

KNOWLEDGE TRANSFER & INDUSTRY PARTNERSHIPS

知識轉移與夥伴拍業界

FROM KNOWLEDGE CREATION TO IMPACTFUL CONTRIBUTION

知識創造 貢獻深遠

Through close collaboration with the community, business and industry, PolyU adds practical value and significance to the innovations it develops.

理大與社區和工商界合作無間，為創新發明賦以實用價值和重大意義。

EXPERT ADVICE THROUGH CONSULTANCY

顧問服務 專家意見



PolyU Technology and Consultancy Company Limited (PTeC), the wholly-owned commercial arm of the University, supports clients by providing access to PolyU's advanced interdisciplinary research base and expertise. It also provides researchers with assistance in identifying and managing consultancy projects. During the year, PTeC was engaged in 543 consultancy projects, bringing the expertise of over 350 PolyU academic consultants to 331 clients worldwide. Over 57% of these clients were from the corporate/industrial sector, 35% from government organisations and the remaining 8% from the NGO/educational sector. Certified as an ISO9001 operator since 2005, PTeC puts great emphasis on service quality and client satisfaction.

理大科技及顧問有限公司由大學全資擁有，除了為客戶提供理大的跨學科研究和專業知識之外，科研人員亦會發掘及管理顧問項目。年內，它承辦了五百四十三個顧問項目，共有三百五十多位學術顧問參與其中，為全球三百三十一個客戶提供服務。當中百分之五十七的客戶來自企業及工商界，百分之三十五來自政府機構，其餘的百分之八來自非政府組織及教育界。理大科技及顧問有限公司自2005年起獲得ISO9001認證，一直非常重視服務質素和客戶的滿意度。

2015/16 Project highlights 年度重點項目



Faculty/ Department 院系	Client 服務對象	Consultancy project objective 顧問項目主旨	Impact/Contribution 影響/貢獻
Department of Applied Social Sciences 應用社會科學系	The Secretary for Home Affairs Incorporated 民政事務局長法團	To study Hong Kong people's participation in gambling activities 研究香港人參與賭博活動的情況	In-depth understanding provided on the characteristics and needs of gamblers, common risk factors, perceptions towards counselling and available treatment services. The project also identifies ways to alleviate or prevent problems associated with gambling 深入了解賭徒的特性及需要、常見風險因素、對輔導的觀感及現有的治療服務。項目同時尋求能減輕或防止賭博問題出現的方法
1 Interdisciplinary Division of Biomedical Engineering 生物醫學工程跨領域學部	The Hong Kong Research Institute of Textiles and Apparel 香港紡織及成衣研發中心	To design and develop asymmetric competition footwear for the Hong Kong Olympic fencing team 為香港奧運劍擊隊設計和開發非對稱的比賽鞋	The new design helps to improve foot comfort and performance of athletes 新設計有助改善運動員腳部的舒適度和提升表現

