



2010-2011年報 ANNUAL REPORT





2010-2011 ANNUAL REPORT

### 科大的使命

(香港法例第1141章)

#### 大學的使命是 —

- (a) 透過教學與研究,增進學習與知識,尤其 —
- (i) 在科學、技術、工程、管理及商業方面的 學習與知識;及
- (ii) 研究生程度的學習與知識;及
- (b) 協助香港的經濟與社會發展。

### 科大的理念

定位為一所在國際上具有深遠影響,而又致力為本 地服務的優秀學府。

- 世界觀 作為世界級學府,在每一個精選的教研 領域裡走在國際前沿。
- 國家觀 作為中國最優秀的大學之一,對國家的 經濟及社會發展作出貢獻
- 地區觀 一 作為香港的主要大學,與政府及工商界 通力合作,把本港發展成以知識為本的 社會。

### **OBJECTS**

### (The Laws of Hong Kong: Chapter 1141)

#### The objects of the University —

- (a) to advance learning and knowledge through teaching and research, particularly –
- (i) in science, technology, engineering, management and business studies; and
- (ii) at the postgraduate level; and
- (b) to assist in the economic and social development of Hong Kong.

### STATEMENT OF VISION

To be a leading university with significant international impact and strong local commitment.

- Global To be a world-class university at the cutting edge internationally in all targeted fields of pursuit.
- National To contribute to the economic and social development of the nation as a leading university in China.
- To play a key role, in partnership with government, business, and industry, in the development of Hong Kong as a knowledge-based



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# 校董會主席前言

CHAIRMAN'S FOREWORD



全 大的高等學府必須要有遠大的志向與抱負。科大今年 慶祝創校20周年,標誌著這所年青有朝氣的大學之重 要里程。在追尋夢想的過程中,科大跨越重重障礙,不斷開拓新領域。我們慶祝踏入20周年之際,欣逢科大在《QS亞洲大學排名》高踞榜首;雙喜臨門,實在令人振奮。對於這所奇蹟大學而言,相信沒有一份生日禮物比國際認同來得更珍貴。科大將繼續超越自己、創造驚喜。

科大以超卓成就高踞《QS亞洲大學排名》榜首之前數月,大學教育資助委員會轄下質素保證局在本港發表報告,讚揚科大正穩步邁向其教育及研究目標。科大教研人員在多個領域屢獲殊榮,科大學生亦不斷在國際賽事上取得佳績。我謹衷心祝賀各位老師和同學的多項成就,並感謝大學職員提供所需的一切支援。這些美滿的成績增添了我們的信心,有助建立更強的歸屬感。

科大表現卓著,獲世界各地認同。我們的國際網絡亦蓬勃發展,不僅在亞太區,更遠至中東、歐洲和美洲。為了實現科大的理想,大學領導層親赴內地及海外,加強與夥伴的聯繫及拓展新網絡。國家「十二五」計劃讓香港及科大在國家的科技發展上佔一席位,而科大高等研究院更提升科大作為亞洲知識樞紐的地位。

科大創校短短20年,已經訂定清晰的發展路向、提升學術研究水平,建立良好的聲譽,令我感到欣慰。科大的發展正配合國家經濟起飛的歷史機遇,中國現已成為全球經濟大國,並堅持科技建國的方針。科大的使命不是一句豪言壯語,我們的成績正好展示了高水平的科技和管理可以為國家的未來發展帶來寶貴的機遇。

我樂見校園拓展計劃進度理想,擴建後的校園將更能應付四年制實施後學生增加的需要。圖書館新翼現已全面投入服務,而多間食堂的擴充工程與其他支援服務及設施均快將竣工。教育改革雖然充滿挑戰,科大視挑戰為機遇。我們將調整思維、精益求精。

科大創校20年來,克服種種障礙。科大已成為其他科技大 學的參考對象,我們的體制和思維都能反映我們鍥而不捨、 不斷求進的精神。科大已成為亞洲第一,標誌著我們已成功 攀上新高峰,但競爭將會更加劇烈。一所重視科技的大學若 要有所成就,便需要在競爭中保持有利位置。面對充滿挑戰 的環境,科大制訂了2011-2016年的策略發展計劃,專注六 大發展範疇,包括教育、研究及學院發展、社會服務、國際 及內地策略,以及組織與資源重整。這些不是空談,科大已 制訂年度營運計劃將這些目標付諸實踐,而2011-2012年 的營運計劃亦已經展開。科大重視創新的教學及研究,我們 引以為傲。科大鼓勵學生培養創新精神,令我感到欣喜。我 衷心感謝今年校董會更積極地提升科大的整體質素,包括為 學術發展計劃提供意見,並得到教資會的支持及嘉許。科大 團隊已蓄勢待發,我們的鴻圖大計亦已準備就緒。我祝願領 導層以遠大的目光,致力秉承科大不斷求進的傳統,繼往開 來。科大未來20年的前景將更加光明,我們會繼續為社會 謀求福祉,留下更光輝的印記。前

校董會主席

張建東博士 金紫荊星章、太平紳士

Behind every great institution is a great ambition. HKUST is 20 years old this year. And what a celebration it has been for this ambitious university! In the pursuit of our dream, this University has climbed mountains after mountains, pushed back boundaries after boundaries. Who would have thought that the *QS World University Rankings* could deliver the honor naming HKUST the No. 1 University in Asia in time for our Anniversary celebration? There is no better birthday gift for this miracle university. HKUST never ceases to surpass and surprise.

The University's achievements are broad-based and highminded. Months before *QS* rendered its global verdict, the Quality Assurance Council of the University Grants Committee had reaffirmed in its official local report the fact that the University is on target in what it set out to do, in education and research. Our scholars and scientists continue to garner awards in a variety of fields. And our students are continuing to shine in international competitions against their peers. I would like to take this opportunity to congratulate our faculty and our students for their multiple and serial achievements, and thank our staff for providing all the necessary support. Achievement breeds confidence and a strong sense of community.

Recognition for the University's achievements has come from different quarters, from near and far. International partnerships are flourishing as a result, not just in Asia-Pacific, but also in the Middle-East, Europe and America. Our leadership team has been crisscrossing the Mainland and further afield to advance the University's cause, extending the networks of old friends and new allies. China's 12th Five-Year Plan has given Hong Kong a role and us a place in the nation's development in science and technology, with the Institute for Advanced Study flying our flag as the intellectual center for Asia.

I am thankful that 20 years after its founding, HKUST has come into its own, raising the level of the research culture and projecting a more prominent profile in the wider



community. We have the luck of good timing too, as China becomes a major global economic player and a determined pursuer of science and technology. Our mission is no longer just a bold slogan. Our achievements have demonstrated the rich possibilities of technology and management in our nation's development and destiny.

Locally, I am pleased to see that we are basically on schedule in our preparations for an expanded campus with an increased capacity to absorb higher enrollment that comes with a 4-year undergraduate education. Our library's extension wing is fully operational and other support services and facilities are coming on stream, including expanded capacity of our canteen outlets. An educational reform of this magnitude poses a daunting overall challenge. But at HKUST, challenges are always viewed positively as opportunities for a fundamental realignment in thinking that results in ways of doing things better.

HKUST's first two decades have been a history of rising to challenges and overcoming obstacles. The fact that we have become the model for other universities of science and technology means that the idea of continuous progress must be embedded in our system and mentality. The fact that we have the continent's No. 1 ranking means that we are in a new territory and the competition will be snapping at our heels. If universities of science and technology thrive on anything, they thrive on competition and challenge. In a new competitive environment, we have collectively mapped out our Strategic Plan for 2011-2016, focusing on six developmental areas, in education, research and faculty development, in community engagement, international and Mainland strategy and in the rationalization of our organization and resources. These are not just highsounding goals, as their implementation is fleshed out and aligned with an Annual Operation Plan, of which the 2011-2012 edition is already underway. I am proud that the University is emphasizing the innovative in teaching and research. I am pleased to see that our University is introducing the entrepreneurial spirit in our students. I am gratified to see that this year Council members are playing an even more active role in the University's overall improvement, including ideas that help shape our Academic Development Plan that has emphatically won the endorsement and commendation of the UGC. Team HKUST is firmly in place. Our grand plan is ready. I congratulate our forward-looking and hardworking leadership team for continuing our tradition of continuous progress. Already, the next 20 years is looking brighter by the day, as we strive to leave a larger footprint in our community. 0

Chairman, University Council

Dr the Hon Marvin K T Cheung, GBS, JP

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## 校長報告 PRESIDENT'S REPORT



對 科大來說,今年是豐收的一年:我們作為世界級大學的成就備受認同,在亞洲大學排名榜上高踞榜首,廣受注目。我們的商業管理課程仍然穩佔全球最佳位置,多個學科亦保持國際排名,在國際上取得更大的認同。對於一所渴求繼續向前邁進的年青大學來說,這些成就令人鼓舞。今年4月8日舉行的科大20周年校慶慶祝大會,更倍添喜慶。為期一年的校慶活動是科大的盛事,全校師生及校友聚首一堂。我們取得的成績,能激勵科大同仁更加團結、追求更遠大的理想。

一所世界級大學必須在各方面達致卓越水平,而香港教育資助委員會質素保證局的審核結果,再次肯定科大的健全發展。質保局特別讚揚我們的教學及研究工作,我們將再接再厲。報告讚揚我們建立了完善的理想特質有清晰的表述。科大作為研究型大學的定位得到國際認同,與此同時我們亦為學生提供多元化的學習體驗,包括高質素的師友輔導計劃、國際學生交流計劃,以及探索為本和跨學科的學習模式;這些計劃均管理得宜,得到高度讚揚。

現在距離推行四年制學位課程僅有一年時間,其發展備受重視,籌備工作亦已進行得如火如荼。教資會明確表示支持科大2012-2015年學術發展建議書的規劃及進度,科大全額資助第一年學士學位課程的學額將增加達1.4%,以及增設43個高年級的學額。我們已完成設計核心課程,而以學院為本的取錄制度亦將增加學生選科的彈性。為迎接「三三四」而進行的多個基建工程項目進展順利,其中圖書館已完成擴建、新翼已經啟用:8號及9號學生宿舍、高等研究院和商學院新大樓工程正在進行。

今年,科大新的領導層成員已全部到任。五年策略發展計劃是我們上下一心、共同努力的成果,並得到學院及校董會等主要持份者的支持。我們需要向社會展示清晰的發展藍圖,我衷心感謝顧問委員會及校董會積極參與,並惠賜睿智意見。

科大已成為一所卓越的研究型大學,而要進一步提升 聲譽,我們需要得到更大支持,特別是來自大學領導 層的支持。因此,科大在2010年底推出由本人構思 的特別研究基金計劃,大學透過提供一次性的種子撥 款,推動策略性跨學科的研究工作。我們收到約40 份建議書,涵蓋四個範疇:能源、生命科學及醫療衞 生、香港可持續發展、以及前沿研究。它們均以科大 的跨學科方式進行,並將合共獲得超過港幣3,600萬 元的撥款。獨立評審工作由資深的評審小組負責,成 員包括諾貝爾獎得主、高研院著名訪問學者等。 This is a good year for HKUST — the year when our bona fides as a world-class university are visibly validated. The singular news that has caught everyone's attention this year is our No. 1 ranking among Asian universities. We remain top-drawer in business education, and have either maintained or inched upwards in international standings in various disciplines. These are salivating achievements for a young and hungry University, giving us much to cheer about at our 20th Anniversary Grand Celebration on 8 April. The year-long celebration is an all-HKUST affair, with faculty, students, alumni all coming together to mark this milestone. Success has brought us closer together and emboldened us to dream bigger dreams.

A world-ranked university entails all-round excellence. In our case, this is reaffirmed by the Quality Assurance Council audit which gave us a clean bill of health. We received laurels for doing a good job in teaching and research with plans to do even better. It praised us for developing a robust "research-teaching nexus" in which we utilize research as an effective instrument in educating our students. It applauds our well-defined ideal student profile with ideal attributes. Although known to the world as a research university, we are commended for offering students an education that encompasses effective student mentoring, a high-ratio of well-managed international exchange program and learning that is inquiry-based and interdisciplinary in nature.

All eyes are on the fast-approaching 4-year degree program, now only a year away. Here again, the UGC has emphatically endorsed our planning and progress as outlined in our Academic Development Proposal (ADP) for 2012-2015. In consequence, HKUST has been awarded an increase of 1.4 per cent in fully funded First Year First Degree places. Our request for an additional 43 senior year places was likewise acceded to. Our core curriculum is in place, and our school-based admission is designed to give students flexibility in their academic selections. In capital developments for 3-3-4, our library extension is up and running. Construction for Student Halls VIII and IX is underway, and so are the new IAS and Business School buildings. In terms of preparation, we are on schedule and on song.

This year, HKUST's top leadership finally has a full slate, our 5-year Strategic Plan being the first fruits of its collective labor. This is a bottom-up process that has corralled the support of our key stakeholders, including different schools, and, notably, members of Council. In an ever-evolving environment, we need a clearly sign-posted road map visible to the entire community. In this and other matters, I am beholden to members of Court and Council for their active participation and wise counsel.

We are making a splash as an elite research university. Enhancing this reputation calls for additional support. I, for one, believe that this support should come from the top leadership. That is why the presidentially inspired Special Research Fund Initiative was launched in late



#### HKUST 2010-2011 Annual Report

### 校長報告



大學的聲譽取決於師生的質素,因此我們致力取錄最優秀的 師生,並繼續在全球各地招聘教學人才。我們至今已新聘了 35位來自海外著名學府的教師,而且仍在不斷羅致人才。為 此我和副校長(大學拓展)今年5月專程前往美國東岸訪問 了三個城市的十所大學,加深對其領導層及畢業生的認識, 有助物色優秀的教研人員。

我們持續上升的國際排名吸引了國內外優秀學生入讀科大。 今年,我們招收的本科生中有18%是非本地學生,是本地高 等學府中的最高比例。科大招收的大量非本地學生中,近半 來自內地,另一半來自海外。

優秀的大學,亦必須是全球化的大學。科大匯聚全球優秀的 學生和教學人員,我們的網絡遍及全球。今年,我們接待到 訪的劍橋大學校長、加州理工學院及芝加哥大學校長,以及 麻省理工學院校長等。地區及國際傳媒的代表亦應邀到訪科 大。我們繼續與世界各地更多知名大學締結夥伴關係,最近 更為科大及普林斯頓大學工程學院的學生共同設立聯校工程 本科生研究交流合作計劃。

談到全球網絡,科大的內地發展策略肯定是其中關鍵的一 環。科大在珠三角南沙成立的霍英東研究院,已有很好的勢 頭;我們同時正與廣州政府磋商一系列的合作項目。深圳產 學研大樓已於今年落成,我們並於華東開設浙江先進製造研 究所,提供了一個集研究、技術創新及技術轉移、以及培訓 當地企業家的平台。有人說21世紀是中國人的世紀,我們 已作好準備,並且樂意悉力參與其中。

科大成立雖然只有20年,卻已在全球約40個地點建立校友 網絡。300多位海外校友為負笈海外的科大畢業生提供旅居 海外的寶貴意見,令畢業生受益不淺。今年上半年,我很高 興能在海外舉行十個校友聚會並與科大畢業生暢談, 聚會地 點遍及深圳、上海、新加坡、瑞士、倫敦、洛杉磯、波士頓 及紐約。我們並計劃日後舉辦更多校友聚會。

科大創校20年後,建立了本身獨特的文化。「同一科大」 (1-HKUST)的理念突顯凝聚力量與發揮協同效應,顯示眾 志成城的力量 一 整體比各個部分的總和更為龐大。學生 方面,我們最近推出「同一科大」學生生活獎,贊助學生舉 辦活動,從而展示他們多方面的才能和團結校園的不同群 體。各學院攜手實踐使命,將學術研究活動融入本科生課程 之中。

為慶祝創校20周年,來自不同學系的百多位同學攜手合 作,在短短六個星期內製作了兩場叫好叫座的百老匯音樂劇 — 艾爾頓·約翰/蒂姆·萊斯《阿依達》,不但展示科大學生 的才藝,更反映這所年青科技大學的文化素養。

在短短20年間,我們提升了香港的學術研究文化,令市民 加深認識科技對推動經濟轉型的重要性。隨著國家踏上科技 建國的大道,我們的責任亦更加重大。科大已籌劃發展大 計,前路更見清晰。我們已準備就緒、立定志向,勢將奮力 向前,向著目標邁進。🗓

2010, providing one-time seed funding for strategic teambased and interdisciplinary research. Some 40 proposals have come in under four categories: Energy, Life Science and Health-Related, Sustainable Development for Hong Kong and Frontier Research. They all bear our signature interdisciplinary approach. Total allocations will exceed \$36 million. Independent reviews are carried out by a starstudded panel consisting of Nobel laureates and eminent, visiting IAS scholars.

The reputation of a university rests on the quality of its students and faculty. In both areas, we try hard to ensure the caliber of our intake. In faculty recruitment, we are going global, as we always have. To date, 35 new faculty members from top universities have come on board. We are still trawling for more. Talent-scouting is one reason among many why the Vice-President for Institutional Advancement and I went to the East Coast of the US in May this year, visiting 10 universities in three cities, getting to know more about their leaders and their graduates.

In student recruitment, our rising international rankings are like a magnet, attracting high-caliber students from near and far. This year our non-local intake hits 18 per cent, the highest in local higher education. This number is significant and it is almost evenly split between Mainland and overseas students.

A good university is a global university, and we are global not only in our student body and faculty composition, but also in global outreach. This year, we put out our welcome mat for the Vice Chancellor of Cambridge and the Presidents of Caltech and Chicago as well as the Deans from MIT among others. The national and international media representatives also came calling for a familiarization visit. Our global partnerships continue to sprout in leading universities. To name just one, we recently established a Joint Undergraduate Research Exchange Program for Engineering Students between HKUST and Princeton University.

Any talk of global outreach is incomplete without a reference to our Mainland strategy. We have a good start in the Pearl River Delta with our HKUST Fok Ying Tung Graduate School in Nansha, now in talks with the Guangzhou Government for wide-ranging collaborations. In Shenzhen our IER building has been completed in

January this year. Further north, the Zhejiang Advanced Manufacturing Institute of HKUST offers a platform for research, innovation and technology transfer, as well as training for local entrepreneurs. The 21st century is said to be China's century, and we are ready, willing and able to be part of it.

Young as we are, we now have the beginnings of a global alumni network in some 40 locations throughout the world, with over 300 hosts providing much-appreciated relocation services to our graduates. I was glad to meet our graduates at seven overseas alumni gatherings in the first half of this year, from Shenzhen to Shanghai, Singapore to Switzerland, and London to Los Angeles, not to mention Boston and New York. More are planned for the future.

After two decades, we are ready for own ethos to evolve. Hence the "1-HKUST" concept, which in essence means that the whole is more than the sum of its parts. Among students, the newly launched "President's 1-HKUST Student Life Award" initiative sponsors student-organized activities that showcase their multiple talents and draw together the multiple segments of the campus community. The Schools, energized by a new spirit, are working together to advance our mission. This concept also feeds research into education even at the undergraduate level.

As part of our 20th Anniversary celebrations, a group of 100 students from various disciplines came together to produce in just six weeks two sold-out performances of Elton John and Tim Rice's "AIDA", a Broadway musical. They are emblematic of what our students are capable of, telling the world that, culturally, this young university has arrived.

In just 20 years, we have raised the research culture in our city, and roused our community's interest in our economic transformation through science and technology. A weightier mission awaits us, as our nation embarks on its path to a technological future. The plan is fixed, the path is clear, and the hour is set. We are ready for our destiny.

校長

陳繁昌教授 太平紳士

President



(左起):副校長(研發及研究生教育)李行偉教授、校長陳繁昌教授、首席副校長史維教授、副校長(行政)黃玉山教授及副校長(大學拓展)翁以登博士 (From left): Vice-President for Research and Graduate Studies Prof Joseph Hun-wei Lee, President Prof Tony F Chan, Provost Prof Wei Shyy, Vice-President for Administration and Business Prof Yuk-Shan Wong and Vice-President for Institutional Advancement Dr Eden Y Woon 

 HKUST 2010-2011 年報

# 創·新傳奇 卓越教研20載

OUR MIRACLE CONTINUES

HKUST CELEBRATES 20 YEARS OF EDUCATION AND RESEARCH EXCELLENCE



2010-2011年度為科大創校 20 周年紀念,標誌著一個新里程。科大於短短 20 年躍居亞洲首屈一指的大學之一,可喜可賀。2011-2016 策略發展計劃亦於今年展開,引領科大邁向新台階。

In 2010-11, HKUST reached another milestone — its 20th Anniversary. The University took the opportunity to celebrate its spectacular rise, which has seen it become Asia's top-ranked University in just two decades. The year also marks the beginning of HKUST's 5-year Strategic Plan 2011-2016 as the University reaches new frontiers.

