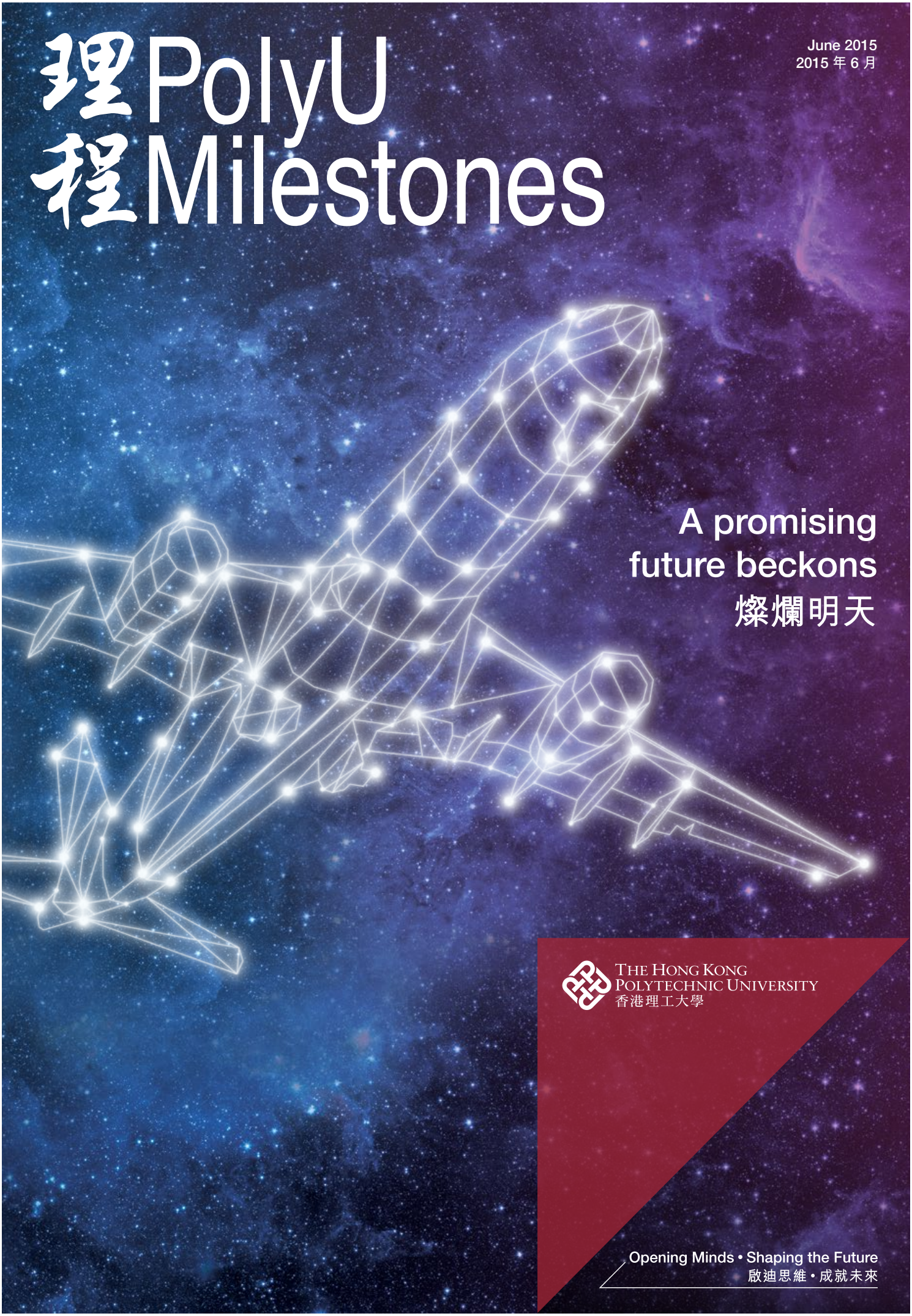
理PolyU 程Milestones

June 2015
2015 年 6 月



A promising future beckons
燦爛明天

THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

Opening Minds • Shaping the Future
啟迪思維 • 成就未來

理PolyU
程Milestones

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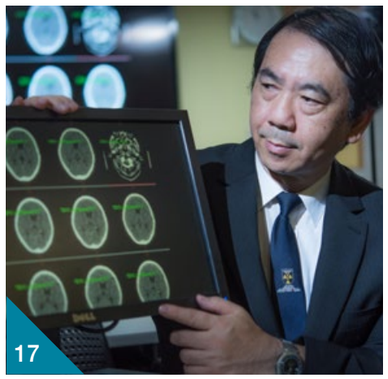
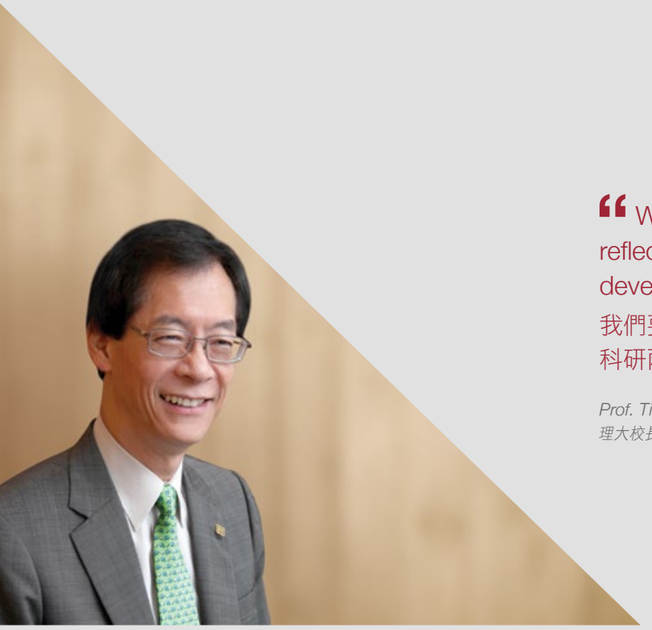


A promising future beckons
燦爛明天

In an era characterized by fierce competition and ever-increasing challenges, PolyU has reaffirmed its commitment to education and research with the new brand promise “Opening Minds • Shaping the Future”.

在這競爭激烈和挑戰與日俱增的年代，
理大謹以「啟迪思維・成就未來」作為教研承諾 ，
積極履行使命，貢獻社會。



> We want to keep the PolyU brand fresh, reflecting the positive impact we bring to the world's development through education and research.
> 我們要讓理大這品牌與時並進，體現大學在教育和科研兩方面對世界的發展帶來的正面影響。

Prof. Timothy W. Tong, President of PolyU
理大校長唐偉章教授

Educational institutions around the world value opportunities to communicate their philosophies to stakeholders, not only through contributions and achievements but also through the impression they create of themselves. A brand is a distinguishing mark that sets one institution aside from all others, emphasizing its long-term strengths and the promise it holds for the future.

As President of PolyU, Prof. Timothy W. Tong, put it, "we want to keep the PolyU brand fresh, reflecting the positive impact we bring to the world's development through education and research".

In that light, PolyU's Strategic Plan for 2012/13-2017/18 identified among the University's key goals the need to promote itself "as a unique brand locally and globally". A brand audit followed in 2014, with surveys, interviews, focus group discussions and debates conducted. The objective is to determine the key messages we want our stakeholders to hear.

President Tong said, "the brand audit was instrumental in ascertaining how the University was performing in the eyes of our stakeholders. This exercise also let us re-discover our strengths and potential".

世界各地的教育機構都珍惜向持份者傳達其理念的機會，除了透過在不同領域的貢獻和成就去傳達之外，亦善用學府本身所塑造的形象。品牌展示了大學的長期優勢，以及對未來的承諾，是一個獨特的標記，用以和其他大學區分。

理大校長唐偉章教授認為：「我們要讓理大這品牌與時並進，體現大學在教育和科研兩方面對世界的發展帶來的正面影響。」

有見及此，在理大 2012/13-2017/18 策略發展計劃訂立的重要目標當中，其中一項就是「在本地及海外建立大學的獨特品牌」。一項品牌審核計劃隨即於 2014 年開展，並進行了問卷調查、訪問、焦點小組討論和辯論，目的是要找出我們想持份者收到的主要訊息。

唐校長續說：「品牌審計有助於確定大學在持份者眼中的表現，並讓我們重新發掘自己的優勢和潛能。」

More than evolution
超越演變 長足發展

Critical in the decision of using "Opening Minds • Shaping the Future" as our promise rightly demonstrated that our education, research and partnerships are driven by a human touch, with everything we do contributing to the betterment of Hong Kong, the nation and the world.

Indeed, our brand promise reflects more than just a continued evolution alongside local and global socioeconomic development. Rather, it describes an institution that nurtures many bright minds who have advanced society through a platform on which practical but world-changing ideas are conceived and brought to life.

Our relentless pursuit of excellence has driven us to develop an innovative approach to education that combines professional knowledge with Service-Learning and real-world experience, and research that manifests an entrepreneurial spirit capable of changing lives. Far more than other universities, PolyU serves the communities that support it, anticipating rather than merely responding to their needs.

Social responsibility underpins the University's directions. PolyU never stops inspiring the people who will change tomorrow, as ethical leaders, world-changers, social innovators, problem solvers and nation builders. They are truly making a world of difference.

理大決定採用「啟迪思維 • 成就未來」這個承諾，關鍵在於反映我們在教育、科研和夥伴關係方面的工作，都強調以人為本的重要性，以期我們所做的一切能令香港、國家和世界更美好。

事實上，我們的品牌承諾不僅體現了理大一直隨著本地和全球社會和經濟發展而演變，更描畫出一所培育傑出人才的學府，致力讓開天闢地的構思意念孕育成長，以促進社會進步。

我們努力不懈追求卓越，推出嶄新的教育模式，將專業知識、服務學習和現實社會體驗結合起來。我們的科研成果既體現企業精神，且有助改善生活。相對其他大學，理大更重視支援社區，不只回應社區的需求，更預期未來的需要。

社會責任是大學發展方向重要的一環。而理大從未停步，不斷啟發年青一代開拓明天，成為立於仁德的領導者，挑戰現狀，推動創新，解決因難，貢獻國家，為人類社會帶來正向改變。

Inspiring future leaders
培育領袖 放眼未來

Learning to serve, serving to learn
學以致用 關顧社群

PolyU is a nexus of experiential possibilities.
理大是一所凝聚無限可能、不斷探索的學府。

A critical feature of education at PolyU is ensuring that our students have the breadth of vision and experience to lead others into the future. Far from being an ivory tower, the University is a nexus of experiential possibilities.

Imagine a university that gives students the opportunity to build solar powered e-learning platform for underprivileged children in Rwanda or preserve the cultural heritage of a quake-hit village in rural China through eco-tourism. Since 2012, when PolyU launched its four-year undergraduate curriculum, we have made Service-Learning a credit-bearing requirement, which distinguishes us from other universities in Hong Kong.

As PolyU President, Prof. Tong, put it, “we want to nurture global citizens and instil in them a serving heart and strong sense of social responsibility”. He added that “Service-Learning is not just volunteer work. It’s an integral part of a holistic education”.

Another key element of that approach is PolyU’s Work-Integrated Education requirement. Work-Integrated Education, realized as internships in Hong Kong, the Chinese mainland and the wider world, exposes students to organizations relevant to their future professions and allows them to develop generic skills.

As an additional impetus to developing the qualities that make leaders stand out, PolyU offers students a Micro Fund Scheme that supports start up projects with the aim of developing a “Do Well Do Good” entrepreneurial spirit. Also available for both students and graduates is the Good Seed Programme, which nurtures social innovators. These are the type of people who move us all forward.

The Work-Integrated Education requirement exposes students to experiences relevant to their professions.
校企協作教育計劃讓學生汲取與其專業相關的經驗。

理大教育模式的一個重點是確保學生有廣闊的視野和豐富的經驗，足以擔當領導者的角色，迎向未來。這裏絕對不是「象牙塔」，而是一所凝聚無限可能、不斷探索的學府。

可曾想過有一所大學能讓學生在盧旺達為弱勢兒童設置太陽能網上學習平台，或是在受地震摧毀的中國農村推動生態旅遊，以保存文化遺產？自 2012 年大學推行四年制本科課程開始，理大將服務學習編為必修的學分課程，正是與其他大學不同的地方。

校長唐教授表示：「我們希望培育出世界公民，讓他們懷抱服務人群的心志及社會責任感。」他補充，「服務學習不僅是義務工作，更是全人教育中重要的一環」。

理大教育的另一重要元素是校企協作教育計劃。這計劃安排學生在香港、中國內地或海外在與其專業相關的機構中實習，從而幫助他們培養職場所需的能力。

為了協助學生培養領袖的特質，理大設立一個微型基金計劃，以支援剛起步的商業項目，藉以推廣「創富創善」的企業家精神。此外，在學學生和畢業生均可申請「好善社」計劃，該計劃旨在培育社會創新者。這群年輕創業家，正好帶領社會向前邁進。

The Service-Learning element of education at PolyU involves more than just exposure to real-world problems. As the basis of forming leadership skills, it changes the way students think and offers new perspectives on the world around them.

Consider the Service-Learning trip to Cambodia that students from the School of Optometry embarked on in summer 2014 to provide eye screening for HIV-infected orphans in Phnom Penh, the capital. The students quickly drew inspiration from the children. One student, So Wai-yan, said that “before the trip, we thought AIDS was very horrible and children with AIDS must feel desperate”. Yet they soon observed that “AIDS is not horrible and the children are just like other people. They even know better how to cherish life.”

Other students and staff from computing, hotel and tourism management, and biomedical engineering also helped out in the area, developing e-learning labs for schoolchildren, building solar-powered lights for rural villages, visiting lonely seniors in a slum and training guesthouse staff.

Students joining other Service-Learning projects have also been inspired. For example, those who worked with rehabilitation centres in Guangdong to provide prosthetic and orthotic services for children with cerebral palsy returned with a greater commitment to the profession they have chosen. In all cases, the benefits flowed both ways.