Faculty/ Department 院系	Client 服務對象	Consultancy project objective 顧問項目主旨	Impact/Contribution 影響/貢獻
2 Department of Chinese and Bilingual Studies 中文及雙語學系	Education Bureau, HKSAR 香港特別行政區政府教育局	To carry out research on Chinese vocabulary and grammar learning for non-Chinese speaking students in Hong Kong 研究香港的非華語學生中文詞彙和語法的學習	Suggestions made on learning and teaching of characters, vocabulary and grammar in Chinese language classes at the primary level or early learning stages for non-Chinese speaking students 為非華語學生在小學或早期學習階段的中文字詞和語法學習提供教學建議
Department of Civil and Environmental Engineering 土木及環境工程學系	Hospital Authority 醫院管理局	To provide vibration assessment for Phase I of the redevelopment of Queen Mary Hospital 為瑪麗醫院重建項目第一期提供振動評估	Real-time vibration and assessment system developed for monitoring and protecting sensitive laboratory equipment housed inside existing buildings throughout the construction period of the redevelopment works of the hospital. The project helps to maintain the continuous and normal operation of the hospital and recommends necessary mitigation measures when required 開發一套實時的振動評估系統，在醫院重建工程期間監察和保護建築物內敏感的實驗室儀器。這項目有助維持醫院的正常運作，並在有需要時提供緩解措施的建議
Department of Industrial and Systems Engineering 工業及系統工程學系	Bio-Medical Engineering (HK) Limited 香港生物醫學工程有限公司	To develop a prototype for novel surgical robotic system (more on p.86) 開發嶄新外科手術機械人原型 (詳見第86頁)	An innovative surgical robotic system has been developed for minimally invasive surgery inside a patient's body cavities. The system is equipped with in-vivo motorised robotic arms that are strong but small enough to perform various surgical operations with only one incision 研發應用於人體內的嶄新微創外科手術機械人系統。這個系統配備強而有力及體積細小的內置馬達驅動機械臂，只需開一個切口便足以進行各種外科手術
Department of Land Surveying and Geo-Informatics and Department of Civil and Environmental Engineering 土地測量及地理資訊學系及土木及環境工程學系	Highways Department, HKSAR 香港特別行政區政府路政署	To study the application of ground penetration radar for void detection under footways 研究使用探地雷達在行人路下進行空洞塌陷的探測工作	Exploration of the applicability of ground penetration radar for void detection under footways typically occupied by different utilities so as to enhance public road safety 行人路下的空洞一般置有公共設施，是項研究主要探討運用探地雷達在行人路下進行空洞塌陷探測的應用性，以加強道路的安全性
Department of Land Surveying and Geo-Informatics 土地測量及地理資訊學系	Cartography and Cadastre Bureau of the Macao SAR Government 澳門特別行政區政府地圖繪製暨地籍局	To monitor land subsidence in Macao with Satellite SAR Interferometry (InSAR) 利用星載雷達干涉測量方法監測澳門的地面沉降情況	Identification of actual and potential unstable lands over all of Macao, using PolyU's proprietary InSAR processor. This study will provide the Bureau with a satellite based surveying technique for monitoring land subsidence 利用理大專有的雷達干涉測量處理軟件識別整個澳門區域實際和潛在的地面不穩定性，為當局提供一種以衛星測量技術為基礎來監測土地沉降變化的情況
3 Department of Rehabilitation Sciences 康復治療科學系	The Hong Kong Jockey Club 香港賽馬會	To conduct an ergonomic study of the workstations of the Telebet Centre at The Hong Kong Jockey Club's Shatin Communications and Technology Centre 為香港賽馬會沙田通訊及科技中心的電話投注部工作間進行符合人體工程學的研究	An enhanced ergonomic design for employee workstations that improves acoustic levels and optimises work cluster illumination and keyboard utilisation to improve overall workstation-worker fit 配合人體工程設計以改善僱員工作間，包括提升工作間的寧靜環境、光線照明和鍵盤使用，優化整體僱員與其工作間的互配



COMMON GOOD THROUGH PATENTING & LICENSING

專利與技術授權 造福各界

PolyU values knowledge creation and scientific breakthroughs by researchers and students. As of June 2016, the University had obtained 749 cumulative patents and filed 1,456. In 2015/16, a total of 81 patent and trademark applications were filed and 57 granted.

理大重視研究人員及學生在創造知識和科研突破方面的成就。截至2016年6月，大學獲批專利累計七百四十九項，而申請中的專利則有一千四百五十六項。在2015/16年度，理大提交了八十一個專利和商標申請，並有五十七項獲批。

Knowledge transfer through licensing enables partner companies to leverage PolyU technologies to enhance their competitiveness or create new products. In 2015/16, the Institute for Entrepreneurship executed over 30 licensing agreements/non-disclosure agreements for PolyU's proprietary knowledge in many areas served by the University's faculties and schools.