#### 人才濟濟

校慶活動由教職員、學生及校友組成的校慶委員會籌劃,得到大學成員及社會各界人士的支持,為今年增添難忘時刻。

#### 長期服務獎

長達一年的20周年校慶活動,由表揚教職員貢獻的長期服務獎頒獎禮揭開序幕。教職員是大學的基石,貢獻良多。科大特別嘉許逾250名服務20年的教職員,陳繁昌校長感謝各得主竭誠服務、努力不懈,協助科大取得成就。

#### 「齊展步 創・新視野」

「齊展步 創・新視野」活動展現科大上下同心同德、關懷他人的精神。在陳校長帶領下,超過350名教職員及學生出席活動,為慈善組織奧比斯籌款,讓失明及視障人士重見光明。

#### 慶祝大會

科大於2011年4月8日舉辦20周年校慶慶祝大會,向師生、校友和社會各界表達謝意。大會由全國人民代表大會常務委員會副委員長韓啟德教授及香港特區行政長官曾蔭權先生主禮,共500名賓客出席,包括各國總領事、捐款人、科大合作夥伴,以及本校教職員、學生與校友等。來自世界各地的領袖及大學代表亦出席慶祝活動,顯示科大受到國際認同。

#### 師生同慶

3,000多名師生與校友於大學20周年聯歡大會 上聚首一堂,透過表演展現科大的多元文化。 於同日出版的20周年校慶紀念冊回顧過去、 展望未來,特製軟件更顯示陳校長親自介紹科 大與紀念冊的三維短片,將創意科技融入日常 生活。

科大師生並舉辦多項活動,包括科大「工程在生活」展覽、環球商業管理學生論壇,及國際基因工程機器比賽2011亞洲區比賽等。

#### **OUR PEOPLE**

Thanks must go to the Organizing Committee, which involved a truly collective effort by HKUST faculty members, staff, students and alumni. The University's supporters and members of the community are also gratefully recognized for their help in making the year such a memorable one.

#### LONG SERVICE AWARD

A celebration of the HKUST community was the appropriate starting point for the year-long 20th Anniversary program. This saw a Long Service Award Ceremony take place, honoring more than 250 faculty and staff who had served the University for 20 years. At the event, President Tony F Chan expressed his appreciation of the loyalty and dedicated service given by these community members and acknowledged how their continuous contribution has helped the University to achieve its current standing.

#### **RUN FOR VISION**

HKUST Run for Vision offered a further demonstration of the unity of the University community and its care for others. Led by President Chan, the event drew more than 350 members of faculty, staff and students to raise funds for Orbis, a charity providing care and treatment for the blind and visually impaired.

#### **GRAND CELEBRATION**

To bring together and pay tribute to all supporters, the University held a Grand Celebration for the 20th Anniversary on 8 April 2011. Vice-Chairman of the Standing Committee of the National People's Congress Mr Han Qide and HKSAR Chief Executive Mr Donald Tsang officiated at the event. Among the 500 guests were consuls-general, donors, HKUST's collaborative partners, together with the University's faculty, staff, students and alumni.

#### **CELEBRATION PARTY**

Over 3,000 members of the HKUST family converged on campus for the University's 20th Anniversary Celebration Party, featuring a dazzling array of culturally diverse performances. A commemorative album, showcasing its past accomplishments and future goals, was launched. Equipped with a special software, it can set in motion a 3D film bringing the President on screen for an innovative introduction of the album.

During the year, faculty members and students hosted various activities including the HKUST "Bring Technology to Community" Exhibition, the Global Business Conference, the Asia Regional Jamboree of the International Genetically Engineered Machine Competition and many others.

香港科技大學2010-2011年報

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OUR MIRACLE CONTINUES HKUST CELEBRATES 20 YEARS OF EDUCATION AND RESEARCH EXCELLENCE

#### 校友聚會

42,000名校友遍布世界各地,於香港、北京、上海、深 圳、新加坡、倫敦、瑞士、波士頓、洛杉磯、紐約及三藩 市舉行聚會以加強聯繫。陳校長及副校長翁以登博士出席 了大部分聚會,並向校友介紹母校最新的大學拓展情況。

#### 學術活動

#### 中國經濟論壇

論壇見證科大培育優秀人才,和促進知識交流。四位著名 講者均是科大前任或現任教授,分別是世界銀行高級副 行長兼首席經濟學家林毅夫教授、清華大學中國與世界經 濟研究中心主任李稻葵教授、中國人民銀行副行長及國家 外匯管理局局長易綱教授,以及財經事務及庫務局局長 陳家強教授。他們在中港經濟發展舉足輕重,與出席的逾 400名商界和學術界領袖、學生及公眾人士分享寶貴意見。

#### 傑出學人講座

多位國際領袖應激發表演講。微軟公司全球資深副總裁、 微軟亞太研發集團主席兼科大高等研究院訪問教授張亞勤 博士以「New Wave of Computing」為題發表演講;諾貝爾 物理學獎得主大衛・格羅斯教授就「基礎物理學的前沿」發 表演講。普林斯頓大學工程及應用科學學院院長暨Michael Henry Strater教授 Vincent Poor教授蒞臨科大傑出學人講 座,以"Information and Inference in the Wireless Physical Layer"為主題主講。

#### 宇宙學學術會議

來自全球各地的粒子理論及宇宙學翹楚共聚一堂參加為期 三天的會議,討論以宇宙膨脹及其謎題的最新科學發展, 包括膨脹宇宙學、弦理論、暗物質等理論。科大致力站在 科技發展的最前線,創建平台匯聚知名學者,共同面對環 球挑戰。

#### 科技政策論壇

論壇以「香港與珠三角洲的創新•未來」為題, 匯聚國際學



#### **ALUMNI GATHERINGS**

Over 42,000 alumni around the world are growing from strength to strength, with their ties further tightened through a number of reunions held in Hong Kong, Beijing, Shanghai, Shenzhen, Singapore, London, Switzerland, Boston, Los Angeles, New York and San Francisco. Both President Tony F Chan and Vice-President for Institutional Advancement Dr Eden Y Woon joined most of the reunions and kept our alumni on track of the latest developments of their Alma Mater.

#### **ACADEMIC INSIGHTS**

#### CHINA ECONOMIC FORUM

This dynamic forum exemplified how HKUST has nurtured great minds and the flow of knowledge. The four eminent speakers, who shared their insights on the Chinese economy and the issues it faces, had all been or currently are HKUST faculty members. Now playing important roles in the development of the Mainland and Hong Kong economies, these leading figures —

Prof Justin Lin, Senior Vice President and Chief Economist of the World Bank; Prof David Li, Director of the Center for China in the World Economy of the Tsinghua University; Prof Yi Gang, Deputy Governor of the People's Bank of China and Administrator of the State Administration of Foreign Exchange; and Prof K C Chan, Secretary for Financial Services and the Treasury, HKSAR Government — discussed their views with over 400 attendees, including business and academic decision-makers, students and members of the public.

#### **DISTINGUISHED LECTURES**

Global leaders spoke at HKUST during our 20th Anniversary. Dr Ya-Qin Zhang, Corporate Vice-President of Microsoft Corp, Chairman of Microsoft Asia-Pacific R&D and Visiting Member of the Institute for Advanced Study at HKUST gave a distinguished lecture on

"New Wave of Computing". Prof David Gross, Director of the Kavli institute for Theoretical Physics of the University of California at Santa Barbara and Nobel Laureate in Physics, gave a lecture on "The Frontiers of Fundamental Physics". Prof H Vincent Poor, Michael Henry Strater University Professor of Electrical Engineering and Dean of the School of Engineering and Applied Science, Princeton University, gave a lecture on "Information and Inference in the Wireless Physical Layer".

#### COSMOLOGY SINCE EINSTEIN CONFERENCE

The three-day conference held at HKUST brought together leaders in particle theory and cosmology from around the world. Discussion focused on the latest scientific developments on the expanding universe and its puzzles, including the inflationary universe, string theory and dark matter. The event illustrated how HKUST positions itself at the forefront of scientific and technological advances and creates a platform for gathering leading academics to work on global challenges in these areas.

#### HKUST SCIENCE AND TECHNOLOGY FORUM

Leading experts from academia, industry and government gathered to discuss the way forward at the Forum on The Forum on "Innovation for the Future of Hong Kong and the Pearl River Delta".



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#### 環球視野

#### 校長論壇

國際知名學府的領導人及傑出學人到科大訪問,並與校內師生進行討論,啟迪思維。陳校長就全球化對高等教育的挑戰,分別與加州理工學院校長Jean-Lou Chameau及劍橋大學校長Sir Leszek Borysiewicz進行討論。倫敦政治經濟學院及諾貝爾經濟學獎得主Christopher Pissarides教授則於俄鋁校長論壇上主講勞動市場的均衡狀態。

#### 聯繫環球領袖

過去20年來,科大不斷透過互動交流建立國際聲譽及網絡。校慶期間,全球各地逾百大學、學術組織、政府及工 商機構均熱烈致賀。

#### 開拓網絡

科大不斷加強與海外的聯繫,陳校長年內探訪全球多所知 名大學的領導層,並主持科大海外校友的聚會。科大教員 積極在國際會議上展現教學及科研成果,並在權威學術期 刊上發表文章,科大亦與國際媒體加強聯繫。

#### 服務社群

#### 科大侍學日

4月一個周末,科大師生、校友及員工走進社群,參與各種社區服務,啓動未來一年大學與社區的聯繫工作。700 名科大師生參與了35項服務項目,鼓勵大家投入饒富意義的活動。

#### 愛因斯坦在香江

科大校慶活動的另一個焦點是將科技帶入人群,讓市民更加關注科技對日常生活的重要性。為推廣科學文化,科大協辦「愛因斯坦在香江」,介紹這位頂尖科學家作出的貢獻及偉大思想,同時舉行科學講座、工作坊,以及為中學生而設的「給愛因斯坦教授的信」徵文比賽。

#### 創意間的親暱 — 盛宗亮與國際作曲家/演奏家聚會 香港

科大呈獻香港首見的一系列音樂工作坊及音樂會,並公開 讓學生及市民參觀排練活動。專業音樂家及年青作曲家薈 萃「作曲家/演奏家聚會香港」活動,國際著名作曲家兼音 樂家盛宗亮教授示範新作的創作過程,讓更多人了解音樂 創作的奧妙,並啟迪創意思維。

#### 藝術才華

科大師生多才多藝,呈獻仲夏音樂劇艾爾頓·約翰/蒂姆· 萊斯《阿依達》香港首演,再次見證科大的全人教育。由科 大交換生、畢業生、研究生及教研人員組成的科大管弦樂 團,將五周年紀念音樂會與科大20周年校慶相結合。音樂 劇及音樂會均在校外舉行,體現科大融入社區的理念。

#### 展覽活動

科大圖書館舉行「創・新傳奇」影像展,讓公眾人士認識科大過去20年的發展歷程。

#### 展望未來

科大20周年校慶,師生同享喜樂、匯聚力量,共同開拓新領域。科大並向外界展示大學肩負的角色,表揚各方支持、科大的卓越成就和關愛精神。來年科大將繼續努力締造更多值得慶賀的時刻,發揮非凡創意,邁向未來,延續傳奇。 🐧



#### 口號及標誌 THE SLOGAN AND LOGO

科大 20 周年校慶的標誌,結合了科大的中、英文名字及代表科大的日晷(亦稱為「紅鳥」)。「紅鳥」矗立於科大正門,展現科大的活力和動力。絲帶的波浪形側影及飄飄美態,則盡顯校慶的喜氣。

The story of HKUST has frequently been described as miraculous. With this in mind, the Organizing Committee decided to make "Our Miracle Continues" the theme of its celebratory

slogan. In doing so, the slogan captured the University's legendary success as well as its determination to keep on advancing in the future.

The 20th Anniversary logo encompassed the University's name in English and Chinese and its iconic Sundial, also known as the "Redbird", which greets all visitors to HKUST at the main entrance and projects our soaring energy and vibrant environment. The wavy silhouette of the ribbons and its delicate movements indicated the festive nature of the year.

#### **GLOBAL VISION**

#### PRESIDENTS DIALOGUE

The celebrations included visits from distinguished leaders of internationally renowned institutions and major academic figures who engaged in thought-provoking discussions at HKUST. President Tony F Chan hosted separate dialogues with Prof Jean-Lou Chameau, President of Caltech, and Sir Leszek Borysiewicz, Vice-Chancellor of the University of Cambridge, on the challenges that globalization presents for higher education. Prof Christopher Pissarides, London School of Economics and Political Science and Nobel Laureate in Economic Sciences, spoke on equilibrium in the labor market at the UC Rusal President's Forum.

#### **ENGAGEMENT WITH GLOBAL LEADERS**

The University's international reputation and reach, built up over the past two decades of continuous interaction and contribution, saw it receive over 100 congratulatory messages from global leaders of universities, institutes, governments, businesses and industries for its 20th Anniversary.

#### **OUTREACH**

The University continues to strengthen connections overseas as President Tony F Chan visited leaders of prestigious universities around the world and hosted reunions with HKUST's alumni abroad. The University has stepped up its efforts to reach out to international media as its faculty members continue to demonstrate their teaching and research capabilities at overseas conferences and through published articles on authoritative academic journals.

#### **SERVING THE COMMUNITY**

#### **HKUST SERVICE LEARNING DAY**

Over a weekend in April, students, faculty, alumni and staff spread out across the community to participate in a variety of service opportunities and pave the way for more University-community engagement in the future. A total of 700 members of the University took part in 35 service projects, mobilizing the entire HKUST population in this significant and positive venture.

#### **EINSTEIN IN HONG KONG**

Taking science and technology into the community and raising awareness of its importance in our everyday lives has been another significant focus of the celebratory program. To promote the culture of science in the society, HKUST co-organized Einstein in Hong Kong, a leading public exhibition introducing the contributions and great

ideas of the top-notch scientist who shaped world history. This was accompanied by science talks, workshops, and a Letters to Einstein writing competition for secondary school students.

### THE INTIMACY OF CREATIVITY — THE BRIGHT SHENG PARTNERSHIP

To encourage and explore the process of creativity, the 20th Anniversary presented a first-of-its-kind series of music workshops and concerts in Hong Kong, with rehearsals open to students and members of the community. "Composers Meet Performers in Hong Kong" brought together professional musicians and emerging composers under the guidance of internationally renowned composer and musician Prof Bright Sheng to showcase the creative process of a new work. The series helped to uncover some of the mysteries of music and inspire innovative thinking among those attending.

#### ARTISTIC TALENTS AT HKUST

The HKUST community also demonstrated its own diverse capabilities go beyond science and technology. The HKUST Summer Musical led to the Hong Kong premiere of Elton John and Tim Rice's "Aida", an artistic endeavor reaffirming the University's emphasis on an all-round educational experience. The University Philharmonic Orchestra, organized by student volunteers and including exchange students, graduates, postgraduate researchers, combined their 5th Anniversary Concert with HKUST's 20th Anniversary celebrations. Embedding the University's community presence further, the musical shows and concert both took place off campus.

#### **EXHIBITION**

The HKUST 20th Anniversary Exhibition — Our Miracle Continues: A Visual Presentation was presented at HKUST's library to give visitors an overview of the University's milestones in the past two decades.

#### INTO THE FUTURE

The 20th Anniversary has thus been a time for reflection, joy and for harnessing the University's collective strengths to move toward new frontiers. Events have taken a variety of forms to enable the University to highlight the different roles it plays and to recognize the people who enable HKUST to drive for excellence and show its caring spirit. With activities continuing into the next reporting year, many more celebrations are yet to come as the University raises the profile of its creative endeavors and strides into the future where Our Miracle is set to continue.  $\hat{\psi}$ 



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### 教與學

TEACHING AND LEARNING



#### 本科生教育

科大的核心使命,是培育社會未來的棟樑。每年,2,000 多名來自40多項本科生課程的學生於科大畢業。這些本科 課程均經過精心設計,務求令學生獲得全面的學習體驗、 盡展潛能,達致學習成果,有助畢業生開創成功事業和活 出豐盛人生。

科大推行小班教學,由具國際視野的資深教授任教。科大 擁有一流的學習設施,包括世界級的圖書館、資訊科技設 施及實驗室,校園環境優美。多姿多彩和國際化的校園生 活,是豐富學習體驗的重要元素,大學並將致力保持國際 化的特色。

#### 提升本科生的學習體驗

香港的教育改革將於2012年9月邁進關鍵時刻,首批應考香港中學文憑的學生將畢業。科大屆時將同時取錄香港中學文憑的考生、及最後一批香港高級程度會考的畢業生。為迎接雙學制帶來的挑戰,今年科大的工作特別繁重。科大同時把握三改四這個寶貴機會,提升學位課程的質素。

2011年初,科大向大學教育資助委員會(教資會)提交大學的學術發展建議書,詳列科大於2012-2015年的規劃。教資會對建議書表示歡迎,並支持科大增加收生人數。教資會明白科大已邁進新的里程,積極發展。科大在學術發展建議書中,清晰列舉本科生教育的主要理念,其中包括:

- 靈活的學位課程,以提升多學科及跨學科的體驗:
- 大學核心課程內容廣泛,開拓學生視野及提高其獨立 思考能力;
- 憑藉廣獲國際認同的研究實力,充份利用科大研究優勢,實踐探索為本的學習模式及增加本科生參與研究的機會,激發創意和探求精神;
- 舉辦有意義的課外活動,以培養學生的環球公民意識、提供實際經驗、增加創意,以及建立社會責任。

年內,科大現有的三年制和新的四年制學位課程均有長足發展,並推出了跨學科主修、副修及跨學院課程。科大致力發展生物醫學工程,並在2011年7月在跨學科課程事務處成立了生物醫學工程學部。這項發展有助凝聚科大各學院的實力,以開辦新的跨學科課程與科目。

#### **UNDERGRADUATE EDUCATION**

ducating the next generation of community leaders is part of HKUST's core mission. Each year, HKUST graduates more than 2,000 young people from over 40 undergraduate programs. These dynamic bachelor degrees have been carefully designed to provide a holistic experience that can realize each student's potential and achieve learning outcomes that can ensure graduates' success in their careers and personal lives.

Class sizes are small and delivered by a highly qualified international team of faculty members. HKUST's facilities are also excellent, including a world-class library, IT facilities and laboratories, all located within a beautiful campus setting. An important part of the student experience at HKUST is an active and internationalized campus life and the University continues to make strides toward the diversification of the student body.

#### TRANSFORMING THE UNDERGRADUATE EXPERIENCE

Hong Kong's education reform will reach a critical point in September 2012, when the first class of secondary school students graduates with the new Hong Kong Diploma of Secondary Education (HKDSE). In that year, HKUST will accept entrants with both the HKDSE and the final class graduating with HKALE results, an event often referred to as the "double cohort". The year thus proved a busy and productive 12 months as preparations continued to meet the challenge of the double cohort but also to optimize the tremendous opportunity to enhance degree programs, which will move from three to four years.

In early 2011, the University submitted its Academic Development Proposals (ADP) to the University Grants Committee (UGC) setting out detailed plans for the period 2012-2015. The UGC welcomed these proposals and assigned additional student numbers to HKUST, noting that the University has reached a positive stage of change and development. In the ADP, the basic intentions for the HKUST undergraduate experience were clearly defined. HKUST's objective is to provide:

- Flexible degree programs that expose students to multiple cross-disciplinary and inter-disciplinary perspectives
- A broad-based University Common Core, opening students' horizons and strengthening critical thinking
- Inquiry-based learning and undergraduate research opportunities to stimulate creativity and curiosity based on HKUST's internationally recognized research strength
- Meaningful co-curricular activities to cultivate global citizenship, provide practical experiences, enhance creativity and foster social responsibility.

Over the year, both three-year degree programs and the new four-year degree curriculum took steps forward. New interdisciplinary majors, minors and cross-School programs have been introduced. During 2010-2011, plans for the Division of Biomedical Engineering were successfully advanced, leading to the new academic unit being established under the Interdisciplinary Programs Office in July 2011. The move provides a further platform to bring together the strengths of HKUST's Schools to develop new interdisciplinary programs and courses.



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#### 學院為本的取錄模式

科大以工商管理學院和工學院的經驗為基礎,進一步為學院為本的取錄模式 作好準備。在四年制下,所有本科生將由學院取錄,而不是由學系取錄。這 樣,學生可以延遲選擇主修課程,多修讀不同學科以打好基礎。

#### 大學核心課程

四年制學位課程的一項重要改變,是所有學生均須修讀大學核心課程,以取 代現行以學院為本的通識教育模式。核心課程的目的,是促進學生的個人發 展,包括豐富學生基本常識和學術素養、提升文化欣賞能力,並加強對人類 核心價值的認識。課程類別廣泛,包括藝術及人文科學、社會分析、科學與 科技、計量推理及中英傳意等,所修的學分相等於一個學年的時間,每個範 圍均有學分規定。此外,學生必須修讀不計學分的健康生活模式課程。

科大已透過轉移現有的通識教育課程及開辦大量新課程,落實三年制課程下 的核心課程。年內,由不同學院開辦15個具代表性的品牌課程進展理想, 課程融合不同學科領域,超越了傳統科目的界限,將於下一學年首辦。

科大於2010-2011年首辦多個實踐藝術課程,深受學生歡迎,七個課程共吸 引200多名學生報讀。科大同時大幅度重編和擴大英語課程的內容,經全面 修訂的一年級英語課程有助提升學生的英語能力,並已在三年制學位課程學 生之中推行。四年制學生將完成共12個學分的英語課程,以及另外3個學分 的中文傳意課程。

此外,科大致力檢討約180項現有通識教育課程,將之整合為核心課程,自 2012年起提供超過250項課程。

上述措施充分體現「同一科大」的目標,培養學生成為有責任感及有識見的公 民,共建美好社會。

#### 學生交換計劃

科大深信國際學生交換計劃是學習體驗的重要一環,讓學生可以在香港以外 學習和生活一個學期或以上,同時讓世界各地的學生前來科大進修。計劃有 助擴闊學生的視野和識見、培養獨立能力和建立社交網絡,並認識不同的生 活方式。因此,科大特地發展廣泛的國家及環球夥伴網絡。截至2010-2011 年,科大已與全球超過150所大學及機構建立了夥伴關係,多達38%的科大 本科生有機會成為交換生,體驗不同經歷。

#### 本科生研究計劃

科大廣受歡迎的本科生研究計劃,讓同學在世界級教授的指導下進行研究。 年內超過20%的教授參與研究計劃,參加的學生接近250名。學生人數正不 斷增長,反映科大師生對結合學術研究與本科生教學有著共同的理念。計劃 同時顯示,研究型大學能夠提升學生的學習體驗。

另外,科大教學促進中心舉辦的第四屆教與學研討會以本科生研究為主題, 超過75名教授與教學人員交流切磋,包括過半來自其他本地大學的學者, 成績美滿。

#### SCHOOL-BASED ADMISSION

Preparations for School-based admission, which builds on the experience of the School of Business and Management and more recently the School of Engineering, also moved ahead. Under the fouryear system, all undergraduates will be admitted to a School, rather than a program. This provides students with an opportunity to make a delayed choice in their specialization and gain the foundation necessary to study across a number of disciplines.