Service-Learning in mainland China
在中國內地進行服務學習

理大的教育元素中，服務學習之項目不僅讓學生接觸現實世界的問題，更是培養領導才能的基礎，有助改變學生的思維，並開拓他們的世界視野。

2014 年夏天，理大眼科視光學院學生前往柬埔寨首都金邊，為當地患有愛滋病的孤兒進行眼睛檢查。不久，學生便從這些兒童身上得到了啟發。「出發前，我們覺得愛滋病很可怕，患愛滋病的孩子必定活在絕望之中」，學生蘇暐恩說道。「但我們發現，愛滋病並不可怕。這些孩子亦與其他人無異，他們甚至更懂得珍惜生命。」

來自電子計算學、酒店及旅遊業管理學，以及生物醫學工程的學生和教職員亦到柬國服務。他們為學童建立網上學習教室、在農村安裝太陽能燈、探訪貧民區的孤獨長者，以及培訓旅舍員工。

參與其他服務學習項目的學生同樣在服務經驗中得到啟發，例如與廣東省的康復中心合作為腦癱兒童提供義肢和矯形服務的學生，經過這次服務學習，對他們所選擇的專業變得更加投入。服務學習計劃確實讓學生與受惠者雙方都有所得著。

Service-Learning in Cambodia
柬埔寨服務學習

Bettering the world for all
改善世界 持續發展

The benefits derived from some PolyU research and innovations can also have implications that are very far reaching though not immediately obvious. A case in point is the development of the Soil Preparation System (SOPSYS) for the Phobos Grunt mission to Mars in November 2011.

Prof. Yung Kai-leung, Associate Head of the Department of Industrial and Systems Engineering, and his team were invited by the Russian Federal Space Agency to develop the device to sift through the soil of Mars' innermost moon, Phobos, looking for signs of life. Even though the Phobos Grunt mission crashed back to Earth in 2012, the effort put into SOPSYS was worthwhile. Prof. Yung explained that "the knowledge we have accumulated from the research over the years will be useful for future scientific development".

This was certainly recognized when SOPSYS received the Grand Prize and a Gold Medal with the Congratulations of Jury at the 42nd International Exhibition of Inventions of Geneva in 2014. Although PolyU's ground-breaking innovations have received many awards over the years, even more important is the lasting impact they have on the advancement of knowledge and mankind.

The same sort of commitment to advanced applied research has led in various other directions. Technologies developed by the Aviation Services Research Centre have been used to enhance aircraft safety, and environmental protection has been at the core of research leading to eco-blocks made of recycled solid wastes and an in-building hydropower generation system. The year 2013 saw the establishment of the Research Institute for Sustainable Urban Development, a further step in PolyU's on-going efforts to innovate responsibly.

一些理大的創新科研所帶來的效益，目前雖不明顯，但可能影響極其深遠。其中一個例子是在 2011 年 11 月被採用於「火衛一土壤」火星探索任務中的行星表土準備系統。

工業及系統工程學系容啟亮教授及其團隊應俄羅斯聯邦航天局的邀請開發一部儀器，用以篩濾火衛一（火星最內層的衛星）的土壤，從而探究生物的痕跡。雖然最終「火衛一土壤」於 2012 年墜落地球，研究人員為研發這系統所付出的努力是值得的。容教授解釋，「從事這項研究多年所累積的知識有助於將來的科研發展」。

在 2014 年第四十二屆日內瓦國際發明展上，這系統榮獲特別大獎及評判特別嘉許金獎，其科研成就予以肯定。多年來，理大的突破性科研成就獲獎無數，但更重要的是其推動知識創新及人類進步的長遠影響。

同樣地，理大亦致力促進應用科研，並在不同範疇中取得成果。航空服務研究中心開發的科技已應用於提升飛機安全；大學推動環境保護，促成了應用由回收固體廢料循環再造的環保磚，以及大廈水力發電系統的研究和發明。2013 年，可持續城市發展研究院正式成立，正好見証理大在不斷創新以履行社會責任方面，又邁進了一大步。

Soil Preparation System
行星表土準備系統

Technologies developed by the Aviation Services Research Centre enhance aircraft safety
航空服務研究中心開發的科技有助提升飛機安全

Innovating for social good
科研突破 造福社會

Lab test to develop a new inhibitor
實驗測試新型抑制劑

Other areas in which PolyU has innovated for the social good are literally life-saving. For instance, our researchers have developed drugs that can deplete nutrient of cancer cells and have successfully reversed cancer drug resistance using a new inhibitor in breast cancer treatment.

A team led by Profs. Larry Chow and Bill Chan at the Department of Applied Biology and Chemical Technology has developed a new inhibitor derived from Apigenin Flavonoid Dimer, found in plants such as parsley and celery, that prevents cancer cells from rejecting drugs. "The inhibitor can specifically bind to the cancer cell's drug pump and reverse cancer drug resistance", explained Prof. Chow. "More importantly, it is 10 times more potent and three times safer than the best inhibitor available in the market."

The inhibitor will soon be incorporated into the drug Paclitaxel, which is commonly used in treating breast cancer, in cooperation with Kinex Pharmaceuticals.

Other research teams at PolyU have made similar health-related contributions to the social good, such as the radiation-free Scolioscan for accurately monitoring scoliosis of the spine, the Defocus Incorporated Soft Contact Lens to correct myopia in children; and the Rehab Sleeve that improves the limb functioning of stroke patients.

理大在造福社會的創新領域上，亦包括拯救生命這一範疇。例如，科研人員研發出可消耗癌細胞生長所需養料的藥物，以及在治療乳癌中利用嶄新的抑制劑，以逆轉癌症藥物的抗藥性。

由應用生物及化學科技學系周銘祥教授及陳德恆教授率領的團隊，從植物中（如香芹及西芹）研發出的芹菜素黃酮類二聚體的嶄新抑制劑，可防止癌細胞抵抗藥物。周教授解釋：「這抑制劑可堵住癌細胞把藥物泵走，以逆轉癌症藥物抗藥性。更重要的是，與市面上最有效的抑制劑比較，這種新的抑制劑能逆轉抗藥性的效力高出十倍，其安全性更高出三倍。」

理大將與 Kinex Pharmaceuticals 合作製造這種抑制劑，並用於普遍的乳癌治療藥物 — 紫杉醇。

大學其他科研團隊亦有很多和健康有關的發明，裨益社會。例如無輻射 Scolioscan 可精確地監測脊柱側彎的程度，利用「光學離焦」的軟性隱形眼鏡可改善兒童近視情況，而康復袖則可用於改善中風患者的肢體功能。

Clinical trial of the Defocus Incorporated Soft Contact Lens shows promising results in retarding myopia progression in children.
臨床測試結果顯示「光學離焦」軟性隱形眼鏡有效放緩兒童近視加深的速度。

Finding solutions for industry
尋求創新 推動工商

i.Dummy is a robot mannequin.
i.Dummy 是一部機械軀體模型。

Examples abound of PolyU providing solutions for industry and even anticipating future trends. A key part of our drive to excel has been our commitment to invent not just novelties but solutions to real world problems that actually benefit and substantially change industries.

Major solutions include the Nu-Torque Singles Ring Yarn Technology that has revolutionized yarn production and textile quality; and Tomorrow's Guestrooms at Hotel ICON, PolyU's teaching and research hotel, which are setting standards for the hotel rooms of the future.

Another industry changing innovation, winner of the Grand Award and the Category Award (Silver) at the Design for Asia Awards 2014, is i.Dummy, a robot mannequin set to revolutionize the garment industry.

Developed by Dr Allan Chan, Associate Professor at the Institute of Textiles and Clothing, and his team, i.Dummy is a robotic female torso that can simulate any body type, drawing on a massive database of body sizes collected from American, European, Japanese and Chinese sources. With this system, "a single mannequin fits all", Dr Chan said. "Workshops or shop-floors won't have to stock mannequins of different sizes, which often take up lots of valuable working space."

Garment factories will now be able to supply products suitable for multiple international buyers, and as the mannequin can be adjusted through a user-friendly graphical user interface on a computer or smartphone, consumer reluctance to purchase clothing online should decline. PolyU stays one step ahead of industry needs, helping to shape market conditions.

Nu-Torque Singles Ring Yarn Technology produces yarn with higher strength and excellent softness.
「扭妥」環錠紡紗技術可生產出高強度及柔軟的環錠紗線。

理大為業界提供解決方案，以至預測未來的發展趨勢，例子比比皆是。我們追求卓越，致力創新，但目的不單在於求「新」，而是要解決現實世界的問題，促進各行各業的發展。

為業界研發的主要解決方案包括：利用「扭妥」環錠紡紗技術革新紗線的生產和改善紡織品的質素；在理大教研酒店唯港薈塑造「明日客房」，為未來酒店房間的設計樹立新標準。

另一項革新製衣業的創意發明是 i.Dummy，它是一個機械軀體模型，在 2014 年的亞洲最具影響力設計獎中，更勇奪大獎和產品及工業設計組別銀獎。

由紡織及製衣學系副教授陳志駒博士與其團隊研發的 i.Dummy，是一個智能機械女性軀體模型，可因應任何身型改變其尺碼，並參考了大量來自歐美、日本及中國的人體尺碼數據。陳博士表示：「i.Dummy 可利用一副人體模型調節出不同的尺碼，工場或舖面無需再存放大批不同尺寸的人體模型，省卻許多珍貴的工作空間。」

成衣廠商現可為世界各地的買家提供適切的產品；同時，因這軀體模型可透過簡易的用戶界面以電腦或智能電話來調節尺碼，消費者於網上購買衣物的顧慮亦將減低。由此可見，理大早著先機，以滿足行業的需求，引領市場的發展。

Contributing to the nation
參與發展 貢獻國家

The Smart Railway Monitoring System applied in high-speed rail allows real-time monitoring of structural and operational conditions.
高鐵應用了智能鐵路監測系統，以實時監測結構和操作情況。

PolyU researchers have played important roles in furthering the Chinese mainland's scientific endeavours. Key national infrastructure has been the focus of two significant efforts, with our researchers developing a Smart Railway Monitoring System that can be used on the nation's high-speed rail network and a Structural Health Monitoring System that provides life-cycle screening of the safety of mega-structures.

Also in terms of nation building, the University joined hands with Sichuan University in 2013 to establish the Institute for Disaster Management and Reconstruction to provide support and train professionals for quake-relief work in the areas of nursing, rehabilitation, social work and psychology.

Representative of contributions to more broadly ambitious projects is the Camera Pointing System deployed aboard the Chang'e-3 lander that touched down on the Moon on 14 December 2013. A team led by Prof. Yung Kai-leung was tasked with co-developing the system with the China Academy of Space Technology. The result was a highly compact and lightweight system that made possible the clear images beamed back to Earth.

Prof. Yung expressed optimism that his team's achievements would inspire a new breed of scientists. "I hope our participation in the nation's space mission can arouse young people's interest in science," he said. Then he offered advice that perfectly reflects the PolyU promise in both research and education. "Be ambitious. Follow your dreams." In other words, lead on with open minds and shape the future.

理大研究人員在促進中國內地的科技發展上擔當重要的角色。研究人員在兩類國家重點基礎建設上作出了貢獻，他們開發了智能鐵路監測系統，用於國家高速鐵路網絡；又研發出結構健康監測系統，檢測大型結構在其全壽命期內的結構安全。

在建設國家方面，理大又與四川大學於 2013 年共建「災後重建與管理學院」，以支援災後護理、康復治療、社會工作和心理學方面的工作，並培訓有關專才。

影響深遠而具代表性的項目包括，由容啟亮教授帶領團隊與中國空間技術研究院共同研發的「相機指向機構系統」。它於 2013 年 12 月 14 日隨嫦娥三號著陸器登陸月球。此精密且輕巧的系統，有助把清晰的月球影像圖傳送回地球。

容教授深信其團隊的成就可以啟發年青一代的科學家，「我希望藉著參與國家航天計劃，可以喚起年青人對科學的興趣」。他寄語年青人要「懷抱壯志雄心，追尋夢想」，這正與理大的教研承諾不謀而合，就是「啟迪思維・成就未來」。

Camera Pointing System is the first Hong Kong made instrument deployed in China's lunar exploration programme.
「相機指向機構系統」是首部在香港製造，並用於中國探月工程的儀器。

Harvest of awards at Geneva's Invention Expo

日內瓦國際發明展 理大載譽歸來

PolyU researchers brought home 15 awards at the 43rd International Exhibition of Inventions of Geneva, including two Grand Prizes, two Special Gold Medals, four Special Merit Awards, three Gold Medals and four Silver Medals.

科研人員在第四十三屆日內瓦國際發明展上囊括十五個獎項，包括兩項特別大獎、兩項特別金獎、四項特別優異獎、三項金獎及四項銀獎。

Grand Prize and Gold Medal with the Congratulations of Jury
特別大獎及評判特別嘉許金獎

i.Dummy: Robotic Mannequin for Fashion Design and Fitting
i.Dummy: 智慧可調節型人體模型
Principal Investigator: **Dr Allan Chan Chee-kooi**, Institute of Textiles and Clothing
發明者：紡織及製衣學系**陳志駒博士**

Apart from top-half body, i.Dummy also covers other body parts such as the upper limb and bottom half.
i.Dummy 除設有上半身軀之外，還有其他例如上肢及下半身軀的部位。

The apparel industry relies heavily on mannequins for apparel design, fitting, alteration and size gradation, but traditional mannequins of different sizes take up much work and storage space. With this limitation in mind, PolyU researchers developed an intelligent robotic female torso dubbed "i.Dummy" that can change almost immediately to adapt to almost any body type, of any size or ethnic background.