理大透過技術授權進行知識轉移，讓夥伴機構可以利用理大的技術來提升其競爭力或開發新產品。在2015/16年度，理大企業發展院與業界簽訂逾三十項協議／保密協議，以轉移理大院系在多個領域的專有知識。

Faculty/ Department 院系	Client 服務對象	Consultancy project objective 顧問項目主旨	Impact/Contribution 影響/貢獻
4 School of Design 設計學院	Zhongshan New World Game & Amusement Cultural Industry Development Co., Ltd. 中山新世界遊戲遊藝文化產業發展有限公司	To provide a consultancy study on an innovative ecosystem for the game and amusement industry in Zhongshan, China 為中國中山的遊戲遊藝業的創新生態系統提供顧問研究	A strategic design proposal developed for the Guangdong Game and Amusement Culture Industry Park as well as an implementation proposal for the establishment of a design centre for the game and amusement industry in Zhongshan 為「廣東遊戲遊藝文化產業園」研發策略性設計方案，以及就中山遊戲遊藝文化產業成立設計中心的過程提出建議
5 School of Hotel and Tourism Management 酒店及旅遊業管理學院	The Federation of Hong Kong Hotel Owners 香港酒店業主聯會	To design an industry roadmap for building Hong Kong as a competitive tourist destination 為業界設計藍圖以助香港發展成為具競爭力的旅遊目的地	Environmental scanning of external and internal factors, repositioning of destinations and identification of strategies that will enhance Hong Kong's competitiveness within the global tourism industry 探討環境內部和外圍因素、重新為旅遊景點定位及提供策略，加強香港在全球旅遊業中的競爭力
6 School of Optometry 眼科視光學院	Shamir Optical Industry Ltd.	To conduct a clinical trial on a novel aspheric ophthalmic lens for myopic control 為嶄新非球面眼鏡片進行近視的臨床實驗	Comparison of the rate of myopia progression in children wearing spectacles fitted with the client's aspheric lens against conventional spherical/toric ophthalmic lens 比較兒童佩戴非球面鏡片和傳統球面/環面鏡片的近視加深速度



Licensed technologies and designs

授權技術及設計



Faculty/Department 院系	Inventor 發明者	Technology/Design 科技/設計	Licensee 獲授權機構	Benefits/Applications 優點/應用
Department of Building Services Engineering 屋宇設備工程學系	Prof. Yang Hong-xing and Dr Wang Yuan-hao 楊洪興教授及汪遠昊博士	Nanocomposite paste for self-cleaning coating for glass panels 為玻璃面板自潔塗層而設的納米複合粘貼	Sunlight Eco-Tech Limited 新盈環保科技有限公司	Provide an innovative coating made of highly dispersed nanoparticles for effective self-cleaning with minimal transparency reduction for windows and curtain walls 提供由高度分散的納米顆粒製成的創新塗層，在對透明度影響最少的情况下為窗戶和幕牆提供有效的自潔功能
Department of Civil and Environmental Engineering 土木及環境工程學系	Dr Daniel Tsang and Mr Wang Lei 曾超華博士及王磊先生	Wood-plastic composites (WPC) made of recycled waste 利用回收廢物製成的木塑複合材料	Greenpoly Technology Limited * 綠聚科技有限公司 *	Enhance the chemical formulation and manufacturing method to produce WPC with 99% content recycled wood and plastics and possessing good mechanical and functional properties that meet related industrial standards for various wood-replacement applications 優化化學配方和製造方法，製作含99%成分為回收木材和塑膠的木塑複合材料，它具備良好機械性能和功能，符合各種木材替代物料的相關行業標準
Department of Electrical Engineering 電機工程學系	Dr Tsang Kai-ming and Dr Chan Wai-lok 曾啟明博士及陳偉樂博士	Three-phase active power filter 三相主動式電力濾波器	Edge Electrons Limited	Provide a cost-effective active power filter based on novel control circuitry, achieving excellent power factor correction for more efficient electrical systems 以新型控制電路為基礎設計出具有成本效益的主動式電力濾波器，以達致卓越的功率因數校正，從而提升電力系統的效率
Department of Electronic and Information Engineering 電子及資訊工程學系	Mr Wen Zhi-hui 文智輝先生	Mobile application for hearing assistance 聽覺輔助流動應用程式	Chears Technology Co. Ltd.* 樂聽科技有限公司 *	Assist people with hearing-impairments to use smartphone for enhanced communication through effective sound and noise attenuation algorithms 透過有效的聲音和噪音衰減法，協助聽障人士使用智能手機以促進溝通