#### **UNIVERSITY COMMON CORE**

A major change in the four-year degree is that all students will take courses under the University Common Core rather than the current School-based general education model. The objective of the Common Core is to assist personal development by broadening general knowledge and intellectual qualities, increasing appreciation of culture and boosting awareness of basic human values. It spans a broad range of courses under the categories of Arts and Humanities, Social Analysis, Science and Technology, Quantitative Reasoning and English and Chinese Communication and covers the equivalent of one full year of study. Each area will have a prescribed credit requirement. There will also be a noncredit Healthy Lifestyle program.

The Common Core has already been implemented for three-year degree students through the migration of existing general education courses and development of a large number of new courses. During 2010-2011, work also progressed well on 15 signature Common Core courses sponsored by different Schools. These integrate disciplines and transcend traditional subject area boundaries and will be piloted in the next academic

A number of practicum arts courses were piloted in 2010-2011, receiving a warm welcome from students and attracting over 200 enrollments for the seven courses. Significant redevelopment and extension of HKUST's English language program has also been ongoing, with fully revised Year 1 courses to enhance students' English language proficiency implemented for three-year degree students. Four-year students will complete a total of 12 credits in English language and a further three credits in Chinese Communication.

In addition, about 180 existing general education courses have been undergoing review to become Common Core courses. Over 250 courses will be available for students to choose from in 2012.

The vision behind these moves is to realize the 1-HKUST goal of educating students to become responsible, informed citizens, helping to build their community.

#### STUDENT EXCHANGE

The University believes exchange programs have an essential role in its student experience. The programs enable students to study and live outside Hong Kong for one or more semesters and bring their peers from across the world to HKUST. Such programs widen horizons and understanding, foster independence and new friendships, and bring new awareness of different ways of life. In line with this, HKUST has taken a leadership role in developing an extensive network of national and global partners. By 2010-2011, more than 150 partnerships with universities and institutions globally had been arranged, with 38 per cent of undergraduate students at HKUST participating in these life-changing opportunities for development.

#### **UNDERGRADUATE RESEARCH OPPORTUNITIES PROGRAM**

The popular Undergraduate Research Opportunities Program (UROP) creates a wide range of opportunities for students to experience research under the supervision of HKUST's world-class professors. It saw more than 20 per cent of faculty lead research projects involving close to 250 students in 2010-2011. The rapid growth in participation reflects the HKUST community's shared aspiration to integrate academic research and undergraduate teaching. It also demonstrates the additional value that a leading research University can provide in the educational experience its students receive.

In addition, undergraduate research was the focus of the University's fourth teaching and learning symposium organized by the Center for Enhanced Learning and Teaching. Over 75 faculty participants joined this successful and highly interactive symposium and 50 per cent of the attendees were from sister institutions.

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#### 學務長辦公室

為提升學生服務及課程的規劃與執行成效,學生事務處於 2011年3月與本科生教務長辦公室合併。本科生教務長辦 公室現更名為學務長辦公室,工作範圍及職能擴展至本科 招生及入學、制訂及檢討與課程相關活動的政策、大學核 心課程,以及本科生及研究生的學習體驗。

#### 研究生教育

年內科大的研究生人數為3,711人,較去年的3,507人增加5.8%,其中1,351人修讀研究學位課程,佔研究生總數的36.4%;其餘2,360人修讀修課碩士課程。

質素保證局於2010年3月到訪科大,並於11月公佈質素 核證報告。質保局全面評審科大的本科及研究生課程,報 告讚揚科大為研究生課程訂立質素保證程序,並為研究生 提供全面支援。

#### 研究學位課程

2010-2011年,科大取錄首批透過香港博士研究生獎學金計劃入讀的博士生。這項計劃是香港研究資助局推出的優才獎勵計劃,吸引世界各地的優秀博士生來港學習。科大取錄了32名獎學金得主,佔獎學金得主總數約27%,顯示科大作為世界級研究型大學的地位備受認同。

科大致力提倡國際化,並繼續取得成果。國際研究生人數由去年的43人增至今年的60人,增幅顯著。不少研究生更獲科大的研究旅遊資助計劃資助,出席國際會議。

獲選的博士生可參加研究實習計劃,到訪海外研究機構達 六個月;計劃的宗旨是豐富學生的國際研究體驗。年內,

共有20位博士生參與計劃,對計劃評價甚高。實習計劃的主辦單位包括AT&T實驗室、卡尼基美隆大學、哥倫比亞大學、耶魯大學、加州大學戴維斯分校、達姆施塔特工業大學、蒙納殊大學、帕維亞大學、盧保路科技大學及曼徹斯特大學等。參加計劃的學生可與來自不同研究和文化背景的科研團隊建立聯繫,拓展專業與國際網絡。

#### 修課研究生課程

在職專業人士對高等教育與終身學習的需求持續殷切,科大兼讀制修課研究生課程的學生人數(主要為本地學生)保持平穩,全日制修課研究生課程的學生人數則上升11%,而研究生課程人數亦有5.8%的平均增幅。2,360名報讀修課研究生課程的學生中,759名、即約佔32.2%報讀全日制課程。整體而言,非本地學生佔修課研究生總數的38%。

課程方面,環境科學理學碩士課程已易名為環境科學及管理理學碩士課程,反映課程將加強環境管理。工商管理學院開辦首項由企業贊助的理學碩士(環球管理)課程,學員是韓國一家大型金融公司的專業人士。

#### 行政改革

為進一步推動研究生教育,副校長(研究及發展)辦公室於2010年11月重組為副校長(研發及研究生教育)辦公室,並於2011年2月制定新領導架構,首席副校長和副校長(研發及研究生教育)共同肩負領導工作和責任。首席副校長繼續提供學術監察及規劃,包括課程、收生、課程發展與審批,而副校長(研發及研究生教育)則根據科大的策略發展提升研究生教育及培訓的質素。



#### OFFICE OF THE DEAN OF STUDENTS

With the aim of enhancing the effectiveness in planning and delivery of student services and programs, the Student Affairs Office has been integrated with the Office of the Dean of Undergraduate Education since March 2011. The Office of the Dean of Undergraduate Education has also been renamed as the Office of the Dean of Students with its scope and function being expanded to take charge of undergraduate recruitment and admissions, the formulation and review of policies for co-curricular activities, University core curriculum, and the student experience at both undergraduate and postgraduate levels.

#### **DYNAMIC POSTGRADUATE STUDIES**

The total enrollment of postgraduate students in 2010-2011 stood at 3,711, compared with 3,507 the previous year, representing a growth of 5.8 per cent. Of these students, 1,351 were research postgraduates and the remaining 2,360 were enrolled on coursework master's degree programs. Research postgraduates constituted 36.4 per cent of the total postgraduate student population.

The Quality Assurance Council's report from its Quality Audit Visit in March 2010 was released in November 2010. The audit reviewed the work of HKUST programs from undergraduate to postgraduate and the subsequent report commended the University, among other things, "for its quality assurance processes for research postgraduate programs and for the extensive support it provides to research students".

#### RESEARCH POSTGRADUATE PROGRAMS

2010-2011 marked the arrival of the first batch of PhD students admitted through the Hong Kong PhD Fellowship Scheme, an elite award initiative under Hong Kong's Research Grants Council to attract the best PhD students worldwide to study in the city. The University secured 32 awardees, which constituted about 27 per cent of the total awards and recognized HKUST's standing as a global research institution.

Other internationalization efforts continued to bear fruit. The international research student population increased from 43 in the previous year to 60, representing significant growth. In addition, many research students were able to attend international conferences through the University's Research Travel Grant Scheme.

During the year, selected PhD students had the opportunity to visit research teams overseas for a period of up to six months under the Research Attachment Scheme, which has been set up to enhance international research exposure. A total of 20 PhD students participated in 2010-2011 and feedback on the scheme was highly positive. Host institutions included AT&T Labs, Carnegie Mellon, Columbia, Yale, UC Davis, Technische Universitat Dermstadt, Monash, Pavia, Loughborough, and Manchester. Students who joined the scheme were able to connect professionally with a different team of researchers in a totally new research setting and culture, and widen their international network.

#### TAUGHT POSTGRADUATE PROGRAMS

The demand for advanced education to meet the lifelong learning needs of working professionals has remained strong. While the enrollment of students taking taught postgraduate programs part-time (mainly local students) appears to have stabilized, those undertaking full-time programs have increased by about 11 per cent. This compares with average growth of 5.8 per cent across postgraduate programs. Of the 2,360 students enrolled on taught postgraduate programs, 759 or 32.2 per cent were on full-time programs. Overall, non-local students constituted 38 per cent of the taught postgraduate student population.

On the program side, the MSc in Environmental Science was re-named the MSc in Environmental Science and Management to reflect the program's greater emphasis on environmental management. The School of Business and Management launched its first company-sponsored MSc in Global Management program. The inaugural class comprised staff from a major finance company from Korea.

#### ADMINISTRATIVE REVAMP

To create further momentum for the development of postgraduate education, the Office of the Vice-President for Research and Development has been re-organized as the Office of the Vice-President for Research and Graduate Studies since November 2010. A new leadership structure was introduced in February 2011, which enables the Provost and Vice-President for Research and Graduate Studies to exercise dual leadership and responsibility. The Provost continues to provide academic oversight and planning, including programs, enrollment and curriculum development and approval while the Vice-President for Research and

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## 教與學

#### TEACHING AND LEARNING

#### 學生生活

科大以學生為本,為學生帶來更全面的教育體驗,鼓勵他 們善用課堂以外的學習機會,包括學生發展計劃、體育聯 會,及由宿生會和學生團體等組織舉辦的興趣小組。

#### 發展計劃

#### 「同一科大」學生生活獎勵計劃

2011年1月,科大推出「同一科大 | 學生生活獎勵計劃,鼓 勵學生舉辦增加科大師生歸屬感的活動。五項活動包括:

- 健行遠足活動 鼓勵科大師生鍛煉體能和親近大自 然,並加強科大成員之間的聯繫
- 科大群賢會 10位來自不同學院的頂尖教授,每人用 10分鐘討論一個他們最熱愛的偉大意念
- 科大有機同樂日 為科大師生而設的家庭活動及遊戲
- 科大才華大賽 讓不同國籍的學生展示演藝才華
- 科大無疆界 透過攝影比賽、遊戲和美食聚會,使本 地生、內地生和國際生打成一片

#### 紅鳥計劃

紅鳥計劃是由利銘澤黃瑤璧慈善基金贊助的全人發展計 劃,共有250多名學生加入,另有40名學生擔任計劃導 師,反應踴躍。紅鳥計劃提供培訓及課堂以外的學習體 驗,為學生帶來挑戰,為他們日後貢獻社會作好準備。

#### 科大侍學行

科大致力提高學生的公民意識、與社區建立可持續的夥伴 關係、豐富學生的學習體驗,以及提倡人文價值。大學展

開科大侍學行計劃,幫助師生诱過服務及學習與社會建立 聯繫。計劃吸引1,300多人參與86個項目,年內累積近 10,800小時的服務時數,較去年增長一倍。計劃還包括11 個服務考察行程,大部分由學生發起,共吸引200多名學 生參加。科大侍學行包括一次性的短期社區服務、以及長

#### 宿舍學習社群

科大在陳瑞球林滿珍伉儷樓(本科生宿舍七座)發展宿舍 學習社群,社監與教職員發起活動鼓勵356名宿生參與, 從而培養互助精神、促進心智發展及個人成長。宿舍學習 社群的八大主題為Arts a-LIVE、Creative Affinity、Fitness Connection \, iVillage \, Live Green \, Rise and Shine \, Service Learning and Leadership,以及Wall to Wall;其他學生亦 可參加其公開活動。計劃將於下個學年擴展至本科生宿舍 六座,為100名學生帶來學習體驗。

科大於年內推出更多個人發展計劃,包括First Year Success @ HKUST,以協助新生適應校園生活、掌握合適資訊、加 強與大學的聯繫與歸屬感,並確立人生目標。

#### 健康生活

科大經常舉辦各項活動,幫助學生取得優秀的學業成績和 促進個人成長,更鼓勵學生認識身心健康的重要性。今年 的健康生活節以「愛滿載」及「關於快樂的二三事」為主題, 由學生事務處輔導及發展小組籌辦,活動包括工作坊、展 覽及分享環節,共600多名師生參加。科大更邀請多名年 青人作榜樣,分享他們應對逆境的心路歷程和經驗,讓學 生認識建立健康關係、管理壓力和情緒,以及平衡學習與 生活健康的訣竅。



Graduate Studies is responsible for the enhancement of postgraduate education and training and linking this to the University's strategic development.

#### STUDENT LIFE

HKUST focuses on creating an all-round education for students, encouraging them to make good use of the many learning opportunities outside the classroom that the University offers. These range from specific student development programs to opportunities to run and participate in one of HKUST's many sports clubs, or join one of the thriving student hall communities based on various interests and hobbies.

#### DEVELOPMENT PROGRAMS

#### The President's 1-HKUST Student Life Award

The launch of the President's 1-HKUST Student Life Award in January 2011 has been encouraging students to initiate campus-wide projects that can enhance the sense of community at HKUST. There were five events under this scheme:

- The March in March hiking event, to encourage fitness and connections with the natural world and other members of HKUST
- UST Great Minds 10 Star Professors 10 Minutes Each, featuring faculty members from across the University each discussing one big idea they are passionate about
- Organic Fun Day @ HKUST, with family activities and games for the HKUST community
- The HKUST Talent Contest, providing a platform for performances from a multinational group of students
- Another student project "HKUST Without Boundary" aims to enhance connection between local, Mainland and international students with a photo competition, game activities and food gatherings.

#### REDbird

REDbird, the personal development award scheme sponsored by the Drs Richard Charles and Esther Yewpick Lee Charitable Foundation, continued to attract a substantial response with over 250 students joining the program as members and 40 as coaches. REDbird centers on training and out-of-classroom experiences that challenge students and prepare them to become contributing members of society.

#### **HKUST Connect**

Building on the University's efforts to raise civic awareness, develop sustainable partnerships with the wider community, deepen student learning and promote a more humane world, HKUST Connect links members of the University to those outside through service projects and learning. Showing the University community's willingness to participate in such an initiative, HKUST Connect attracted over 1,300 participants who were engaged in 86 service projects, accumulating close to 10,800 service hours in 2010-2011, double the figures recorded in the previous year. 11 service learning trips, mostly initiated by students, engaged over 200 students. Involvement ranged from one-off community service opportunities to longer-term projects.

#### **Living Learning Communities**

The Living Learning Communities, based in the Chan Sui Kau and Chan Lam Moon Chun Hall (Undergraduate Hall VII) and facilitated by the Residence Master, faculty and staff, successfully fostered interaction and enhanced intellectual and personal growth among the hall's 356 residents. The eight themes were Arts a-LIVE, Creative Affinity, Fitness Connection, iVillage, Live Green, Rise and Shine, Service Learning and Leadership, and Wall to Wall. Other students also benefited through attending the open activities of the communities. The program will be extended to Undergraduate Hall VI, and around 100 more students, in the next academic year.

Further individual development initiatives have been planned during 2010-2011 for launch in the following year, including First Year Success @ HKUST which is designed to help new students adapt to campus life, find useful resources, engage with the University, develop a sense of purpose and integrate into the HKUST community.

#### **HEALTHY LIVING**

To support students' academic success and personal growth during their time at the University, activities were organized to promote mental health awareness and well-being as an integral part of student life. This year's Healthy Living Festival focused on "Love is All Around" and "Something about Happiness", organized by the Student Affairs Office's Counseling and Development Team. The festival included workshops, exhibitions and sharing sessions and over 600 students and colleagues participated. Among the activities, several role models were invited to share their reflections and experiences in

### 教與學

#### TEACHING AND LEARNING

#### 體育活動

科大校園的一大特色是其熱鬧氣氛及完善的體育設施。 2010年9月,科大師生一同強身健體,17個部門共385名 跑手參加科大環校跑,人數較去年上升五成。科大2011年 5月舉辦第一屆HKUST PACER Challenge,100多人以主辦 者、參加者、裁判、工作人員等身份參與活動:PACER全 名為漸進式有氧耐力跑,由中國香港體適能總會舉辦,以 過20米的來回跑動測試學生的體能水平。

科大體育會亦舉辦大型活動,包括校內體育比賽、陸運會及水運會。2011年4月,體育會率領百多名科大運動員前往澳門參加由科大與澳門大學的學生合辦的澳科盃體育挑戰賽。

#### 藝術及文化

科大重視文化藝術,積極鼓勵大學成員參與其中,讓科學、工程及商業管理學生能夠得到藝術的薰陶。

科大藝術節於3月至4月舉行,以電影藝術為主題,包括 研討會、講座、電影海報展覽與放映會等。

科大藝術中心邀請設計科大校園的建築師關善明博士主持 講座,作為科大藝術節和科大20周年校慶活動之一。關博 士探討大學外觀和形象的規劃及設計,讓學生及公眾人士 增廣見聞。 科大合唱團 3 月在香港大會堂音樂廳舉辦第 16 屆周年表演,音樂會名為「夢影台情 — 影像 • 舞台 • 人生」。科大管弦樂團亦於同月舉辦第五屆周年表演。

此外,科大百多名學生及校友參加科大第三屆周年百老匯 仲夏音樂劇的演出及舞台製作,成功演出艾爾頓·約翰/蒂姆·萊斯《阿依達》。

#### 投身社會

科大就業中心繼續為學生舉辦各類計劃、課程及活動,協助學生邁向事業目標。11,000多名學生出席共166場招聘講座及由44間公司參與的四場職業博覽,科大畢業生越見受到內地、新加坡、日本、韓國及中東等地的公司歡迎。

實習學習計劃為210名本科生提供香港、北京、上海、紐約、華盛頓市及三藩市的實習前培訓及暑期實習活動。科大17個部門與辦公室參與校內實習計劃及聘請85名實習生,學生除獲得工作經驗,更獲得上司的寶貴意見。

年內,超過3,500名學生參加134項事業發展計劃。此外,就業課程吸引178名學生參加,反應熱烈;這個通識教育選修課程專為本科生和研究生而設,學生可取得一個學分。

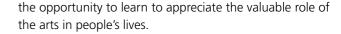
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facing adversity to help students learn about strategies for building healthy relationships, managing stress and emotions, and maintaining a healthy study-life balance.

#### **SPORTS**

An active atmosphere on campus is one of HKUST's major characteristics, with superb sports facilities available. In September 2010, enthusiasm for exercise reached a new peak when a record 385 runners from 17 departments joined the Campus Run, a 50 per cent increase on the previous year. In May 2011, the campus was buzzing again with the 1st HKUST PACER Challenge. PACER stands for Progressive Aerobic Capacity Endurance Run, a 20-meter shuttle run test for estimating fitness levels, organized by the Physical Fitness Association of Hong Kong, China. Over 100 people participated as organizers, participants, judges and helpers.

Leading events arranged by the Sports Association included the Intramural Sports Competitions, the Athletics Meet and the Aquatic Meet. In April 2011, the Association also led a delegation of over 100 HKUST sports people to Macau for the HKUST-UM Sports Challenge Cup, an annual event jointly organized by students of the two universities.



One major annual event is the HKUST Arts Festival, which is held in March and April. The theme for 2011 was Film Art, with seminars, talks, a film poster exhibition and screenings included in the event line-up.

As part of the festival and HKUST's 20th Anniversary celebrations, the Center for the Arts organized a guest talk with Dr Simon Kwan, the architect of the HKUST campus. Dr Kwan discussed the planning and design of the University's outstanding look and feel, providing an enlightening event for students and the public.

Musical activities saw the University Choir give its sixteenth annual performance at City Hall Concert Hall in March with a concert dedicated to "On stage: Dream and Imagery". The same month, the University Philharmonic Orchestra staged its fifth annual concert.

In addition, musical theater performers and stage production wizards from the University community had the chance to join HKUST's third annual Broadway summer musical. Elton John and Tim Rice's "Aida" involved over 100 students and alumni, with rehearsals starting in June 2011 and the show successfully performed the following month.

#### PREPARING FOR THE WORLD OF WORK

The Career Center continued to provide students with programs, courses and events to assist their future plans. More than 11,000 students attended 166 recruitment talks and four job fairs. Some 44 companies participated in the fairs. A surge of recruitment interest was noted from firms based in Mainland China, Singapore, Japan, Korea and the Middle East.

The Internship Learning Scheme offered structured preinternship training and summer internship placements to some 210 undergraduate students in Hong Kong, Beijing, Shanghai, New York, Washington DC and San Francisco. The On-campus Internship Program saw 17 HKUST departments/offices hiring 85 student interns, providing students with on-campus work experience and feedback from supervisors.

