a very large degree. Don't you think you should be pushing hard for new buildings, and also to enact energy-saving

measures in existing buildings? I have been telling you that building services engineering had made great contributions to society in the past. But in the future I believe our contributions could even be greater. Green is the glowing word and you can definitely play a significant role in the greening of buildings. When you look back in 20 or 30 years time, what you start now can become a milestone in your mission to change your world.

Thank you very much.



曾昭群教授講詞(屋宇設備工程學系畢業禮)

各位畢業同學：

非常高興參與今天的畢業典禮，分享大家對未來的憧憬。部分同學希望晉身屋宇設備工程行業，大展拳腳；亦有些決定繼續深造，以一己之長服務社會為目標。因此，我今天會集中談談屋宇設備工程師對社會的貢獻。

我是多年前受訓的專業工程師，但今天不打算談論工程師應具備的條件。在工程界服務多年，我大部分時間其實從事行政管理，需要應對不同領域的商界人士。不過，我卻依然以身為工程師自豪！這是因為我從工程師的訓練學得邏輯思維和分析技巧。大家也許不知道以下一則軼事：新加坡開國總理李光耀對記者言道，一次受訪時曾被問到甚麼是二十世紀最偉大的發明。他立即回答是空調，而非電腦或其他先進科技產品。李光耀解釋，沒有空調，熱帶地區的人大概還在椰子樹

下或香蕉園裡打瞌睡，懶洋洋地等待水果自然成熟，吃之度日。近幾百年來，出現可觀經濟增長的大多是溫帶地區；直至發明和廣泛應用空調後，熱帶和亞熱帶地區的經濟才蓬勃起來。

屋宇設備工程源於應用不同工程技術來解決建築物各式各樣的實際需要，如升降機和電梯、照明、保暖、通風、降溫等等。在香港和其他地方正式開辦屋宇設備工程課程前，你們的前輩都是出身於電機或機械學系。以本人為例，當年也是在香港大學修讀電機工程，最初以此為專業，其後才逐步接觸屋宇設備工程的不同專門技術。面對這些浩瀚如海而自己尚未掌握的知識，我實在眼界大開。要數屋宇設備工程師近三十年對社會的最大貢獻，我認為是提升了人對家居和辦公室舒適度的要求。像香港這樣的城市，建築物耗用的能源高達整體的九成；全球其他大城市的情況也大同小異。屋宇設備工程師使不少人的生活變得舒適和方便，也提高了人的生產力。以上這番話，相信各位教授和講師已跟大家說過，並足以證明你們選科正確，值得自豪。

退一步想，假如我們對社會的貢獻，與上一輩在過去二、三十年所做的一模一樣，你還會否感到滿意？答案肯定是「不」！城市化的浪潮席捲全球，中國、印度、巴西等經濟新興國家的情況尤其明顯。雖然太陽能 and 風能都有長足的發展，但電力消耗量大，造成能源枯竭。屋宇設備工程師貢獻社會的較佳方法，就是採用嶄新技術減少能源消耗。校方明顯已幫助各位作好迎接挑戰的準備，但依我所見，真正的難題並非怎樣應用工程技術，而是怎樣游說大量現有建築物的業主改變習慣或投資節省能源的設備。相信我，這絕對是「說易行難」的事情！業主總會問你為何要變？改變有何好處？若你說這有利於下一代，他們會反問下一代可以為現在的我帶來甚麼好處？到時如何招架？這個問題可能已稍稍偏離工程的範疇，近似哲學思考，但大家真的需要深入想想。我游說潛在客戶為了日後省錢而現在多付時，已多次遇過這樣的場面了。

已有實例證明建築物的節能措施成效顯著。因此，我們不但要努力在新建樓宇貫徹這項策略，也要為舊有建築物制定節能措施。正如我一再指出，屋宇設備工程以往對社會有巨大貢獻；未來，我們必然可以扮演更重要的角色。人人談環保，身為屋宇設備工程師的你，絕對能為打造環保建築出力。二、三十年後回看，今天起行的一小步，可以成為你改變世界之旅的里程碑。

多謝各位。



Prof. Reuben Chu's address to CSE graduates

Professor Jin-Guang Teng, Dean of Faculty of Construction and Environment,

Members of The Polytechnic University,

Distinguished guests,

Graduates,

Ladies and Gentlemen,

Good Afternoon. First, let me express my sincere appreciation for the honour I have been given to officiate the 17th Congregation and Faculty Prize Presentation Ceremony.

It gives me great pleasure to welcome you all to the Congregation and Faculty Prize Presentation Ceremony today. It is a great joy to convey congratulations to each one of you on behalf of the members of The Hong Kong Polytechnic University, alumni and friends. The Faculty of Construction and Environment and its predecessors have been a major provider of professional education for the Hong Kong construction and engineering industries for over seventy years. Your hard work, devotion to quality, dedication of your professors and staff and vision of your management have contributed to this notable achievement.

Dear young graduates, today marks an important day in your lives and a significant milestone in your career's journey. Facing intense competition to enter this Faculty, you have pursued your academic work with great dedication. By your hard work and by adhering to high standards, you have earned your degrees and awards. It is a moment of pride for you as much as it is for your professors, parents and those who had any part in shaping your life so far.

Now as you embark on your journey into the real world, I'd like to share some findings with you. According to the Quarterly Report conducted in March 2011 by the Census and Statistics Department, the overall gross value of construction works by major contractors in Hong Kong has been rising since 2009. Moreover, as major infrastructure projects are being rolled out in phases, demand of engineering services in Hong Kong will remain high. These major projects imply that our young graduates will play an important role in the future development in Hong Kong.

In closing, I'd like to share some thoughts with you. Engineers nowadays need to understand the world that they operate in, to be well-versed not only technologically but also in business practices, history and even sociology and psychology, to successfully tackle problems.

Today, a large number of senior or top executives are taking part in continuous learning to gain better skills and knowledge. With globalization, opportunities for learning and higher studies are now made available to a far wider community of people. What this means for young graduates like you is that competition will come fast, as more and more people upgrade themselves to secure better jobs. My advice for you is to look at the long term

rather than be too preoccupied with short-term gain.

Dear graduates, you have already equipped yourselves with an excellent education foundation. Please do not stop here! Get out there and try out new things in pursuit of your goals. The future holds exciting opportunities for Hong Kong, and our young graduates today are well placed to seize them.

Having mentioned all the above, don't be scared. With your qualification as a graduate of the Hong Kong Polytechnic University, you will certainly be able to achieve your goal just by carrying on with your passion.

My final wish for you is this, that the friends you are seated with in this graduation ceremony be your friends for life. May they be a shoulder to lean on in times of fortune and trouble. On this special occasion, I hope that you will also take the opportunity to thank your loved ones for their encouragement and support. I congratulate you once again on your achievements.

Good Luck to all of you and thanks for listening.

Thank you.



朱沛坤教授講詞【土木及結構工程學系畢業禮】

滕院長、各位理大成員、各位來賓、畢業同學：

午安！承蒙院方邀請我擔任第十七屆畢業典禮暨學院頒獎典禮的主禮嘉賓，這實在是莫大的榮幸。

歡迎大家蒞臨今天的典禮，謹代表理大同仁、校友和友好祝賀每位畢業同學。七十多年來，建設及環境學院與其前身一直是培育香港建造業及工程界菁英的中堅。同學勤奮向學的態度、對素質的追求；各位教授和工作人員對學術研究的專注與堅持；管理層的遠見卓識，全都是助學院幹出卓越成績的要素。

各位同學，今天是你們人生中的重要日子，也是一生事業的起步點。在座每位畢業生都是通過激烈競爭才得以踏進理大校門，多年寒窗，勤奮向學，用心鑽研，堅持素質，來到今天，終於取得學位和獎項。不論畢業生、老師、家長以至伴著同學成長的人，都應該為此時此刻自豪。

你們不久便要正式踏足社會，且讓我借這個機會說說一些有趣的發現。政府統計處去年三月的季度報告指出，本港主要承建商的建築工程總值自2009年一直上升；由於大型基建項目陸續動工，

香港對專業工程服務的需求仍然殷切。這意味各位同學對香港的未來將發揮重要作用。

我很希望與大家分享一些個人感受。今時今日，工程師需要深入瞭解自己所處的世界，除了具備深厚的技術根底，還須懂得營商模式，有時甚至要運用歷史、社會學和心理學知識解決問題。

為了掌握最新技能和知識，不少高級行政人員都持續進修。全球一體化令更多人獲得進修和接受高等教育的機會。這對你們又有甚麼影響呢？可以預計的是，越來越多人會通過進修來提升知識水平，藉此尋找前景較佳的工作；因此，競爭也會越趨激烈。希望大家放遠目光，不要只著眼眼前利益。

Mr Wong Chung Hang's address to LSGI graduates

As a student of a part-time evening course of the then Hong Kong Polytechnic, I graduated in 1978. It gives me a lot of pleasure today to be here to speak to you, a young generation of full-time students graduating from the Hong Kong Polytechnic University (PolyU), which is now more than 17 years old. On this happy occasion of the university's 17th Congregation, it is an honour for me to join in celebrating the accomplishment of your studies in the Faculty of Construction and Environment, which again is another new name for the faculty.