*Awardee of PolyU's start-up funding scheme 理大初創企業基金得主

Faculty/Department 院系	Inventor 發明者	Technology/Design 科技/設計	Licensee 獲授權機構	Benefits/Applications 優點/應用
Department of Industrial and Systems Engineering 工業及系統工程學系	Prof. Lee Wing-bun, Dr Joe Chan and Dr Li Li-hua 李榮彬教授、陳增源博士及李麗華博士	Light field camera with micro-lens array 配備微透鏡陣列的光場相機	Marvel Research Ltd.	Record depth of field information of a scene using only a single image to generate 3D images 於單一拍攝中記錄場景的景深數據以製成三維圖像
7 Department of Industrial and Systems Engineering 工業及系統工程學系	Dr Sandy To and Mr Ricky Chiu 杜雪博士及趙崇智先生	LED filament bulb 發光二極管燈絲燈泡	Ever Star Energy Saving Limited * 永星節能有限公司 *	Provide a cost-effective LED filament bulb with good heat dissipation, high lighting efficiency and high recyclability 提供有良好散熱功能、高光效、高回收性和具成本效益的發光二極管燈絲燈泡
Department of Industrial and Systems Engineering 工業及系統工程學系	Prof. Yung Kai-leung 容啟亮教授	Networked motor control application specific integrated circuit 聯網的電機控制專用集成電路	Bio-Medical Engineering (HK) Limited 香港生物醫學工程有限公司	Enhance control of robots with an advanced application-specific integrated circuit for space and surgical applications 改良具有先進的特殊應用集成電路機械人的控制，用於太空和外科手術
Department of Mechanical Engineering 機械工程學系	Mr Lin Kwok-hang, Mr Ho Lai-sing and Mr Ho Siu-kit 連國享先生、何禮昇先生及何少傑先生	Reclining airplane seat 斜倚的飛機座椅	Blue Gear Ltd. *	Provide support for a more comfortable sleeping posture with reduced seating space requirement 減少座位的空間要求，但能達致更舒適的睡眠姿勢
Department of Rehabilitation Sciences 康復治療科學系	Prof. David Man and Dr Grace Lee 文偉光教授及李月英博士	Computer-assisted errorless learning-based memory training 以電腦輔助的學習為本無錯記憶訓練	C2 Innovations & Research Ltd. 思穎創新科研有限公司	Enhance attention, memory and problem solving skills of elderly people who suffer from early stage dementia 改善患有早期認知障礙症長者的注意力、記憶力和解難能力
English Language Centre 英語教學中心	Dr Alan Urmston Alan Urmsto 博士	Diagnostic English language tracking assessment 診斷式英語跟蹤評估	University of Macau 澳門大學	Enhance tertiary students' English language proficiency, track their English language improvements and plan their learning 提升大專學生的英語能力，監察他們的英語學習進度和為他們規劃課程
8 Interdisciplinary Division of Biomedical Engineering 生物醫學工程跨領域學部	Dr Hu Xiao-ling and Prof. Tong Kai-yu 胡曉翎博士及湯啟宇教授	Electromyography (EMG)-driven neuromuscular electrical stimulation upper limb rehabilitation system 智感機電混合上肢復康訓練系統	Shangyu Jinlun Investment Management Consulting Co., Ltd. 上虞金輪投資管理諮詢有限公司	Combine EMG-driven motion with electrical stimulation for enhancing neuroplasticity recovery of upper limbs of stroke patients 結合以自主肌電控制的動作和電子刺激，促進中風患者上肢神經可塑性的恢復