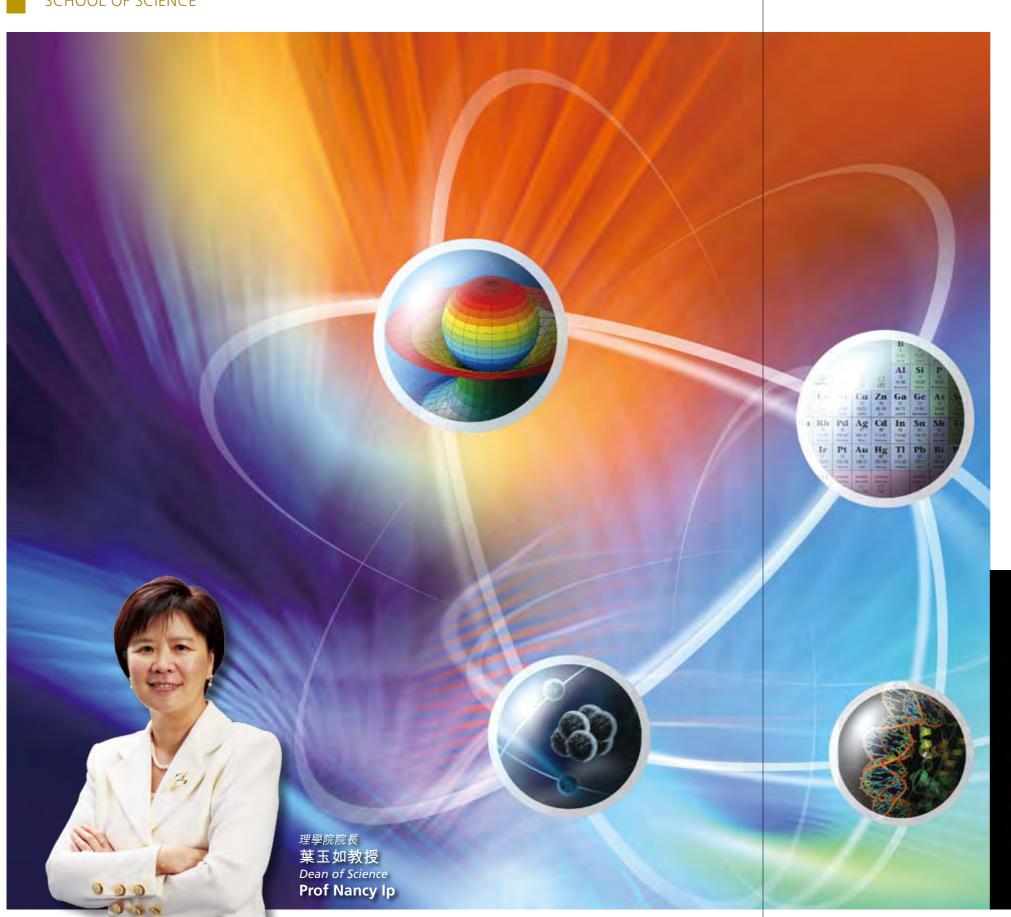
More than 3,500 students participated in 134 career development programs. In addition, the Career Building Course, a one-credit general education elective for undergraduates and postgraduates, attracted 178 students and received excellent feedback.





### 理學院

SCHOOL OF SCIENCE



學院致力提供多元化的學習環境,推動卓越學術的研究,鼓勵創新與合作。學院課程涵蓋廣泛範疇,包括生命科學、化學、數學及物理,讓學生作好準備,面對瞬息萬變的社會。

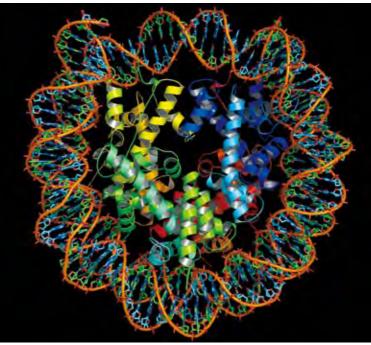
學院保持高水平的教學及研究,在2010《QS亞洲大學排名》中於自然科學領域名列全港第一位,並於全球50大工程及科技大學中排名第12位。

為配合「三三四」教育改革,學院整合了本科課程,更加著重探究、跨學科和多元化的學習方針。學院注重學術成就,更重視學生的個人成長,鼓勵他們參加學生交換計劃、實習計劃、社區服務,以及跨學科學習。

The School of Science promotes a vibrant and dynamic environment that emphasizes academic excellence, innovation, and collaboration. It offers a wide spectrum of programs, including life sciences, chemistry, mathematics, and physics, which are aimed at preparing students to meet the demands of an ever-changing society.

Owing to its outstanding teaching and research activities, the *QS Asian University Rankings 2010* ranked the School first in Hong Kong in Natural Science and 12th in the World's Top 50 Engineering and Technology Universities.

In line with the 3-3-4 education reform, the School has revamped its undergraduate curricula to make them more inquiry-driven, interdisciplinary, and diverse. In addition to academic excellence, the School embraces students' personal growth by encouraging participation in exchange programs, internships, community service, and learning across disciplines.



### 理學院

#### SCHOOL OF SCIENCE

新課程結合多元化的學習體驗,包括專為理科生而設的講座、實驗 室課程、專題研究項目、品牌課程及語言課程,為學生奠定穩固的 學術根基,及涉獵各理學學科的機會。學院投放大量資源設計實驗 及品牌課程,以培養學生做實驗及邏輯分析的能力,掌握科學研究 的兩大要素。

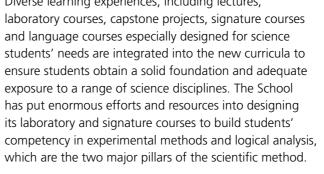
年內,生命科學部設計了四個新的主修科目。數學系則為了配合四 年制,將課程劃分為六條學習軌道,讓學生根據他們的志願靈活選 擇學習計劃。

學院根據四年制課程的核心課程,成功將八個通識教育課程併入科 學與科技範疇。學院建議把21個課程加入核心課程內,除介紹廣泛 知識外,亦探討日常生活的科學概念,及涵蓋興趣及休閒等題目。

學院為研究生提供高新科技實習培訓,包括學院多項國際認可的研 究活動,繼續開拓創新領域。學院的成功,有賴教研人員專心致志 地進行教研工作。他們獲得多項榮譽,包括成為優秀科研者、獲選 加入頂尖的國家級學術機構,乃至榮獲著名獎項等。2010-2011年, 科大在著名的凝聚物質和材料物理學刊物《Physical Review B》發表 多篇論文,影響力達全球第三。

學院的重要目標是培養學生的廣闊視野,年內其學術及學生交流計 劃合作夥伴繼續增加,與台灣清華大學及哥倫比亞大學達成合作協 議;學生亦有機會參與內地和柬埔寨的服務。學院於2009年首次舉 辦「知識無限」講座,邀請客席講者就文化、政治及環境等課題發表 演説,讓學生對社會問題有更深入的分析。前

Diverse learning experiences, including lectures, laboratory courses, capstone projects, signature courses and language courses especially designed for science students' needs are integrated into the new curricula to ensure students obtain a solid foundation and adequate exposure to a range of science disciplines. The School has put enormous efforts and resources into designing its laboratory and signature courses to build students' which are the two major pillars of the scientific method.



During the year, the Division of Life Science designed four new majors while the Department of Mathematics refined its programs into six tracks of study for the four-year curriculum. These modifications provide greater academic flexibility by allowing students to take different study plans according to their career aspirations.

In accordance with the Common Core program for the four-year degree programs, the School has successfully migrated eight general education courses to the Science and Technology area. The School has proposed 21 courses for inclusion in the Common Core, which aim to provide students with broad general knowledge and raise awareness of scientific concepts embedded in daily activities. They also include interest and leisure topics.

The School is also keen to provide postgraduate students with exposure and hands-on training in innovative, cutting-edge technologies. This is assisted by the many internationally recognized research activities at the School, which continue to push the boundaries of innovation. Successes are largely due to the dedicated efforts of the School's highly accomplished faculty members, whose achievements have been recognized with numerous prestigious honors, including research fellowships, election to top national academies, and leading awards. In 2010-2011, HKUST was ranked third in the world for the impact factor of papers published in Physical Review B, a prominent journal in condensed matter and materials physics.

Fostering a broader view is an important School goal. During the year, the School continued to add to its academic and student exchange partners, with agreements established with Tsinghua University in Taiwan and Columbia University. Students also had the opportunity to participate in different service learning opportunities in Mainland China and Cambodia. They also added to their perspective on issues closer to home through the Knowledge Without Borders Seminar Series. First started by the School in 2009, the talks feature guest speakers and topics related to culture, politics, and environmental issues, among others, to widen their perspectives. 🗓



香港科技大學2010-2011年報

HKUST 2010-2011 Annual Report

SCHOOL OF ENGINEERING



大工學院繼續躋身世界項尖大學之列,憑著領導地位與出色的科研及創新能力在 全球發揮影響力。學院為或籍於或籍、被四時間以及第一 全球發揮影響力。學院為求精益求精,採用跨學科及以主題為本的研究方式,為 世界面對的挑戰開創新的解決方案。學院亦致力招攬世界各地的優秀教研人員及學生, 進一步實踐教育及研究使命。

學院高踞多項國際排名榜的前列位置;根據2010《泰晤士報高等教育》全球大學排名, 科大在全球工程及科技大學中名列第20位。在2010《QS全球大學排名》中,科大名列 全球工程及科技大學第26位。

根據2011《QS全球大學排名》中工程及科技科目的排名,科大於計算機科學及資訊系統 範疇位列大中華地區之首(全球第26位),於機械、航天及製造學科類別排名全港第一 (全球第44位)、電機及電子工程排名全球第28位,於土木及結構工程範疇排名全球第 42位。

The School of Engineering continues to excel on a world scale and strives to make the most of its leadership position to create global impact through its outstanding research and innovations. To push forward its level of excellence, the School adopts an interdisciplinary and theme-based approach in research to find transformational solutions to grand challenges. The School also seeks to attract the top quality faculty and students from around the world to further drive its education and research mission.

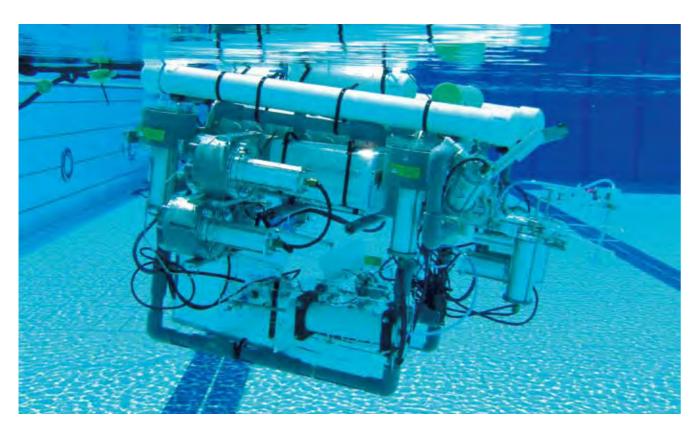
The School continues to receive global recognition as a world-class institution with its strong showings in numerous international rankings. In the *Times Higher* Education World University Rankings 2010, HKUST was ranked 20th in engineering and technology. In the QS World University Rankings 2010, the University was ranked 26th in engineering and technology.

According to the 2011 QS World University Rankings by Subject — Engineering and Technology, HKUST was ranked first in Greater China in Computer Science and Information Systems (26th worldwide), and first in Hong Kong in Mechanical, Aeronautical and Manufacturing (44th worldwide). Other strong HKUST subject rankings included 28th in Electrical and Electronic Engineering and 42nd in Civil and Structural Engineering.



### 工學院

#### SCHOOL OF ENGINEERING



四年制將於2012年實施,學院繼續致力培養21世紀的工程專才,在新的四年制課程中加入「Engineering Plus」教育理念,讓學生有更多時間及彈性修讀副修及第二主修。學生同時有更多機會擴闊環球視野,根據個人興趣和志向參與全人發展活動、及其他與課程相關的活動。科大正計劃為所有工程主修科目提供研究選項,為有志從事研究工作的學生而設。

新課程採用以學生為本的教學方針,提供更寬廣、更靈活的 課程架構。學生將在首年修讀工程學基本科目,並可透過 專業輔導加深認識自己的學術興趣及專長,有助日後選擇 主修。

年內,學院繼續擴展其本科生交流合作計劃。學院已與超過 18個國家及地區的77個全球合作夥伴達成協議,包括與普 林斯頓大學協議合辦夏季研究本科生交換計劃,令科大成為 亞洲首間在工程範疇與普林斯頓大學達成合作協議的大學。

學院的工程教育創新中心(E²I)於2010年秋季成立,協助提升學生和教學人員的實力,鞏固和加強工程教育及教學人員的發展。在高彥鳴教授的領導下,中心初步的重點工作是協助新近加入科大的師生適應環境,包括為一年級學生設立朋輩導師計劃,以及與科大的教學促進中心合作,為新入職的教員提供教學課程。

科大同時獲惠普挑選參與惠普催化劑倡議聯盟計劃,成為全球 11 個國家 35 間獲選學府之一。這個全球性計劃的宗旨是發展更適合資訊時代的工程教學、及更有效的教學模式。科大參與由卡內基美隆大學領導的評估學習聯盟,與其他學府合作以 15 萬美元撥款成立新的教學實驗室,為計算機科學及工程學系的學生提供先進的電腦設備。

科大工學院再次成為香港博士研究生獎學金計劃得主的首選 學府。自計劃於兩年前推出以來,科大工學院一直是全港大學之中,最受博士生歡迎的工學院。

為表揚科大教研人員和博士生的卓越成就與科研工作,學院於2011年推出首屆卓越研究獎,獎項包括為教研人員而設的傑出卓越研究獎、卓越研究獎及優秀年青研究獎,以及為畢業生而設的博士生卓越研究獎。2011年5月,科大宣佈第一屆四名得獎教研人員名單,並於11月宣布得獎的博士生名單。

工學院經過一年諮詢、以及在未來研究工作小組上討論,於 2011年5月成立能源研究所。研究所獲科大策略性跨學科研 究金資助,並得到學院內資深能源教研人員的支持,憑著卓 越的研究能力與綜合領導推廣跨學科合作,為可持續發展技 術、能源效益及電子節能三大範疇研究引進資金。

年內,學院繼續擴展環球網絡,達成多項創新的合作協議,包括與韓國浦項科技大學合辦博士課程,以及與École Supérieure d'Électricité合辦新的雙碩士學位課程。科大亦與韓國家庭電子產品公司Woongjin Coway簽訂協議。 🗓

The School is rapidly moving forward with its education of 21st century engineers as it looks forward to the four-year undergraduate degree system in 2012. Incorporating the "Engineering Plus" education concept, the reinvented engineering curriculum provide ample room and flexibility for students to take minor programs and second majors. They will also enjoy greater opportunities to acquire global experience, engage in whole-person development activities and other co-curricular programs according to their interests and career aspirations. Plans to opening a Research Option in all engineering majors are underway so that students who are keen on research will receive greater exposure to scholarly activities.

The new curriculum takes a more student-centric approach and provides a broader and more flexible program structure. Students will be exposed to engineering fundamentals in the first year of study along with professional counseling and advice to help them identify their own interests and academic strengths before they decide on their majors.

During the year, the School continued to further extend its undergraduate exchange partnerships and has now established agreements with a total of 77 partners worldwide over 18 countries and regions. These include an agreement on a summer research undergraduate exchange partnership with Princeton University, making HKUST the first University in Asia to enter into such a partnership with Princeton in engineering.

The Center for Engineering Education Innovation (E²I) was established in Fall 2010 to assist capacity building in students and faculty members and to position the School as a leader in engineering education and faculty development. Under the directorship of Prof Edmond Ko, the Center has put the initial focus on helping people in transition, introducing a peer mentoring program for first-year students and offering courses on teaching for new faculty members in collaboration with the University's Center for Enhanced Learning and Teaching.

HKUST has also become one of 35 educational institutions across 11 countries to be selected by Hewlett Packard to participate in the HP Catalyst Initiative. The global program is designed to develop more effective approaches to worldwide education in information age fields,

including engineering. The University will collaborate with other partners as part of the new Measuring Learning Consortium, led by Carnegie Mellon University. HKUST will use its US\$150,000 grant to establish a new teaching laboratory with high-end computers for Computer Science and Engineering students.

The School proved to be the first choice again in Hong Kong for high-caliber engineering students admitted under the Hong Kong PhD Fellowship Scheme. The School has attracted the largest number of PhD students among all local engineering schools since the scheme started two years ago.

To recognize the achievements of our faculty and PhD students as well as to provide a tribute to the world-class work carried out at HKUST, the School offered its first research excellence awards in 2011. The accolades are the Distinguished Research Excellence Award, Research Excellence Award and The Young Investigator Research Award for faculty members, and PhD Research Excellence Award for graduate students. The four inaugural faculty awardees were announced in May 2011, with PhD student winners to be named in November 2011.

In another exciting move, the School established an Energy Institute in May 2011, financially supported by the University's Special Research Fund Initiative. The Energy Institute is the outcome of a year-long consultation process and discussions in forums organized by the School's Future Research Task Force. Building on the School's faculty members who are active in energy research, the Institute aims to establish a critical mass of research capabilities to promote interdisciplinary collaboration and provide an umbrella organization to attract major funding in three focused areas: sustainable technology, energy efficiency and conservation in electronics.

In 2010-2011, the School extended its global reach, with a number of collaborative agreements on innovative provision, including a joint PhD program with Pohang University of Science and Technology, Korea, and a new dual Master's degree program with École Supérieure d'Électricité. An agreement with Woongjin Coway, a Korean household electronics company, has also been signed.

香港科技大學2010-2011年報

HKUST 2010-2011 Annual Report

### 工商管理學院

SCHOOL OF BUSINESS AND MANAGEMENT



### 工商管理學院

SCHOOL OF BUSINESS AND MANAGEMENT



年內,李兆基商學大樓的建造工程取得進展,新大樓 將可容納商學院內所有部門,預計於2012年落成。

學院並於2011年6月為韓國一家大企業的員工開辦新的理學碩士(環球管理)課程,是本港首個專為外國公司僱員而設、由公司資助的學位課程。課程配合學院的理念,培育具世界級學術質素的亞洲商界領袖,同時滿足企業員工持續發展及擴闊國際視野的需要。

2011年,學院舉辦一系列商學院研究精要演講系列,與公眾分享其研究成果及專長,包括六場每月一次的午餐會。講座於學院市區教學中心舉行,由其教研人員就豐碩的研究成果發表專題演講,課題包括醫療融資、直接與互動市場推廣、產品風險及供應鏈問題、企業管治及薪酬差距、職場多元共融,企業風險管理與股價走勢等。

為慶祝科大創校20周年,學院於2011年3月舉辦中國經濟發展論壇,邀請四位著名講者在論壇上分享真知灼見。四位講者均為科大商學院的現任或前任商學院教授,包括世界銀行高級副行長兼首席經濟學家林毅夫教授、清華大學中國與世界經濟研究中心主任李稻葵教授、中國人民銀行副行長兼國家外匯管理局局長易綱教授,以及香港特區政府財經事務及庫務局局長陳家強教授。活動吸引逾400名科大師生及市民出席。

2011年6月,學院顧問委員會舉行首次會議,由利豐有限公司執行副主席馮國綸博士主持,委員會由26名專業與業界本地及國際商界領袖、以及全球商學院的學術領袖組成。委員會將為學院發展提供策略性建議及支援,與商界建立更緊密的互動關係,以及加強與市民的聯繫。

6月,惠理集團斥資於科技大學商學院成立惠理投資研究中心,成 為香港首間以促進投資管理研究及培訓為宗旨的學術中心,為推動 香港成為區內主要資產管理中心作出貢獻。**前**  Construction of the new Lee Shau Kee Business Building progressed during the year. The new building, which will accommodate all units of the Business School in one location, is scheduled for completion in 2012.

Reflecting the School's continuous program innovation, the School launched a new MSc in Global Management program in June 2011. The program, offered exclusively to staff of a major Korean corporation, is Hong Kong's first company-sponsored degree program offered to employees of an overseas corporation. It supports the School's vision of training Asian business leaders with its world-class academic quality. It also caters to the company's needs for staff's continuous development and international exposure.

In 2011, the School promoted its thought-leadership role and disseminated its research findings and expertise to the public through a new series of its popular "Business Insights Presentations". This comprised six monthly luncheon talks in the School's downtown center where the School's faculty members presented topical issues and views supported by rigorous research. Among the subjects discussed were healthcare financing; direct and interactive marketing; product harm and supply chain problems; corporate governance and pay disparity; diversity in the workplace; and corporate risk management and stock prices movement.

In addition, the School was delighted to host the China Economic Development Forum in March 2011 as part of HKUST's 20th Anniversary celebrations. Sharing their insights at the forum were four eminent speakers who had each played a part in creating HKUST Business School as current or former professors: Prof Justin Lin, Senior Vice President and Chief Economist of the World Bank, Prof David Li, Director of the Center for China in the World Economy, Tsinghua University, Prof Yi Gang, Deputy Governor of the People's Bank of China and Administrator of the State Administration of Foreign Exchange, and Prof K C Chan, Secretary for Financial Services and the Treasury, HKSAR Government. Over 400 people from HKUST and the community attended.

In June 2011, the inaugural meeting of the School Advisory Council took place. Chaired by Dr William Fung, Executive Deputy Chairman, Li & Fung Limited, the 26-member Council consists of local and international business leaders from various professions and industries and academic leaders from global business schools. The Council will provide strategic advice and support to the School on current issues and future developments. It will also help the School to develop closer interactions and exchanges with the business community, and strengthen its public engagement.