I was here last year to receive the Outstanding Alumni Award of the Department of Land Surveying and Geo-Informatics (LSGI), some 32 years after my graduation from PolyU. The award makes me feel that I am one of those active members of the PolyU big family, although I was only a part-time evening course student. Time flies. Things and ideas change from time to time. No one can predict what would happen 30 years later. This is particularly true for young people like you. You have a lot of opportunities and challenges ahead of you.

As a graduate from the Faculty of Construction and Environment, you will have a bright future, given the opportunities arising from the current development in our infrastructural projects and the availability of advanced land surveying and geo-informatics technologies. We have been quick to take advantage of the satellite positioning systems, the geo-spatial data processing software and the powerful survey equipment we had in recent years. As a result of our efforts, products like the on-line maps, digital orthophotos, satellite images, point clouds of the terrestrial laser scanners, airborne geo-referenced LiDAR data and 3D geo-spatial data have widely been used by surveyors and professionals alike.

PolyU is the only university to run land surveying and geo-informatics programmes in Hong Kong. For a long time, LSGI has made great efforts in scientific research and at the same time focused on teaching. LSGI has continued to equip our graduates with the most up-to-date surveying knowledge for the whole profession to progress steadily towards the common goal of promoting the most advanced technology to Hong Kong's construction and property development industry.

I have participated in many LSGI teaching activities. I was a mentor to a few PolyU Higher Diploma and Bachelor of Science students between 2002 and 2004. I was the external examiner

能成功畢業，在座每位的學術基礎當然毋庸置疑！不過，千萬不能固步自封！請跳出框框，在追求理想時勇敢嘗新。香港的未來滿載機遇，正等待年輕、準備充足的你好好把握。

雖然說了這麼多，但千萬不要給我嚇倒！身為香港理工大學的畢業生，只要力爭上游的心不變，差不多已可肯定目標在望。

在這個畢業禮上與你並肩而坐的朋友，很可能也是伴你走過一生的摯交、讓你面對人生起伏而能倚靠的肩膀。在這個別具意義的日子，希望大家把握機會感謝身邊人的支持和鼓勵，而我亦謹此再次恭賀每位畢業同學學業有成。

願幸運之神長伴你們！謝謝。

for the BSc (Hon) Geomatics Programmes from 2002 to 2007. I have served as the Chairman of the LSGI Departmental Advisory Committee since 2008. I witnessed the success of both the students and the teaching staff in the past 10 years. LSGI has continually practiced Outcome-based Education and Work-integrated Education. My office, the Survey and Mapping Office of the Lands Department, will continue to provide LSGI students with the required cadastral information to complete their land boundary survey projects during their studies in PolyU.

My work experience with the Faculty of Construction and Environment has been extremely good and pleasant. The Faculty has gone from strength to strength in search of excellence in the past few years. I am confident that it will continue to play an important role in cultivating our young generation of surveyors and fostering their mastery of not only technical knowledge, but also a vision to serve the community. I would like to take the opportunity to wish the Faculty even greater achievements in fulfilling its missions.

I firmly believe that we should move with the times and embrace all the opportunities, otherwise we will be left behind. I am also convinced that there are boundless opportunities in our professions. We will be involved in a much wider scope of our services to the community. We have to make better use of our knowledge and the technologies available to us. As a newcomer to work in society, you should always do your best. You will need to upgrade yourselves from time to time in order to realize your full potential at work.

There are many ways of achieving success in life. All require your own "can-do" spirit. You have to maintain your competitive edge. You should not ignore any opportunity to learn from the experience of others. You have to set goals for your careers. After setting a goal, it is also important to inspire thinking. You need to have the courage to put your aspirations into practice. And you have to show a sense of responsibility at all times.

I enjoy speaking to you on this happy occasion. The 17th Congregation marks the beginning of our graduates' contribution to benefit society. I wish you all good luck and great success in the years to come.

Thank you for your attention.

黃仲衡先生講詞(土地測量及地理資訊學系畢業禮)

身為香港理工學院1978年夜間兼讀課程的畢業生，今天有機會與大家分享學有所成的喜悅，實在十分高興。今天是香港理工大學正名後的第十七屆畢業典禮，在座各位都是「新理大」的最新一屆全日制課程畢業生；而同樣換上新名字的，還有建設及環境學院。

去年，就是我畢業近三十二年的日子，我也曾踏足這兒，接受土地測量及地理資訊學系頒發「傑出校友」榮譽。雖然當年只是兼讀生，這項殊榮使我真切感受到與母校的緊密連繫。時光流逝，新思維、新事物不繼湧現，任誰也無法預知三十年後的事情，尤其像在座各位般的年輕人，有無數機遇和挑戰正等待大家好好把握。

身為建設及環境學院畢業生，前途可說是一片光明。香港現正大力拓展基建，加上測量及地理資訊科技推陳出新，發展機遇俯拾皆是。近年，衛星定位系統、地理空間數據處理軟件，以至高效的測量儀器相繼面世，我們都能迅速善用這些有力工具。經過我們努力耕耘，網上地圖、數碼正射影像圖、衛星圖像、地面鐳射掃瞄點雲數據、空載空間參照鐳射掃瞄數據，以及三維地域空間數據等新技術已廣為測量界及相關專業人員採用。

理大是香港唯一開辦土地測量及地理資訊課程的學府。土地測量及地理資訊學系長期兼顧科研與教學，兩方面皆成績斐然。我們的畢業生都掌握最先進的測量知識，而這對測量專業逐步在香港建築業及地產業應用尖端科技的目標，實在至為重要。

十年來，我參與過學系不少教學活動：舉例說，在2002至2004連續三個學年，擔任一些高級文憑及本科學生的「友導計劃」導師；2002至2007年任測繪及地理資訊學(榮譽)理學士課程校外主考；而自2008年起，更一直是土地測量及地理資訊學系諮詢委員會的主席，見證學系師生的卓越成就。學系一貫奉行「成果為本」的教育方針，注重校企協作。我所屬的地政總署測繪處，會繼續提供同學需要的地籍資料，幫助他們完成校方指定的地界測量研究。



我與建設及環境學院一直合作愉快。學院近年不斷壯大，成績斐然，相信必能培育出品學兼優的新世代測量師——不但技術底子深厚，更有服務社會的胸襟和視野。謹此祝願建設及環境學院精益求精、更創高峰。

人不能與時並進、把握時機，便追不上時代的步伐。測量專業提供無限發展機會，服務社會的層面亦越見廣闊。因此，善用手頭的知識和技術是非常重要的。各位不久便要踏足社會，希望大家全力以赴，不斷充實自己。這樣才可在工作上發揮潛能。

要幹出成績，方法不少，但全都離不開積極進取的苦幹精神。除了維持競爭力，亦千萬不能錯過任何借鑒他人的機會。要開創事業，必先定下目標，然後跳出框框，發揮想像。你不但要具備坐言起行的勇氣，還須敢於承擔，不因時地而異。

很高興能在這樣喜氣洋洋的日子向各位說幾句話。第十七屆畢業禮標誌著我們的新一屆畢業生即將投身社會，貢獻社群。謹祝大家諸事順遂、鵬程萬里。

謝謝。



FCE Alumni Associations' 75th Anniversary Ball

The five alumni associations of the Faculty of Construction and Environment threw a ball at Hotel ICON for the 75th Anniversary of The Hong Kong Polytechnic University on 18 February 2012. About 280 guests celebrated with them, including many alumni, staff, industry partners, and government officials.