*Awardee of PolyU's start-up funding scheme 理大初創企業基金得主

Faculty/ Department 院系	Inventor 發明者	Technology/ Design 科技/設計	Licensee 獲授權機構	Benefits/Applications 優點/應用
Interdisciplinary Division of Biomedical Engineering 生物醫學工程 跨領域學部	Prof. Tong Kai-yu and Dr Fong Ching-hang 湯啟宇教授及 方靖行博士	Computerised cognitive assessment and screening 電腦化認知評估 與篩查	Cognix Ltd. *	Perform quick and self-service screening and assessment of users' cognitive functions 替使用者的認知功能進行快速和自行篩查 及評估
Institute of Textiles and Clothing 紡織及製衣學系	Dr Lilly Li 李鸞博士	Thermal functional textile with conductive materials 使用導電材料的保 溫功能紡織布料	Chinese Pharmaceuticals (HK) Co., Ltd. 華人藥業	Produce energy-efficient localised heating with conductive fibres directly knitted into the fabric, using integrated knitting techniques and enabling fabrication of lightweight heated garments for healthcare applications 使用集成針織技術把導電性纖維直接織入 針織物，從而產生高效能的局部保溫效果， 可製成醫療用途的輕巧保溫布料
School of Design 設計學院	Ms Geraldine Borio, Mr Manfred Yuen and students of School of Design Geraldine Borio 女士、阮文韜先生及 設計學院學生	Characters and exhibition designs for promoting equal opportunities 設計角色和展覽以 推廣平等機會	Equal Opportunities Commission 平等機會委員會	Create eye-catching characters to draw public attention to the importance of equal opportunity, raising awareness of inequality issues in daily life 創作引人注目的角色以引起公眾關注平等 機會的重要性，並喚起公眾對日常生活中的 不平等問題的關注
9 School of Design 設計學院	Mr Fan Heng 范亨先生	Mobile application for private parking leasing 私人停車場租賃流 動應用程式	Chocolate Technology Co. Ltd. * 巧克力(深圳)科技有限 公司 *	Provide a specially designed Online-to- Offline platform for better utilisation of parking spaces 提供專門設計的在線對離線平台，以便 更有效地使用停車位
School of Design 設計學院	Mr Fung Ho-yin and students of School of Design 馮浩然先生及 設計學院學生	Packaging design for Baojing Gold Tea 為保靖黃金茶提供 包裝設計	Kerry Group Kuok Foundation Limited 嘉里集團郭氏基金會(香港) 有限公司	Support tea farmers in the Chinese mainland with an enhanced brand image for marketing their products 協助內地茶農提升品牌形象以幫助推廣 產品
School of Design 設計學院	Mr Alex Ho and students of School of Design 何達興先生及 設計學院學生	Video production and "Great Chefs" collateral designs 製作短片和「全港 廚師精英大賽」 宣傳設計	Heep Hong Society 協康會	Promote caring for children with special needs 提倡關懷有特殊需要的兒童
School of Design 設計學院	Mr Hung Keung and students of School of Design 洪強先生及設計學院 學生	Video production, promotional materials and exhibition design concept 製作影片、宣傳物料 和展覽設計概念	Hong Kong Angelman Syndrome Foundation Limited 香港天使綜合症基金會 有限公司	Raise public awareness of individuals with Angelman Syndrome 提高公眾對天使綜合症患者的認知

*Awardee of PolyU's start-up funding scheme 理大初創企業基金得主

Faculty/ Department 院系	Inventor 發明者	Technology/ Design 科技/設計	Licensee 獲授權機構	Benefits/Applications 優點/應用
10 School of Design 設計學院	Ms Wu Wen-hui 巫雯卉女士	Mobile application for language learning 語言學習流動應 用程式	Shenzhen Ningchazoubing Internet Co. Ltd. * 深圳檸茶走冰互聯網 有限公司 *	Facilitate Chinese and English learning via a social networking feature to support personalised real-time interactive learning 具有社交網絡功能，支援個性化的實時互動 學習體驗，有助中文和英語學習
School of Nursing 護理學院	Prof. Thomas Wong Kwok-shing and Prof. Joanne Chung 汪國成教授和 鍾慧儀教授	Anti-sleep apnea device 抗睡眠窒息症儀器	AdvanPro Limited 安潤普有限公司	Produce electrical pulses through fabric electrodes on a wristband that stimulate acupuncture points to restore normal breathing without sleep interruption 透過在手腕上的織物電極產生電脈衝， 刺激穴位，在不曾中斷睡眠的情況下恢復 正常呼吸

*Awardee of PolyU's start-up funding scheme 理大初創企業基金得主



IMPACTFUL CONTRIBUTIONS THROUGH INNOVATION

創新發明 貢獻殊深

Through the concerted effort of its theme-based research centres and units, PolyU made a number of significant breakthroughs during the year that contributed to the advancement of technology.