Also in June, the Value Partners Center for Investing was established at HKUST Business School. Sponsored by Value Partners Group, this is the first academic center of its kind in Hong Kong. It will support research and training on investment management with the aim of contributing to Hong Kong's role as a pre-eminent regional asset management center.  $\mathring{\textbf{u}}$ 





**// 7** 香港科技大學 2010-2011 年報

HKUST 2010-2011 Annual Report

# 人文社會科學學院



ial Report /1:

## 人文社會科學學院

#### SCHOOL OF HUMANITIES AND SOCIAL SCIENCE

學院將創意藝術融入學士學位課程,藉以進一步擴闊學生的 視野及學習體驗。約1,100名本科生及研究生已報讀由三位 駐校作曲家及人文學部兼任教授任教的音樂課程,預期報讀 人數在未來數年會不斷增長。

人文學部和社會科學部正與科大語言中心合辦新課程,以作 為四年制核心課程的一部分,內容包括中英文傳意、人文科 學及社會分析等品牌課程,以及包括音樂和視覺藝術等創意 藝術教育課程。

根據2010《QS全球大學》排名,科大社會科學全球排名第 58位。根據《上海交通大學全球大學排名》,科大社會科學 部自2009年起獲評為大中華地區最佳大學之一,並且是亞 洲區唯一排名高踞全球首75位的大學。

學院延攬多位世界級學者,其中清華大學歷史系李伯重教授 2010年7月加入科大人文學部出任講座教授,而牛津大學中 國經濟教授朴之水教授亦於2011年7月加入。

學院2011年4月開始舉辦新的年度創意藝術課程,並由世 界著名作曲家兼包玉剛傑出客席教授盛宗亮教授傾力演出。 這個名為「創意間的親暱:盛宗亮與國際作曲家/演奏家聚 會香港」的課程,透過展示全新的樂曲創作過程,在音樂欣 賞方面引入了新的角度。課程包括講座系列和公開排練,並 有兩場全球首演音樂會,演奏六位新晉國際作曲家的作品。 其他著名演出者包括盛教授、Richard Stoltzman、Yehudi Wyner、Daedalus四重奏等。

另外,著名裝置藝術家兼中央美術學院副院長徐冰教授獲邀 主持創意藝術合作計劃及本科生視覺藝術課程的開幕式。前

The School diversified students' educational horizons and experience further through integrating creative arts with the undergraduate curriculum. Some 1,100 undergraduate and postgraduate students enrolled in music classes taught by three composers-in-residence or adjunct professors in the Division of Humanities. Enrolment is expected to grow in subsequent years.

For the new four-year degree, the Divisions of Humanities and Social Science, together with the Language Center, have developed a new curriculum as part of the Common Core including language training in Chinese and English, selected signature courses in humanities and social analysis, as well as innovative programs in creative arts education including music and visual art.

In the QS World University Rankings 2010, HKUST was ranked 58th globally in social sciences. Since 2009, the Division of Social Science has been ranked consistently among the best universities in Greater China and is the only University in Asia in the top 75 universities globally, according to the Shanghai Jiaotong University Academic Ranking of World Universities.

A growing number of world-class faculty members continued to commit to the School of Humanities and Social Science, including Tsinghua history professor Prof Bozhung Li who joined the Division of Humanities as Chair Professor in July 2010, and Oxford Professor in the Economy of China Prof Albert Park, who joined the Division of Social Science as Chair Professor in July 2011.

In April 2011, the School was very pleased to begin hosting a new annual creative arts program. Led by Prof Bright Sheng, a world-renowned composer and Y K Pao Distinguished Visiting Professor, The Intimacy of Creativity — The Bright Sheng Partnership: Composers Meet Performers in Hong Kong provided a new way of appreciating music by showcasing the creative process of a new work. The program comprised a lecture series, open rehearsals and two critically acclaimed World Premiere Concerts featuring works by six emerging international composers. Other distinguished performers included Prof Sheng, Richard Stoltzman, Yehudi Wyner and the Daedalus Quartet.

Prof Bing Xu, a renowned installation artist and Vice President of the Central Academy of Fine Arts, China, has also been invited to inaugurate a creative arts collaborative project and undergraduate visual arts curriculum.





## 香港科技大學霍英東研究院

HKUST FOK YING TUNG GRADUATE SCHOOL

**1** 於廣州南沙的香港科技大學霍英東研究院是科大在內地的重要平台,協助大學不斷求進及實踐科技創新的 使命,提升業界質素、推動研究生教育及培育人才

為此,霍英東研究院致力進行研究及提供研究生教育,同時 促進技術轉移和科技商業化。霍英東研究院讓科大教研人員 及學生得以參與內地研究計劃,包括重點項目973、863計 劃、國家自然科學基金委員會、國家重點實驗室及國家重點 項目,讓教研人員及學生有機會與內地師生及業界合作。學 院於2010-2011年再成功取得20個項目,繼續作出貢獻。

學院自2007年成立以來特別發展四大範疇,分別是物聯 網、先進製造及自動化、先進工程材料,和環境及可持續發 展研究。

學院憑著卓越的跨學科研究,取得廣東省科學技術廳研究項 目,協助解決多個常見的關鍵性技術問題,包括傳感器網絡 監控系統、遠程健康監護系統、高精度節能注塑機控制器, 以及創新的電動車電池管理系統。

學院亦與多間著名學術機構合作,其中一個與中國科學院合 作的項目以通訊技術為主,涵蓋先進的4G流動寬頻、流動互 聯網、無線、短距寬頻、無所不在的網絡以及物聯網,對未 來的通訊發展有重大意義。

學院並對科學研究作出重要貢獻,包括香港及珠江三角地區 的空氣質素研究,以及海洋變化對環境及可持續發展影響之 研究。學院為了進行港珠三角空氣質素研究,特別結合實驗 觀察及模型分析,幫助制訂有科學基礎的空氣污染監察措施 及政策,以改善區域空氣質素,研究獲得香港及國家自然科 學基金委員會等各方支持。

學院積極進行研究工作及與業界緊密合作,碩士學生不但因 為科大卓越的學術成就而受惠,更可直接參與業界的研究項 目。課程採用學術界與業界的合作模式,配合跨學科的教育 方針,別具特色。目前,學院正在南沙興建佔地25,000平方 米的先進教學設施。

隨著「十二五」規劃重申南沙的重要地位,內地、香港及澳門 政府正致力實現計劃;學院在珠三角的活動將更為頻密。 🐧



KUST Fok Ying Tung Graduate School (FYTGS), located in Nansha, Guangzhou, is an important platform on the Mainland, assisting the University to fulfill its mission in technology innovation and advancement in the region and thereby contributing to the upgrading of industry as well as postgraduate education and the nurture of talents.

FYTGS seeks to do so through carrying out research, providing postgraduate education, and fostering technology transfer and commercialization. The School enables HKUST faculty and students to participate in Mainland research schemes, including the prestigious 973, 863 and National Natural Science Foundation of China (NSFC) programs, as well as State Key Laboratory and National Key Projects, giving faculty and students the opportunity to collaborate with Mainland counterparts and industry. To this end, the School has secured 20 more projects during 2010-2011 to add to its contributions and achievements during the past years.

Since its establishment in 2007, the School has focused on four technology areas – Internet of Things, Advanced Manufacturing and Automation, Advanced Engineering Materials, and Environment and Sustainable Development.

A notable project, awarded by the Guangdong Science and Technology Department, harnesses the multidisciplinary research capabilities of FYTGS to solve common but key technology issues in sensor-based network monitoring, remote healthcare monitoring, high-precision yet energy-saving controllers for injection molding machines, and innovative battery management system for electric vehicles.

The School also collaborates with leading institutions such as the Chinese Academy of Sciences. One such project with the prestigious academy is focused on communications technologies, including advanced 4G mobile broadband, mobile internet, wireless, short range broadband, ubiquitous network and Internet of Things. Advancements in these technologies are expected to have a significant impact on future communications.

In addition, the School makes scientific contributions, especially to the study of air quality in Hong Kong and the Pearl River Delta region and the effects of changes in the oceans to our environment and sustainable development. In the former, the School combines experimental observation with model analysis to help formulate scientifically backed air pollution control measures and policies, for improving air quality in the region. This research has received multiple support, both in Hong Kong and from the NSFC.

FYTGS' active research and collaboration with industry provides an enviable backdrop for its MPhil students who not only have access to HKUST's academic excellence but through the FYTGS platform have a significant opportunity to work directly on research projects with industry. This academic-industry combination and interdisciplinary education makes the FYTGS program unique. A state-of-the-art, 25,000 sq m facility in Nansha is also underway.

With Nansha's importance reaffirmed in the recently released 12th Five-Year Plan, more exciting times lie ahead, with the School witnessing increased activities during the year among Pearl River Delta authorities from the Mainland, Hong Kong and Macau as they seek to advance the plan's vision. 0

### 跨學科課程事務處

#### INTERDISCIPLINARY PROGRAMS OFFICE

學科課程事務處的本科課程在年內有多項發展。 2010年9月,事務處的環境學部開辦全港首個綜合性的環境管理及科技理學士課程,培育學生的環保技術和管理能力,以期在綠色企業擔當領導角色。

此外,科技及管理學雙學位學士課程、以及風險管理及商業智能學理學士課程均為優秀學生提供高水平的跨學科教育。事務處透過鼓勵學生參加國際比賽、活動及學生交換計劃,豐富學生的知識及促進其個人發展。

年內,事務處特別發展以學生為本的學習模式及豐富學生的國際體驗。事務處成功取錄來自韓國民族史觀高等學校等世界著名中學的學生,國際學生的申請人數增加150%。事務處屬下課程的學生並前往美國、瑞士及內地進行實習,其畢業生則到美國、英國及瑞士修讀碩士及博士課程,或到英國、瑞士、新加坡、澳洲、上海及其他內地城市工作。

科技及管理學雙學位學士課程的學生遠赴巴西參加C40大城市氣候變化峰會和管理國際商業計劃大賽,深入認識世界面對的環境挑戰、以及不同的文化。重點活動包括認識最前沿的可持續發展趨勢,與伊利諾州大學及聖保羅大學

的精英學生合作擬定參賽建議書及參加文化觀光活動,並 與出席會議的環境局局長邱騰華先生進行討論。

事務處為2012年推出的四年制課程及其課程設計進行籌備工作,課程以學生為本,幫助學生積極吸收知識。

環境學部與政府合作推動空氣質素研究,獲大學教育資助 委員會撥出特別設備補助金900萬港元,以及環境及自然 保育基金資助600萬港元,於5月成立首個空氣質量研究 超級站,收集有關大氣中顆粒物的實時數據,從而分析其 特性與源頭。

跨學科課程事務處全力籌備及商討生物醫學工程的整合工作,並於2011年7月成立生物醫學工程學部。學部將推動教研人員在生物醫學工程範疇的教研合作、與業界共同進行研究,以及制訂實習計劃。研究的焦點是計算機生物醫學工程、生物材料、生物感測及生物電子學,以及生物系統設計與工程。

這些項目具備商業應用價值,造福社會。生物醫學工程學部將開辦生物工程研究生課程,並與理學院及工學院合作制訂生物醫學基礎課程,以提升生物科技及生物工程本科課程的質素。 🐧





地圖顯示科大大氣監測走航平台在全港十八區進行街道空氣質素普查, 紅點顯示科大空氣質量超級站位置。

HKUST's Mobile Real-time Air Monitoring Platform conducts roadside air quality research in all districts. The red dot shows the location of the HKUST Air Quality Research Supersite.

t has been a busy year for the Interdisciplinary Programs
Office (IPO), with several exciting developments in its
undergraduate provision. In September 2010, the Division of
Environment under IPO launched Hong Kong's first integrated
BSc in Environmental Management and Technology, specifically
designed for students who want to develop the technological
and management skills to play a leadership role in creating a
green corporate world.

This innovative program, together with the IPO's established BEng & BBA Dual Degree Program in Technology and Management and BSc in Risk Management and Business Intelligence, offer high-flying cross-disciplinary education to top-notch students. The IPO approach seeks not only to build knowledge but character and soft skills through a wide range of enrichment activities, including external student competitions, project work and student exchanges.

During the year, student-centered learning and international experience were two areas of special focus. The IPO successfully attracted students from leading high schools around the world, including Korean Minjok Leadership Academy in Korea, while international applications grew by 150 per cent. Meanwhile, the global footprint of the IPO expanded further with student interns in the US, Switzerland and the Mainland, graduates studying MPhil and PhD programs in the US, UK and Switzerland, and alumni with work experience in UK, Switzerland, Singapore, Australia, Shanghai and the Mainland.

Dual Degree students also made good use of the opportunity to discover more about the environmental challenges the world faces, as well as different cultural perspectives, at the C40 Large Cities Climate Summit and Technology and Management International Business Plan Competition in Brazil. Highlights included learning about the latest practices in sustainable development, working in teams with elite students from the University of Illinois and the University of Sao Paulo on green business proposals for the competition, cultural visits and a discussion with Hong Kong's Secretary for the Environment, Mr Edward Yau.

In 2010-2011, the IPO continued to advance the design of its four-year curriculum to be introduced in 2012. The student-centered curriculum aims to help learners take initiatives to build knowledge.

The Division of Environment, in collaboration with the HKSAR government, has played a major role in bringing air quality research to the next level. With a HK\$9 million Special Equipment Grant from the University Grants Committee and a HK\$6 million grant from the Environmental Conservation Fund, the Division launched the first Air Quality Research Supersite in May 2011, which enables real-time characterization of ambient particulate matter in the air to strengthen understanding of the nature and sources of fine particles.

During the year, discussions and preparatory work for the consolidation of the structure of Biomedical Engineering were in full swing, leading to the establishment of the Division of Biomedical Engineering in July 2011. The Division will promote faculty collaboration in teaching and research in the fast-growing field, research initiatives in partnership with industry, and develop internship projects. Research will focus on computational biomedical engineering; biomaterials, biosensing and bioelectronics; and biosystems design and engineering.

Projects are expected to lead to commercially viable applications with positive impact for the community. The Division will host the bioengineering postgraduate program, and work closely with the Schools of Science and Engineering to support the development of a set of biomedical foundation courses to enhance undergraduate programs in biotechnology and bioengineering.

### 高等研究院

INSTITUTE FOR ADVANCED STUDY



**音**等研究院(高研院)是科大2011-2016年策略發展計劃的重點,以匯聚全球精英、推動 **日**科技發展、開拓尖端科技與學術新領域為宗旨,迎接21世紀的挑戰。高研院的目標是成為亞洲以至全球首屈一指的知識樞紐,孕育環球科技突破,為香港及大中華地區的創新與科技發展提供平台。

著名理論物理學家戴自海教授 2011 年成為高等研究院院長, 他是弦論研究的專家, 對宇宙論貢獻良多, 其就職講座以「宇宙有開端嗎?」為題, 反應熱烈。

高研院邀請優秀人才加入成為高研院教授、資深學人、學人、訪問教授、資深訪問學人、博士後研究員、客座教授以及研究生,共同進行前沿研究。26名畫聲國際的客座教授加盟高研院,其中兩人為諾貝爾獎得主,其他大部分為國家學術機構或具同等地位的教授。

高研院致力發展成為區內專題研究項目的樞紐,於2011年1月試辦為期六個月的宇宙論及弦論課程。高研院於2006年成立以來,已舉辦約180項學術活動,包括由17名諾貝爾獎得主主講的22場講座。

高研院不但提供了卓越的學術平台,更致力服務本地社群,年內透過舉辦外展計劃向中學生 介紹愛因斯坦、及推廣基本科學知識。

高研院獲得政府種子基金及基建資金的撥款,並在香港賽馬會的鼎力支持下成功籌集所需資金,及得到社會人士的支持,榮智健博士、盧家驄慈善基金、蘇海文博士及蘇包陪慶教授、 趙氏廷箴懷芳基金會、思源基金會、東亞銀行有限公司、田家炳基金會及俄羅斯鋁業聯合公司亦慷慨捐助。

2010-2011年,新的高研院大樓繼續施工。五層高的大樓位於科大校園最高點及面向美麗的海灣,設有可容納200人的演講廳、開放式禮堂、演講室、辦公室及康樂設施,供學生及職員使用。<sup>↑</sup>

A s a major initiative of the University's 2011-2016 Strategic Plan, the Institute for Advanced Study (IAS) is dedicated to the advancement of knowledge to meet the great challenges of the 21st century. Aiming to bring together the most brilliant minds to drive cutting-edge discovery and scholarship, IAS aspires to be a premier intellectual center in Asia and beyond, a trailblazer in the frontiers of knowledge; a global incubator of scientific breakthroughs and intellectual leaders; and a platform for innovation and scientific development in Hong Kong and Greater China.

Prof Henry Tye, a theoretical physicist with a major focus on string theory and known for his contribution to cosmology, became Director of the IAS in 2011. His inaugural lecture centered on "Does the Universe Have a Beginning" received enthusiastic response.

IAS is targeting great minds to join the ranks of IAS Professors, IAS Senior Fellows, IAS Fellows, Visiting Members, Senior Visiting Fellows, Postdoctoral Fellows and postgraduate students to conduct frontier research. The Institute takes pride in its 26 Visiting Members who are internationally renowned in their respective fields. Among the group, two are Nobel Laureates and the vast majority are members of national academies or of equivalent stature.

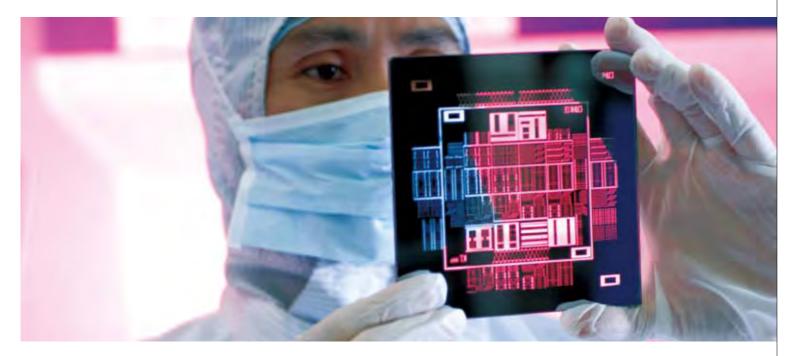
To develop itself as a hub for topical research programs in the region, IAS piloted a six-month Cosmology and String Theory program in January 2011. Since its inauguration in 2006, IAS has organized some 180 academic events, including 22 lectures given by 17 Nobel Laureates.

IAS not only provides an excellent platform for scholarly activities but is equally committed to serving the local community. One example of this in 2010-2011 saw IAS sponsor an outreach program targeting secondary school students to introduce Albert Einstein and promote fundamental science.

The Institute has succeeded in securing government seed funding and support for capital construction as well as funding support from The Hong Kong Jockey Club. In addition, the Institute received enthusiastic support from the community. Donations and pledges have been received from Dr Larry Yung, Lo Ka Chung Charitable Foundation, Dr Helmut Sohmen and Prof Anna Pao Sohmen, Ting Tsung & Wei Fong Global Foundation, Si Yuan Foundation, The Bank of East Asia Limited, Tin Ka Ping Foundation, and UC RUSAL.

During 2010-2011, we made progress on the construction of the IAS Academic Building. Located atop the main campus with a spectacular sea view, the five-storey building houses a 200-seat lecture theater, an open auditorium, seminar rooms, offices and amenities for students and staff.

### RESEARCH AND DEVELOPMENT



**餐** 術、研究及發展是科大使命及策略的核心。2010-2011 年,科士繼續釋生發展。悉四十七萬 年,科大繼續穩步發展,鞏固卓越研究型大學的地位。

自1991年創校以來,科大致力招攬頂尖的教授及學生,協 助他們在研究領域中爭取佳績,透過知識轉移推動經濟與社 會發展,同時鼓勵創業,在學術界穩佔重要席位。

科大在短短20年間已得到國際認同,在推動香港的學術 及研發文化以及香港轉型為知識型經濟方面肩負重任。於 2010《QS全球大學排名》中,科大名列全球頂尖100所工程 及科技大學第26位。在最新的香港研究評審工作報告中, 科大整體研究指數繼續處於最高水平,表現優秀。

#### 研究與學術

過去一年,科大一直進行重要的研究項目。科大教授積極參 與跨學科及以主題為本的研究,匯聚力量和思維,為全球面 對的主要挑戰尋找創新方案,推動香港及區域發展,改善人 類生活。下列科研亮點展示科大透過基本研究、產業化及商 務發展等世界級研究項目,促進本地、區域及世界的轉變。

• 理學院院長葉玉如教授對於人類腦部細胞如何傳遞信息 有突破性發現,成功解開腦部神經信號傳導之謎,對生 物醫學的發展帶來深遠影響。葉教授的研究團隊發現細 胞表面受體蛋白EphA4在調控腦部可塑性方面的新作 用。他們指出EphA4能夠透過控制神經遞質受體的降解 過程,調節神經元之間的信號傳遞效率。此外,他們也 發現Cdk5和endophilin B1蛋白介導細胞自體吞噬作用 在帕金遜病患者的腦中出現異常,導致腦部功能退化。

這些研究成果今年分別發表於著名學術期刊《Nature Neuroscience》及《Nature Cell Biology》,為治療老年痴 呆症及帕金遜症等神經退化性疾病提供了重要線索。

- 生命科學部張明傑教授及其團隊研究肌動蛋白7a基因突 變如何導致先天性失聰失明,並取得了重大突破,有助 研發預防和治療先天性失聰失明的方法,是醫學界一大 喜訊。有關的研究論文已於2011年2月在世界頂尖科學 期刊《科學》上發表。
- 此外, 張明傑教授及其研究團隊亦在了解動物感光細胞 如何以極高速度偵測強度差異極大的光信號,以及人類 眼睛如何因應不同光度調節光的接收量有重大發現。 這項突破性發現成為領先生物醫學期刊《細胞》雜誌於 2011年6月號的封面故事,有助了解癌症、神經退化及 各種免疫力障礙。
- 2010年8月,物理學系沈平教授及溫維佳教授在美國 賓夕凡尼亞州費城舉行的12th International Conference on Electrorheological Fluids and Magnetorheological Suspensions Plenary Lectures作主題演講。
- 由科大物理學系杜勝望教授、雷明德教授和王克倫教授 領導的光學團隊,成功對單一光子光前驅波進行直接觀 察,證明單一光子的傳導速度不能高於c(光速在真空條 件下的傳導速度)。科大這項研究肯定愛因斯坦的理論 結束長達10年有關單一光子速度的爭論。這項突破性發 現已於著名物理期刊《物理評論快報》上發表,並獲選為 編輯推薦論文。美國物理協會在其物理學綱要中以此研 究作為重點推介,並獲 Phys Org. com 選為專題文章

C cholarship, research and development are core **J**elements of HKUST's mission and strategy and the University has continued to forge ahead as a research intensive University in 2010-11.