After welcoming remarks from the Council Chairman, the Hon. Marjorie Yang Mun-tak, the President of PolyU, Prof. Timothy Tong, our Faculty Dean, Prof. Jin-Guang Teng, and the Chairman of the Organizing Committee, Ir Prof. Johnny Fan, the ball was started with a cake-cutting ceremony.

Those in attendance enjoyed themselves immensely. There were special performances, dancing, and a lucky draw after dinner. Many thanks to Ir Tsui Tack-kong for being the major sponsor of the event and to its organizing committee, which included Ir Prof. Albert Chan, Prof. Barnabas Chung, Ms Juliana Lo, Ir Prof. Fred Ng, Prof. Kenneth Pang, Dr Simon Siu, Mr Tsang Cheong-chuen, Mr Paul Tsui, Ir Thomas Wan, Ir Tommy Wong, and Ir Stephen Wong.



建設及環境學院校友會餐舞會 慶祝理大鑽禧

為慶祝香港理工大學創校七十五周年，建設及環境學院五個校友會特於本年二月十八日在理大教研酒店唯港薈舉辦餐舞會，出席的校友、教職員、業界友好及官員多達約二百八十人。

校董會主席楊敏德議員、校長唐偉章教授、本院院長滕錦光教授，以及餐舞會籌委會主席樊紹基教授工程師致歡迎辭後，隨即聯袂主持切餅儀式，為晚會正式揭開序幕。

當晚的節目豐富，除特別表演和跳舞環節外，餐後更有幸運抽獎，在場嘉賓莫不盡興。餐舞會得以順利舉行，本院謹此衷心感謝主要贊助人崔德剛工程師，以及包括陳炳泉教授工程師、鍾鴻鈞教授、羅美儀女士、吳世豪教授工程師、彭贊榮教授、蕭妙文博士、曾祥全先生、除開源先生、雲君祥工程師、黃振才工程師及王錦賢工程師的一眾籌委。

Distinguished Chinese Scholars shared their wisdom in public lectures

The Faculty of Construction and Environment was honored to host two distinguished Chinese scholars, Prof. Liu Jingnan of Wuhan University and Prof. Zhong Wanxie of Dalian University of Technology, who delivered public lectures in their fields of expertise as part of the Distinguished Chinese Visiting Scholars Scheme. Started in 1994, the annual event has enhanced collaboration with mainland institutions. Participating scholars have excelled in their respective fields, as is the case with both our speakers. A member of the Chinese Academy of Engineering, Prof. Liu is an expert in geodesy and surveying engineering, particularly the application of GNSS technology. His lecture on 23 November 2011 was on the current status, future development and latest testing results of Chinese Compass Navigation Satellite System. The mantra he lives by is "to think the imponderable, articulate what is possible, and do what is difficult to accomplish."

本院為傑出內地學者舉辦公開講座

建設及環境學院非常榮幸能夠邀得兩位傑出內地學者在去年底在港舉行公開講座。此活動乃理大「傑出中國訪問學人計劃」的一部分，而今次的主講嘉賓，就是武漢大學的劉經南教授和大理理工大學的鍾萬勳教授。

「傑出中國訪問學人計劃」始於1994年，每年都會邀請在不同範疇有非凡成就的內地學者參與，多年來大大加強了理大與內地學府的聯繫。劉經南教授是中國工程院院士，專研大地測量理論及測量工程學，尤其擅長應用衛星導航技術。在去年十一月二十三日的講座上，他介紹了中國北斗衛星導航系統的現況、展望及最新測試結果，而其處事方針就是「縱其想像、言其所能、迎難而上」。



A member of the Chinese Academy of Sciences, Prof. Zhong is an expert in engineering mechanics and computational mechanics. His lecture on 25 November 2011 was titled "Symplectic Mathematics in Applied Mechanics and Optimal Control." To learn advanced technology, he feels it's important to chart our own way than to simply follow others. It is inevitable that there will be obstacles in life. The young generation should take charge of its own direction and not be swayed by temporary gains or setbacks. The courage to innovate and set our own course is paramount to all else. For more details about his philosophy and background, go to <http://www.polyu.edu.hk/cmao/DCVSS/background06.html>



另一位學者鍾萬勳教授是中國科學院院士，擅長工程力學及計算力學。其講座於去年十一月二十五日舉行，題為「辛數學與應用力學及最佳控制」。學習先進科技時，鍾教授認為必須走出自己的路，總不能老是跟隨別人的腳步。縱然人生波折難免，年輕人應該立定志向，不因一時的得失而搖擺。勇於創新、自立自主，比一切都來得重要。細閱鍾教授的資料和人生哲學，請登入以下網址：<http://www.polyu.edu.hk/cmao/DCVSS/background06.html>

PolyU collaborates with Tongji University in a summer course

This summer, about 40 first-year students from the Faculty of Construction and Environment (FCE) will have a chance to spend 2 weeks in late July at Tongji University in Shanghai. They will be taking a 3-credit GE subject CE2000: Construction for Better Living, a course that will be co-taught by lecturers from both PolyU and Tongji Univ. This is part of our long-term collaboration with Tongji, which has been an active partner to many of our activities in mainland China. It is hoped that this

course will benefit students from both universities and give them a chance to learn from one another.

理大夥拍同濟大學開辦暑期課程

今年暑假，建設及環境學院將有約四十位一年級生可以在七月底到上海同濟大學進修兩星期。這個名為「CE2000：建設與提升生活質素」的通識課程，會由理大及同濟大學的講師共同執教，完成者可獲三個學分。同濟大學是理大的長期合作夥伴，雙方在內地合辦不少活動。兩所大學的學生可望透過今次機會互相學習，共同獲益。

Top brass of PolyU visits Guangzhou

Led by PolyU Court Chairman Prof. Roy Chung, a delegation of around 25, comprising members of Council and Court, university senior management and faculty members, went on a one-day trip to Guangzhou on 10 November 2011 to learn more about our research efforts at Canton Tower and to experience first-hand the innovative concepts in the office design and businesses of Prof. Liu Sing-cheong, an alumnus and our Court member. Joining the President of PolyU, Prof. Timothy Tong, and its Deputy President, Prof. Philip Chan, were the Dean of the Faculty of Construction and Environment, Prof. Jin-guang Teng, and Prof. Ni Yiqing from the Department of Civil and Structural Engineering.

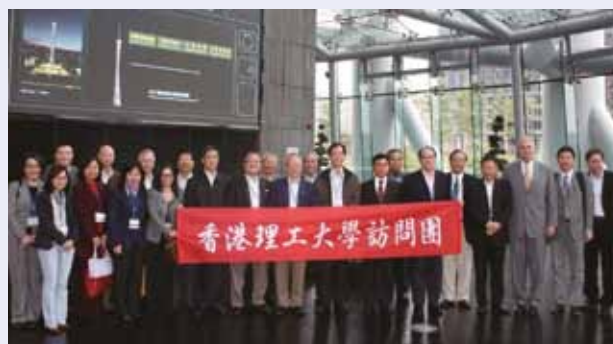
PolyU has been a partner of Guangzhou's Sun Yat-sen University to monitor the structural health of the tower since it was built in 2010. After visiting the world's tallest TV Tower, the Canton Tower, the group lunched at its rotating restaurant with its bird's-eye view of the city below.

In the afternoon, the group had a tour of the offices of Prof. Liu Sing-cheong, Founder and Chairman of Evergreen Real Estate Consultants Ltd. and My Top Home (China) Holdings Ltd., who shared his insights on entrepreneurship and business models with the visitors. The building where his enterprises are headquartered had a unique design. Fully making use of its ample space, it had floors for an art gallery, cellars, roof gardens, and a small movie theatre besides the usual offices. The group had dinner at his club house, a 3-storey house reconstructed from a building of the 1920s in the conservation area of Guangzhou, before catching the express train back to Hong Kong. It was indeed an eye-opening visit for all.