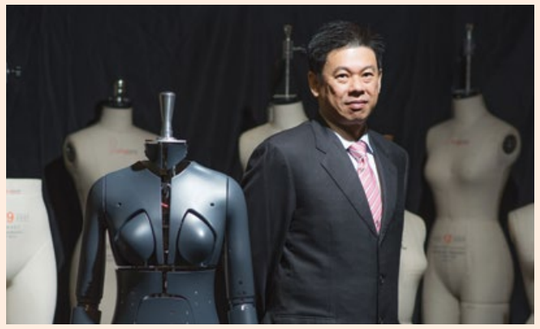
At the heart of i.Dummy is a massive database of body sizes collected from populations worldwide, developed by a research team featuring experts in anthropometry and mechatronics.

The mannequin can vary its width, thickness and length simultaneously and automatically through a user-friendly graphical user interface on a computer or smartphone via Bluetooth. Users can also save the configuration and reload it when needed. With its ability to assume any body shape in just a few seconds, i.Dummy accelerates the process of apparel design and development, enhancing the competitiveness of the garment industry.

時裝業界都甚為依賴人體模型來設計服裝、度身試身和調整尺碼，但傳統不同尺寸的人體模型卻佔有很多工作及存放空間。有見及此，理大研究人員研發出一個智能機械女性軀體模型，稱為「i.Dummy」，它可因應任何身型、尺寸或人種，在瞬間改變其尺碼。

i.Dummy 的核心是一個龐大的人體尺碼數據庫，該數據庫由人體測量學及機械電子學專家組成的研究團隊研發出來，收集了大量來自世界各地的人體尺碼資料。

只需透過簡易的電腦介面或智能手機藍牙技術，這人體模型的寬度、厚度和長度都能同時自動改變。使用者更可儲存配置數據，方便隨時提取資料。i.Dummy 可於數秒內調節其體型，確實有助加快服飾設計及發展的過程，提升製衣業的競爭能力。



Dr Allan Chan Chee-kooi
陳志駒博士

Grand Prize and Gold Medal 特別大獎及金獎

Catalyst for Green Biodiesel Production from Unrefined Feedstock
綠色生物柴油催化劑

Principal Investigator: **Dr Yung Ka-fu**, Department of Applied Biology and Chemical Technology
發明者：應用生物及化學科技學系**容家富博士**

Biodiesel and catalyst
生物柴油及催化劑

Biofuel is a natural and renewable diesel engine fuel derived from biological materials, such as plants oils and animals fats. However, the purification of traditional liquid biodiesel catalyst generates a huge amount of wastewater. PolyU researchers have thus adopted precise surface chemistry engineering to develop a new class of solid catalyst for use in biodiesel production.

This new Catalyst for Green Biodiesel can be synthesized in one step from low-grade unrefined feedstock such as waste cooking oil, with no aqueous treatment steps required. Ethanol or propanol extracted from plants can also be used to replace methanol in the synthesis to avoid the usual intense reliance on petroleum. With high catalytic activity, the catalyst can operate at significantly lower temperatures and pressures than existing solid biodiesel catalysts, and be reused more than 30 times. It is most certainly a clean, energy-saving and cost-effective innovation.

生物柴油是一種天然、可再生的柴油機燃料，從生物資源如植物及動物油脂提煉出來。然而，傳統液體催化劑在提純過程中產生大量污水。有見及此，理大研究人員採用精確的材料表面化學工程技術，研發出一種新的固體催化劑，以用於生產生物柴油。

這新生物柴油催化劑可從低級未提煉原料，如廢棄食用油，作簡易合成，無需經水處理。提取自植物的乙醇或丙醇亦可取代常用於合成過程的甲醇，因而減少對石油的依賴。此外，這催化劑活性高，較現有的固體催化劑更能於低溫和壓力下正常運作，更可重用多達三十次。它可算是一種最清潔、節能及經濟實惠的創新發明。

Dr Yung Ka-fu (middle) and his research team
容家富博士（中）及其研究團隊

Special Merit Award and Gold Medal with the Congratulations of Jury 特別優異獎及評判特別嘉許金獎

IoT-based Advanced Automobile Parking Navigation System
基於物聯網的先進車輛停泊導航平台

Principal Investigator: **Dr Andrew W.H. Ip**, Department of Industrial and Systems Engineering
發明者：工業及系統工程學系**葉偉雄博士**

Parking security and navigation are the primary concerns of most car owners in Hong Kong. Incorporating smart devices, software modules and middleware, the IoT-based Advanced Automobile Parking Navigation System is able to detect suspected car theft and make parking hassle-free.

Integrating various emerging technologies including an IoT-based cloud service, a wireless sensor and actuator network, middleware and near-field communication (NFC), this platform is operated through a single mobile app. The app alerts users of the air quality in parking areas and whether anyone is wandering around a specified area at a specific time. It also helps drivers to identify nearby car parks and preferred parking spaces, and to search for parking bays when they are returning to their cars. Other features include notifications of the latest promotional deals and the ability to settle parking-related payments in real time.

The platform and app not only help to ease traffic congestion and reduce pollution, but also give drivers a whole new parking experience.

香港大部份車主都關注泊車的安全及導航。這先進車輛停泊導航平台建基於物聯網，並配備了智能設備、軟件模塊及中介軟體，以偵測可疑的車輛盜竊，亦令泊車變得輕鬆。

這平台整合了各種最新技術，包括物聯網的雲端服務、無線感測制動網路及中介軟體和近場通信科技，使用者只需透過手機應用程式便可操作，從而得知停車場的空氣質素及是否有可疑人物在某時間經常徘徊某位置。它亦幫助司機尋找就近的停車場及泊車位置，並導引他們尋找已泊車的位置。其他功能還包括：最新推廣優惠通知及實時泊車繳款。

這平台及應用程式不僅幫助舒緩交通擠塞及減低空氣污染，更為司機帶來全新泊車體驗。

Dr Andrew W.H. Ip (second from left) and his research team members display the sensors and connectors of the system.
葉偉雄博士（左二）及其研究團隊展示系統的感測器及連接器。

Special Merit Award and Gold Medal 特別優異獎及金獎

Posture Correction Girdle for Adolescents with Early Scoliosis
姿勢矯正束身衣

Principal Investigator: **Dr Joanne Yip Yiu-wan**, Institute of Textiles and Clothing
發明者：紡織及製衣學系**葉曉雲博士**

Adolescent idiopathic scoliosis gradually leads to three-dimensional deformity of the spine in youths. Patients with spinal curvatures of more than 41 degrees have to be treated with surgery, and those with curvatures of 25 to 40 degrees have to wear braces to control curve progression. As braces need to be worn for long periods and may cause skin irritations and other forms of discomfort, compliance is often low, affecting the success rate of the treatment.

In view of this, PolyU has developed the Posture Correction Girdle, made of light and highly breathable fabrics, to correct the posture of adolescences with early scoliosis. Using medical-grade elastic straps and 3D woven textiles, the girdle provides comfortable support for the spine. Equipped with sensors connected to a mobile app, the girdle allows the easy tracking and monitoring of patients' posture, with associated alerts.

青少年原發性脊柱側彎可逐步引致脊柱三維變形。脊柱弧度多於四十一度的患者必須透過手術治療，而弧度為二十五至四十度則須佩戴矯形架才能控制側彎弧度的發展。矯形架需長時間佩戴，並可能令使用者皮膚敏感和不適，使他們容易放棄而影響治療成效。

有見及此，理大利用輕巧及高透氣度的布料研製成姿勢矯正束身衣，以矯正患有脊柱側彎青少年的姿勢。這束身衣採用醫療級彈性帶及三維立體編織方法，為脊柱提供舒適的支撐。它更配備連接手機應用程式的感測器，用以監測患者姿勢，及時發出警示。

Dr Joanne Yip Yiu-wan and her winning invention
葉曉雲博士及其獲獎發明

Special Merit Award and Gold Medal 特別優異獎及金獎

Rehabilitation Sleeve – An FES-robotic Hybrid System
復康袖－智感肌電混合上肢復康訓練系統
Principal Investigator: **Dr Hu Xiaoling**, Interdisciplinary Division of Biomedical Engineering
發明者：生物醫學工程跨領域學部**胡曉翎博士**

Partial paralysis of the upper limb is common after stroke, and therapeutic intervention is crucial in improving the recovery of elbow, wrist, hand and finger function. PolyU has thus developed a wearable Functional Electrical Stimulation (FES) robotic system for interactive yet comfortable arm rehabilitation among post-stroke patients.

Comprising modular apparel and a bracing system, the Rehab Sleeve facilitates elbow and wrist joint movement through electrical motors. It enhances neuroplasticity and recovery by inducing additional muscular practice in the upper limbs through electrical stimulation.

Preliminary results have shown that electrical stimulation training can accelerate the recovery of patients' arm functioning by 30-40% more than conventional training.

中風患者普遍出現上肢局部癱瘓情況，因此，改善其手肘、手腕、手部及手指功能的復康治療尤其重要。針對此需要，理大研發出穿戴式智能肌電系統，為中風患者提供互動而舒適的上肢復康訓練。

復康袖配備模組式部件及綁帶系統，並利用馬達輔助肘和腕的活動，透過電刺激加速重建上肢神經肌肉功能，並增強神經可塑性及復原能力。

初步研究結果顯示，電激訓練較傳統訓練更有效加快患者上肢功能的康復速度達 30-40%。

Dr Hu Xiaoling (right) and her winning invention
胡曉翎博士（右圖）及其獲獎發明

Special Merit Award and Silver Medal 特別優異獎及銀獎

O-blanket: Phototherapy Device for Neonatal Jaundice
O－毯：新生兒黃疸光療設備
Principal Investigator: **Prof. Tao Xiaoming**, Institute of Textiles and Clothing
發明者：紡織及製衣學系**陶肖明教授**

PolyU and Hong Kong Research Institute of Textiles and Apparel have jointly developed an innovative phototherapy device for neonatal jaundice, called the "O-blanket", which consists of a light-emitting fabric covered by a wrapper made of top, reflective and back fabrics.

Woven from side-emitting polymer optical fibres and textile yarns, the fabric provides an irradiance area of over 830 cm^2 and an irradiance intensity of over 30.0 μW/cm^2/nm in 440-460 nm wavelengths, thus meeting the requirements set by the American Academy of Pediatrics.

Not only has the device passed critical tests related to safety, in-vitro cytotoxicity and irritation and skin sensitization, but the light-emitting fabric used can retain its emission performance even after it has been disinfected with bleach for 140 hours.

理大與香港紡織及成衣研發中心合作研發出一種新生兒黃疸光療設備，稱為「O-毯」。它包含一層發光織物，並夾於由面層、反光和背面織物構成的覆蓋織物之間。

這布料由側發光聚合物光纖和紡織紗線組成，可提供波長 440 至 460 nm 的照射且面積超過 830 cm^2，強度超過每微米 30.0 μW/cm^2/nm，符合美國兒科學會的標準。

這種發光織物不僅通過多項關於安全、體外細胞毒性及刺激與遲發型超敏反應等的標準測試，還可用漂白水消毒 140 小時而不影響發光效能。

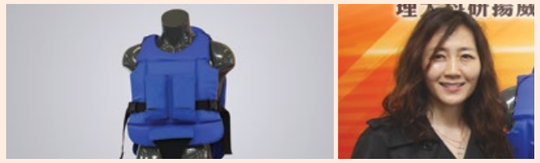
O-blanket (left) and Prof. Tao Xiaoming (right)
O-毯（左圖）及陶肖明教授（右圖）

Silver Medal 銀獎

Adaptive Hydrotherapy Wetsuit 水療浮水衣
Principal Investigator: **Dr Kristina Shin**, Institute of Textiles and Clothing
發明者：紡織及製衣學系 **Kristina Shin 博士**

This user-operated Adaptive Hydrotherapy Wetsuit is tailored for people with limited mobility, especially paraplegic patients and the elderly. With its self-operating features including an adjustable strap with buckles, movable foam panels, sliding bar and detachable foam for limbs, the wetsuit can be operated easily by patients or with help from only a physiotherapist during hydrotherapy. Serving as body-wear collar, cuffs, gloves and rings all at once, this all-in-one wetsuit thus increases patients' sense of independence.

這件用家主導的水療浮水衣是專為行動不便的人士（尤其是截癱患者及長者）而設計。這浮水衣配備可自行操控的特點，包括可調校帶扣、可動式浮板、滑動杆及可拆式手袖或腳用浮板，讓接受水療者可自行操作或只需一位物理治療師協助操作。這浮水衣以整合式設計，可同時作為衣領、袖口、手套及環帶，以增強水療者的自主獨立性。



Dr Kristina Shin (right) and her winning invention (left)
Kristina Shin 博士（右圖）及其獲獎發明（左圖）

Silver Medal 銀獎

Durable, Washable and High Performance Conductive Textiles 耐洗的高性能導電織物
Principal Investigator: **Dr Zheng Zijian**, Institute of Textiles and Clothing
發明者：紡織及製衣學系**鄭子劍博士**

PolyU and the Hong Kong Research Institute of Textiles and Apparel have developed a novel electrically-conductive textile technology whereby the textile surface is modified with a negatively charged polyelectrolyte poly (methacrylic acid sodium salt) or poly (acrylic acid sodium salt) by in-situ free radical polymerization, and then treated with electroless metal deposition. Conductive textiles fabricated using this process exhibit robust mechanical and electrical stability under repeated cycles of rubbing, stretching and washing. They can also be integrated into wearable electronics to replace the conventional rigid conductive electrodes and wires.