From its establishment in 1991, the University has sought to attract the best faculty and students, to facilitate their best performance in research, to assist economic and social development through knowledge transfer, and to stimulate entrepreneurship. The success that HKUST has enjoyed as a result, and the speed with which it has been achieved, have given the University a special place in the annals of academia.

HKUST has played a key role in redefining the academic and R&D culture of Hong Kong. It has served as a catalyst in Hong Kong's transition to a knowledge economy. The University has also become recognized globally in just two decades. An indication of the comprehensive nature of its accomplishments is that HKUST has been ranked 26th in the World's Top 100 Universities in Engineering and Technology according to QS World University Rankings 2010. In Hong Kong, HKUST excelled in the last Research Assessment Exercise (RAE), retaining the highest overall research index.

#### **RESEARCH AND SCHOLARSHIP**

Over the year, significant research has been ongoing. Faculty members are actively involved in interdisciplinary and theme-based research, bringing their combined talents and perspectives together to find innovative solutions to help address the major challenges facing the world, advance Hong Kong and the region, and improve people's lives. The following research highlights show how HKUST is contributing to change locally, regionally and globally through its world-class research, ranging from basic research to commercialization and business development.

• Prof Nancy Ip, Dean of Science, made breakthrough discoveries in understanding how brain cells communicate with each other, in addition to unraveling signaling mechanisms that have farreaching implications in biomedicine. Her team has successfully identified a novel role for a cell surface protein EphA4 in the regulation of brain plasticity. They found that EphA4 regulates the distribution of neurotransmitter receptors on neurons and is essential for efficient communication between neurons through controlling the degradation of these neurotransmitter receptors. In addition, they found that the signaling

- pathway that controls a cellular process known as autophagy is aberrant in Parkinson's disease, which contributes to brain degeneration. They identified two proteins, Cdk5 and endophilin B1, as mediators of the aberrant autophagy observed in the diseased brain. Their intriguing findings, which have been published in the prestigious journals *Nature Neuroscience* and Nature Cell Biology this year, will shed new light on the treatment of neurodegenerative disorders such as Alzheimer's disease and Parkinson's disease.
- Prof Mingjie Zhang, Division of Life Science, and his team of researchers have achieved a significant breakthrough in explaining how genetic mutations of Motor Protein Myosin VIIa leads to hereditary deafand-blindness. This is excellent news for the medical profession in the quest to develop preventive and remedial measures against hereditary deaf-andblindness. The research paper on this work was published in top scientific journal *Science* in February
- In addition, Prof Mingjie Zhang and his research group have made a significant discovery in understanding how animal photoreceptors can detect light signals with very broad intensity ranges and at very rapid speed, and how human eyes regulate light intake in response to varying lighting conditions. The breakthrough was the cover story in Cell, a leading journal in biomedical sciences, in June 2011. It has broad implications for cancer, neurodegenerations and various immune disorders.
- Prof Ping Sheng and Prof Weijia Wen, Department of Physics, both presented Plenary Lectures at the 12th International Conference on Electrorheological Fluids and Magnetorheological Suspensions, held in Philadelphia, Pennsylvania, USA in August 2010.
- The HKUST optics groups led by Prof Shengwang Du, Prof Michael Loy and Prof George K L Wong, Department of Physics, reported the direct observation of the optical precursor of a single photon and proved that single photons cannot travel faster than c, the speed of light in vacuum. HKUST's study reaffirms Einstein's theory that nothing travels faster than light and closes a decade-long debate about the speed of a single photon. This breakthrough was published and selected as an Editor's Suggestion in Physical Review Letters, one of the most prestigious journals in physics. It was also highlighted as a Physics Synopsis by the American Physical Society and brought to wide attention as a feature article on PhysOrg.com.

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# 研究與發展 RESEARCH AND DEVELOPMENT



- 數學系王筱平教授及錢鐵錚教授與物理學系沈平教授及其 團隊聯合發表重要論文《Nanoscale Interfacial Phenomena in Complex Fluids》,並於《Solid State Communications》刊登。
- 物理學系陳子亭教授的研究小組證明將非傳導性光子晶體設計成接近零的非傳導性常數。科研人員認識全非傳導性媒介的獨有特徵,可帶來操控光線的可能,而不會導致設計頻率的損耗。此突破性發現已於聲譽卓著的《Nature Materials》中發表。
- 物理學系教學人員在《Physical Review B》發表論文的影響力 獲評為全球第三。該刊物是凝聚態及材料物理學領域的著名 期刊。
- 工學院院長李德富教授再獲表揚,獲湯森路透評選為計算機科學及工程領域的ISI Highly Cited Researcher,即文章獲得引述次數最多的科研人員,進一步肯定李院長的國際地位。這份精英科研人員名單包括在特定學科及指定時間內發表的論文獲最多人引述的首250名頂尖學者,佔全球有論文發表的科研人員不足0.5%。ISI Highly Cited Researchers表揚為生命科學、醫學、物理科學、工程、社會科學等21個範疇作出重大貢獻的人士,獲選人士均於其所屬研究領域內經常獲得引述及備受尊崇,亦是《全球大學學術排名》用作學術評審的指標之一。李教授是IEEE院士,現任IEEE通訊協會副主席,並曾獲多個國際獎項,包括著名的IEEE Marconi Prize Award in Wireless Communications。
- 化學工程及生物分子工程學系楊經倫教授、科大健康、安全 及環境處處長關繼祖教授、環境研究所與環境學部及化學工 程及生物分子工程學系劉培生教授及其團隊成功研製智能殺 菌塗層,能在一分鐘內殺滅99.9%的細菌及病毒,迅速殺 滅細菌、霉菌和真菌。它較之傳統消毒劑更能迅速對來自接 觸或污液的污染物產生反應,而且持久力達30日。醫院管 理局正進行試驗計劃,研究團隊並於美國、歐洲、印度、澳 洲、南韓、墨西哥、內地及台灣申請專利。
- 科大研發及研究生教育副校長兼土木及環境工程學系講座教授李行偉教授憑著「複雜環境下水力射流新理論、關鍵技術及應用」研究項目,獲得國務院頒予2010年國家科學技術進步獎二等獎。該項目有助預測污染物混合和稀釋的狀況。團隊並成功開發軟件,其設計可應用在世界各地不同的污水處理及海洋環境。此環境水力學及工程應用研究項目獲裘槎基金會、香港研究資助局及創新及科技基金的資助。
- 計算機科學及工程學系張黔教授及其團隊進行認知無線電的 先導研究,有助靈活管理動態頻譜資源,並透過搜尋閒置頻 譜來提升使用量。該團隊已完成首次分析內地頻譜的全面使 用情況的報告,並建議優化初級及次級使用者的使用方式。 科大電子及計算機工程學系、與計算機科學及工程學系共同 合作,進行無線電認知範圍的研究。
- 計算機科學及工程學系辛達德教授及其團隊將11,000幅 1,800萬像素的照片縫製成一幅巴西里約熱內盧的照片,解 像度高達1,500億像素,於2010年9月創下世界紀錄。早於 7月,他已製作里約熱內盧耶穌像的高解像照片,並打破當 時的紀錄。

- Joint work by Prof Xiaoping Wang and Prof Tiezheng Qian, Department of Mathematics, together with Prof Ping Sheng, Department of Physics and other researchers resulted in the important publication "Nanoscale Interfacial Phenomena in Complex Fluids", which appeared in Solid State Communications.
- The research group led by Prof C T Chan, Department of Physics, has demonstrated that it is possible to design dielectric photonic crystals as if they had nearzero dielectric constants. The realization of this peculiar characteristic in an all-dielectric media opens new possibilities for the manipulation of light without losses at design-specific frequencies. This breakthrough was published in the renowned journal *Nature Materials*.
- HKUST was ranked third globally for the impact of papers published in *Physical Review B*, a leading publication in the field of condensed matter and materials physics.
- Prof Khaled Ben Letaief, Dean of Engineering, gained further recognition as an international leader in his field by being honored and selected as ISI Highly Cited Researcher by Thomson Reuters in the field of Computer Science and Engineering. He joins an elite club of less than half of 1% of all published researchers in the world who are recognized among the 250 top and most-cited researchers in a defined discipline within a specific time-period. Honoring the fundamental contributions made in 21 broad subject categories in life sciences, medicine, physical sciences, engineering and social sciences, ISI Highly Cited Researchers are individuals who are the most highly cited in their fields and inclusion in this list is taken as a measure of the esteem of these scientific researchers and is used, for example, by the Academic Ranking of World Universities. He is a Fellow of IEEE and is currently serving as the Vice-President of the IEEE Communications Society. He is also the recipient of many other international distinguished awards including the prestigious IEEE Marconi Prize Award in Wireless Communications.
- HKUST professors developed a smart anti-microbial coating that has the longest-lasting effect against the widest range of microbes. The revolutionary coating can kill 99.9 per cent of bacteria and viruses within one minute. It could rapidly inactive bacteria, fungal and mold spores. It was invented by the team of Prof King Lun Yeung, Department of Chemical and Biomolecular Engineering and Division of Environment, Prof Joseph Kwan, Director of the Health, Safety

- and Environment Office, and Prof Arthur Lau of the Institute for Environment and Adjunct Assistant Professor of Department of Chemical and Biomolecular Engineering and Division of Environment. Compared with conventional disinfectants, the coating is effective for at least 30 days. It rapidly responds to contamination from touch or droplets, releasing a larger dose of disinfectant. The Hospital Authority is running pilot programs and patents are being sought by HKUST in the US, Europe, India, Australia, South Korea, Mexico, Mainland China and Taiwan.
- Prof Joseph Hun-wei Lee, Vice-President for Research and Graduate Studies and Chair Professor of Civil and Environmental Engineering, has received a 2010 State Scientific and Technological Progress Award (Second Class) from the Chinese State Council. The project "Buoyant Jets in Complex Environments — Theory, Innovative Technology and Application" makes it feasible to predict the mixing and dilution of wastewater in complex ocean currents, leading to the development of software that has worldwide applications in the design of facilities involving multiple sewage discharges into the marine environment. It is based on environmental hydraulics and engineering research funded by the Croucher Foundation, the Hong Kong Research Grants Council and the Innovation and Technology Commission.
- Prof Qian Zhang, Department of Computer Science and Engineering, and her team have been conducting pioneering studies into "cognitive radio", intelligent technology that can flexibly manage dynamic spectrum resources and enhance usage by searching out idle spectrum. The team has completed an unprecedented survey and analysis of the comprehensive usage of spectrum in China and proposed for the first time a method to optimize usage by primary and secondary users. Cognitive radio is an active research area at HKUST with contributions from the Department of Electronic and Computer Engineering as well as Computer Science and Engineering.
- To create a massive shot, Prof Pedro Sander,
   Department of Computer Science and Engineering,
   and his team of researchers stitched together 11,000
   18-megapixel photographs, creating a picture of the
   Brazilian city of Rio de Janeiro with a resolution of
   150 billion pixels. The picture set the world record in
   September 2010. Earlier in July, the group produced
   a photo taken from the famous statue of Christ the
   Redeemer at Rio de Janeiro and broke the record at
   that time.

#### RESEARCH AND DEVELOPMENT

- 計算機科學及工程學系鄧智強教授、金成勳教授及易珂教授的先進研究項目獲得表揚,三位教授各榮獲全球互聯網搜尋器谷歌頒發Google研究獎,是香港同一所大學學術人員獲得最多獎項,所獲獎金均分別用於「利用二維未校正的圖片進行準稠密三維重建」(地理/測繪)、「Crash Reproduction」(軟件工程)及「基於MapReduce的統計摘要計算方法」(資訊檢索、擷取及組織)方面的研究。
- 電子及計算機工程學系區子廉教授及其團隊對JCTVC作出貢獻,現正致力制訂下一代視頻編碼標準。區教授的團隊已有三份建議書納入HEVC。第一份有關色度熵編碼技術的建議書,已於2011年1月於韓國大邱會議獲得接納。第二和第三份建議書分別採用了sub-LCU Qp的陳述方法和dQP計算法,並已於2011年3月於日內瓦會議獲得接納。HEVC標準將於2013年中有定案。
- 工業工程及物流管理學系蘇孝宇教授在《Ergonomics》中發表論文,研究顯示可有效減少聲源定位錯誤。這標誌著就空間環迴聲音系統等應用及在收窄個體與非個體頭部相關傳輸函數(HRTF)的差距取得了初步成功。
- 工業工程及物流管理學系宗福季教授及其團隊的多變量 非參數質量控制方法之研究已於美國質量學會旗艦期刊 《Technometrics》上發表。該論文為複雜系統監察及監控 研發出一套新的統計過程控制手法。
- 工業工程及物流管理學系李忠義教授合著題為《Optimal Control of an Assembly System with Multiple Stages and Multiple Demand Classes》的論文。該研究論文已於重要 刊物《Operations Research》中發表。

- 機械工程學系李世瑋教授榮獲IMAPS-2010 John A Wagnon技術成就獎。國際微電子暨封裝學會(IMAPS)是 致力推動及發展微電子和電子封裝最具規模的協會,全 球擁有8,000多名成員。該項成就獎表揚微電子技術方 面的重要貢獻。
- 資訊、商業統計及營運管理學系湯永亮教授合著題 為《User Acceptance of Agile Information Systems: A Model and Empirical Test》的論文,並於《Journal of Management Information Systems》上發表。提出用戶接 受新一代資訊系統「敏捷資訊系統」之因素;這個資訊系 統的特點是透過定期推出少量新功能以不斷進行升級。
- 財務學系高偉翰教授合著《Equity Market Liberalization and Corporate Governance》論文,並於《Journal of Corporate Finance》上發表。
- 市場學系石豁達教授與博士生嚴登峰進行多項研究,探討向消費者提供有關產品特點及價格等資訊時,消費者如何構成對產品質素的看法。該研究論文已獲《Journal of Consumer Research》接受。石豁達教授亦與前科大博士生陳苡羚合作進行另一個項目,就阿諛奉承及其後果提出新見解。
- 人文社會科學學院院長李中清教授研究小組發佈中國 遼寧多世代人口數據《China Multi-Generational Panel Dataset, Liaoning(CMGPD-LN), 1749-1909》的公共數 據庫。
- 人文學部洪長泰教授出版專書《Mao's New World: Political Culture in the Early People's Republic》,由康奈爾大學出版社(Cornell University Press)印行。這本著作對中華人民共和國建國初期毛澤東領導下的中國政治文化作出了全新闡釋。



- Prof Chi-keung Tang, Prof Sunghun Kim and Prof Ke
  Yi, Department of Computer Science and Engineering,
  had their cutting-edge studies recognized, with each
  receiving a Google Research Award from the global
  internet search giant. This was the highest number of
  awards granted to academics at a single University in
  Hong Kong in the funding round results released in
  Q4 2010. They received funding for their studies in
  "Quasi-Dense 3D Reconstruction from 2D Uncalibrated
  Photos" (geo/maps), "Crash Reproduction" (software
  engineering) and "Computing Statistical Summaries
  with MapReduce" (information retrieval, extraction
  and organization) respectively.
- Prof Oscar Au, Department of Electronic and Computer Engineering, and his team are among the few
   University teams contributing to the competitive Joint
   Collaborative Team on Video Coding (JCTVC), which is
   developing the next-generation video coding standard.
   Prof Au's team has had three proposals accepted into
   the High Efficiency Video Coding (HEVC) standard's
   working draft. The first proposal on chroma entropy
   coding was accepted at the Daegu (Korea) meeting in
   January 2011. The second and third proposals were
   on sub-LCU Qp representation and dQP calculation
   method respectively and were accepted at the Geneva
   meeting in March 2011. The HEVC standard will be
   finalized in mid 2013.
- In his paper published in *Ergonomics*, Prof Richard H Y So, Department of Industrial Engineering and Logistics Management, significantly reduced sound localization error. This represents a preliminary success in bridging the gap between individual and non-individual headrelated transfer functions (HRTFs) for applications such as spatial surround sound systems.
- Research by Prof Fugee Tsung, Department of Industrial Engineering and Logistics Management and his collaborators on "A Multivariate Sign EWMA Control Chart", was published in *Technometrics*, the flagship journal of the American Society for Quality (ASQ). This article develops a novel statistical process control methodology for complex system monitoring and surveillance.
- Prof Chung-yee Lee, Department of Industrial Engineering and Logistics Management, co-authored a paper on "Optimal Control of an Assembly System with Multiple Stages and Multiple Demand Classes". The research was published in *Operations Research*, the flagship journal for the field.

- Prof Ricky Lee, Mechanical Engineering, has won the IMAPS-2010 John A Wagnon Technical Achievement Award. The International Microelectronics And Packaging Society (IMAPS) is the largest society dedicated to the advancement and growth of microelectronics and electronics packaging with more than 8,000 members around the world. The achievement award is presented to a member with outstanding technical contributions related to microelectronics technology.
- Prof James Thong, Department of Information Systems, Business Statistics and Operations Management, co-authored the paper "User Acceptance of Agile Information Systems: A Model and Empirical Test," in the Journal of Management Information Systems. The paper identifies the drivers of user acceptance of a new generation of information systems, known as agile IS, which are characterized by frequent upgrades with a small number of new features released periodically.
- A paper, "Equity Market Liberalization and Corporate Governance", published in the Journal of Corporate Finance and co-authored by Prof Vidhan Goyal, Department of Finance, examined why developing countries exhibit relatively small financial impacts associated with equity market liberalizations, which open up domestic stock markets to foreign investors.
- Prof Jaideep Sengupta, Department of Marketing, in collaboration with PhD student Dengfeng Yan, conducted a series of studies examining how consumers form perceptions of product quality when presented with information about the product's attributes and also its price. A paper based on this work has been accepted for publication in the *Journal* of Consumer Research. In another project with Elaine Chan, a former HKUST PhD student, Prof Sengupta offered new insights into flattery and its consequences.
- Prof James Lee, Dean of Humanities and Social Science, jointly released a public dataset titled "China Multi-Generational Panel Dataset, Liaoning (CMGPD-LN), 1749-1909".
- Prof Chang-tai Hung, Division of Humanities, published a book titled Mao's New World: Political Culture in the Early People's Republic by Cornell University Press. It provides a path-breaking revisit to the interpretation of the political culture of Mao's China in the founding era of the People's Republic of China.

**CQ** 香港科技大學2010-2011年報

### 研究與發展

#### RESEARCH AND DEVELOPMENT

- 社會科學部襲啓聖教授是在《American Political Science Review》上發表文章的首位北美地區以外學者,他合著的學術論文《The Tragedy of the Nomenklatura:Career Incentives and Political Radicalism during China's Great Leap Famine》於2011年2月發表。
- 社會科學部谷淑美教授的學術論文《Making Heritage in Hong Kong: A Case Study of the Central Police Station Compound》,於2010年在著名中國研究期刊《The China Quarterly》上發表,該文探討集體記憶和空間政治,在社會 學、文化研究、以及香港與中國研究方面具有很高學術價值。
- 劉啟漢教授帶領環境學部的研究團隊與華南理工大學合作, 量化珠三角空氣污染問題的時空特徵,從而對具體行業及區域的空氣質素制訂針對性的管理策略。研究人員提出了一套一般性及具體的空氣監控措施,當中大部分已於2010年廣州亞運會期間實施;研究由傅德蔭基金資助。
- 環境學部成立首個空氣質量研究超級站,收集有關大氣中顆粒物的實時數據,從而分析其特性和源頭。研究獲大學教育資助委員會給予港幣900萬元特別設備補助金,並獲環境保護及自然保育基金資助港幣600萬元。

#### 技術轉移與創業

科大的使命是致力推動香港的經濟與社會發展,包括在國家及 全球層面作出貢獻。科大透過技術轉移、知識產權的保障與 授權、孕育孵化新成立的公司、推廣創業精神,積極推動社會 進步、開創商機,以及培養年青才俊。

2010年,科大共有1,391名碩士及151名博士畢業生,大部分 投身公營或私營機構,運用所學貢獻社會。學士畢業生則憑著他 們接受的全人教育及無窮創意,為香港轉型為知識型社會作出 貢獻。

在1999年至2011年間、即自創新及科技基金推出以來,科大獲創新及科技基金撥款港幣6.148億元,為本地高等院校之冠,展現科大與業界極為豐碩的合作成果。同期,科大獲得業界資助港幣6.658億元,進行合約研究和合作研發項目。

科大亦透過大學與業界的合作計劃、研究與開發的合作計劃、 知識產權的保障與授權,以及協助分拆公司發展,從而推動知識 型經濟的發展。這些活動均由科大技術轉移中心及香港科大研究 開發有限公司進行。2010-2011年,這兩間機構積極進行了多項 活動:

- 為科大研究人員評估99項發明成果。
- 安排申請世界各地149項專利,包括向美國專利及商標局提出全面及臨時申請。
- 科大獲46項專利權授權。
- 科大研究開發有限公司與業界及公營機構客戶簽訂113份研發合約,總值超過港幣7,060萬元。
- 繼續以科大開發的專業知識及技術,培育發展七家新公司。



- Prof James Kung, Division of Social Science, became the first academic outside North America to have published in the *American Political Science Review*. His article, "The Tragedy of the Nomenklatura: Career Incentives and Political Radicalism during China's Great Leap Famine" (with Shuo Chen), was published in February 2011.
- An article entitled "Making Heritage in Hong Kong: A Case Study of the Central Police Station
  Compound" by Prof Agnes Ku, Division of Social Science, appeared in top journal *The China Quarterly*,
  a top China studies journal, in 2010. This explored collective memory and spatial politics, contributing
  to sociology and cultural studies as well as Hong Kong and China studies.
- Researchers in the Division of Environment, led by Prof Alexis Lau, in collaboration with South China
  University of Technology, successfully completed a joint project funded by Fu Tak Iam Foundation.
  The project quantified in detail the temporal and spatial characteristics of air pollution problems over
  the Pearl River Delta so that sector and region-specific air quality management strategies could be
  developed. A suite of general and specific air control measures were recommended, most of which were
  adopted during the 2010 Guangzhou Asian Games.
- The Division of Environment launched the first Air Quality Research Supersite, which enables real-time
  characterization of ambient particulate matter in the air to strengthen understanding of the nature of
  sources of fine particles. The research was assisted with a HK\$9 million Special Equipment Grant from
  the University Grants Committee and a HK\$6 million grant from the Environmental Conservation Fund.