在專注不同領域的研究中心和單位的共同努力下，理大在年內實現多項創新突破，為推動科研發展作出重要貢獻。

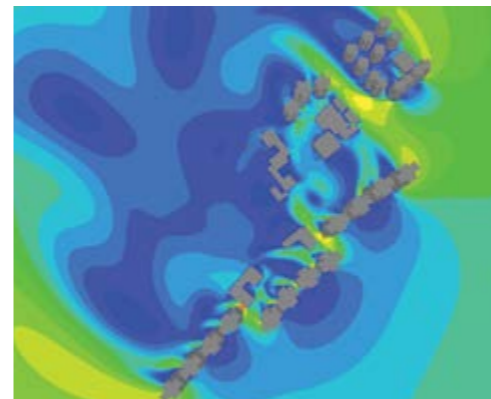


Setting a record in optical communication speeds

The Photonics Research Centre achieved a breakthrough in high-speed optical communication during the year. Until now, optical communication distortions occurred in the information signals generated from their interactions with silicon dioxide molecules that make up optical fibres. The higher the transmission speed and the longer the distance, the more severe was the distortion. This has, therefore, limited the speed of optical communication. To address this limitation, researchers have developed a software approach to undo signal distortions by integrating optics, statistics and signal processing technologies that substantially increase optical network speeds up to 240 giga bits per second over two kilometres, i.e. 24 times faster than the existing speed available in the market. Huawei Technologies Co. Ltd., the University's industrial partner, has expressed interest in adapting this technology for practical applications.

光通訊速度破紀錄

年內，光電研究中心在光通訊速度上取得突破。在光通訊過程中，光纖由二氧化矽分子組成，它們與信號的相互作用會導致信號失真。傳輸速率越高，傳輸距離越遠，訊號失真就越嚴重，因而限制了光通訊的速度。為突破這限制，科研人員開發了一個軟件方案來消除訊號失真，就是整合光學、統計數據和信號處理技術，使光網絡速度在超過兩公里的傳送距離下仍可大幅提升至每秒240千兆位，較市場現提供的速度快二十四倍。大學的業界夥伴華為技術有限公司已表示有興趣將這項技術付諸實際應用。



Precise 3D mapping for space exploration and smart cities

Two major 3D mapping techniques, photogrammetry and laser measurement, both have drawbacks when used alone. A research team from the Department of Land Surveying and Geo-Informatics has developed a precise topographic mapping model by integrating measurement data from these two methods. This has dramatically improved accuracy in both horizontal and vertical directions. The model was used in China's Chang'e 3 lunar mission to select the best landing site on the moon. On earth, the technology can be used for landscape mapping in smart city design and planning.

精準三維測繪有助太空探索和智能城市發展

攝影和激光測量這兩種主要的三維繪圖技術在獨立使用時均有其應用上的缺點。理大土地測量及地理資訊學系的科研團隊開發了精確的地形圖測繪模型，結合這兩種方法得出的測量數據，大大提高水平和垂直方向的精確度。中國的嫦娥三號探月任務亦採用這個模型，以選取在月球上最佳的著陸點。而在地面，這項技術可以應用於智能城市設計和規劃的景觀製圖上。

3D spatial technology analyses land development density

In 2015, the Town Planning Board approved a minor relaxation of plot ratio / building height restrictions for 21 sites in three research areas at Kai Tak Development. Researchers from the Department of Building and Real Estate of PolyU deployed their proprietary 3D spatial analysis technique to scientifically assess the impact of this relaxation for consideration of further relaxations. The findings revealed that the minor relaxation would not have a material influence on the urban skyline, visual impact, wind ventilation, shadow and solar exposure or air temperatures. This suggested a possible relaxation for an additional gross floor area of 156,200 square metres and 119,900 square metres respectively for domestic and non-domestic use beyond the currently approved relaxation. The research findings provided new methodological and theoretical insights for facilitating discussion on changing land development density in Hong Kong and other hyper-dense cities.