理大與香港紡織及成衣研發中心研發出一項嶄新導電紡織技術，在紡織物表面修飾一硅烷層，並放入聚合液中進行表面聚合反應，形成帶有負電荷的聚合物薄膜塗層。這些經過處理的導電紡織物經多次的磨擦、拉伸和清滌，仍保持良好的力學和導電表現。它們亦可取代傳統剛性導電電極及電線，應用到可穿戴電子服飾中。

Dr Zheng Zijian (right) and his winning invention (left)
鄭子劍博士（右圖）及其獲獎發明（左圖）

Silver Medal 銀獎

Intelligent Condition-based Key Machinery Asset Maintenance Management Platform
智能設備維護管理平台
Principal Investigator: **Prof. Eric Ngai Wai-ting**, Department of Management and Marketing
發明者：管理及市場學系**倪偉定教授**

To improve product quality and production output, optimize manufacturing scheduling and reduce the probability of sudden asset breakdowns, PolyU has partnered with the Hong Kong Research Institute of Textiles and Apparel to develop an effective machinery asset maintenance management platform for textile enterprises. Employing artificial intelligence and smart sensor technologies, the platform helps users to obtain real-time data on asset condition from different types of sensors. Based on the captured and processed data, current and/or predicted future states of an asset can be monitored, and recommendations can be made for maintenance and operational decisions.

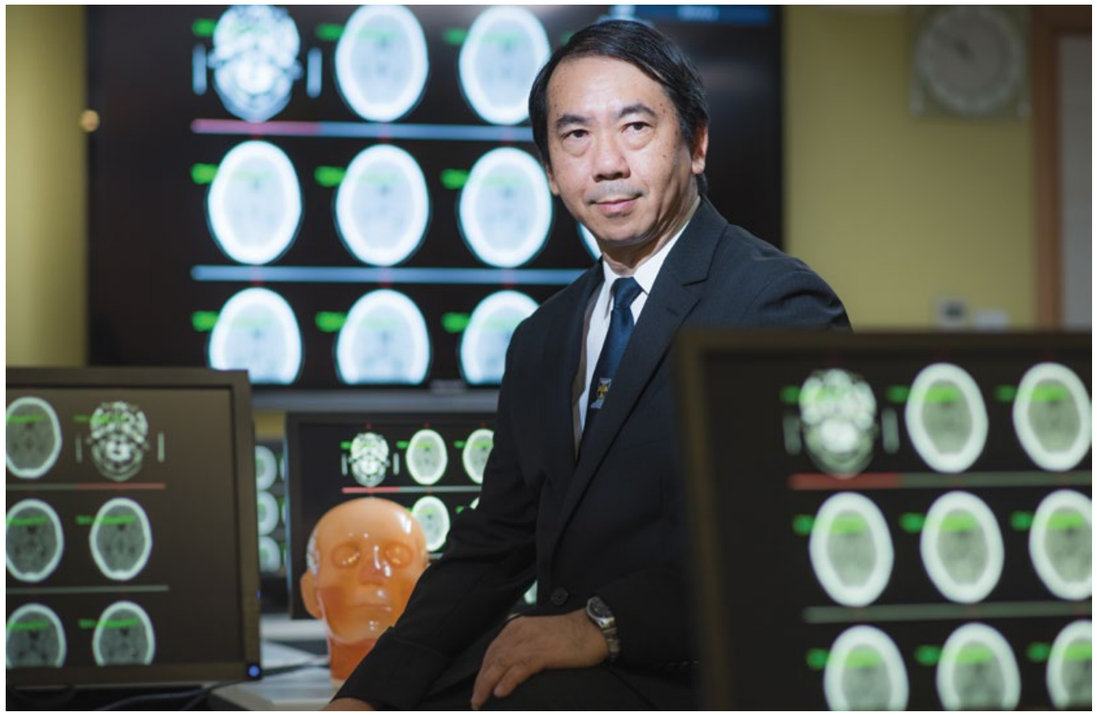
為改善產品品質及產量、優化生產排程及減少設備突然損壞的機會，理大與香港紡織及成衣研發中心合力為紡織企業研發出一套高效設備維護管理平台。這平台採用人工智能及智能感測器技術，有助用家提取由不同感測器傳送有關設備情況的實時數據，根據接收及經處理的數據，監控現有設備的情況及預測其未來情況，從而就維修及運作方面的決定作出建議。

Prof. Eric Ngai Wai-ting (right) and the textiles production setting with the management platform (left)
倪偉定教授（右圖）及設有管理平台的紡織製造廠房（左圖）

Technology 科技

Computer intelligence system for acute stroke detection

電腦智能系統　偵測急性中風



Dr Tang Fuk-hay
鄧福禧博士

A novel computer intelligence stroke detection system helps medical professionals achieve speedy and accurate diagnosis.

嶄新電腦智能中風偵測系統有助醫療人員作出迅速及準確的診斷。

The system identifies abnormal changes on computerized tomography images of brain.
這系統辨識腦部的電腦斷層掃描影像中的異常變化。

Millions of brain cells can be destroyed every minute following a stroke. Timely diagnosis and intervention within the golden hours of stroke are thus vital to minimizing damage and even saving lives. However, stroke specialists cannot work around the clock perusing computerized tomography images, which increases the risk of misdiagnosis and delayed diagnosis of acute stroke.

Dr Tang Fuk-hay and his research team at the Department of Health Technology and Informatics have worked to alleviate this situation by developing a novel computer-aided detection system for acute stroke.

Using sophisticated calculations and artificial intelligence, the system can detect whether patients were struck by ischemic or haemorrhagic stroke by analyzing 80-100 computer images and identifying those with abnormal changes (such as loss of insular ribbon or sulcus and dense middle cerebral artery signs) in just three minutes with 90% accuracy.

Experienced specialists and even non-specialist physicians can now easily detect subtle, minute changes in the brain and lower the chance of missed diagnoses. With this ground-breaking computer technology, frontline medical professionals are able to achieve speedy and accurate diagnosis and increase the chances of recovery, thus raising hope for stroke patients.

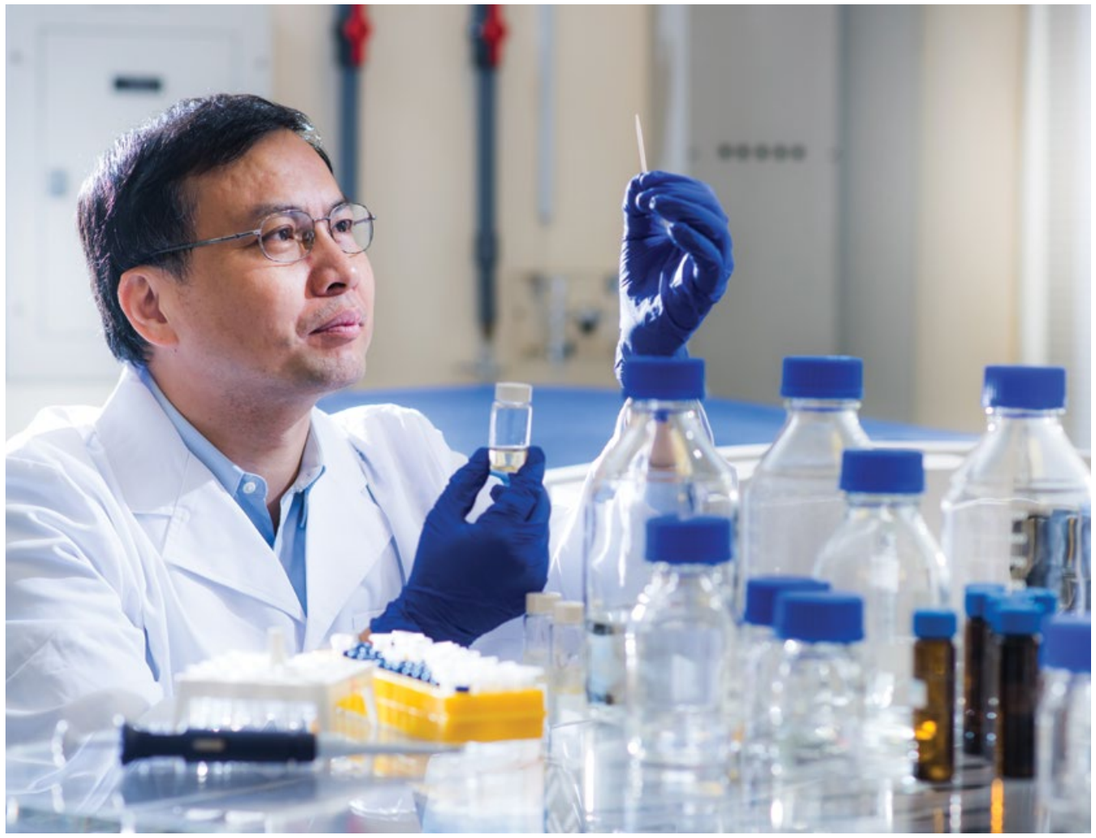
患者在中風後的每分鐘都有數以百萬計的腦細胞受到破壞。在救治中風的黃金小時內為患者提供適時的診斷及醫治可大大減低對他們的損害，甚至救回其性命。然而，專科醫生不能日以繼夜細閱電腦斷層掃描影像，因而增加急性中風誤診及延診的風險。

為緩解這情況，醫療科技及資訊學系鄧福禧博士及其研究團隊研發出嶄新電腦輔助偵測系統，偵測急性中風。

這系統結合了精密運算及人工智能技術，透過分析80 至 100 張電腦掃描影像，辨識異常變化（如島葉皮髓不清、腦溝不明顯及高密度中大腦動脈徵象）；從而偵測患者是否罹患缺血性或充血性中風。系統診斷準確度高達 90%，而過程只需三分鐘。

經驗豐富的專科醫生甚至非專科醫生現時可無需費時耗力分析電腦掃描影像，便能輕易地偵測到腦部微細的變化，減低誤診的機會。這突破性的電腦技術使前線醫生可提供更快速和準確的診斷，增加中風患者的康復機會，為他們帶來新希望。

Technology 科技



Dr Yao Zhongping
姚鍾平博士

Innovative technology for rapid detection of drug abuse
創新技術　快速驗毒

PolyU-developed method simplifies and accelerates drug analysis by simply using a toothpick to collect urine or oral fluid samples.

理大研發出一種簡單及快速的驗毒方法，
只須利用牙籤收集尿液或唾液樣本便可進行。

Analysis plays a pivotal role in controlling drug abuse. Existing drug abuse analysis is performed in two steps: preliminary screening to handle massive samples and confirmatory analysis to ensure the reliability of analytical results. However, preliminary screening for illicit drug residues in body fluids may generate false positive and false negative results, and the confirmatory techniques currently used require laborious and time-consuming sample preparation and pre-treatment procedures.

With these limitations in mind, Dr Yao Zhongping at the Department of Applied Biology and Chemistry Technology developed “Wooden-tip electrospray ionization mass spectrometry” to reliably detect and quantify abused drugs in urine and oral fluids within minutes. In addition, his research team optimized various experimental conditions to establish an experimental protocol for the analysis of abused drugs.

The new method simply uses a wooden tip (such as a toothpick) to collect the sample. Upon applying a high voltage to the tip, spray ionization is induced and the ion signals of analytes are detected. With high sensitivity in detecting ketamine, norketamine, methyl amphetamine and MDMA in urine and oral fluids, as well as cocaine in oral fluids, the technology requires no chromatographic separation and only a small sample to complete a biological analysis.

藥物分析在控制濫藥方面擔當著重要的角色。現行的濫用藥物分析分為兩個步驟：進行初步篩查以處理大量樣本，以及進行確認分析以確保分析結果的可靠性。然而，初步篩查禁用藥物的方法可能出現假陽性和假陰性的情況；而確認分析方法涉及繁複的樣本處理工序，耗時費力。

有見及此，應用生物及化學科技學系姚鍾平博士研發了一種名為「木籤電噴霧電離質譜技術」的濫用藥物分析技術，只需數分鐘便可從尿液或唾液樣本中準確地得知是否有濫用藥物及其分量。此外，研究團隊亦優化了各項實驗條件，以建立一套完整的實驗流程來檢測濫用藥物。

新的方法是利用木籤（如家用的本質牙籤）收集樣本，並在高電壓情況下產生噴霧電離，從而測出分析物的離子信號。這技術對尿液和唾液中所含的氯胺酮（K仔）、安非他明（冰毒）和亞甲二氧基甲基安非他明（搖頭丸），以及唾液中的可卡因靈敏度高，無需進行色譜分離，而僅需微量樣本，便可快速完成體液樣本分析。

Detection of drug abuse with oral fluid sample
以唾液樣本檢測濫用藥物

Simpler, faster and more reliable than existing methods, this new technology greatly reduces the cost, procedures and manpower involved in drug analysis. It has taken a big step towards resolving the uncertainty generated by false positive and false negative results.

The research team is now endeavouring to develop even more sensitive and precise technology to enhance the efficiency and reliability of such testing. In the future, they will focus on tests for other drugs, including THC and heroin. Even more importantly, they will develop portable devices to facilitate rapid on-site drug analysis.

這項嶄新技術比現行方法更為簡單、快速和可靠，大大減省驗毒成本、工序和人手，並能有效地解決假陽性和假陰性所產生不可靠或不準確結果的問題。

研究團隊正致力開發更靈敏和精準的技術，以提升這類檢測的速度和可靠性。未來，他們將專注於四氫大麻酚、海洛英等毒品的檢測。更重要的是，他們將開發可攜式檢測裝置，供現場進行濫用藥物檢驗。

Life Sciences 生命科學

Unimaginable cause of laughter
不可思議的發笑原因

A study shows that laughter comes not from surprise, but fear.
一項研究顯示，發笑並不是源自驚訝，而是害怕。

Imagine babies being rough-housed by parents, children teased by story-tellers or adults cursed by comedians. They are all laughing even though these are not surprising or humorous acts. Why do they respond in this way? PolyU researchers have found the answer.

試想嬰孩與父母喧鬧嬉戲、兒童被說故事者戲弄、或成人被喜劇演員謾罵。雖然這些並不是驚訝或幽默的舉動，但他們全都會發笑。為何他們會出現這些反應？理大研究人員找到了答案。

Mr Nury Vittachi
Nury Vittachi 先生

Many people say that laughter is the result of an unexpected twist in a story, but a PolyU research has found that people laugh far more when tension is heightened. Mr Nury Vittachi and his research team at the School of Design studied the cause of laughter by reviewing the academic data on humour and exploring comedies from multiple angles. They conducted qualitative analysis through observing interactions during school visits, with a focus on psychology and discourse analysis.