#### TECHNOLOGY TRANSFER AND ENTREPRENEURSHIP

HKUST's mission calls for the University to assist the economic and social development of Hong Kong while its vision includes contributing on a national and global scale. Through technology transfer, intellectual property protection and licensing, incubation of start-up companies and strong promotion of entrepreneurship, the University is playing its part in driving forward society and creating the businesses and young leaders of the future.

In 2010, HKUST produced 1,391 master's and 151 doctoral graduates. Most of these talents joined the private and public sectors, helping to diffuse their in-depth subject knowledge, skills, and innovative outlook into the wider community. Our bachelor-level graduates, with their all-round education and creative approach, are also making a difference to Hong Kong's transition to a knowledge-based society.

Illustrating HKUST's productive partnerships with industry, the University has been allocated \$614.8 million by the Innovation and Technology Fund (ITF) over the period 1999-2011 (that is, since the beginning of the ITF program), the highest among local institutions. Over this same period, HKUST has also received \$665.8 million in industrial funding for contract research and collaborative R&D.

HKUST also boosts the knowledge economy via University-industry collaborations, R&D partnerships, the protection and licensing of intellectual property, and assisting spin-off companies. These activities are carried out through the Technology Transfer Center (TTC) and HKUST R and D Corporation Ltd (RDC). 2010-2011 proved to be another active year for the two units:

- 99 invention disclosures from HKUST researchers have been evaluated.
- 149 patent applications were filed worldwide, including full and provisional applications with the US Patent Office and Trademark Office.
- HKUST received notification of the granting of 46 patents.
- 113 R&D contracts were signed with industrial and public sector clients, worth more than \$70.6 million.
- Continued incubation of seven start-up companies based on expertise and technology developed at HKUST.

#### RESEARCH AND DEVELOPMENT

與科大有關的分拆公司繼續於2010-2011年成功發展,科大 安排特別及定期活動推廣創業精神。科大的創業中心專責推 動高科技創業教育、促進科大的知識轉移活動、培育新公司 等,至今已協助設立46間新公司。科大於1999年展開的創 業計劃協助教職員及學生成立以科技為本的創業公司,令新 公司獲益不淺。

#### 以下為今年的部分活動:

- 參加科大創業計劃的公司之一尊衛理有限公司以 Method and Composition for Treating Skin Wounds with Epidermal Growth Factor」獲得一項台灣專利。這是公司 繼取得美國和內地專利後的第三項專利。
- 電子及計算機工程學系兼任教授兼科大首位博士畢業生 廖家俊教授再創佳績,由他創立的消費電子產品解決方 案公司幻音數碼於2011年6月由香港交易所創業板轉往 主板上市。在此以前,該公司於2009年12月於創業板 上市,成為科大創業計劃下首間上市公司。
- 科大於2010年10月首次舉行創業日,空前成功。創業 日由創業中心舉辦,近300位創業家共聚一堂,以推廣 科大的創業精神及加強聯繫。講者包括立法會資訊科技 界議員譚偉豪博士以及多名校友企業家。
- 第一屆企業家精神會議於2010年10月舉行,由工商管 理碩士校友會聯同商學院及企業家網絡舉辦,主題為 「充分利用中國市場」,超過80名工商管理碩士、行政人 員工商管理碩士、交換生及校友出席。
- 由科大亞洲家族企業與創業研究中心舉辦的第二屆科大 武海企業家圓桌會議吸引100名來自不同國家和行業的 學者及市場界人士參加,題目包括區域內企業家的融資 增長、亞洲的企業創建精神、亞洲企業家是否與別不 同,以至亞洲企業全球化的挑戰。

- 於2011年3月至6月期間,創業中心的Knowledge Café 為特別興趣小組舉辦經驗分享會。這些小組按照科大五 個最具影響力的研究範疇成立; 科大邀請活躍於業界的 企業家於分享會 上提供最新資訊, 並以互動方式與參加 者討論他們的經驗,增進彼此的認識、鼓勵發展合作
- 創業中心在2011年2月至4月間舉辦一系列Be Your Own Boss 講座,由資深業界人士主講。
- 工學院的汪滔先生和宋健宇先生成功將研製的無人駕駛 直升機,以橫越有地球上最後秘境之稱的世界第一大峽 谷雅魯藏布大峽谷。而由李澤湘教授帶領的智翔隊伍則 於科大2011年創業計劃大賽中奪得殿軍。他們其後成立 深圳市大疆創新科技有限公司,現已成為全球領先的直 升機自動導航系統研發及製造商之一。
- 華健公司在科大2011年創業計劃大賽中勇奪冠軍,該 公司的頭髮測試技術可在短時間內準確提供測試者的健 康報告。亞軍作品為將硅基LED技術微投影設備應用於 突破性顯示技術LEDoS。季軍是使用創新科技提升音樂 教育成效的樂靈通,殿軍則由智翔科技奪得。Bull.b隊 伍以廣泛應用於零售業的簡易操作界面奪得學生獎。賽 事有超過120支隊伍參加,共11支隊伍晉身決賽。賽事 獲Morningside Group、IDG Venture Capital、Northern Light Venture Capital 等公司支持。
- 九名科技及管理學雙學位學生獲提名參加3月在韓國首 爾舉行的麻省理工學院全球創業工作坊2011。這個高水 平的工作坊以促進創業精神及企業生態系統為主旨,吸 引企業領袖、金融專才、學生、教授、官員及私人團體 參與。在電梯游説比賽中,三年級學生 Kanishk Bali 從逾 40名參加者中脱穎而出,奪得第三名。



Spin-off companies continued to provide success stories in 2010-2011, while the University arranged special events and regular activities to promote entrepreneurship. The University has nurtured 46 start-up companies to date through its HKUST Entrepreneurship Center which is dedicated to advancing hi-tech entrepreneurship education, facilitating knowledge transfer activities at HKUST, and business incubation. An important element of this championing of new businesses is the Entrepreneurship Program, which was introduced in 1999 to assist faculty, staff and students in the establishment of technology-based start-up companies.

The following gives some of the year's highlights:

- Gene-Vinate Limited, a member of the Entrepreneurship Program, received a patent from Taiwan for its "Method and Composition for Treating Skin Wounds with Epidermal Growth Factor". This was the company's third patent following the granting of patents in the US and China.
- Electronic and Computer Engineering Adjunct Professor and HKUST's first PhD graduate Prof Jack Lau achieved further success in June when his consumer electronics solutions company, Perception Digital, was transferred from the Growth Enterprise Market (GEM) of the Hong Kong Stock Exchange to the Main Board. The company became the first venture established under the Entrepreneurship Program to obtain a listing when it was listed on the GEM in December 2009.
- HKUST's first Entrepreneurship Day held at HKUST in October 2010 proved a huge success. Nearly 300 experienced and aspiring entrepreneurs took part in the event, organized by the Entrepreneurship Center, to promote HKUST entrepreneurship and facilitate networking. Speakers included Legislative Councillor for Information Technology Dr Samson Tam and a host of alumni entrepreneurs.
- The first annual HKUST MBA Entrepreneurship Conference was held in October 2010. The conference was organized by the MBA Alumni Association in partnership with the School of Business and Management and The Entrepreneurs' Network (TEN) on the theme "Leveraging the China Market". More than 80 MBA, Executive MBA, exchange students and alumni attended.
- The second HKUST Asian Entrepreneurship Roundtable, arranged by The Center for Asian Family Business and Entrepreneurship Studies brought together 100 academics and market participants from diverse industries and countries. Under discussion

- were topics such as financing growth for the region's entrepreneurs, corporate entrepreneurship in Asia, whether Asian entrepreneurs are different, and the challenges of globalizing Asian entrepreneurial businesses.
- The Entrepreneurship Center's Knowledge Café arranged experience-sharing sessions between March and June 2011 for its Special Interest Groups. The groups are organized in line with the University's five high-impact research areas. The sessions invited active entrepreneurs to provide industry updates and engage in interactive discussion of their experiences. Interest group members were also able to get to know each other, encouraging the development of working relationships.
- The Entrepreneurship Center organized a series of practical seminars on how to "Be Your Own Boss" from February to April 2011, featuring seasoned industrialists.
- Mr Frank Wang and Mr Jianyu Song from the School of Engineering succeeded in putting their self-designed unmanned helicopter on an unprecedented autonomous flight across the world's deepest canyon — the Yarlung Zangbo Grand Canyon, dubbed "the last territory of mystery on earth". The iFlight Technology team, led by Prof Zexiang Li, received the Third Runner-up award In the HKUST 2011 Entrepreneurship Competition. They founded the company Dajiang Innovation Technology Co, Ltd (DJI), which is now one of the world's leading developers and manufacturers of helicopter autopilot systems.
- The championship of the HKUST 2011 Entrepreneurship Competition was Wah Kin Holdings Ltd whose hair-testing technology provides fast, accurate reports on people's health. It was followed by LEDoS, a breakthrough display technology based on proprietary micro-projection devices, Allegro IQ, which uses innovative technologies to make music education more effective, and iFlight. The Student Award went to Bull B Tech, with its streamlined businessto-customer process which has wide applications in the retail industry. The competition saw over 120 teams enter, with 11 chosen as finalists. It was supported by venture capitalist companies including the Morningside Group, IDG Venture Capital, and Northern Light Venture Capital.
- Nine Technology and Management Dual Degree students were nominated to join the MIT Global Startup Workshop 2011, held in Seoul, Korea in March. The event is the world's premier workshop dedicated to fostering entrepreneurship and entrepreneurial ecosystems globally, attracting entrepreneurial leaders, financiers, students, professors, government agencies and private parties. Thirdyear student, Kanishk Bali, won third prize in the Elevator Pitch Competition, competing against more than 40 other

#### RESEARCH AND DEVELOPMENT

#### 研究資助

科大的研究工作廣受認同,並獲研究資助。

香港研究資助局每年的優配研究基金計劃,整體上顯示出科大的實力及成就。根據研究資助局 2011年6月30日宣佈的優配研究金計劃結果,科大的研究人員獲撥款港幣1.064億元,而科大則取得以下成績:

- 成功率最高(45%)
- 合資格教學人員個人撥款最高(24萬港元)
- 參與率最高(合資格教學人員中有33.1%獲資助)

爭取撥款成功與否,乃取決於國際學術界對建議書質素的看法,以及申請人過往的記錄。撥款結果進一步證明科大的研究及學術達高水平。

- 「蛋白質和磷酸肌醇的相互作用對神經細胞信號傳導的調控」合作研究項目獲香港研究資助局 批出港幣786.6萬元資助。生命科學部的張明傑教授、葉玉如教授、溫子龍教授、夏軍教授分 別為本項目的首席研究人員及合作研究人員。
- 化學系的唐本忠教授以「聚集態高效發光材料的開發:基礎研究和實際應用」項目,獲研究資助局撥出2010-2011年的協作研究金港幣535.9萬元。
- 在研究資助局的首輪主題研究計劃中,工業工程及物流管理學系李忠義教授及其研究團隊進行的「振興香港海洋貨櫃運輸物流網」研究,獲撥款港幣1,329.2萬元。研究團隊將於物流及策略層面上,全面研究全球的海洋貨櫃運輸供應鏈網絡。團隊也將為香港的海洋貨櫃供應鏈網絡研發決策支援系統。
- 工業工程及物流管理學系的李忠義教授及Ajay Joneja教授以「營運不確定性下之動態車輛調度 及編程決策支援與實時資訊整合系統」項目,獲得創新及科技基金撥款港幣290.6萬。這個研 究項目旨在發展綜合資訊科技平台,為客運服務提供實時營運及資訊交流以降低營運成本及 提升效益。
- 土木及環境工程學系吳宏偉教授獲研究資助局撥款 667 萬港元,以研究香港的綠化斜坡工程, 帶領科大、港大與中大的研究員進行研究。
- 人文社會科學學院院長李中清教授成功獲得多個項目資助,其中美國國家兒童健康和人類發育研究院撥款約港幣595.4萬元資助他及其研究小組進行「中國遼寧多世代人口數據庫」研究項目:同時,他以「Differentiating Community and Family Contextual Influences on Socioeconomic Attainment and Demographic Behavior: Shuangcheng, 1855-1911」項目獲得研究資助局撥款港幣126萬元。此外,他在上海交通大學建立的東北研究中心獲中國社會科學基金撥款人民幣150,000元,以進行清朝中期以來中國東北人口及社會歷史文獻的研究工作「Research Materials on the Population and Social History of Northeast China since the mid-Qing」。
- 環境學部的甘劍平教授及其研究團隊成功於珠江及珠江口進行每月的跨學科實地調查,以確定當地的水質情況及其物理及生物地球化學監控。這個區內首項同類調查為期一年,提供實用科學證據解決區內水質問題;數據集有助在中國海進行碳循環研究,進行獲得資助港幣307萬元的國家重點基礎研究發展計劃(973計劃)。研究團隊也獲得優配研究金撥款港幣88.32萬元,研究珠江股流與香港的動態及其於雨季對珠江口及香港沿岸水流的影響。

#### **RESEARCH FUNDING**

HKUST is recognized by a range of funding organizations, which assist the University's researchers through financial support of their work.

Hong Kong's Research Grants Council's annual competitive General Research Fund program overall also show the strength of the University's capabilities and accomplishments. Via RGC's GRF program announced on 30 June 2011, HKUST researchers were awarded \$106.4 million and HKUST achieved:

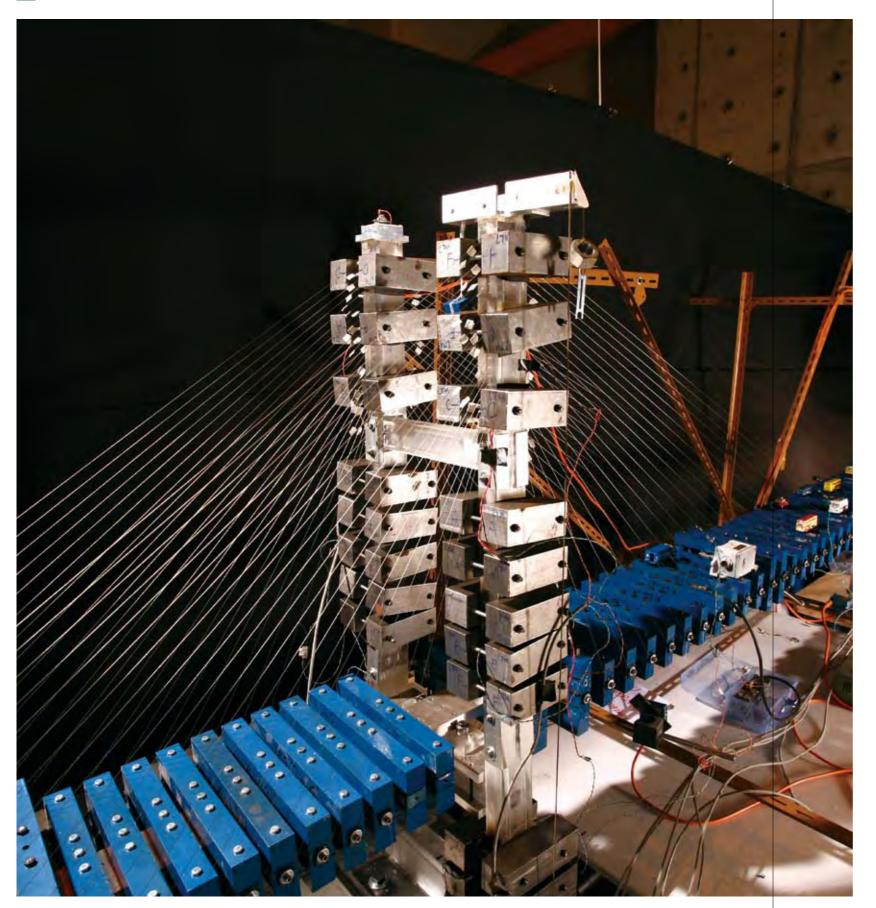
- the highest success rate (45%)
- the highest funding per eligible faculty (\$240,000)
- the highest participation rate (33.1% of eligible faculty were funded)

Given that success in this competition is dependent on the quality of proposals, as perceived by international peers, and on the track record of the applicants, these funding results are further testimony to the excellence of research and scholarship at HKUST.

- A collaborative research project titled "Protein-phosphoinositides interactions in neuronal signaling" was recently renewed and received funding of an amount of HK\$7.866 million from the Hong Kong Research Grants Council. Prof Mingjie Zhang, Prof Nancy Ip, Prof Zilong Wen, and Prof Jun Xia of the Division of Life Science are the principal investigator and co-investigators for this joint project, respectively.
- Prof Benzhong Tang, Department of Chemistry, was awarded HK\$5.359M by RGC — Collaborative Research Fund 2010-2011 on a project entitled "Development of efficient luminogenic materials in the aggregate state: fundamental understanding and practical applications".
- In the Research Grants Council's first round of its Theme-based Research Scheme, research on "Transforming Hong Kong's Ocean Container Transport Logistics Network" by Prof Chung-Yee Lee, Department of Industrial Engineering and Logistics Management, and his team of researchers received funding of HK\$13.292 million. The research team will holistically study ocean container transport supply chain networks around the world, at both the strategic and tactical levels. The team will also develop decision support systems for Hong Kong's ocean container supply chain network.

- Prof Chung-Yee Lee and Prof Ajay Joneja, Department of Industrial Engineering and Logistics Management, have been awarded a research grant of HK\$2.906 million from the Innovation and Technology Fund for their project "Integrated Decision Support System for Dynamic Vehicle-Dispatching and Scheduling with Realtime Information under Operation Uncertainty". The project seeks to develop an integrated information technology platform for passenger transport in realtime operation and information exchange to reduce operation costs and improve efficiency.
- Prof Charles Ng, Department of Civil and Environmental Engineering, was awarded a HK\$6.67 million research grant by the Research Grants Council to study and develop Green Slope Engineering for Hong Kong. He leads a group of researchers from HKUST, HKU and CUHK.
- Prof James Z Lee, Dean of Humanities and Social Science, was successful in several funding applications for different projects. He obtained a grant of HK\$5.954 million from the National Institute of Child Health and Human Development to work on the project "The Liaoning Multi-Generational Panel Dataset: Public Release and User Training". He has gained a General Research Fund grant of HK\$1.260 million from the Research Grants Council to work on "Differentiating Community and Family Contextual Influences on Socioeconomic Attainment and Demographic Behavior: Shuangcheng, 1855-1911". In addition, Prof James Z Lee also obtained a grant of RMB150,000 from the National Natural Science Foundation of China to work on the project "Research Materials on the Population and Social History of Northeast China since the mid-Qing".
- Prof Jianping Gan, the Division of Environment, and his research team have successfully conducted monthly multidisciplinary field surveys in the Pearl River and Pearl River Estuary to identify the water environment and its physical and biogeochemical controls. The year-long survey was the first in the region and has provided valuable scientific evidence to tackle the water environment in the region. This data set has contributed to the developments of a National Basic Research (973) Project with a funding amount of HK\$3.07 million on Carbon Cycling in China Seas. The team has also secured a General Research Fund with a funding amount of HK\$883,200 with a project on Dynamics of the Pearl River Plume and its effect on the coastal circulation over the shelf off Pearl River Estuary and Hong Kong in the wet season.

