

**CHAIRMAN'S
FOREWORD**
主席序言



OPENING MINDS

啟迪思維

PolyU is a university where academia and the real world intersect. We have never been an ivory tower. We are socially engaged, dedicated to excellence, and committed to delivering an education that benefits not only the individual but society as a whole.

These values are aptly reflected in the PolyU promise — **Opening Minds • Shaping the Future**. Through our enriched curriculum, we are opening young minds to new ideas and knowledge that will enable graduates to serve as professionals and caring citizens in the community. Through our world-class research, we are shaping the future with ground-breaking discoveries and knowledge transfer.

Opening the minds of learners

Recently, we broadened our educational reach by launching three Massive Open Online Courses (MOOCs). These courses — Knowledge Management and Big Data in Business, Human Anatomy, and English@Work in Asia — were launched in 2015 on the HKPolyUx platform. The response has been overwhelming, with very encouraging enrolments.

MOOCs blend education, multimedia and social networking, and are designed with the learner in mind. To make these courses even more immersive, the University has set up a dedicated studio to produce highly interactive videos for MOOC development.

理大從來不是象牙塔，是一所學術與現實世界匯聚一起的大學。我們與社會緊密相連、矢志追求卓越，並致力提供對個人和整體社會皆有裨益的優質教育。

這些核心價值在理大的教研承諾「**啟迪思維 • 成就未來**」中體現出來。透過豐富多元的課程，我們致力啟迪年青一代的思維，傳授知識，栽培畢業生成為專業人才和關心社會的公民；憑藉世界級的科研，我們以具突破性的創新發明、以及科技轉移，成就未來。

擴闊視野 懷抱世界

最近我們推出三項大型開放式網絡課程 (MOOCs)，以期進一步拓展與世界在教育上的聯繫。透過 HKPolyUx 平台，我們在 2015 年推出了「商業的知識管理和大數據」、「人體解剖學」和「English@Work in Asia」課程，反應非常熱烈，報讀人數令人鼓舞。

大型開放式網絡課程將教育、多媒體和社交網絡糅合一起，按學習者的需要而設計課程。為了讓這些課程更加充實，大學成立了一所製作室，製作高度互動錄像，以配合 MOOCs 的發展。





By offering MOOCs, we have created a model for group-design, group-delivery and group-learning, shaping a future trend for tertiary institutions and inspiring more teachers to adopt blended learning. We have no doubt that this initiative will broaden the global exposure of our students and teachers, as well as contribute to the internationalization of our programmes.

PolyU supports students in reaching out to the world and widening their international perspectives through numerous valuable opportunities in overseas exchange, internships and academic partnership programmes.

One example of the innovative programmes being offered is the tripartite MSc in Global Hospitality Business introduced by our School of Hotel and Tourism Management in collaboration with the Ecole hôtelière de Lausanne in Switzerland and the Conrad N. Hilton College of Hotel and Restaurant Management at the University of Houston in the United States.

This programme aims to prepare future leaders for a successful career in the rapidly-growing field of hospitality management by giving them strong international exposure. Students will first attend classes in Switzerland and then move to our School in Hong Kong for their second semester, before completing their third semester in Houston. They will benefit from the exposure and knowledge to be gained across three continents with significantly different cultures.

藉著提供 MOOCs，我們為集體設計和集體教學創新模式、帶動了未來高等學府的潮流，並啟發更多教師採用混合式教學法。我們深信這項嶄新發展將可開拓師生的環球視野，有助理大課程進一步國際化。

理大支援學生面向世界，通過大量海外交流和實習的寶貴機會，以及學術協作計劃，擴闊他們的國際視野。

其中一個創新的學術協作計劃，就是理大酒店及旅遊業管理學院與瑞士洛桑酒店管理學院及美國休斯頓大學康拉德·希爾頓酒店及餐飲管理學院三方合辦的環球酒店管理碩士課程。

這項課程致力為發展蓬勃的酒店管理業培養明日領袖，積極開拓他們的國際視野。學生首先在瑞士上課，第二學期則到香港的理大酒店及旅遊業管理學院學習，最後前赴美國休斯頓完成第三學期的課程。學生涉足三大洲，感受截然不同的文化，這些學習經驗定必令他們獲益良多。



Opening the door to cutting edge research

PolyU supports a culture of research excellence that challenges boundaries and discovers new knowledge for the benefit of mankind. By exploring the intersections of various disciplines, our researchers have continued to make valuable discoveries throughout the year.