The study revealed that people laugh because they are attacked, physically or mentally. For example, babies laugh when parents are rough-housing them or nibbling their necks, older children laugh when they are teased or tickled, and adults pay comedians to abuse them, curse at them and attack their moral values.

According to the researchers' observations and analysis, the key element of laughter is tension caused by fear. Rather than moving them into a state of happy and relaxed mirth followed by surprising punch-lines, comedians try to keep audiences on edge by presenting themselves as dangerous, tense, angry, damaged, confused, retarded or deeply unfortunate people sharing surreal personal histories. As Mr Vittachi put it, "the point of a comedy performance is not to present a list of statements with surprise endings, but to create rolling tension, with laughter being the by-product".

The research concluded that laughter is an involuntary, convulsive response to being attacked by someone known to us. When people are attacked they usually scream, and laughter is a particular type of scream that indicates a benign attack. The research indicated that the best way to make people laugh is to attack them, physically or mentally, but benignly of course.

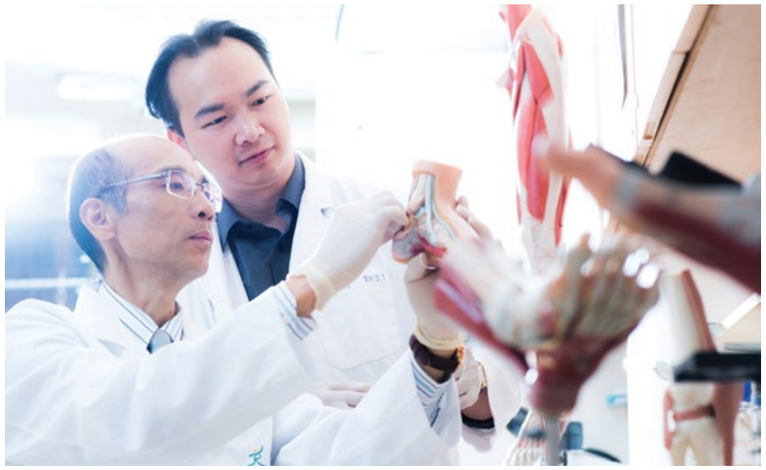
很多人認為發笑是源於扭轉預期想法的事情，但理大一項研究發現，當人越加緊張，發笑便越加厲害。為了找出發笑的原因，設計學院 Nury Vittachi 先生與其研究團隊檢視了有關幽默的學術文獻，並從多角度探究喜劇。他們探訪學校，並觀察互動活動，然後根據心理學及論述理論而作出質化分析。

研究發現，笑是人們身體上或精神上被攻擊而引發的。 例如，嬰孩因被父母與其喧鬧的嬉戲或被輕咬其脖子而發笑，較年長的兒童因被戲弄或搔癢而發笑，而喜劇演員故意侵犯、謾罵及攻擊道德標準，反而令成人發笑。

研究人員的觀察和分析顯示，發笑的主因是緊張所衍生的害怕。喜劇家並非以驚訝笑點帶動觀眾進入愉快和放鬆的歡樂狀態，而是嘗試將自己演繹成危險、緊張、忿怒、具破壞性、慌亂、遲鈍或極度不幸的人士，與觀眾分享超現實的個人經歷，令他們維持在緊張不安的狀態。Vittachi 先生指出：「喜劇表演最重要並不是演繹出人意表的台詞，而是反覆營造緊張的氣氛，發笑則是副產品」。

這研究得出的結論是，被相識的人攻擊時發笑，是一種不自覺及抽搐式的反應。當人被攻擊時會叫喊，而笑就是一種顯示良性攻擊的特殊叫喊。研究顯示，引人發笑的最佳方法是在他們身體上或精神上作出良性的攻擊。

Life Sciences 生命科學



Prof. Gabriel Ng (left) and research team member
吳賢發教授（左）及研究團隊成員

Nano-approach for remedying tendon degeneration

納米技術治療退化筋腱

A PolyU researcher is investigating the effectiveness of nanomized Chinese herbal plaster in repairing injured tendons.

理大研究人員研究以納米化中草藥貼治療受損筋腱的成效。

Consider a professional athlete who always pays attention to proper posture and body protection to avoid injury but still suffers heel pain. He is diagnosed with Archilles Tendinosis, a degeneration of the tendon linking the heel bone to the calf muscle. The overuse and on-going stress on the tendon lead to the loss of its organized structure and the development of microscopic tears, resulting in constant pain. Among various non-surgical treatments, a nanomized Chinese herbal remedy might be able to cure such injured tissues more efficiently, thus offering new hope to this patient.

試想一名專業運動員經常注意正確姿態及保護身體，以防受傷，卻受著腳跟疼痛的煎熬。他的情況確診為阿奇里斯跟腱退化，即筋腱與腳跟骨及小腿肌肉接合處出現退化情況。筋腱因為過度勞損及長期受壓而引致組織結構及微型撕裂，產生持續的痛楚。芸芸非手術性治療當中，一種納米化中草藥療法可能有助促進受損組織的癒合，為患者帶來新希望。

With a strong research background in connective tissue injury and repair, sports physiotherapy and patellofemoral joint pain and rehabilitation, Prof. Gabriel Ng, Chair Professor and Head of the Department of Rehabilitation Sciences, is conducting two studies for three years on the effectiveness of nanomized Chinese herbal medicine in treating mega tendon degeneration, in collaboration with Hong Kong University of Science and Technology, The Chinese University of Hong Kong and Hong Kong Baptist University.

Having first incorporated the nano-technology into a Chinese herbal formula suitable for topical application in the form of adhesive plaster, the research team applied the plaster to experimental animals and human subjects with damaged Achilles tendons to investigate the improvement of tissue biomechanical properties, functional performance and ultrastructural morphology. The preliminary results of the plaster's efficacy were positive.

Given the high permeability of nanomized Chinese herbal medicine into cells and the high retention of its active ingredients within those cells, this remedy offers the advantage of accelerating the rehabilitation process. Once its effectiveness is fully proven, this research will have a tremendous impact on the non-surgical treatment of soft tissue injury and future development of Chinese herbal medicine.

康復治療科學系講座教授及系主任吳賢發教授在結締組織損傷及修復、運動物理治療及膝股關節痛症和康復方面的研究經驗豐富。他現正與香港科技大學、香港中文大學及香港浸會大學合作進行兩項為期三年的研究，探討納米化中草藥用於退化性筋腱的療效。

研究人員首次把中草藥配方進行納米科技處理，並應用到藥貼上。這研究探討患有跟腱炎的動物及參與實驗人士經接受納米化中草藥貼療法後，其軟組織生物力學特性、功能表現及超微結構型態的改善，初步數據顯示藥貼有正面療效。

由於納米化中草藥有很強的滲透性，且活性草藥成份於細胞中的存活性很高，這療法有助促進筋腱的康復。若這中草藥療效得到全面證實，這項研究將為軟組織損傷的非手術性治療及未來中草藥發展帶來重大的影響。

Applying nanomized Chinese herbal plaster onto the injured tendon
在受損筋腱敷上納米化中草藥貼

The nanomized Chinese herbs
納米化的中草藥

Life Sciences 生命科學

Accelerating reading ability for children with reading difficulties

促進閱讀障礙兒童的閱讀能力

Dr Leung Man-tak
梁文德博士

An academic has developed an intervention programme which delivers a psycholinguistic-theory-driven treatment for children with reading difficulties.

學者研發出以心理語言學理論為基礎的治療，幫助患有閱讀障礙的兒童。

The programme focuses on games based on children's learning stages.
計劃以遊戲為主，而遊戲是因應兒童學習階段而設計。

In Hong Kong, about 10% of primary students suffer from reading difficulties of various degrees. With the current individual mode of service delivery, most of them face long waits for treatment, which means that the best possible time for intervention could be missed. In view of this, Dr Leung Man-tak at the Department of Chinese and Bilingual Studies has developed an intervention programme for local primary students entitled "Accelerating Reading Ability" (ARA).

Dr Leung designed the ARA programme, a treatment based on a psycholinguistic theory of dyslexia, as a school-based intervention programme for local primary students with specific reading difficulties and their caretakers. The programme covers around 160 words based on a scaffolding approach in which new vocabulary is introduced and learnt words are revised in each session. Games based on children's stages of learning are also relied on heavily. Caretakers receive training on the theory of the treatment programme conducted by a speech therapist, and home practice skills are instilled.

香港約有一成小學生患有不同程度的閱讀障礙。在現行的個別訓練服務模式下，他們大多輪候很久才能接受治療，這或會令他們錯過了最適時的治療。有見及此，中文及雙語學系梁文德博士發展了一套專為本地小學生而設，名為「促進閱讀能力」的治療計劃。

梁博士的「促進閱讀能力」計劃是根據讀寫障礙的心理語言學理論，專為本地患有特殊閱讀障礙及其照顧者而設計的校本治療計劃。這計劃涵蓋一百六十個詞彙，採用鷹架模式，讓兒童在每節訓練中既學習新的詞彙，又重溫已學詞彙，以鞏固所學。而計劃更著重因應兒童學習階段而設計的遊戲。照顧者需接受由言語治療師講授治療計劃理論的訓練，並學習家居訓練兒童的技巧。

Now, the programme has been incorporated as one Service-Learning subject. Recently, 43 PolyU undergraduate students participated in a specially designed Service-Learning programme in which they used ARA for 10 weeks to serve 15 primary students with reading difficulties and their caretakers. Before starting their service, they were required to attend lectures, a group session, an interactive tutorial and an e-learning module, and completed reflective journals, all of which equipped them with the skills needed to deliver reading-difficulty-related treatment.

The students found that they could link the activities and experiences of their Service-Learning to the subject content, and they learned to apply the necessary knowledge and skills to deal with complex issues in the service setting. They also reported feeling more empathy towards the needy and developing a stronger sense of civic responsibility.

此計劃現已成為服務學習的其中一個科目。最近，四十三名理大本科生參與了悉心設計的服務學習計劃。他們需運用「促進閱讀能力」計劃，為十五名患閱讀障礙的學生及其照顧者提供為期十星期的服務。在開展服務之前，他們需要參與講座、集體討論、互動導修課及電子學習課，並完成反思日誌，以確保他們能掌握治療閱讀障礙的技巧。

參與學生認為，他們懂得把服務學習的活動和經驗與學科知識聯繫起來，並且能夠應用所需知識和技能去應付現實環境中的複雜問題。此外，他們表示服務學習的經驗讓他們懂得更關愛有需要人士，並建立起更強的公民責任感。

Business & Management 工商管理

Visual perspectives of products and services affect consumer behaviours

產品或服務的視覺角度對消費者行為的影響

A study has found that multiple visual perspective descriptions of products and services may have a detrimental effect on consumer evaluations.

研究發現，多重視覺角度的描述可能對消費者評價產品或服務有負面的影響。

Dr Jiang Yuwei
姜宇威博士

The usual presumption is that providing descriptions of a product from multiple visual perspectives is informative, having a positive effect on consumer evaluations. However, that is not always the case according to a PolyU study.

Consumers often imagine themselves in a scene and engage in such self-imagery while processing product and service information. They may engage in self-imagery to construct an experience or to acquire information by imagining themselves interacting with a product or service. This can influence how the mental images are generated, thus affecting judgements. With these assumptions in mind, Dr Jiang Yuwei at the Department of Management and Marketing conducted a joint study with professors from Hong Kong University of Science and Technology, Tel Aviv University and University of Illinois to take a functional view of the process of imagery.

Through four experiments on goal-driven imagery and visual perspectives, imagination difficulty was determined by eye-tracking evidence. The study used the visual perspectives from which mental images are formed to highlight how the goals of self-imagery might lead to different outcomes.

The results showed that when individuals are disposed to construct an image-based narrative representation of the use of a product or service, differences in the visual perspectives of the images make it difficult to construct the mental images, and consequently have a negative impact on evaluations of the product or service. In contrast, when individuals are simply motivated to acquire information about a product or service, pictures from different perspectives serve as references, thus enhance their evaluations of it.

According to the researchers, when the orientation of a scene changes through either a change in the viewer's position or a rotation of the objects, memory for the scene weakens. The study thus suggests that multiple perspectives of the same scene might have a detrimental effect on memory, affecting the evaluation negatively.