三維空間技術分析土地開發密度

2015年，城市規劃委員會批准輕微放寬啟德發展區三個研究區域二十一個地點的地積比率和建築物高度限制。理大建築及房地產學系的科研人員利用專有的三維空間分析技術，以科學角度評估這次放寬對日後進一步放寬的影響。結果發現，輕微放寬不會對城市天際線、視覺、通風、陰影、日照及氣溫有重大影響，因此建議在這次放寬之外，可額外放寬總建築面積十五萬六千二百平方米住宅用地和十一萬九千九百平方米非住宅用地的地積比率。研究結果提供了新方法和理論性見解，供香港和其他人口密集城市討論改變土地發展的密度。



11 Next stage in minimally invasive robotic surgery

Integrating PolyU's experience in developing space tools with expertise in robotic surgery of Bio-Medical Engineering (HK) Limited, the University's engineers developed a novel surgical robotic system that can be inserted through a single small incision for expansion inside the abdominal cavity to perform various surgical procedures. The system has robotic arms equipped with internal motors that are small yet strong enough to generate sufficient force to perform surgical operations. The whole robotic system is capable of up to ten degrees of freedom in movement, paving the way for future non-invasive surgery.

革新機械人微創手術

透過結合理大在開發太空儀器的經驗，以及香港生物醫學工程有限公司對機械人外科手術的專門知識，大學的工程師開發了一個嶄新外科手術機械人系統。它可以通過單一小切口進入人體，再於體內擴張以進行各種外科手術。這系統配備內置馬達驅動細小而有足夠力度的機械臂以進行手術。整個機械人系統可作十個自由度的轉動，為未來非入侵性外科手術開創新路向。

12 Establishment of Institute of Translational Medicine

PolyU recently signed a collaboration agreement with the Government of Banan District of Chongqing City to establish the Chongqing Banan – PolyU Institute of Translational Medicine. The Institute aims to advance translational medicine research in China by transferring research outputs to this collaborative platform for the treatment of diseases through clinical trials. Combining the strengths of both parties and their resources in new medicine and clinical research, the Institute will focus on developing medication and diagnostic devices for therapeutic treatment, medical imaging and genetic diagnosis. This collaboration reinforces the international partnership and industry cooperation in translational medicine to offer cost-effective therapeutic solutions to patients.

成立轉化醫學中心

理大最近與重慶市巴南區政府簽訂合作協議，成立重慶市巴南區—香港理工大學國際轉化醫學中心。該中心旨在將科研成果透過臨床試驗轉化到這合作平台以治療疾病，並推動中國轉化醫學的研究。中心將結合雙方在嶄新藥物與臨床研究方面的優勢和資源，集中研發藥物及診斷儀器，作醫療、醫學影像和基因診斷的用途。這項目將加強轉化醫學範疇中的國際協作和業界合作，為病人提供更具成本效益的醫療方案。

NURTURING "DO WELL DO GOOD" ENTREPRENEURS 培育「創富創善」企業家



Spreading the Poly-preneur™ spirit

PolyU has made a concerted effort to develop the Poly-preneur™ community, now numbering some 690 alumni entrepreneurs. To encourage closer collaboration with industry and further stimulate the entrepreneurial spirit across the University community, the University held the Visionaries Connected event in January 2016. Featuring a Poly-preneurs™ Carnival and Entrepreneurship Conference, the event won a Bronze Award in the 2016 Summit Creative Award Competition and an A' Design Award in the Event and Happening Design Category.

宣揚理大企業家精神

理大致力發展企業家社群，企業家校友人數達六百九十位。為促進與業界的合作及進一步鼓勵大學社群的創業精神，大學於2016年1月舉辦Visionaries Connected活動，當中包括理大企業嘉年華暨企業論壇。這活動最終獲頒2016 Summit Creative Award銅獎，以及在A' Design Award比賽中贏得獎項（大型活動及事件設計組別）。

Cultivating young entrepreneurs

The University has been helping students and graduates to follow their entrepreneurial pursuits via funding, mentoring, and business development support through the PolyU Micro Fund series. Partners include the Shanghai Technology Entrepreneurship Foundation for Graduates, the Hong Kong Science and Technology Parks Corporation, Social Innovation and Entrepreneurship Development Fund and angel investors. Through this initiative, they offer close to HK\$10 million each year to support some 60 early stage startups and social innovation projects.