理大要員廣州考察

去年十一月十日，理大顧問委員會主席鍾志平教授親率二十五位大學要員前往廣州，考察我們在廣州塔的科研工作，並參觀校友兼大學顧問委員會成員廖勝昌教授的公司，親身感受創新的辦公室設計和經營理念。除了校董會及大學顧問委員會成員，同行者還有大學高層管理人員及學院的代表，包括校長唐偉章教授、副校長陳正豪教授、本院院長滕錦光教授，以及土木及結構工程學系倪一清教授。

廣州塔是全球最高的電視塔，自2010年落成以來，理大一直聯同廣州中山大學監察其結構健康。參觀完畢後，考察團順道於塔內的旋轉餐廳用膳，欣賞廣州市全景。到了下午，一行人前往廖勝昌教授的公司參觀。廖教授為廣州恆昌房地產顧問有限公司及滿堂紅(中國)集團有限公司創辦人兼主席，他向考察團講解自己的管理及經營模式；其公司總部所在的建築物設計非常獨特，並充分利用寬闊空間，除了常見的辦公樓，連藝廊、酒窖、平台花園、小型電影院也一應俱全。眾人乘坐火車回港前，應邀於廖教授的會所享用晚膳——該三層高小樓位處廣州市保育地帶，是由一幢於1920年代興建的舊建築復修而成。團員對這次行程的所見所聞，莫不感到眼界大開。



FCE delegation visits the city of Ningbo

To explore opportunities for research collaboration in areas related to the environment, energy, and sustainable urban development, the Dean of the Faculty of Construction and Environment, Prof. Jin-Guang Teng, led an FCE delegation to Ningbo from 12-14 December 2011 in a reciprocal visit to an earlier trip made by a delegation from the Ningbo Science and Technology Bureau. Accompanying him on the trip were Emeritus Prof. Jan-Ming Ko, Prof. Xiangdong Li, Prof. Edwin Chan, Prof. Shengwei Wang, and Prof. Hongxing Yang, who were warmly welcomed by a contingent of officials from the Ningbo Science and Technology Bureau, the Ningbo Housing and Urban-Rural Development Committee, the Ningbo Planning Bureau, as well as the Ningbo Productivity Promotion Center. Through arrangements made by the hosts, the delegation visited the Ningbo Institute of Material Technology & Engineering of the Chinese Academy of Sciences, where the delegation was briefed on the impressive development of the Institute, as well as Ningbo University, the University of Nottingham-Ningbo, and the Ningbo Institute of Technology of Zhejiang University. They also met with the representatives of the respective institutions and had fruitful exchanges with them.

Before leaving Ningbo, the group visited the Ningbo National Hi-Tech Zone, which had experienced rapid growth in the last few years, as well as the Zhejiang Reclaim Construction Group. It was indeed a rewarding trip for all involved, since a number of potential collaborative opportunities were identified.



建設及環境學院代表團訪問寧波市

建設及環境學院院長滕錦光教授親率代表團於去年十二月十二至十四日前往寧波市，探討與當地合作開展環境、能源及可持續城市發展研究的可能性，並藉此回謝寧波市科技局代表團早前來訪。隨行者包括高贊明教授、李向東教授、陳漢雲教授、王盛衛教授及楊洪興教授。一行人得到寧波市科技局、寧波市住房和城鄉建設委員會、寧波市規劃局，以及寧波市生產力促進中心官員熱情款待，並獲安排參觀中國科學院寧波材料技術與工程研究所，了解研究所的卓越成就，又拜訪寧波大學、寧波諾丁漢大學及浙江大學寧波理工學院，與這些院校的代表交流意見。

眾人並參觀了近年發展迅速的寧波國家高新區，以及浙江省圍海建設集團股份有限公司。代表團透過此行找出一些頗具合作潛質的範疇，同行者莫不感到收穫良多。

Hong Kong PhD Fellowship Scheme promoted in Europe

Prof. Albert Chan, Associate Dean of FCE, was one of the delegates from seven local universities to accompany the Research Grants Council (RGC) on a 2-week trip in October 2011 to promote the Hong Kong PhD Fellowship Scheme in Germany, the Netherlands, and Italy. The delegates, led by Prof. Roland Chin, Chairman of RGC, were well received by both staff and students of the universities there.



Established by the RGC of Hong Kong in 2009, the Hong Kong PhD Fellowship Scheme aims at attracting the best and brightest students globally to pursue their PhD studies in Hong Kong's higher institutions. Since its inception, around 7000 applications from over 100 countries and regions have been received. About 225 candidates from 31 countries and regions have been awarded the Fellowships. Among these awardees, two of them have come from Germany, three from the Netherlands, and four from Italy.

FCE has successfully attracted 5 students to the Scheme in both the first two rounds of application. In addition to having their tuition fees waived, Fellowship winners receive a monthly stipend of HK\$20,000 (Euro 2,000) and a conference/research related travel allowance of HK\$10,000 (Euro 1,000) per year for three years. Students are chosen based on their academic excellence, research ability and potential, communication and interpersonal skills, as well as their leadership abilities, with academic excellence as the primary consideration.

副院長訪歐推廣「香港博士研究生獎學金計劃」

本院副院長陳炳泉教授於去年十月隨研究資助局(研資局)代表團訪問歐洲兩星期，到德國、荷蘭及意大利推廣由該局設立的「香港博士研究生獎學金計劃」。此行由研資局主席錢大康教授擔任團長，陳教授則是本地七所大學的代表之一。一行人獲當地大學盛情款待，無論是教員或學生，均對計劃深表興趣。

「香港博士研究生獎學金計劃」始於2009年，目標是吸引各國最優秀的研究生來港修讀博士學位課程，至今已接獲逾百個國家約





七千宗申請；約有來自三十一個國家的二百二十五人成功獲取獎學金，當中兩位來自德國，三位來自荷蘭，以及四位來自意大利。

通過首兩輪申請入讀本院的尖子學生共五人。他們除獲豁免繳交學費外，還可以每月取得港幣兩萬元（約2,000歐元）生活津貼，以及連續三年獲發每年港幣一萬元（1,000歐元）會議及研究活動交通津貼。評審時，校方會以申請人的學術表現為考慮重點，但亦非常注重他們的研究能力和潛質、溝通技巧、人際關係和領導才能。

Annual partnership meeting of FCE and RICS

On 2 December 2011, representatives from the Royal Institution of Chartered Surveyors (RICS) met with academic leaders from the Faculty of Construction and Environment to review their mutual aims and objectives as well as revise the threshold standards due to the abolition of the Hong Kong Advanced level examination this year. Both parties had a chance to brief one another on the latest developments in their respective institutions. An important change concerning PolyU was the renaming of the Faculty of Construction and Land Use in Sept. 2011, as pointed out by its Faculty Dean, Prof. Jin-Guang Teng, who chaired the meeting with RICS that included the Associate Dean for Teaching, Prof. Geoffrey Shen; the Head of the Department of Building Services Engineering, Prof. W. K. Chow; the Head of the Department of Land Surveying and Geo-Informatics, Prof. X. L. Ding; as well as a handful of programme leaders.

In a presentation by RICS, it was noted that over 40% of its membership was from Hong Kong, a sign of its increasing clout in the city. In 2011, four assessments of professional competence of more than 200 candidates were conducted by them, with a passing rate of about 49%.

In addition, 10 RICS-accredited undergraduate and postgraduate programmes were reviewed, based on the annual monitoring reports submitted by each programme and reports written by external examiners. RICS representatives were pleased to note the high caliber of students in our undergraduate programmes. In particular, the average A-Level scores of new entrants to the BSc (Hons) programme in Surveying have reached an all-time high. The Department of Building and Real Estate, which offers the programme, attributes its popularity to the concerted efforts of its staff in delivering quality programmes.