一般來說，為消費者提供多重視覺角度的產品描述可增加資訊，從而在消費者評價方面帶來正面影響。然而，一項理大研究顯示，結果並非總是這樣。

消費者往往在理解產品或服務資訊時，切身處地投入某一情景。他們假想與產品或服務進行互動，以建構經歷或獲取資料。這可能影響他們如何產生腦海影像，從而改變其判斷。有見及此，理大管理及市場學系姜宇威博士與香港科技大學、臺拉維夫大學及伊利諾大學的教授合作進行一項研究，從功能角度了解假想的過程。

這項研究透過四個有關目標主導自我假想及視覺角度的實驗，根據眼動追蹤實證，推斷想像時遇到的困難，再利用由不同視覺角度形成的腦海影像，顯示自我假想如何引致不同的結果。

研究結果顯示，當消費者以影像的敘述去表達產品或服務時，視覺角度的變動使目標影像難以清晰呈現於消費者的腦海，消費者因而對產品的評價有負面影響。相反地，當消費者需自行查詢產品或服務的資料時，不同角度的影像只作參考，他們對產品或服務的評價亦見提高。

研究人員表示，當情景角度因觀測者位置變動或物件轉動而改變時，消費者對該情景的記憶變弱。這研究指出，同一情景的多重角度或導致記憶變弱，因而對產品或服務的評價帶來負面的影響。

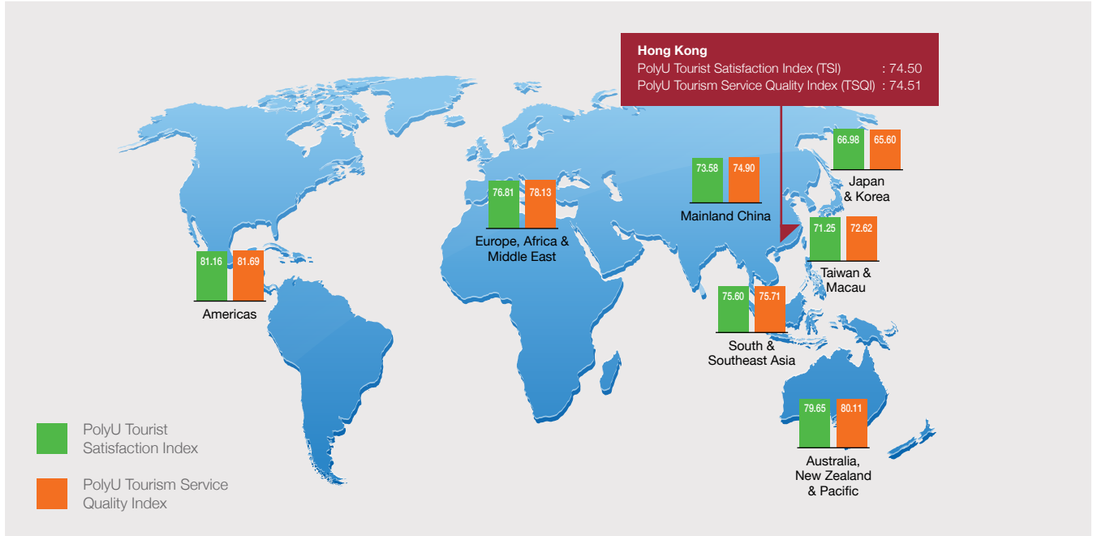
Resort hotel pictures are shown on the advertisements used for this study.
度假酒店圖片見於供研究用的廣告。

Business & Management 工商管理

Benchmarking tourism service performance
旅遊服務表現的評價和比較

The School of Hotel and Tourism Management recently released the 2014 “PolyU Tourist Satisfaction Index” and “PolyU Tourism Service Quality Index” to help boost tourism development.

酒店及旅遊業管理學院最近發表了 2014 年「理大旅客滿意指數」及「理大旅遊服務質量指數」，以期推動旅遊業發展。



PolyU Tourist Satisfaction Index (TSI) and Tourism Service Quality Index (TSQI)
理大「旅客滿意指數」及「旅遊服務質量指數」

A tourist’s overall satisfaction is undoubtedly determined by a combination of perceived value and quality, consumer expectations and actual experience, which influences the likelihood of repeat visitation, extended length of stay, increased expenditure, enhanced yield and word-of-mouth referrals. Measuring tourist satisfaction thus plays an important role in the marketing of tourism products and services. As part of its efforts to give back to the industry that supports it, PolyU’s School of Hotel and Tourism Management (SHTM) recently released the 2014 PolyU “Tourist Satisfaction Index” (PolyU TSI) and “Tourism Service Quality Index” (PolyU TSQI), which stand at 74.50 and 74.51, respectively, out of a maximum 100.

旅客整體滿意度是綜合了顧客感知價值及質量、消費者期望及實際經驗而推斷出來的。這影響著旅客重遊、延期逗留、增加消費、提升效益及口碑推介的可能性。因此，評估旅客滿意度對旅遊產品及服務市場推廣至關重要。旅遊業界一直支持理大酒店及旅遊業管理學院的發展，為了回饋業界，學院最近發表了 2014 年「理大旅客滿意指數」及「理大旅遊服務質量指數」，兩者的數值分別為 74.50 及 74.51（100 分為滿分）。

Launched in 2009, the PolyU TSI measures inbound tourists’ satisfaction levels across six tourism-related sectors and integrates them into an overall index, providing information for authorities and industry practitioners for use in decision making and planning. The 2014 PolyU TSI saw the largest ever decline of 1.46 points to 74.50. Tourists from the Americas recorded the highest TSI score of 81.16, followed by those from Australia, New Zealand and the Pacific (79.65), Europe, Africa and the Middle East (76.81), South and Southeast Asia (75.60), mainland China (73.58), Taiwan and Macau (71.25), and Japan and Korea (66.98). The overall decline suggested that tourists were less satisfied with Hong Kong as one of the best destinations in the world than they had been in previous years, but Hong Kong’s competitiveness in providing tourism service excellence and attracting international tourists remains high within the Greater China region.

The PolyU TSQI, launched in 2012, is a weighted average of the six tourism service quality indices, measuring overall tourism service quality. The industry can use this index to benchmark its service performance against tourists’ growing expectations. Hong Kong’s TSQI stood at 74.51 for 2014. As with the TSI, source markets were ranked in the same order, with tourists from the Americas being the most satisfied with overall service quality in Hong Kong. In relation to the six tourism service sectors considered, a general decline was also observed. Transportation ranked highest with a TSQI score of 78.32, followed by attractions (75.94), immigration (75.94), hotels (74.01), retail shops (72.56) and restaurants (71.88).

In addition, the deviation between the PolyU TSQI and PolyU TSI can help the industry to detect where service performance fails to boost tourist satisfaction. Serving as barometres of tourist satisfaction and tourism service quality for destinations, the two indices provide significant information with which stakeholders can formulate strategic plans to develop the tourism industry in a sustainable manner.

「理大旅客滿意指數」自 2009 年推出，主要量度入境旅客在六個旅遊相關行業的滿意程度，從而為有關當局和業內人士提供決策及策劃時所需的資訊。2014 年旅客滿意指數創最大跌幅達 1.46 點，跌至 74.50。旅客滿意指數以來自美洲旅客的 81.16 為最高，其次為澳洲、新西蘭和太平洋地區（79.65），緊隨其後的是歐洲、非洲和中東（76.81）、南亞和東南亞（75.60）、中國內地（73.58）、台灣和澳門（71.25），以及日本和韓國（66.98）。整體下跌說明了旅客對香港作為全球最佳目的地之一的滿意程度不及前數年；不過，在大中華地區中，香港在提供卓越旅遊服務及對國際旅客的吸引力方面仍維持高的競爭力。

自 2012 年推出的「理大旅遊服務質量指數」是將六大旅遊服務質量指數加權平均，從而評估旅遊服務的整體質量。業界可參考這指數，將自己的服務表現與旅客不斷提升的期望作比較。香港的 2014 年旅遊服務質量指數為 74.51，這指數在客源市場方面與旅客滿意指數排列次序一樣，以美洲旅客對香港的整體服務質量最感滿意。此外，六個旅遊相關行業的指數同樣錄得整體下跌。指數以交通獲得最高分為 78.32，其次是旅遊景點（75.94）和入境部門（75.94）、酒店（74.01）、零售（72.56）及餐飲行業（71.88）。

此外，「理大旅客滿意指數」及「理大旅遊服務質量指數」的偏差可助業界發現服務表現未能提升旅客滿意度的範疇。作為旅客滿意度及目的地的旅遊服務質量測量工具，這兩個指數提供重要資料，讓持分者可制定策略性計劃，使旅遊行業得以持續發展。

3D scanner creates whole new footwear experience

三維足部掃描儀　創造步履新體驗

A low-cost, highly accurate and handy 3D foot scanner developed by PolyU is driving a new wave of online footwear shopping.

一部成本低廉、準確度高和輕便小巧的三維足部掃描儀，將帶動鞋業網購熱潮。

Sue, a keen online shopper, makes purchases at least once a week. Yet surprisingly, she is reluctant to buy shoes on the Web. "I just dream of simply ordering a pair of shoes online and having them fit", she said. In fact, this is a dream that many online shoppers share. A cost-effective 3D foot scanner developed by PolyU could make the dream come true, helping online footwear sellers deliver the best first-time fit for custom shoes.

Sue 喜歡網購，每星期至少一次上網購物。出乎意料地，她卻不喜歡從網上購買鞋子。她說：「我盼望能從網上訂購到一對合穿的鞋子」。這亦是很多網購族所夢寐以求的。理大研發的高成本效益三維足部掃描儀讓她實現這個夢想，更助網上鞋店為顧客提供首次訂製便合穿的鞋子。

Dr Ameersing Luximon
Ameersing Luximon 博士

Recent years have seen the emergence of a vibrant global footwear market and the rapid expansion of e-commerce. However, online footwear sales have been heavily affected by high return rates due to poor fit. In view of this, Dr Ameersing Luximon at PolyU's Institute of Textiles and Clothing developed a 3D foot scanner, changing the footwear ecosystem and offering a new experience of footwear production and shopping.

Built with knowledge-based software and geometric modelling techniques, the scanner uses the "similarities and differences" approach to register discrepancies in foot measurements against average 3D foot shapes to predict digitalized 3D foot models. This creates new online shopping possibilities: consumers can order best-fit footwear anywhere in the world without being there, online sellers can offer the best shoes in just the right styles and sizes, and shoemakers offering mass customization options can use the models to fine-tune the designs and sizes of certain parts of their shoes. With a mean error of about 1.7mm, the system generates less variation than that of physical foot measurement at different times of the day.

With its low cost achieved through the use of inexpensive webcams, the compact scanner has huge market potential. The technology has now been exclusively licensed to a digital solution company for mass production and product diversification.

近年，全球鞋業發展蓬勃，電子商貿亦在迅速冒起。然而，網購鞋子往往因為不容易合穿而退貨率高，網上鞋店的業務因此大受影響。有見及此，理大紡織及製衣學系 Ameersing Luximon 博士開發了一部三維足部掃描儀，改變鞋業生態，並為業界帶來全新生產和購物體驗。

這掃描儀以知識軟件及幾何塑形技術為核心，利用「同異比對」方法，量度用者足部的長度及比例，並與標準腳形比較而計算差異，從而估算出其數碼三維足部模型。這帶來了網購新希望：消費者可足不出戶向全球各地訂製最合腳型的鞋子；網上鞋店可為客戶提供最合適的款式和尺碼；製鞋商可利用足部模型微調鞋款設計及鞋子某些部位的大小。掃描儀的平均誤差僅約 1.7 毫米，比足部在一天不同時段的變化還要少。

這輕巧的掃描儀可以採用價格相宜的網絡攝像鏡頭，成本不高，因而具備巨大的市場潛力。理大現已將這項技術授權予一間數碼方案供應商，以進行大規模生產及開發相關的其他產品。

3D foot scanner and its measurement display
三維足部掃描儀及其計算結果顯示版面

Computing with care
以關愛傳承電子計算學

Dr Henry Chan
陳峻斌博士

Carrying his concern for students in his heart like a parent, Dr Henry Chan is far from the stereotypical computer science teacher. His focus is not on applications or code, but on how the next generation of computer scientists will grow personally and make lasting contributions to society. The key, he notes, is to recognize that this is a "digital era with rapid changes in technology", and his job is to "prepare students for unknown careers".

Underpinned by his CARES philosophy, with its emphasis on Computing for Application, Research, Entrepreneurship and Service, Dr Chan's efforts have earned him Faculty and President's Awards, including a President's Award in 2010/11 for achievements in teaching. Most recently, he received international recognition through the IEEE Computer Society's 2015 Computer Science and Engineering Undergraduate Teaching Award for his "outstanding contributions to computing education through teaching, mentoring students, and service to the education community".

Dr Chan earned his PhD at the University of British Columbia in Canada. Since launching his academic career at PolyU in 1998, he has developed expertise in networking/communications, cloud computing, internet technologies and e-commerce. He has conducted projects with significant impacts on Hong Kong's well-being, such as one focused on "Enhancing the Competitiveness of the Hong Kong Air Freight Forwarding Industry Using RFID and Software Agent Technologies", and has published numerous papers in international journals.

陳峻斌博士並非典型的電子計算學老師，他擁有一顆教者父母心，其教學焦點並非只放在應用程式或代碼，而是著重促進新一代電子計算學家的個人成長，以及鼓勵他們為社會作出持久的貢獻。他強調，「這是一個科技急速發展的數碼年代」，而他的工作就是「好好裝備學生，應付未知的前景」。

陳博士講求電子計算學的應用、科研、企業精神及服務，其 CARES 理念更為他贏取學院特設傑出表現 / 成就獎及校長特設卓越表現 / 成就獎，其中包括 2010/11 年教學獎。最近，他更獲 IEEE 電腦學會頒發 2015 年計算機科學與工程學本科教學獎，以表彰其「在計算學範疇中的傑出教學貢獻，包括培育和指導學生，以及服務教育社群」。

陳博士於加拿大的英屬哥倫比亞大學取得博士學位。他於 1998 年在理大開展其學術生涯，在網絡 / 通訊、雲端計算學、互聯網科技及電子商貿方面的造詣甚深，並推行多個為香港帶來重要影響的項目，其中包括「利用射頻識別及軟體中介技術增強香港航運業的競爭力」的項目。此外，他於國際期刊中發表了多篇論文。

Dr Henry Chan, Associate Professor at the Department of Computing, is receiving international attention for nurturing a new generation of computing professionals who promise to reshape our future.

電子計算學副教授陳峻斌博士獲得國際殊榮，因為他所培育的新一代電子計算專才，均勇於承擔，矢志改變未來。

Dr Chan has also co-authored a textbook on teaching e-commerce using an integrated computing-business approach, and is aware that learning should never be static, but dynamic. He understands that knowledge in his field is ever changing, and has immersed his students in a paradigm shift from logical thinking to problem solving.

This critical shift has guided his students as they have collected more than 30 external awards. Indeed, Dr Chan has played the role of mentor, inspiring them to learn. He has also extended the notion of problem solving to his own efforts in guiding them through the intricacies of taking part in international competitions and conferences, completing internships and applying for funding.

Ultimately, Dr Chan treats his students as though they were his own children. A clear example of this is the relationship he developed with the late Lau Hiu-fung, a student who graduated from the Department of Computing in 2009 with First Class Honours and gold awards in two regional information technology competitions. Mr Lau faced great hardships brought on by muscular dystrophy, but Dr Chan recognized his intelligence, respected his perseverance and made every effort to help him overcome difficulties to facilitate his learning.