In one of the year's significant research advances, our researchers have developed a big data analysis platform that can process massive amounts of data to analyse 0.2 billion gene pairs in just two days. The platform is being used to explore the interactions among genes, and identify potential diagnostic and therapeutic target genes in chronic myelogenous leukemia. It can also be readily applied to the investigation of gene markers in other diseases.

In another scientific study, PolyU researchers have found that 87% of nasopharyngeal carcinoma patients who received radiotherapy developed carotid atherosclerosis, thus placing them at higher risk of stroke. The reason for this was that ionizing radiation in that therapy damages the carotid artery and can lead to carotid atherosclerosis, resulting in a bigger chance of transient ischemic attack and stroke. The findings supported our recommendations for surgeons to effectively control doses of radiotherapy and for patients to undergo ultrasound carotid evaluation regularly.

In addition to studies aiming to improve human health, our researchers also explore ways to protect the environment. A PolyU team has developed a new catalyst for green biodiesel production from unrefined feedstock such as waste cooking oil. The catalyst can be reused over 30 times, making it a clean and energy-saving innovation.

尖端科研 開拓無限

理大推崇卓越的科研文化，挑戰極限，開拓知識，造福世界。年內，科研人員積極進行跨學科研究，成就多項極具價值的創新發明。

年內其中一項重大科研成果，就是科研人員開發的大數據分析平台，它只需兩天便完成分析兩億個基因對。這個平台用以分析基因之間的相互作用，亦用於識別診斷及治療慢性骨髓細胞白血病的潛在標靶基因，更可廣泛應用於研究其他疾病的基因。

在另一項科學研究中，理大科研人員發現百分之八十七曾接受放射治療的鼻咽癌患者出現頸動脈粥樣硬化，增加他們中風的危險。原因是這類治療產生的電離子輻射會破壞頸動脈，可引致頸動脈粥樣硬化，造成短暫性腦缺血發作及中風。根據研究結果，我們建議外科醫生適當控制及調校放射治療劑量，而患者亦應定期進行頸動脈超聲波檢查。

除了有助改善人類健康的研究，我們的研究人員還探討如何保護環境。一支理大團隊研發出從廢棄食用油等未經提煉的原料，合成為新的綠色生物柴油催化劑。它可重用三十多次，是一項環保及節能的創新發明。



Opening up opportunities in knowledge transfer

We are also working to find new ways to facilitate knowledge transfer to industry. One such avenue was the International Knowledge Transfer Conference, organized in December 2014 as the first-day event of the APAC Innovation Summit. During the Conference, a President Forum with the theme Leveraging Knowledge Transfer for Institutional Advancement was held for heads of institutions to discuss their respective efforts and achievements in driving university-industry knowledge transfer.

PolyU's technology transfer initiatives span various industries. In 2014/15 alone, our turnover from consultancy and licensing grew to HK\$113.8 million. Throughout the year, examples abound of PolyU providing solutions for industry.

Our Aviation Services Research Centre developed an automated process that uses a portable laser drilling template to streamline the workflow for replacing the outer skin parts of aircraft. This industrial breakthrough has led to a substantial improvement in the accuracy and quality of repair work, with a reduction in the replacement time for an aircraft outer skin panel from five hours to less than half an hour.

Partnered with the Hong Kong Research Institute of Textiles and Apparel, our researchers have developed a novel wearable electronic technology and thermal fabric. With batteries the size of those in mobile phones, the fabric can be customized and produced in various patterns, with different heating positions and temperatures for household and medical applications.