Following are the RICS-accredited courses offered by the Faculty:

- i. M.Sc. in Construction and Real Estate
- ii. M.Sc. in Project Management
- iii. M.Sc. in Facility Management
- iv. M.Sc. & B.Sc. (Hons) in Geomatics
- v. M.Sc. in Construction Law & Dispute Resolution
- vi. M.Sc. in Sustainable Urban Development
- vii. M.Sc. in International Real Estate
- viii. B.Sc. (Hons) Surveying
- ix. B.Sc. (Hons) Property Management
- x. B.Sc. (Hons) Geomatics
- xi. B.Sc. (Hons) Environment & Sustainable Development



建設及環境學院與英國皇家特許測量師學會 (RICS) 舉行周年合作會議

去年十二月二日，英國皇家特許測量師學會代表與本院多位教授會面，檢討雙方工作目標，並討論因香港高級程度會考於本年取消而須修訂的評審基準。雙方亦借此機會介紹其最新發展。主持會議的建設及環境學院院長滕錦光教授指出，理大其中一項重要發展，就是本院於去年九月起改名為建設及環境學院。當日參加會議的還有副院長（教務）沈岐平教授、土地測量及地理資訊學系系主任丁曉利教授，以及多位身兼課程主任的教員。

根據RICS匯報，其四成多亞洲會員來自香港，顯示該會在本地的影響力與日俱增。去年，學會曾舉辦四次專業能力評核，考生逾二百多人，合格率約為百分之四十九。

雙方又根據每項課程的年度監察報告及校外評審員報告，逐一檢討十一項獲RICS認可的學士學位及碩士課程。該會代表對本科課程的學生素質深感滿意，地產建設測量學（榮譽）學士課程新生的高考平均分創下新高的紀錄，實在令人鼓舞。負責的建築及房地產學系將此歸功於全體教職員，指出全賴上下同心協力，注重教學質素，課程才會大受歡迎。

本院獲RICS認可的課程包括：

- i. 建築及房地產學理學碩士
- ii. 項目管理理學碩士
- iii. 設施管理理學碩士
- iv. 測繪及地理資訊學理學碩士
- v. 建築法及爭議解決學理學碩士
- vi. 可持續城市發展學理學碩士
- vii. 國際房地產理學碩士
- viii. 地產建設測量學（榮譽）理學學士
- ix. 物業管理學（榮譽）理學學士
- x. 測繪及地理資訊學（榮譽）理學學士
- xi. 環境與可持續發展學（榮譽）理學士學位

BRE alumnus shares insight of managing projects in China

On 21 December 2011, the Department of Building and Real Estate welcomed one of its earliest alumni in a lecture cum dialogue series that facilitated interaction and networking between current and former students. The star that evening was Ir TING Wah, who graduated from the Hong Kong Polytechnic in 1977 with a higher diploma in Building Technology and Management. Since then, he has put his knowledge to good use as a site planning engineer, sub-agent, and project manager for more than 6 years before moving into the project management and development of hotel facilities for the Wharf Group. He has been in charge of many overseas projects for the developer, and is now the Vice President (Project Development) at the Marco Polo Hotels Group.

Sharing his insight with students at the Chiang Chen Studio Theatre, Ir TING reminisced about his experience in managing



projects in China, which began in the 80s when there were still good incentives and favorable terms for Hong Kong investors to do mainland projects. These included higher pay and hardship allowance for non-locals, i.e. those hired from Hong Kong etc. However, that period has now been replaced by a local hybrid approach, which has created challenges to human resources and construction professionals alike. Ir TING believes that many opportunities exist in mainland China because of its huge market, but graduates should have a good understanding of fundamental principles, including project management concepts and a strong sense of integrity, to take advantage of them. His advice was well received by the attentive audience, which included several professors from BRE besides the targeted students.

建築及房地產學系校友分享管理中國項目經驗

在建築及房地產學系於去年十二月二十一日舉辦的講座上，校友丁華工程師應邀與一眾師弟妹分享自己三十多年的實戰經驗。丁校友是香港理工學院1977年的建築科技及管理學高級文憑畢業生，一直學以致用，任職場地規劃工程師、副工地總管及項目經理超過六年，其後加入九龍倉集團負責酒店設施的發展及項目管理，曾主管多個海外項目，現任馬哥孛羅酒店集團副總裁(項目發展)。

講座在校園內的蔣震劇院舉行。丁工程師回想自己從上世紀八十年代開始管理內地項目，當時仍有很多有利港商的政策和投資誘因。舉例說，非本地人(從香港聘請的職員)從前可以獲得較高薪金和辛勞津貼，但現時內地已改用「本地——非本地混合模式」，對人力資源管理及建築專業均帶來挑戰。他認為內地市場龐大，不乏發展機會，但畢業同學必須打好基礎，充分掌握項目管理的概念，並秉持誠信和操守。同學認為他的意見非常實用，在座的幾位建築及房地產系教授亦深表贊同。

Hong Kong Real Estate Association Limited visits PolyU

A 30-strong delegation of the Hong Kong Real Estate Association Limited (HKREA) visited The Hong Kong Polytechnic University (PolyU) on 2 March 2012 to learn about the latest applications of green technology in construction.

Representatives from PolyU attending the welcoming luncheon at PolyU's training restaurant, Bistro 1979, included Executive Vice President Mr Nicholas Yang, Vice President (Institutional Advancement and Partnership) Professor Angelina Yuen and Director of Alumni Affairs and Development Ms Kitty Yam, as well as Dean of the Faculty of Construction and Environment (FCE) Ir Professor Jin-Guang Teng, Associate Deans Professor Geoffrey Shen and Professor Xiangdong Li, and Emeritus Professor Ir Professor Jan-ming Ko.

During the luncheon, Mr Nicholas Yang addressed the delegation, "With the vision of being one of the world leaders in the development and dissemination of technologies and systems for sustainable high-density urban development, PolyU has established the Research Institute for Sustainable Urban Development on 16 January 2012. As the major education provider and research partner, we are always keen to develop

香港房地產協會代表訪問理大

香港房地產協會代表團日前一行三十多人於三月二日到訪香港理工大學，了解理大的環保建築科技。

理大於Bistro 1979學院培訓餐廳設午宴歡迎代表團，出席的代表包括：行政副校長楊偉雄先生、副校長(學院發展及合作)阮曾媛琪教授、校友事務及拓展總監任婉雯女士、以及建設及環境學院院長滕錦光教授、副院長沈岐平教授和李向東教授、及榮休教授高贊明教授。



a close relationship and build a platform to exchange ideas regularly for the advancement of the construction industry.”

The delegation visited latest facilities like Intelligent Building Laboratory, Construction Virtual Prototyping Laboratory and Solar Simulation Laboratory. The delegation from HKREA consisted of President Mr Anthony Chan Wai-lun, Chairman Mr Woo Wai-man, Deputy Chairman Mr Chan Ka-kui, Hon. Secretary-General Mr Richard Li, Deputy Presidents Mr Cheung Sung-lam, Mr Peter Lee Kin-chung, Mr Richard Lo Chi-ho, Mr Alexander Lui Yui-wah, Mr Ng Hon-leung, Mr Sin Kwok-lam, Mr Sze Kyran, and also the Executive Board Members and Members.

楊偉雄副校長代表理大向代表團致辭時表示：「為鞏固和強化學院現有的科研優勢，理大於本年1月16日成立了『可持續城市發展研究院』，從而在高密度城市持續發展的領域上進佔世界領先的位置。」他又指出，理大作為一個支持本港業界發展的教研機構，經常鼓勵學術界與工商界建立夥伴關係，希望藉此建立一個平台日後常作交流。

代表團參觀了智能建築實驗室、建築虛擬模型實驗室以及太陽能應用實驗室等。香港房地產協會的代表團成員包括：會長陳偉能先生、主席胡偉民博士、副主席陳家駒先生、義務秘書長李景行先生、副會長李建中先生、吳漢樑先生、呂耀華先生、冼國林先生、施家殷先生、張崇霖先生、羅志豪先生、多位常務理事以及會員。



FCE hosts visitors from Lawrence Berkeley National Lab

Two research scientists from the U.S. Department of Energy's Lawrence Berkeley National Laboratory visited the Faculty of Construction and Environment on 24 October 2011. Lynn PRICE and Dr Nan ZHOU of the China Energy Group of the Environmental Energy Technologies Division gave a talk on the development of a low-carbon indicator and guidebook for China as well as scenarios of China's energy use and carbon emissions to 2050. Their objective was to provide guidance for low carbon development policies by means of a low carbon indicator system at the city level. Based on data available at the provincial and the municipal level, they presented initial results from an end-use indicator system for Beijing, Shanghai, Hubei, Shanxi, Shandong, and Guangdong.