For all of his students Dr Chan has only one wish – that their "talents can be developed and unleashed to make remarkable contributions to society". With their broadened horizons and indomitable will to succeed, they certainly have our future in their hands.

陳博士亦利用了整合式電子計算及商務模式而合著了電子商貿的教科書冊。他認為，學習是一個動態而非靜態的過程。由於電子計算學的知識日新月異，因此他把教育學生的範式從邏輯思維轉移至解決問題。

這重要的轉變為他的學生帶來了逾三十個外界頒發的獎項。陳博士更擔起導師的角色，啟發學生學習。他將解難為主導的理念伸延至輔導學生方面，引導他們參與國際比賽及會議、完成實習及申請撥款。

歸根究底，陳博士視學生如子女。他和曾獲兩個地區資訊科技比賽金獎及在 2009 年以一級榮譽畢業於電子計算學系的劉曉峰（已故）的關係就是最佳例子。劉同學受肌肉萎縮折騰而面對不少困難，但陳博士卻能發現他的才華，並尊崇其堅毅意志，竭盡所能協助他在學習上克服困難。

陳博士對所有學生的唯一寄望，就是「他們的才華得以發展及發揮，從而為社會帶來重大的貢獻」。他相信，只要學生以廣闊的視野及不屈不撓的精神去追求成功，未來就在他們掌握中。

Dr Chan attaches great importance to exchange with students.
陳博士非常重視與學生的交流。

President's Awards celebrate staff excellence
校長特設卓越獎表揚優秀教職員

This year, Dr Gail Forey and Prof. Teng Jin-guang received President's Awards for Excellent Performance/Achievement in Teaching (Individual) and Research and Scholarly Activities (Individual), respectively. Thirty-three staff members were also presented Faculty/School Awards for Outstanding Performance/Achievement in recognition of their outstanding achievements in research and scholarly activities as well as overall contribution.

今年，Gail Forey 博士及滕錦光教授分別獲頒發校長特設卓越表現 / 成就獎的教學和研究及學術活動個人獎項。三十三名教職員亦獲頒學院傑出表現 / 成就獎的研究及學術活動和整體貢獻的團體獎項。

Teaching (Individual) 教學（個人獎項）

Dr Gail Forey

Associate Professor of Department of English
英文系副教授 **Gail Forey 博士**

Dr Gail Forey, a long-serving member of ENGL, contributes significantly to teaching and programme management as well as research. As a programme leader, she has energetically ensured that her programme is research based and community oriented. She is also a knowledgeable and committed lecturer with a great capacity for making students enthusiastic about learning. Dr Forey's class is considered interesting and engaging, as reflected by feedback she receives from students. Under her facilitation and leadership, students have sufficient room for developing and unleashing their talent in their projects.

Apart from classroom teaching and dissertation supervision, Dr Forey is highly engaged in curriculum/subject design and teaching-related projects. She leads educational linguistic research, publishes and presents conference papers in various areas of applied linguistics. Not only a committed teacher, she is also a creative and productive researcher.

Gail Forey 博士服務英文系多年，在教學、課程管理及研究方面作出了重大貢獻。作為課程總監，她致力使課程既以研究為基礎，亦回應社區的需要。她知識廣博，極富啟發性，往往能激勵學生熱衷於學習。從學生的意見可反映出 Forey 博士的課堂趣味性及互動性兼備，在她循循善誘及領導下，學生們都有充足的空間，發揮他們的才華。

除了課堂教學和論文監督外，Forey 博士亦積極參與課程 / 學科的設計及教學相關的項目。她帶領教學語言學的研究，亦出版和發表應用語言學不同範疇的會議文章。她不僅全情投入教學工作，在研究方面亦極具創意，而且發表很多文章。

Research and Scholarly Activities (Individual) 研究及學術活動（個人獎項）

Prof. Teng Jin-guang

Chair Professor of Structural Engineering and Director of the Research Institute for Sustainable Urban Development
結構工程講座教授兼可持續城市發展研究院院長**滕錦光教授**

Prof. Teng Jin-guang is widely recognized as the leading scholar in fibre-reinforced polymer (FRP) composites for construction and the leading founder of the theory of FRP-strengthened concrete structures.

Throughout his 30-year research career, Prof. Teng has published his own book, 2 edited books and 173 papers in Science Citation Index (SCI) journals, attracting over 4,800 citations and leading to a H-index of 36. He also has an impressive record of accomplishments in research, with the financial support he has received from leading funding bodies totalling about $20 million.

His solid reputation in the field has made Prof. Teng widely sought after by international journals and professional organizations alike. He was elected Fellow of the Hong Kong Academy of Engineering Sciences in 2014. This year, he was further elected a Corresponding Fellow of the Royal Society of Edinburgh, Scotland's national academy of science and letters. Among his many studies, "Behaviour and design of concrete structures strengthened with advanced Fibre-Reinforced Polymer (FRP) composites" brought him the prestigious State Natural Science Award (Second Class) in 2013.

滕錦光教授為纖維增強複合材料（FRP）結構工程應用的著名學者，亦是 FRP 加固混凝土結構理論的始創者。

從事研究工作三十年，滕教授發表了一部專著、兩本編輯書籍、一百七十三份 SCI 期刊論文，引用次數超過四千八百次，H - 指數為三十六。此外，他的研究成就超卓，並獲權威資助機構撥款近二千萬元進行研究。

滕教授在其研究領域素有名望，廣受國際期刊及專業機構垂青。他於 2014 年當選為香港工程科學院院士；今年，他更當選愛丁堡皇家學會（蘇格蘭的國家科學與文學院）通訊院士。2013 年，他憑著其中一項關於「高性能纖維增強複合材料加固混凝土結構的力學性能及設計理論」的研究，獲頒國家自然科學獎二等獎。

Second inauguration of Endowed Professorships
第二屆勵學教授席就職典禮

At the second inauguration of Endowed Professorships held on 13 May, PolyU presented six professorships to honour distinguished scholars for their outstanding academic achievements and pay tribute to benefactors for their ardent support.

5 月 13 日，理大舉行了第二屆勵學教授席就職典禮，頒授六個勵學教授席，以表彰優秀學者的傑出學術成就及善長對大學的鼎力支持。

Fung Yiu King – Wing Hang Bank Endowed Professorship in Business Administration
馮堯敬－永亨銀行工商管理教授席

Endowed by Fung Yiu King Charitable Foundation
Incumbent: Prof. Edwin T.C. Cheng, Faculty of Business

捐贈人：馮堯敬慈善基金會
履任教授：工商管理學院鄭大昭教授

Cheng Yik Hung Endowed Professorship in Fashion Design
鄭翼雄時裝設計教授席

Endowed by Sau Ching Charity Foundation
Incumbent: To be announced

捐贈人：秀清慈善基金
履任教授：待聘

Walter Kwok Foundation Endowed Professorship in International Hospitality Management
郭炳湘基金國際酒店服務業管理教授席

Endowed by Walter Kwok Foundation
Incumbent: Prof. Kaye Chon, School of Hotel and Tourism Management

捐贈人：郭炳湘基金
履任教授：酒店及旅遊業管理學院
田桂成教授

Lo Ka Chung Charitable Foundation Endowed Professorship in Pharmaceutical Sciences
盧家聰慈善基金藥物科學教授席

Endowed by Lo Ka Chung Charitable Foundation Limited
Incumbent: Prof. Thomas Y.C. Leung, Department of Applied Biology and Chemical Technology

捐贈人：盧家聰慈善基金有限公司
履任教授：應用生物及化學科技學系
梁潤松教授

Alex Wong Siu Wah Gigi Wong Fook Chi Endowed Professorship in Product Design Engineering
黃少華黃宓芝產品設計工程教授席

Endowed by King's Flair Development Limited
Incumbent: Prof. Alan K.T. Lau, Department of Mechanical Engineering

捐贈人：科勁發展有限公司
履任教授：機械工程學系劉建德教授

Vincent and Lily Woo Endowed Professorship in Textiles Technology
吳文政及王月娥紡織科技教授席

Endowed by Vincent and Lily Woo Trust
Incumbent: Prof. Tao Xiaoming, Institute of Textiles and Clothing

捐贈人：吳文政及王月娥信託基金
履任教授：紡織及製衣學系陶肖明教授

Mobile health centre upgrades healthcare services for elders
流動保健車提升長者康健服務

With $11.31 million donation from Tai Hung Fai Charitable Foundation, Phase 3 Service Programme of the PolyU-Henry G. Leong Mobile Integrative Health Centre was earlier launched to purchase new equipment, upgrade current facilities and enhance its services to benefit more elders. The mobile centre on a modified truck will be further equipped with advanced health screening equipment, enabling healthcare professionals and nursing students to provide comprehensive health screening services and education to the elders.

早前，理大再獲大鴻輝慈善基金捐款一千一百三十一萬元，支持「理大 — 梁顯利流動結合保健中心」開展第三期服務計劃，增善儀器設施及擴展服務範疇，惠及更多長者。這以貨車改裝而成的流動中心將配備更先進的健康檢查器材，讓醫護人員及護理學生為長者提供更全面的身體檢查及健康教育。

Naming of Lam Tai Fai Amphitheatre
林大輝廣場命名典禮

PolyU has recently named an amphitheatre after The Hon. Lam Tai-fai, a member of the Legislative Council of the HKSAR and the National Committee of the Chinese People's Political Consultative Conference, in recognition of his significant contributions to education and community services, as well as his ardent support to the University. At the naming ceremony, President Prof. Timothy W. Tong expressed sincere appreciation to Mr Lam for his long-standing support as a distinguished alumnus as well as Council and Court member, giving invaluable advice for the University's development.

理大將校園內一個廣場以香港特別行政區立法會議員及中國人民政治協商會議全國委員會委員林大輝先生之名命名，表彰其對教育和社會服務的重要貢獻及對理大的熱心支持。命名典禮上，校長唐偉章教授衷心感謝這位傑出校友一直以來對理大的支持，並擔任大學校董會及大學顧問委員會成員，就大學發展給予寶貴意見。

PolyU helps the needy with the support of The Hong Kong Jockey Club
香港賽馬會支持理大幫助有需要人士

On 18 March, Jockey Club "PolyU Serves" Community Service Project was officially launched with an aim to providing community services in Yau Tsim Mong and Kowloon City. With a donation of $3 million from The Hong Kong Jockey Club Charities Trust, the project consists of 14 Service-Learning subjects to be participated by some 1,600 PolyU students and staff. They will be implemented in three years, benefiting around 3,500 needy people. The services will be delivered in four main themes – integrating ethnic minorities or new arrivals into the community; caring for the needy elderly through integrated healthcare; improving the well-being of disadvantaged children and youths; and improving the environment.

賽馬會「理有心」社區服務計劃於 3 月 18 日正式啟動，旨為油尖旺及九龍城區提供社區服務。這計劃獲香港賽馬會慈善信託基金撥款三百萬元支持，由近一千六百名理大師生推行共十四個服務學習項目，為期三年，將惠及約三千五百名有需要人士。服務將涵蓋四大主題，包括：幫助少數族裔及新來港人士融入社區；通過綜合醫療保健服務，幫助有需要的長者；改善弱勢兒童及青少年的身心健康；以及改善環境。

Golf tournament gathers donors and friends
高球賽滙聚善長友好

On 15 January, the "PolyU National Agricultural Holdings Invitation Golf Tournament" was held in Huizhou, with the participation of over 40 golf teams formed by prominent business and industry leaders from Hong Kong and the mainland, as well as friends and alumni of PolyU. A total of nearly $2 million was raised for supporting all-round development of students.

1 月 15 日，「理大國農控股高爾夫球邀請賽」於惠州舉行，吸引了中港兩地工商翹楚、理大友好及校友組成四十多支隊伍參與。球賽籌得近二百萬元，將用於支持學生的全人發展。

New appointments to PolyU Council
校董會新任命

New appointments
新委任成員

Dr Lawrence Li Kwok-chang, *JP*, was appointed as University Treasurer for a term of one year from 1 April 2015.