轉移知識 締造機遇

此外，我們積極尋求推動知識轉移的新方法。2014年12月，理大舉辦了「國際知識轉移論壇」，作為「亞太創新峰會」的首天活動。論壇中，理大舉辦了題為「利用知識轉移促進院校發展」的校長論壇，匯聚大學領導層，分享大學與業界在知識轉移方面的努力和成果。

理大的技術轉移項目惠及各行各業。僅在2014/15年度，來自顧問服務和技術授權的收入已達港幣一億一千三百八十萬元。年內，理大繼續為各行各業提供解難方案，例子比比皆是。

航空服務研究中心完成了「雷射投影鑽孔模板與自動化機械鑽孔」項目，利用手提雷射鑽孔模板的自動化程序，精簡更換飛機外層組件的工作流程。這工業上的突破大幅提升維修工作的準確度和質量，並讓更換飛機外層面板的工序時間由五個小時縮減至少於半小時。

我們的科研人員與香港紡織及成衣研發中心合作，研發出嶄新的電子服裝技術及發熱織物。這種織物僅需配上如手機電池般大小的電池，便可按照圖案在不同的位置供熱和產生不同熱度，可應用於家居及醫療護理等領域。

Opening new horizons in social innovation

The University has been contributing to social innovation in creative ways. The PolyU Running Team at the Standard Chartered Hong Kong Marathon 2015 joined with FOODSPORT to convert the calories burned during the run into food units that were donated to Food Grace. With a record high of 4,000 students, staff, alumni, family members and friends joining this meaningful event, PolyU was awarded the Top Prize of Most Supportive Group Award for the sixth consecutive year.

In another demonstration of our commitment to social innovation, PolyU students initiated the Enlighten project in September 2014. More than 1,500 members from the University community successively pedalled static bikes over a 24-hour period to generate clean electrical energy and promote renewable energy, sustainable development and a healthy lifestyle.

社會創新 創建新猷

一直以來，大學以具創意的方法推動社會創新。參與渣打香港馬拉松 2015 的理大長跑隊與本地社會企業「膳動衡 FOODSPORT」合作，將隊員在賽事中所消耗的卡路里轉化為食物單位，然後捐贈給另一社企「食德好」。由四千多名學生、教職員、校友及其親友組成的理大長跑隊，參與這次饒富意義的活動，人數創下歷史新高，讓我們連續第六年奪得「最鼎力支持大獎」冠軍。


另一社會創新項目，是理大學生 2014 年 9 月發起的「燃啟理大」項目，集合一千五百多名大學成員在二十四小時內持續不斷地踏單車以產生環保電力，藉此宣揚可再生能源、可持續發展及健康生活。





We are socially engaged, dedicated to excellence, and committed to delivering an education that benefits not only the individual but society as a whole.

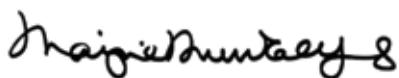
我們與社會緊密相連、矢志追求卓越，並致力提供對個人和整體社會皆有裨益的優質教育。



The journey ahead

Our achievements throughout the year are just some of the many possible openings for us to benefit our world and shape a better future for us all. There is still a long way to go in this journey. However, I am certain that, with the continued dedication of the PolyU community, we can contribute many positive changes in our efforts towards reaching these goals.

I would like to take this opportunity to extend my appreciation to our Council and Court Members, as well as our University management, staff, students and alumni, for their support and contributions in this exciting journey.



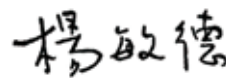
Marjorie Yang, *GBS, JP*
Chairman of Council

December 2015

全力以赴 開關前路

年內我們取得的豐碩成果，只是眾多造福世界和建設未來的工作中，可供理大參與的一部分。前路仍然漫長，但我深信憑著理大社群的全情投入，我們會朝著目標努力，為社會帶來更多的正向改變。

本人衷心感謝各校董會及大學顧問委員會成員、大學管理層、教職員、學生和校友，在這個精彩旅程中給予的支持和作出的貢獻。



校董會主席
楊敏德, *GBS, JP*

2015年12月



The Council 校董會

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朱偉志博士

Prof. Iris Benzie

Ir Prof. Johnny Fan Siu-kay
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