In addition, they outlined the steps for the establishment of low-carbon action plans, which include taking an inventory of emissions, setting targets, selecting policy mechanisms, implementing them, and evaluating the progress made. Their 2-hour seminar was most enlightening for those who attended.

勞倫斯伯克利國家實驗室科學家到訪本院

美國能源部轄下勞倫斯伯克利國家實驗室的兩位科學家，於去年十月二十四日到訪本院，並為一個有關中國能源狀況的研討會擔任主講。到訪的Lynn PRICE女士及周南博士於環境能源技術室的中國能源研究室工作。在兩小時的講座中，她們談到如何為中國制訂低碳發展規劃指南，並預測內地直至2050年的能源消耗及碳排放狀況，希望藉著在城市設立低碳指標系統，為確立低碳發展政策奠定基礎。兩人根據在省市收集的數據，講述了北京、上海、湖北、山西、山東及廣東諸地在終端指標系統顯示的初步結果。

另外，兩人又提出制訂低碳行動綱領的步驟，包括計算碳排放量、訂定目標、選定政策執行機制、實施政策及評估進度。出席者莫不感到獲益良多。

BRE hosts visitors from Thailand's Chiang Mai University

On 18 November 2011, a delegation of 6 academics and 19 postgraduate students from the Department of Civil Engineering of Chiang Mai University visited the PolyU campus, where they were welcomed by Prof. Geoffrey Shen, Head of the Department of Building and Real Estate (BRE); Dr Daniel Chan, Programme Coordinator for the MSc/PgD in Construction and Real Estate; and Mr Hong Yuming, President of the CIB Student Chapter at PolyU.

Prof. Shen introduced his department and the taught postgraduate scheme of our Faculty, while Dr Chan briefed the visitors on BRE's postgraduate programmes and highlighted the research areas of his colleagues. The information was well received by the visitors, who are open to the development of strategic links with BRE in terms of academic exchanges and/or research collaboration.



建築及房地產學系接待泰國清邁大學代表團

由六位學者、十九名研究生組成的泰國清邁大學土木工程系代表團於去年十一月十八日到訪理大，與建築及房地產學系系主任沈岐平教授、建築及房地產學理學碩士/深造文憑課程主任陳煒明博士，以及國際建築工程研究與創新理事會理工大學分會會長洪羽明同學會面。

沈教授向來賓介紹建築及房地產學系和本院授課式碩士課程組合的概況；陳博士則集中講述該系的研究課程及科研重點。代表團認為資料非常實用，並樂意探討與該系在學術交流及科研合作兩方面結成策略性夥伴。

PolyU hosts outstanding high school students from Wuhan

On the morning of 16 January 2012, 29 outstanding high school students from Wuhan visited PolyU for a preview of university life. They were warmly welcomed by our Faculty Dean, Prof. Jin-Guang Teng, and a representative from the Chinese Mainland Affairs Office, who introduced our university as well as the range of subjects that are available for study here. Funded by PYI Corporation Ltd., a company in the construction industry, the tour aims to inspire students to set their sights on higher education after finishing high school. Current mainland students in our taught postgraduate programmes were on hand to share their experience of studying at PolyU. It was indeed a fruitful trip for the participating students, who all look forward to continuing their studies in Hong Kong.

武漢菁英高中生體驗大學生活

本年一月十六日上午，二十九位來自武漢的菁英高中生到訪理大，獲本院院長滕錦光教授親自接待。理大中國內地事務處代表亦到場介紹理大以及可供報讀的科目。是次行程由從事建築的保華集團贊助，旨在擴闊參加者的眼界，希望他們會以入讀大學為目標。此外，這群年輕人獲本院碩士課程內地生分享學者經驗，莫不感到獲益良多，他們都希望日後有機會能到香港升學。



PolyU Micro Fund organizes visits to promote entrepreneurship

On 11 February 2012, a group of PolyU students and alumni, including half a dozen or so from the Faculty of Construction and Environment, visited the Hong Kong Cyberport, where they learnt about the Cyberport Creative Micro Fund (CCMF) and Incubation Programme. The PolyU Micro Fund Scheme is a new knowledge transfer initiative that aims to cultivate an innovative and entrepreneurial spirit in the PolyU community, nurture socially responsible youngsters to “Do well and Do good” with actual hands-on entrepreneurial endeavours, and facilitate knowledge transfer of PolyU’s innovations and technologies.

During the visit, the group was told the weather forecasts always use the facilities at Cyberport to sharpen their images. Next time you watch the CCTV weather forecast, pay close attention to the blue background. The blue screen (see picture) technique is commonly used for weather forecast broadcasts, wherein the news presenter appears to be standing in front of a large map during live television newscasts, though in actuality it is just a large blue or green background. Presenters would normally avoid wearing blue clothes to avoid blending into the background. A blue screen is usually used in China, but a green one is used in the US. The group also visited other advanced facilities, e.g. the remote sensing set, offices and activity rooms there.

Besides Hong Kong Cyberport, visits to the Hong Kong Science and Technology Parks as well as the InnoCentre at the Hong Kong Design Centre were also arranged for 18 February and 25 February respectively.



理大微型基金宣揚企業家精神

本年二月十一日，一群理大同學和校友(其中約有六位來自建設及環境學院)在「理大微型基金計劃」安排下參觀香港數碼港，實地瞭解「數碼港創意微型基金及培育計劃」的內容。校方開展上述計劃，是為提倡創新思維，鼓勵同學學以致用，開創個人事業，成為社會上敢於承擔的青年企業家，承傳在大學裡學到的知識和技能。

參觀期間，一行人方知中央電視台的天氣預告，原來是使用數碼港設施以強化影像效果。當大家下次收看時，不妨留意主播身後的藍色背景。天氣預告節目廣泛採用藍色熒幕(見附圖)技術，直播時，主播就像站在一幅大型地圖前面；而現場只不過是一幅藍色或綠色大佈景板。為免與背景「撞色」，他們一般都不會穿藍色衣服。另一項有趣的發現，是熒幕顏色的選擇會因地而異：內地通常採用藍色，美國則多用綠色。另外，同學還參觀了其他先進設施，如遙感設備、辦公室、活動室等。

繼數碼港後，校方分別在二月十八日及二十五日，安排同學參觀香港科技園及香港設計中心的創新中心。

PolyU Info Day for Taught Postgraduate Programmes

The PolyU Info Day for Taught Postgraduate Programmes was successfully held on 7 January 2012. An annual event at The Hong Kong Polytechnic University for prospective applicants, it was kick-started on behalf of the Faculty of Construction and Environment by Prof. Geoffrey Shen, who introduced the Postgraduate Scheme in Construction and Environment in his capacity as its Chairman during an overview session. Break-out sessions for our ten taught postgraduate programmes were held immediately after it. This was a very good opportunity for prospective applicants to obtain in-depth information of our programmes by talking to our award coordinators. There were more than 70 attendees for the overview session and about 150 for the break-out sessions.

Entry Scholarships are available for outstanding students. For details, please visit <http://www.polyu.edu.hk/fce/postgrad-scheme>.

理大舉辦深造課程教育資訊日

理大每年都會舉辦深造課程教育資訊日，協助有意進修的人士選擇合適課程，而本年的活動則已於一月七日圓滿結束。當日代表本院主持開幕儀式的是沈岐平教授，擔任建設及環境學碩士組合課程主席的他在講座中先簡述課程的基本資料，然後再由本院十個授課式深造課程的負責人各自講解課程內容，好讓有意報讀的人士有機會與課程主任面談，充分了解情況。當日分別約有七十及一百五十人出席概覽及其後的專科講座。

本院更設有新生獎學金計劃，資助優秀學生修讀碩士課程。查閱詳情，可連結以下網址 <http://www.polyu.edu.hk/fce/postgrad-scheme>。



PolyU hosts the Joint International Symposium on Deformation Monitoring

About 200 leading experts, scholars, researchers and industry practitioners from 27 countries and regions gathered at the Harbour Grand Kowloon Hotel in Hong Kong from 2 - 4 November to participate in the Joint International Symposium on Deformation Monitoring 2011.