In 2015/16, PolyU supported 55 new startups through five funding schemes, adding to the 116 startups supported in the past. Up to 30 June 2016, the University had funded a total of 171 startup ventures, supporting over 350 young entrepreneurs with more than 50,000 training hours. The supported startups are doing well, with around 70% in active operation. They also gained further funding and investment support amounting to more than HK\$100 million and earned industry recognition in over 80 international and regional awards, including the 30 under 30 Asia award by *Forbes* to the founder of one of the supported startups.

PolyU has provided resources for cultivating the entrepreneurial spirit, mindset and skills of students, graduates and research staff through various programmes. These include credit bearing courses, entrepreneurship education programmes, entrepreneurship bootcamps and extra-curricular activities such as seminars, talks and visit tours. An online entrepreneurship learning resource centre, The Practicum, was also opened with a soft launch in January 2016.



栽培年青企業家

大學透過理大微型基金計劃，為學生和畢業生提供資金、指導和業務發展支援，致力協助他們實現創業夢想，合作夥伴包括：上海市大學生科技創業基金會、香港科技園、社會創新及創業發展基金，以及天使投資者。每年提供近一千萬港元，資助近六十家初創企業和社會創新項目。

在2015/16年度，理大透過五項基金計劃，資助五十五家新的初創企業，此前共資助了一百一十六家初創企業。截至2016年6月30日，大學共資助了一百七十一家初創企業，提供逾五萬小時的培訓，支援超過三百五十位年青企業家。獲資助的初創企業運作良好，當中約百分之七十仍在活躍運作的階段。他們進一步獲得的資助和投資總值超過一億港元，並得到業界認同，奪得超過八十項國際和地區獎項，其中一家資助初創企業的創辦人入選福布斯亞太區「三十位三十歲以下創業者」名單。

理大一直投放資源培育學生、畢業生和科研人員的創業精神、思維和技能，包括學分課程、創業教育課程、創業訓練營、以及研討會、講座和交流團等課外活動。此外，名為 The Practicum 的網上創業培訓資源中心亦於2016年1月開始試行。



Delivering executive education

During the year, the Institute for Entrepreneurship delivered 441 training courses that benefited 18,223 participants from both the public and private sectors. The programmes were part of the Institute's ongoing training for professionals and executives and customised courses for industry associations and enterprises.

Similarly, in September 2015 the Institute of Advanced Executive Education offered the first PolyU cohort of the interdisciplinary Executive Master in Innovation Leadership. A second interdisciplinary Executive Master in Digital Leadership programme was also developed to align with government ICT investment and support of the Belt-Road Initiative.

To support promising new career trends, the Institute explored the development of Intellectual Property Management and Management Consulting programmes, with the latter supported by the Institute of Management Consultants.

Partnering with the PolyU Shenzhen Base, the Institute launched a two-generational family business programme and a Professional Diploma in Transboundary Effective Leadership for experienced executives in the South China region.

A variety of open and corporate bespoke programmes were offered by the Institute on topics such as the Power of Dialogue, Situational Leadership, Peripheral Vision in Strategy Thinking, High-Impact Presentation, Information Security Management and Staff Engagement to meet the demand for continuing professional development.

行政培訓課程

企業發展院除了為專業人士及行政人員提供進修課程外，更為工商機構提供度身訂造的培訓服務。年內，企業發展院舉辦了四百四十一項培訓課程，為一萬八千二百二十三名來自公營和私營機構的人士提供培訓。

此外，高級管理深造學院於2015年9月首辦跨學科「高級管理人員創新領袖碩士」課程，更推出另一跨學科課程「高級管理人員數碼科技領袖碩士」，配合政府倡議的創新科技投資和支援一帶一路的機遇。

學院亦研究推出「知識產權管理」及「管理顧問」兩個極具職業發展潛力的課程，為業界培育專才。後者獲得香港管理顧問學會的支持。

另外，學院與位於深圳的理大產學研基地合作，舉辦家族企業雙代傳承課程及跨界實戰領導力高級專業文憑課程，為南中國地區的資深高管人員提供培訓。

學院更開辦不同類別的公開及特制課程以配合持續專業進修的需求。課程範疇包括：高效對話、情景領導、策略思維的周邊視野、具感染力的演說、信息安全管理及提升員工投入度等。