李國祥醫生, *JP*, 獲委任為大學司庫，任期由 2015 年 4 月 1 日起生效，為期一年。

Four new members joined the Council
四位成員加入校董會

Mr Stephen Liu Ling-hong
Managing Director
Rider Levett Bucknall Limited
Term of office:
1 April 2015 – 31 March 2018

廖凌康先生
利比有限公司董事總經理
任期：2015 年 4 月 1 日至 2018 年 3 月 31 日

Mr Peter Sit Kien-ping
Senior Partner
Sit, Fung, Kwong & Shum
Term of office:
1 April 2015 – 31 March 2018

薛建平先生
薛馮鄺岑律師行資深合夥人
任期：2015 年 4 月 1 日至 2018 年 3 月 31 日

Mr Jaime Sze Wine-him, *JP*
Investment Director
Hang Tung Resources Holding Ltd
Term of office:
1 April 2015 – 31 March 2016

施榮忻先生, *JP*
恒通資源集團有限公司
投資總監
任期：2015 年 4 月 1 日至 2016 年 3 月 31 日

Prof. Iris Benzie
Chair Professor
Department of Health Technology and Informatics
Term of office:
2 February 2015 – 1 February 2017

Iris Benzie 教授
醫療科技及資訊學系講座教授
任期：2015 年 2 月 2 日至 2017 年 2 月 1 日

Re-appointments
再獲委任成員

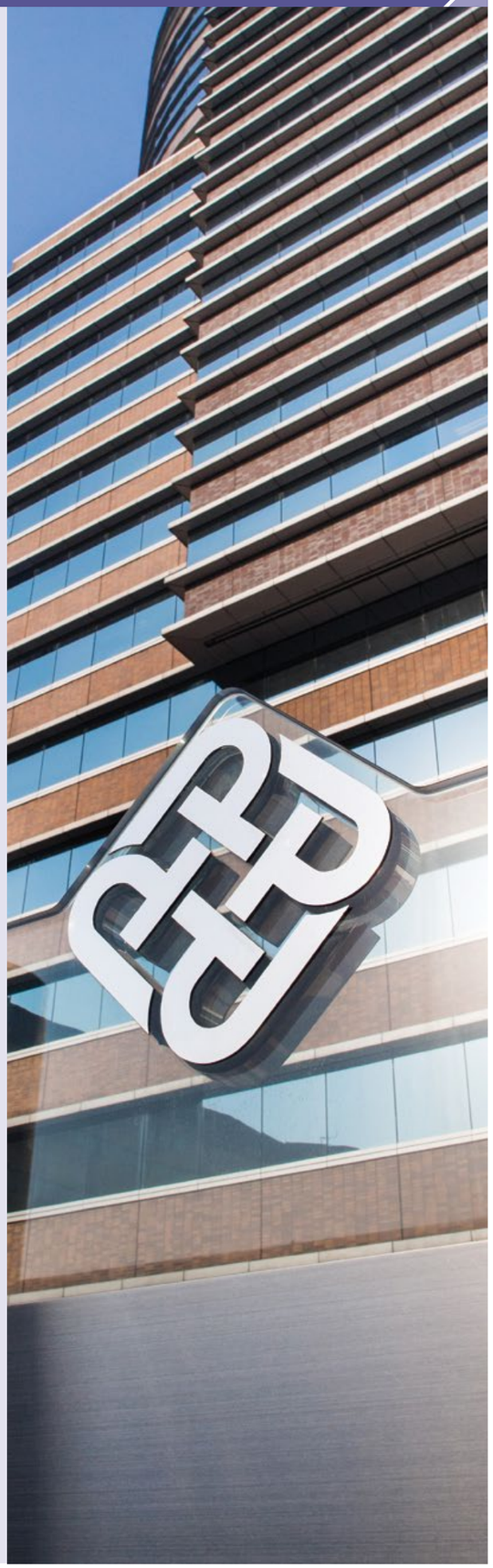
The Hon. Chan Kam-lam, *SBS, JP,* **and Mr Jimmy Kwok Chun-wah**, *BBS, MH, JP,* were re-appointed as Council Members for a further term of three years up to 31 March 2018.

陳鑑林議員, *SBS*, *JP* **及郭振華先生**, *BBS*, *MH*, *JP*, 再獲委任為校董會成員，為期三年，任期至 2018 年 3 月 31 日。

Retirements
退任委員

The University would like to thank **Dr Patrick Poon Sun-cheong, Mr Billy Lam Chung-lun**, *GBS, JP,* **Mr Laurence Li Lu-jen**, *JP,* **Prof. Michael Tse and Mr Lai Wai-kin**, who have recently retired from the Council.

潘燊昌博士、林中麟先生, *GBS*, *JP*、**李律仁先生**, *JP*、**謝智剛教授及賴偉健先生**最近退任校董職位，理大特此向他們致謝。



University Fellowships celebrate success of distinguished individuals
大學院士榮銜　表彰傑出人士成就

A special ceremony on 8 January saw eight outstanding individuals awarded with the title of University Fellow in recognition of their significant contributions to PolyU and the community.

理大於 1 月 8 日向八位傑出人士頒授大學院士榮銜，表揚他們對理大和社會的卓越貢獻。

1

Mr Alexander Woo Chung-ho, Chairman of Central Textiles Group, is committed to supporting academic development and knowledge transfer in textiles and clothing. Apart from offering scholarships to PolyU students, he also established the Vincent and Lily Woo Endowed Professorship in Textiles and Technology in 2013.

吳中豪先生是中央紡織集團董事長，致力推動時裝及紡織技術的學術發展及知識轉移。除了為學生提供獎學金之外，他亦於 2013 年設立吳文政及王月娥紡織科技教授席。

2

Dr Dennis Ng Wang-pun, *BBS, MH,* Managing Director of Polaris Jewellery Manufacturer Limited, has been dedicated to social and community services. He has rendered strong support to the University's fundraising events and served as the Organizing Committee Chairman and Convener of the PolyU CMA 80th Anniversary – Mainland China, Taiwan, Hong Kong and Macau Invitational Golf Tournament 2014.

吳宏斌博士, *BBS*, *MH*, 是寶星首飾廠有限公司董事總經理。他熱心於社會公益服務，亦鼎力支持大學籌款活動，曾任理大廠商會八十周年誌慶兩岸四地高爾夫球邀請賽 2014 籌委會主席兼召集人。

3

Prof. Wang Jianhua, Professor of Electrical Engineering and former Party Secretary of Xi'an Jiaotong University (XJTU), has contributed to the development and application of intelligent electrical devices in China. He showed staunch support in fostering the long-term academic collaborations between PolyU and XJTU. Also, he has served as PolyU's International Advisory Board member since 2010.

王建華教授為西安交通大學電氣工程學院教授及前校黨委書記，在中國的智能電器產品研發和應用上建樹良多。他積極推動理大與西安交大的長期學術合作，並自 2010 年起出任理大國際顧問委員會成員。

4

Ms Josephine Siao Fong-fong, *MBE,* a renowned actress, has won numerous acting awards over the years. She founded the End Child Sexual Abuse Foundation and has served as its President. In 1997, she was honoured with "Member of the Most Excellent Order of the British Empire" by the British government in recognition of her contribution to the community and the film industry.

蕭芳芳女士, *MBE*, 是著名演員，獲獎無數。她創辦護苗基金，並出任會長。1997 年，她獲英國政府頒授大英帝國勳章員佐勳章，以表揚她對社會及電影行業的卓越貢獻。

5

Dr Humphrey Leung Kwong-wai, *JP,* Founder and Group Chief Executive Officer of Solomon Systech Limited, has served as an Advisory Board Member of the Centre for Leadership & Innovation of the Department of Management and Marketing, and Advisory Committee Chairman of the Department of Electronic and Information Engineering. He won the Outstanding PolyU Alumni Award in 2003.

梁廣偉博士, *JP*, 為晶門科技有限公司創辦人兼集團行政總裁。他擔任管理及市場學系領袖及創新中心的顧問委員和電子及資訊工程學系諮詢委員會主席，亦於 2003 年獲選為傑出理大校友。

6

Dr Chung King-fai, *SBS,* is a veteran actor, director, television producer and programme host, as well as a theatre educator. He keenly supports PolyU's endeavours in promoting arts and culture by sharing his experience in performance arts with students. He was the Artist-in-Residence at PolyU in 2013/14, steering a series of activities related to stage production.

鍾景輝博士, *SBS*, 是資深演員、導演、電視製作人、電視節目主持及戲劇教育家。他一直鼎力支持理大推廣藝術及文化的工作，並與學生分享演藝經驗。他是理大 2013/14 駐校藝術家，悉心策劃及主持一系列舞台製作的活動。

7

Dr Royce Yuen Man-chun, *JP,* Founder of New Brand New and Executive Director of Chinagrowth Group, has been serving as Professor of Practice (Marketing) at PolyU. He was presented the Outstanding PolyU Alumni Award in 2009 and served as Deputy President of the Outstanding PolyU Alumni Association from 2012 to 2014. He has been Chairman of the Advisory Committee on Communications and Public Affairs of PolyU since 2013.

袁文俊博士, *JP*, 是時尚品牌策劃有限公司創辦人及盛國集團執行董事，亦是理大專業應用教授（市場學）。2009 年，袁博士獲頒理大傑出校友獎，並於 2012 至 2014 年擔任傑出理大校友協會副會長。他自 2013 年起出任理大傳訊及公共事務諮詢委員會主席。

In absentia
未能出席典禮

Dr Samuel Lam Pak-nin, a specialist in diagnostic radiology, has dedicated to promoting the development of social services and education. Through the Lam Woo Foundation, the Lam family supported the Department of Applied Social Sciences and the Peking University to co-found the Lam Woo China Social Work Training and Development Fund. Also, he was named Honorary Life Chairman of PolyU Foundation.

林柏年醫生是放射診斷科專家，致力推動社會服務和教育發展。透過林護紀念基金，林氏家族資助應用社會科學系與北京大學共同成立「林護社會工作培訓和發展基金」。此外，他亦是理大基金永遠榮譽主席。

Prestigious fellowships bestowed on academics

理大學者獲頒院士榮銜

In the first half of 2015, three PolyU academics have been bestowed fellowships by different prestigious and leading organizations.

2015 年上半年，三位理大學者分別獲權威機構頒授院士榮銜。

Prof. Teng Jin-guang
滕錦光教授

Chair Professor of Structural Engineering and Director of Research Institute for Sustainable Urban Development
結構工程講座教授兼可持續城市發展研究院院長

Prof. Teng was elected Corresponding Fellow of the Royal Society of Edinburgh, Scotland's national academy of science and letters, in recognition of his pioneering and outstanding research achievements in the areas of Structural Use of Fibre-Reinforced Polymer Composites and Thin-walled Structures.

滕教授當選愛丁堡皇家學會（蘇格蘭的國家科學與文學院）通訊院士。該院士榮銜是表揚他在纖維增強複合材料結構工程應用及薄壁結構領域的研究成就超卓。

Prof. Cao Jiannong
曹建農教授

Chair Professor and Head of the Department of Computing
電子計算學系講座教授及系主任

Prof. Cao was elected Fellow of the Institute of Electrical and Electronic Engineers (IEEE) for his significant contributions to distributed computing in mobile wireless network. The IEEE Fellowship is one of the most prestigious international recognitions for experts in the electrical and electronic engineering and computer science fields.

曹教授憑著對無線網絡分佈式計算的傑出貢獻而當選電機暨電子工程師學會院士。該院士榮銜是授予電機電子工程及計算機科學領域專家的最崇高國際榮譽之一。

Prof. Yung Kai-leung
容啟亮教授

Associate Head of the Department of Industrial and Systems Engineering
工業及系統工程學系副系主任

Prof. Yung was elected Fellow of the Hong Kong Academy of Engineering Sciences, in honour of his distinguished achievements in serving Hong Kong with top quality engineering expertise.

容教授當選香港工程科學院院士，以表揚他在工程專業方面的卓越成就，以及對香港的傑出貢獻。

PolyU honours outstanding alumni
理大表揚傑出校友

Eight eminent personnels were bestowed the 10th "Outstanding Alumni Award" in recognition of their distinguished professional accomplishments and significant contributions to the community and their alma mater. The award recipients were:

第十屆「傑出理大校友」選舉選出八位人士，表揚他們在所屬專業的卓越成就，以及對社會和母校的重大貢獻。獲獎人士包括：

Mr Eric Chan Ping-pang
Founder and President, ECCO Design, USA

1976 graduate of Higher Diploma in Design at Hong Kong Polytechnic

陳秉鵬先生
美國 ECCO Design
創辦人及總裁

香港理工學院 1976 年
設計學高級文憑畢業生

Ir Chan Siu-hung
Managing Director – China, CLP Holdings Ltd.

1977 graduate of Diploma in Electrical Engineering and 1979 graduate of Higher Diploma in Electrical Engineering at Hong Kong Polytechnic

陳紹雄工程師
中電控股有限公司
中國區總裁

香港理工學院 1977 年電機工程學文憑及 1979 年電機工程學高級文憑畢業生

Ir Prof. Choy Kin-kuen
Director – Structural, Meinhardt (C&S) Ltd.

1974 graduate of Higher Diploma in Structural Engineering and 1975 Associateship in Structural Engineering at Hong Kong Polytechnic

蔡健權教授、工程師
邁進土木結構工程顧問
有限公司結構分部董事

香港理工學院 1974 年結構工程學高級文憑畢業生及 1975 年結構工程學院士

Ir Dr David Ho Chi-shing, *JP*
Group General Manager, Hong Kong Ferry (Holdings) Co. Ltd.

1979 graduate of Higher Diploma in Business Studies (Transport) and 1982 graduate of Endorsement Certificate in Transport Planning & Traffic Engineering at Hong Kong Polytechnic; 2002 graduate of Doctor of Business Administration at PolyU

何志盛博士、工程師, *JP*
香港小輪 (集團) 有限公司
集團總經理

香港理工學院 1979 年商業高級文憑課程 (運輸管理學) 及 1982 年交通規劃及工程專修證書課程畢業生、
理大 2002 年工商管理博士

Dr Edith Kwan Ngan-hing
Fellow and Honorary Advisor, Hong Kong Computer Society

2003 graduate of Doctor of Business Administration at PolyU

關雁卿博士
香港電腦學會
院士及名譽顧問

理大 2003 年工商管理博士

Dr Polly Lau Mo-yee
Cluster Manager (Physiotherapy), Kowloon Central Cluster and Department Manager of Physiotherapy Department, Queen Elizabeth Hospital

2008 graduate of Doctor of Health Science at PolyU

劉慕儀博士
九龍中醫院聯網經理
(物理治療) 及伊利沙伯醫院
物理治療部主管

理大 2008 年醫療科學博士

Dr Johnny Ng Kit-chong
Founder and Chairman, Goldford Group

1996 graduate of Bachelor of Engineering in Manufacturing Engineering and 2002 graduate of Doctor of Philosophy at PolyU

吳傑莊博士
高鋒集團創始人及主席

理大 1996 年製造工程學學士及 2002 年哲學博士

Mr Wan Feng
President, Centre Testing International Corporation

2006 graduate of Master of Business Administration at PolyU

萬峰先生
華測檢測技術股份有限公司
董事長

理大 2006 年工商管理碩士

Harvest of awards at Geneva's Invention Expo
日內瓦國際發明展 理大載譽歸來

At the 43rd International Exhibition of Inventions of Geneva, the University's researchers scooped 15 awards, including two Grand Prizes, two Special Gold Medals, four Special Merit Awards, three Gold Medals and four Silver Medals.

理大科研人員在第四十三屆日內瓦國際發明展上囊括十五個獎項，包括兩項特別大獎、兩項特別金獎、四項特別優異獎、三項金獎及四項銀獎。

See the full story on pp.11-16
全文見 11-16 頁

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