The symposium was jointly organized by the Department of Land Surveying and Geo-Informatics of The Hong Kong Polytechnic University (PolyU), International Federation of Surveyors (FIG) Working Group 6.1: Deformation Measurement, International Association of Geodesy (IAG) Sub-Commission 4.2: Applications of Geodesy in Engineering, IAG Sub-Commission 4.4: Applications of Satellite and Airborne Imaging Systems, and Engineering Surveying Sub-Society, Chinese Society for Geodesy, Photogrammetry and Cartography.

The opening ceremony of the three-day symposium was officiated by Professor Judy Tsui, PolyU Vice President (International and Executive Education), Mr Wong Chung-hang, Deputy Director of Lands Department of the Hong Kong Special Administrative Region Government, Professor Gethin Roberts, representative of FIG, and Professor Guenther Retscher, representative of IAG.

Six prominent international and local experts were invited to deliver keynote speeches at the symposium, including Professor R.F. Hanssen of Delft University of Technology, the Netherlands; Dr M. Shimada of the Earth Observation Research Center in Japan; Professor C.K. Shum of Ohio State University in the US; Professor Y.Q. Chen of PolyU's Department of Land Surveying and Geo-Informatics; Professor W. Lienhart of Graz University of Technology in Austria; and Professor Y.X. Yang of Xian Research Institute of Surveying and Mapping in China and an academican of the Chinese Academy of Sciences.

Structural failures such as collapses of bridges and buildings and geo-hazards caused by events such as landslides, ground subsidence and earthquakes are world-wide problems that often lead to significant economic and life losses. It is therefore important to carry out systematic research to better understand and manage these problems. The symposium provided a forum for sharing latest research results, ideas and experiences in monitoring deformations of both natural phenomena and man-made structures.

The symposium was financially supported by PolyU's Faculty of Construction and Environment (FCE) and some corporations.

For more details of the Symposium, please visit its official website: <http://dma.lsgi.polyu.edu.hk/index.html>.

理大聯同測繪界主辦變形監測國際研討會

來自二十七個國家和地區的二百多位專家、學者和業界人士于去年十一月二日至四日雲集香港，參與一連三天在九龍海逸君綽酒店舉行的「變形監測國際研討會」。這大型會議由多個單位聯合主辦，包括理大土地測量及地理資訊學系、國際測量師聯合會第6.1工作組：「變形監測」、國際大地測量協會第4.2委員會：「大地測量在工程中的應用」、國際大地測量協會第4.4委員會：「衛星和空中成像系統的應用」，及中國測繪學會工程測量分會。

該研討會的開幕儀式由理大副校長（國際事務及行政教育）徐林倩麗教授、香港特別行政區政府地政總署副署長黃仲衡太平紳士、國際測量師聯合會代表Gethin Roberts教授，及國際大地測量協會代表Guenther Retscher教授聯袂主持。

六位國際及本地知名的專家學者應邀在研討會上發表主題演講，包括荷蘭代爾福特科技大學R. F. Hanssen教授、日本地球觀測研究中心M. Shimada博士、美國俄亥俄州立大學沈嗣鈞教授、理大土地測量及地理資訊學系陳永奇教授、奧地利格拉茨技術大學W. Lienhart教授，及中國科學院院士、西安測繪研究所楊元喜教授。

結構失效所導致的橋梁和建築物坍塌，以及因山坡滑坡、地面沉降和地震所造成的地質災害是全球的問題，它們往往會導致嚴重的經濟和生命損失。因此，對這些問題進行系統性研究，藉此深入了解其成因後果是十分重要的。是次研討會提供了一個交流平臺，讓世界各地的科學家和學者就變形監測的最新研究成果交換意見和經驗。

是次研討會得以成功舉行，有賴理大建設與環境學院及部份企業鼎力支持。

瞭解研討會詳情，請登入大會網站，網址是 <http://dma.lsgi.polyu.edu.hk/index.html>。



BRE academic attends international forums on sustainable urban development

The China-Europa Forum organized 2 roundtables on urban sustainable development in March 2012. One took place in Brussels on 8 March; the other in Shanghai on 23 March. Prof. Edwin H. W. CHAN of the Department of Building and Real Estate participated in both of them. Co-organised by Friends of Europe and EUROCHAMBRES and co-funded by the European Commission, the roundtable in Brussels was part of a programme to understand China better. Two main topics were explored: "EU-China's Partnership for Sustainable Urbanisation" and "the Challenge of China's Urban Billion." Over 40 senior discussants representing a wide array of stakeholders, including policymakers, business leaders and academics from Europe and China, participated in the roundtable. Each session was opened by remarks from introductory discussants, among whom were WU Hailong, Ambassador and Head of the Mission of the People's Republic of China to the European Union (EU); LI Tie, Director General of the China Centre for Urban Development of the National Development and Reform Commission (NDRC); and ZHANG Jun, Deputy Director of the Chengdu Environmental Protection Bureau, China.

The theme of Greening China's Cities of Tomorrow was echoed two weeks later at the Shanghai roundtable, where more than a dozen scholars gathered on the campus of Tongji University to discuss issues like urban public space, urban communities, new towns around Shanghai, and strategies for low carbon cities. In his welcoming speech, Prof. WU Jiang, Vice President of Tongji University, pointed out that land use and the handling of land resources were the thorniest problem in China's urban development and expansion. Those who presented included



建築及房地產學系教授出席可持續都市化國際論壇

本年三月，建築及房地產學系陳漢雲教授出席了由「中歐社會論壇」就可持續都市化舉辦的兩輪圓桌會議。首輪會議於三月八日假布魯塞爾召開，由「歐洲之友」及「歐洲商會聯合會」協辦，並獲歐洲委員會資助，旨在增進與會者對中國的認識。會議的兩大主題是「歐洲與中國如何合作促進可持續都市化」及「中國十億都市人口帶來的挑戰」，逾四十位參加者中，不乏來自歐洲及內地的政府決策人、商界領袖和學者，代表性十分廣泛；而為會議不同環節致開幕詞的嘉賓，就包括中國駐歐盟使團團長吳海龍大使、國家發改委城市和小城鎮改革發展中心主任李鐵先生；以及成都市環境保護局副局長張軍先生。

兩周後(三月二十三日)在上海召開的次輪會議，繼續探討「中國未來城市的綠色發展」。與會的十多位學者雲集同濟大學，討論諸如都市公共空間、都市社群、上海周邊新城，以及低碳城市建設策略等課題。同濟大學副校長伍江教授致歡迎詞時指出，中國在建設和擴展城市的過程中，最棘手的就是土地資源的使用和處理。其他發言的講者包括《尋找失落空間》作者 Roger TRANCIK 教授、梅耶人類進步基金會項目主管 Julien WOESSNER 先生。陳漢雲教授則引用了香港的案例，講解怎樣在人口稠密的大城市推廣低碳建築。圓桌會議的成功，促使與會各方籌劃加強合作，甚或在日後發表聯合聲明。

城市和谐与可持续发展：中欧交流与对话

Urban Harmonious and Sustainable Development in Europe and China



Prof. Roger TRANCIK, author of *Finding Lost Space*; Mr Julien WOESSNER, Program Officer of Fondation Charles Leopold Mayer; and Prof. Edwin CHAN, who introduced green buildings for sustainable dense cities and shared specific cases from Hong Kong. The success of the roundtables prompted plans for further collaboration and possible joint publication in the future.

More details of the above roundtables can be found at:

<http://www.understandingchina.eu/Policydialogueevents/PolicySummits/tabid/881/EventType/EventView/EventId/1096/EventDateID/1109/PageID/5334/GreeningChinascitiesoftomorrow.aspx>

<http://www.china-europa-forum.net/IMG/pdf/1203.pdf>

如有興趣細閱兩次會議的詳情，可登入以下網址：

<http://www.understandingchina.eu/Policydialogueevents/PolicySummits/tabid/881/EventType/EventView/EventId/1096/EventDateID/1109/PageID/5334/GreeningChinascitiesoftomorrow.aspx>

<http://www.china-europa-forum.net/IMG/pdf/1203.pdf>



CSE Prof. speaks about the impact of PolyU's innovations

On the evening of 14 March 2012, Prof. Ni Yiqing of the Department of Civil and Structural Engineering was one of the star speakers at the first quarterly gathering to highlight the innovations of PolyU. His talk was on performance monitoring and vibration control of high-speed rail systems, which have developed rapidly with innovation in technology and become indispensable for economic growth in mainland China. As the coordinator of a PolyU inter-disciplinary research team engaged in devising novel sensors and dampers for real-time safety monitoring and smart vibration control, Prof. Ni has become an expert in this area. The Q & A session that followed was facilitated by Ir Prof. Alexander Wai, Vice President of Research Development at PolyU.

土木及結構工程學系教授講解理大新技術

三月十四日傍晚，土木及結構工程學系倪一清教授代表本院出席一個介紹理大創新科技的季度聚會，講解高速鐵路系統的結構安全監測和振動控制技術。近年，高速鐵路因科技進步而發展神速，對內地經濟增長舉足輕重。理大設有跨學科科研小組，專責為高鐵的實時安全監測及智慧振動控制研發新式感應器和阻尼器；身為小組統籌主任的倪教授，已成為該領域的專家。當日講座完畢後的答問環節由理大副校長(科研發展)衛炳江教授工程師主持。



Faculty Public Lectures 建設及環境學院公開講座



Prof. Makarand (Mark) Hastak, Professor and Head, Division of Construction Engineering and Management, Purdue University, gave a public lecture titled "A Decision Support System to Analyze Disaster Impacts on Communities and Industries due to Flood Damaged Infrastructure." (22 June 2011)

Prof. SUI Tongbo, Professor, Director General of Sinoma Research Institute, Vice President of China Sinoma Int'l Engineering Co. Ltd., gave a public lecture titled "Materials Innovation for Cement and Concrete Sustainability — China's effort." (23 June 2011)



Prof. Gangbing Song, Professor, Director of Smart Materials and Structures Laboratory at University of Houston, gave a public lecture titled "Wireless Sensor Network for Innovative Health Monitoring of Wind Turbine Blade with Active Sensing Approach." (8 July 2011)

Prof. Jerry Yan, Chair Professor of Energy Engineering at Royal Institute of Technology (KTH) & Mälardalen University, gave a public lecture titled "Solar Photovoltaic (PV)-Driven Water Pumping for Grassland Conservation." (31 August 2011)



Prof. Chen Junyong, Academician, Chinese Academy of Sciences, gave a public lecture titled "Chinese Beidou (Compass) Satellite Navigation System." (23 September 2011)

Prof. Surendra P. Shah, Walter P. Murphy Professor of Civil Engineering, Northwestern University, gave a distinguished lecture titled "Controlling Properties of Concrete Through Nanomodification." (8 November 2011)



Prof. Jan LM Hensen, Professor, Department of the Built Environment, Eindhoven University of Technology, Netherlands, gave a public lecture titled "Building Performance Simulation for Sustainable Building Design and Operation." (10 November 2011)

Prof. Wan-Xie Zhong, Professor, Dalian University of Technology, Member of the Academy of Science of China, gave a distinguished lecture titled "Symplectic Mathematics in Applied Mechanics and Optimal Control." (25 November 2011)



Prof. Xiao-Ling Zhao, Head of Department of Civil Engineering, Monash University, Australia, gave a public lecture titled "FRP Strengthening of Metallic Structures." (1 December 2011)



Dr Qihao Weng, Professor of Geography, Department of Earth & Environmental Systems, Indiana State University, gave a public lecture titled "Climate Change, Urban Heat Island, and Human Health: Gaps and Needs in Global Urban Remote Sensing." (13 December 2011)

Dr Arto Kiviniemi, Professor of Digital Architectural Design, Head of Design Directorate at the School of Built Environment, University of Salford, gave a public lecture titled "Global Drivers and Obstacles for Integrated BIM." (5 January 2012)



Dr Rudi Seracino, Associate Professor, Department of Civil, Construction, and Environmental Engineering, North Carolina State University, gave a public lecture titled "Towards the Rapid Repair of Damaged Reinforced Concrete Infrastructure." (6 January 2012)

Prof. José L. Torero, BRE Trust/ RAEng Professor of Fire Safety Engineering, Director of the BRE Centre for Fire Safety Engineering at The University of Edinburgh gave a public lecture titled "September 11th, 2001 – September 11th, 2011: 10 Years -10 Lessons on Sustainable Infrastructure." (9 February 2012)



Prof. Qingyuan Zhang, Professor, Department of Industrial Information at Tsukuba University of Technology gave a public lecture titled "Weather Database on Air-conditioning Design for Chinese Locations." (17 February 2012)

Prof. Dongping Fang, Professor and Head in the Department of Construction Management, School of Civil Engineering at Tsinghua University gave a public lecture titled "Safety Culture and BBS in Construction - from Research to Practice, from Practice to Research." (21 February 2012)



Dr Toshiyuki Kanakubo, Associate Professor, Department of Engineering Mechanics and Energy, University of Tsukuba in Japan, gave a public lecture titled "The Use of High-Performance Fiber-Reinforced Cementitious Composites for Building Applications." (21 March 2012)

Mr Edward K. Uhlir, Executive Director of Millennium Park Incorporated, gave a public lecture on "Chicago's Millennium Park – Its Creation and Its Impact." (22 March 2012)



Invitation for Programme Admissions 2012/13

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Building Services Engineering
Civil Engineering
Construction and Real Estate
Construction Law and Dispute Resolution
Environmental Management and Engineering
Facility Management
Fire and Safety Engineering
Geomatics (Geographic Information Systems)
Geomatics (Surveying)
International Real Estate (Zhejiang)
Project Management
Sustainable Urban Development

理學碩士 / 深造文憑

屋宇設備工程學
土木工程學
建築及房地產學
建築法及爭議解決學
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設施管理
消防及安全工程學
測繪及地理資訊學(地理資訊)
測繪及地理資訊學(測量)
國際房地產
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可持續城市發展學

Department

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BRE
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BSE
LSGI
LSGI
BRE
BRE
BRE
FCE

Bachelor's Degree

Building Engineering and Management
Building Services Engineering
Civil Engineering
Environmental and Occupational Safety and Health
Environment and Sustainable Development
Geomatics (Geo-Information Technology)
Geomatics (Land Surveying)
Geomatics (Utility Management and Surveying)
Property Management
Surveying

學士學位

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屋宇設備工程學
土木工程學
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環境與可持續發展
測繪及地理資訊學(地理資訊科技)
測繪及地理資訊學(土地測量)
測繪及地理資訊學(管線設施測繪與管理)
物業管理學
地產建設測量學

Department

BRE
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CSE
CSE
CSE
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LSGI
LSGI
BRE
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Higher Diploma

Building Services Engineering
Building Technology and Management (Engineering)
Building Technology and Management (Surveying)
Civil Engineering
Geomatics

高級文憑

屋宇設備工程學
建築科技及管理學(工程)
建築科技及管理學(測量)
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建築及房地產學系

2766-5807/ 5808/ 7770
<http://www.bre.polyu.edu.hk>

**Department of
Building Services Engineering
(BSE)**
屋宇設備工程學系

3400-3597
<http://www.bse.polyu.edu.hk>

**Department of Civil
and Structural Engineering
(CSE)**
土木及結構工程學系

2766--6052
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and
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2766-5968
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請於Study@PolyU 查閱最新資料，網址為www.polyu.edu.hk/study

Enquiries on Application and Admission 查詢申請及入學

Admission Office
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Forthcoming Events 最新消息

18th Congregation and Faculty Prize Presentation Ceremony

Date : 13-14 November 2012
Venue : The Hong Kong Polytechnic University

First International Conference on Performance-based and Life-Cycle Structural Engineering (PLSE 2012)

Date : 5-7 December 2012
Venue : Regal Kowloon Hotel, 71 Mody Road, Tsimshatsui, Hong Kong
Website : <http://www.polyu.edu.hk/fce/PLSE2012>

The 5th International Symposium on Transportation Network Reliability (INSTR)

Date : 18-19 December 2012, Hong Kong
Venue : The Hong Kong Polytechnic University
Website : <http://www.instr2012.org>

Motor Vehicle Emission Control Workshop (MoVE) 2012

Date : 5-7 December 2012
Venue : The Hong Kong Polytechnic University

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