RESEARCH AND DEVELOPMENT



#### 研究活動

除了進行世界級研究外,科大還邀請國際研究人員分享最新研究成果,以加強不同界別的溝通,激發新意念。年內,科大舉辦多項活動協助研究人員進行研發和協作,以及建立網絡。

- 科大於2011年5月舉行「Cosmology since Einstein」會議, 匯聚世界多名分子理論及 宇宙學專家, 物理學系沈平教授擔任本地 籌委會主席。
- 物理學系沈平教授亦主持於2011年5 月為向物理學家張昭慶致敬而舉辦的 「Waves in Complex Media」工作坊。
- 為加強區內聯繫及擴闊研究視野,電子及計算機工程學系及物理學系於2011年6月在科大校園舉辦東亞研究生納米科學技術研討會,專為東亞從事納米研究的研究生建立平台以分享工作與研究經驗,同時把握機會建立國際合作關係。
- 由物理學系沈平教授出任委員會主席科 大蒙民偉納米科技講座系列邀請了12 名來自亞洲多所著名大學的資深研究學 者、博士後研究夥伴以及研究生出席。
- 計算機科學及工程學系舉辦Trends and Challenges in Computer Science Research Distinguished Lecture Series,包括由康奈 爾大學工程及應用數學系John Hopcroft 教授以及卡耐基梅隆大學計算機科學與 機械人學系Raj Reddy教授主講的講座, 就演算法設計以至人類電腦互動及資訊 基建發表演說。
- 科大舉辦 2010 年度科大會計學術會議, 邀得芝加哥大學 Philip G Berger 教授擔任 主題講者,吸引了 20多名海外會計學者 參加。
- 環境學部舉辦氣候變化國際會議工作坊,並邀得著名氣候學家以及2009年卡爾 古斯塔夫羅斯貝研究獎章得主美國太空總署James Hansen教授出任主題講者。澳洲國立大學Will Steffen教授以及Club of Rome前秘書長Martin Lees先生亦參與主持講座。這個工作坊討論了與氣候變化科學、人口趨勢及消費生活模式等有關的議題。據

#### **RESEARCH EVENTS**

Along with conducting world-class research, HKUST seeks to bring international researchers together to share their latest discoveries, increase communication across borders and spark new ideas. During the year, the University organized many activities that assisted discovery, collaboration and network-building.

- The "Cosmology since Einstein" conference at HKUST in May 2011 brought together many leaders in particle theory and cosmology from around the world. Prof Ping Sheng, Department of Physics, chaired the local organizing committee.
- Prof Ping Sheng, Department of Physics, also chaired the workshop "Waves in Complex Media", which was held in May 2011 in honor of Prof Zhaoqing Zhang.
- To boost regional links and research insights, the East Asian
   Postgraduate Workshop on Nanoscience and Technology was
   organized by the Department of Electronic and Computer
   Engineering and the Department of Physics in June 2011 at
   HKUST. The workshop aimed to set up a unique platform
   specifically for postgraduates involved in nano research
   and based in East Asia to share recent work and research
   experience, and to seize the opportunity to initiate and establish
   international collaborations.
- The William Mong Seminar Series on Nano Science and Technology, which was organized by a committee chaired by Professor Ping Sheng, Department of Physics, involved 12 senior researchers, their post-doctoral research associates and postgraduate students from leading universities across Asia.
- The Department of Computer Science and Engineering hosted the Trends and Challenges in Computer Science Research Distinguished Lecture Series, including talks by Prof John Hopcroft, Professor of Engineering and Applied Mathematics at Cornell University and Prof Raj Reddy, Professor of Computer Science and Robotics at Carnegie Mellon University, Topics ranged from algorithm design to human computer interaction and information infrastructure.
- The 2010 HKUST Accounting Research Symposium featured Prof Philip G Berger, University of Chicago as the keynote speaker. The symposium was attended by more than 20 accounting scholars from overseas.
- The Division of Environment organized a "Climate Change –
  Elephants in the Room" Workshop with Prof James Hansen
  of NASA, a leading climatologist and recipient of the 2009
  Carl Gustaf Rossby Research Medal, as the keynote seminar
  presenter. Prof Will Steffen, Australian National University, and
  Mr Martin Lees, former Secretary General of the Club of Rome,
  also gave seminars at the event. The workshop discussed
  issues related to climate change science, population trends and
  consumptive lifestyles.



# 校園發展

### CAMPUS DEVELOPMENT

大正展開多項校園發展工程,面積3,000平方米的學習、自修及餐飲設施於2011年初落成,其他工程亦進行得如火如荼,以進一步改善學生的校園生活。圖書館開闢1,800平方米的空間用作綜合資訊坊。學生會及學生組職專區施工進度理想,經翻新的食堂提供各類美食。

為迎接「雙學制」及為一年級學生作好準備,李兆基商學大樓及高等研究院大樓的工程已將近完成。商學院遷入這個景色優美的新址後,現有教學大樓將按理學院、工學院及人文社會科學學院的需要進行重新規劃及翻新工程。

校園南端將會建造的一所10,000平方米的研究及教學大樓,其設計工作已經完成,並已進行招標。新大樓落成後,將為教職員及學生提供一流的學習及研究環境,並將大大增強科大跨學科研究的能力。

科大於校內增建700個學生宿位,工程進展順利。鄰近的 將軍澳宿舍將提供370個宿位,工程正積極進行中。

ompletion of 3,000 sq m of learning, studying and catering facilities in early 2011 set in motion a series of further works that will greatly enhance the student experience on campus. The transformation of 1,800 sq m of library space into a "Learning Commons" is underway, purpose-built student union and society space has progressed well, and a variety of culinary experiences will be available in refurbished canteen and restaurant areas.

The superstructures of the Lee Shau Kee Business Building and the Institute for Advanced Study reached an advanced stage, as the University prepares for the arrival of the double cohort of first-year undergraduates. The move of the Business School to its spectacular new home will provide opportunities for re-planning and refurbishment of the existing, academic building to suit the needs of the Schools of Science, Engineering, and Humanities and Social Science.

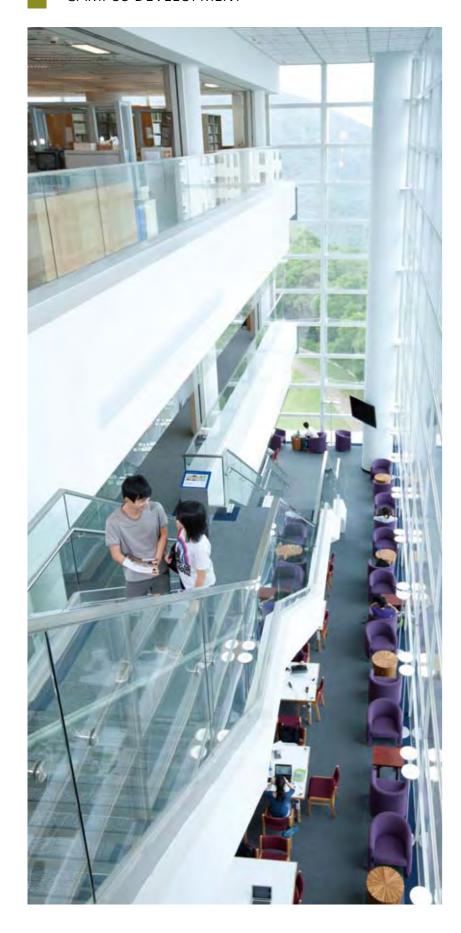
The design was completed and tenders invited for the construction of the new 10,000 sq m research and teaching facility at the southern end of the campus. When finished, the new structure will provide a first-class learning and research environment for staff and students and will boost the University's cross-disciplinary research capabilities.

The construction of additional on-campus residential accommodation for over 700 students proceeded at a good pace. Construction of a further 370 residential places in nearby Tseung Kwan O is underway.



### 校園發展

CAMPUS DEVELOPMENT



#### 創建可持續發展校園

校園的設計及建造均以香港建築環境評估法 (BEAM)的環保建築金級標準作為最基本的參照準則。科大根據英國標準組織的PAS 2060標準,於2010年11月舉行亞洲首個符合碳中和及零廢棄原則的大學學位頒授典禮。這項活動首次在香港進行,顯示科大對環保及可持續發展的長遠承諾。除了定期舉辦舊物品銷售會外,學生還在同學遷出宿舍期間舉辦大型回收計劃,反應熱列。

科大環境周的活動包括保護鯊魚、碳交易、綠色時裝,以及綠色挑戰海報設計比賽。多項創新環保措施首獲大學採納。科大亦舉辦潛水活動,藉以推廣海岸保護及海洋生態保育。第七座學生宿舍的宿舍學習社群大獲好評,並將擴展至第六座學生宿舍。

科大於將軍澳成立生態園,可供藥用植物、可再 生能源、環保斜坡及有機耕種的實地示範和研究 活動。

#### 科大深圳產學研大樓

2011年,科大深圳生產、教學及研究(產學研)大樓落成,標誌著科大在深圳的新里程。大樓佔地15,000平方米,進行裝修工程以提供研究、創業及教育活動的場地。大樓的充裕空間及完善設施切合科學研究、科研項目、技術轉移項目及行政人員培訓課程的需要,為推動科大的內地活動及發展提供平台。

#### 企業資源策劃系統

#### **BUILDING A SUSTAINABLE CAMPUS**

The design and construction of the aforementioned facilities follow Hong Kong BEAM gold standard for green buildings, as a minimum. The University held Asia's first carbon-neutral, zero waste University congregation in November 2010 based on British Standards Institution's PAS 2060 protocol. The pioneering move was in line with HKUST's longstanding commitment and leadership on environmental and sustainability issues. In addition to regularly held garage sales, large-scale recycling campaigns during dormitory move-out periods were organized by student green activists and supported by the campus community.

Environment Week featured programs on shark protection, carbon trading, green fashion, and a green challenge poster competition. Several innovative green practices presented in the posters were adopted. Diving activities were also held to promote coastal protection and preservation of marine ecology. The Living Learning Community green living program in Hall VII was so well received that it will expand to cover Hall VI.

The University started establishing the HKUST Eco-Park in Tseung Kwan O. This will facilitate field demonstrations and research on medicinal plants, renewable energy, green slopes and organic farming.

#### **HKUST SHENZHEN IER BUILDING**

In January 2011, the completion of the HKUST Shenzhen Industry, Education and Research (IER) Building marked another milestone in the University's development in Shenzhen. The 15,000 sq m facility is being fitted out

to provide accommodation for research, entrepreneurial and education activities. It provides ample space and facilities for scientific research, R&D projects, technology transfer projects and executive training programs, creating a platform to facilitate the University's activities and development on the Mainland.

#### **ENTERPRISE RESOURCES PLANNING**

The move to the four-year degree system in 2012 has meant immense administrative changes need to be undertaken. These include handling a new admission system, additional recruitment of faculty, and two curricula co-existing for at least three years. As a result, the University foresaw its administrative systems and services would need to undergo substantial enhancement and modifications. A major information systems project was therefore launched to implement a suite of Enterprise Resources Planning (ERP) application systems, encompassing student and academic support, finance, and human resources. Following two years' dedicated effort, Phase One of the student information systems successfully went live in April 2011. The financial management system and human resources management systems followed in August 2011. The roll-out of the three systems was another critical step forward in the University's preparations for 3-3-4, and its information systems and IT development. To leverage the benefits of the new information systems structure, the University plans to develop database and other enhancement features of administrative systems in phases. 0



香港科技大學 2010-2011 年報

## 本地夥伴 LOCAL SUPPORT



大深入社會,與社區緊密合作,以推動香港經濟及社會發展為己任。2010-2011年,科大師生繼續發揮所長,參與政 府、工商界及廣大社會發展,以期提升生活質素、與社會各界及 校友建立更緊密聯繫。

#### 迸發創意

科大華南研究中心在康樂及文化事務署的公開招標中,獲該署委 託進行「香港非物質文化遺產普查」工作,研究經費逾一百萬港元。

另外,現任科大包玉剛傑出客席教授兼國際著名作曲家盛宗亮教 授亦為香港帶來全新的室樂工作坊系列 —「創意間的親暱:盛宗 亮與國際作曲家/演奏家聚會香港」邀請多位音樂家及國際新晉作 曲家公開演奏。這個音樂系列為音樂創作帶來新啟迪,激發參與 者及觀眾的新思維。活動的高潮是兩場由科大與香港電台合作、 於香港演藝學院舉行的世界首演音樂會,獲電台及電視台轉播。

#### 以創意建設經濟

2010年8月,科大舉辦創新論壇講座系列,讓業界、政府及學術 界就創新潮流交流切磋,探討如何為香港及其他地方的經濟發展 作出貢獻。在首場研討會上,史丹福大學Media X副處長 Martha G Russell博士以及日本電氣通信大學助理教授 Neil Rubens博士 援引社交網絡分析理論社會數據,從而研究機構間的創新系統及 其增值供應鏈。鑑於首場論壇反應熱烈,科大廿一世紀基金會於 2011年6月28日在台北舉行第二場論壇,並與《信報月刊》合辦 第三場於2011年9月16日順利舉行的論壇。

資訊、商業統計及營運學系徐岩教授帶領中央政策組進行「兩岸三 地高科技產業之合作互補,與香港高科技產業之應有對策」研究項 目。該項研究為重新界定科技及創意產業引進新思維,為政府施 政提出建議,促進香港科技及創意產業的發展,包括鼓勵大學向 業界轉移知識的建議。徐教授更接受史丹福大學邀請,在2011年 7月舉行的創新生態系統峰會上發表有關的主題演講。

社會科學部寶克教授帶領科大研究小組向香港特區政府創新科技 署提交「開發用於評估本港研究與創新活動對經濟影響之框架的諮 詢研究」報告。報告概述香港創新系統的面貌,並提出一個分析框 架,評估創新系統的研究、發展及活動為經濟帶來的影響。

#### 培育年輕一代

年內,科大學者及學生繼續與本港中學生及其他教育工作者分享 知識。

香港隊在泰國舉行的第42屆國際物理奧林匹克競賽勇奪三金兩 銀,隊員為香港中學生,全部由科大物理學系提供課程培訓。

理學院舉辦的「知識無限」講座系列以本校學生及中學生為對象,

Working alongside the community has always been a part of the HKUST outlook as it seeks to fulfill its mission to assist in the economic and social development of Hong Kong. During 2010-2011, faculty and students continued to utilize their expertise and skill sets to engage with government, industry, business, and the society at large. The goal is to advance people's lives and foster the collaborative spirit between the University and different sectors of the community, and to build strong ties with alumni.

#### PRESERVING AND SPARKING CREATIVITY

The University's South China Research Center won an open competitive bid for a commission of more than \$1 million to carry out the Territory-wide Survey of Intangible Cultural Heritage in Hong Kong for the Leisure and Cultural Services Department.

On another exciting note, Y K Pao Distinguished Visiting Professor and international composer Prof Bright Sheng brought to Hong Kong a novel series of chamber music workshops. The Intimacy of Creativity - The Bright Sheng Partnership: Composers Meet Performers in Hong Kong featured musicians and new global stars of composition who performed their pieces in workshops open to HKUST students and the public. The series brought new insight into how music is created and created a stimulating setting to spark new ideas among participants and audience alike. The event culminated in two world premiere concerts at the Academy for Performing Arts, held in collaboration with media partner Radio Television Hong Kong. Activities were also broadcast on radio and television.

#### **BUILDING THE ECONOMY ON INNOVATION**

In August 2010, the HKUST Innovation Forum Seminar Series was launched to create a platform for industry, government and academia to exchange information about the latest innovation trends and how contributions can be made to economic development both inside Hong Kong and beyond. At the inaugural seminar, speakers Dr Martha G Russell, Associate Director of Media X at Stanford University and Dr Neil Rubens, Assistant Professor at the University of Electro-Communications, Japan,

applied social network analysis to socially constructed data to study inter-organizational systems of innovation and their value-add supply chains. After the successful launch of the first forum, the second one was held in Taipei in partnership with 21st Century Foundation on 28 June 2011 and the third one will be held on 16 September 2011 jointly with Hong Kong Economic Journal Monthly.

Prof Yan Xu, Department of Information Systems, Business Statistics and Operations Management, led a Central Policy Unit project on "The Cooperation of Hong Kong, Mainland and Taiwan in High Technology Industry, and the Agenda of High Technology Industry Policy in Hong Kong". The study proposed an approach to re-define the technology and innovation industry, and made recommendations on government policies to facilitate Hong Kong's technology and innovation industry, including schemes to encourage knowledge transfer from universities to industry. Prof Xu also received an invitation from Stanford University to give a keynote speech on the project at the Innovation Ecosystems Summit in July 2011.

A HKUST research team led by Prof Erik Baark, Division of Social Science, submitted a report to the HKSAR Government's Innovation and Technology Commission entitled "Consultancy Study to Develop a Framework to Assess the Economic Impact of Research and Innovation Activities in Hong Kong". The report summarized the landscape of Hong Kong's innovation system and presented an analytical framework to assess the economic impact of the system's research, development and innovation activity.

#### **FUELLING THE YOUNGER GENERATION**

During the year, HKUST academics and students continued to share their knowledge with school students and other educators.

The Hong Kong team of the 42nd International Physics Olympiad proudly brought home three gold and two silver medals from Thailand. Students of the award-winning team were trainees of the Physics Enhancement Program under the HKUST's Department of Physics.

### 本地夥伴 LOCAL SUPPORT

題材廣泛。2010年秋季講座系列,特別邀請前警務處處長李明逵先生以「領袖秘笈」為題主講、 以及香港財經專欄作家曹仁超先生就「大趨勢與東西方勢力的轉移」主講。

此外,30名科大理學院學生聯同西貢民政事務處及西貢區社區中心合辦活動,參與「樂活西貢」社 區服務計劃。

工學院本著以科技貢獻社會的精神,為本地師生提供進修機會。年內,工學院為70多名英基學校的科學教師舉辦首個專業發展日,促進與英基的長遠關係。

化學工程及生物分子工程學系楊經倫教授帶領中三學生研究特製螢光筆,用以監察醫院的衛生情況;計算機科學及工程學系辛達德教授則主持互動工作坊,與本地及國際學校的50名優秀中學生製作科大全景圖及其他合併影像。

#### 融入社群

科大鼓勵師生透過「科大侍學行」及「紅鳥計劃」等參與社會服務、積極學習。項目包括義務工作、 服務學習課程、透過獎學金及實習計劃在非政府機構進行體驗式學習;大學認可「社群參與資助 計劃」資助的同學亦自發舉辦服務項目。

商學院教學人員經常在報章撰寫有關香港、內地及環球經濟的重要文章,與廣大讀者分享他們的 真知灼見,讓公眾深入了解其研究領域的最新發展。

#### 慷慨捐贈

社會賢達繼續鼎力支持科大。2010-2011年,科大獲得多項主要捐贈,將能在未來創造更高的學術成就。科大獲周大福鄭裕彤基金捐贈9,000萬港元資助興建新科研與教學大樓。大樓建築費用約為4.803億港元,其中3.602億港元由政府資助,餘下款項由私人捐款承擔,大樓將於2012年初動工。另外,惠理集團有限公司向科大捐贈近港幣1,000萬元,於科大工商管理學院共同成立惠理投資研究中心,支持投資管理方面的研究及培訓。

為慶祝創校20周年,科大於2011年4月推出科大20周年校長挑戰計劃,透過設立講座教授捐款,科大能在全球的激烈競爭中羅致優秀人才,同時表揚及挽留現有的優秀教員。捐助人捐獻港幣1,000萬元,科大便作1,000萬元的等額配對,以籌集2,000萬元資助一名講座教授教席。基金每年的回報將用以支持講座教授的學術及研究工作。截至2011年6月,科大已確認嘉里控股有限公司和黃焯書慈善基金承諾的捐款。



The Knowledge without Borders Seminar Series, arranged by the School of Science, ran talks on assorted topics for its students and secondary school students. In Fall 2010, secondary school students attended seminars on "Successful Leaders' Book of Secrets", given by Mr Dick Ming-kwai Lee, former Commissioner of Police. Students also attended the "Megatrends and The Shift of Powers between East and West" talk by Hong Kong financial columnist Mr Cho Yan-chiu.

In addition, 30 School of Science students co-organized with Sai Kung District Office and Sai Kung District Community Center a series of activities as part of the LOHAS Sai Kung Community Service Program.

Under the "Bring Technology to Society" concept, the School of Engineering provided enrichment opportunities for local students and teachers. During the year, the School held its first professional development day for English Schools Foundation (ESF) science teachers, with over 70 educators attending. The event marked the start of a long-term relationship between the Engineering School and the ESF, a leading provider of education for international students in Hong Kong.

Prof King Lun Yeung, Department of Chemical and Biomolecular Engineering, led a group of Form Three students to produce a fluorescent pen to monitor cleanliness in hospitals while Prof Pedro Sander, Department of Computer Science and Engineering, conducted an interactive workshop with 50 elite high school students from local and international schools on creating multi-image panoramas.

#### **COMMUNITY ENGAGEMENT**

As part of its partnering efforts with the community, the University encourages its students and other members of HKUST to participate in service projects and learning through the HKUST Connect program. Projects range from voluntary work to service learning courses, experiential learning through scholarships and internships with NGOs and self-generated student initiatives, supported by the Community Engagement Project Fund. Other community projects include the HKUST Connect and the REDbird award scheme.

To share their expertise and boost public knowledge of the latest developments in their field, faculty members of the Business School have regularly written influential newspaper articles on Hong Kong, Mainland China and global economies.

#### **GENEROUS DONATIONS**

HKUST also continued to benefit from the community's own spirit of giving and generosity. During 2010-2011, the University was the grateful recipient of several major donations, which will enable HKUST to pursue its vision to move to the next level of academic excellence in subsequent years.

The University received a HK\$90 million donation from the Chow Tai Fook Cheng Yu Tung Fund for the construction of a Research and Academic Building. The cost of construction was estimated to be approximately HK\$480.3 million, of which HK\$360.2 million was funded by the government and the remaining cost was borne by private donations. Construction will start in early 2012. Value Partners Group Limited contributed close to \$10 million to jointly launch the Value Partners Center for Investing at the School for Business and Management. It supported research and training on investment management.

The President's 20th Anniversary Challenge special donation matching program for endowed professorship donations was launched in April 2011 in conjunction with the University's 20th Anniversary. The program is expected to significantly assist the University in attracting top talents in the highly competitive global academic arena and in recognizing and retaining its own distinguished faculty. It calls for a donation of \$10 million for each endowed professorship, which will be matched dollar-fordollar by the University to form a permanent endowment of \$20 million. The annual return from the endowment will support the academic and research activities of the professor appointed. As of June 2011, two pledges were confirmed and they were from Kerry Holdings Limited and Wong Check She Charitable Foundation respectively.

### 本地夥伴 LOCAL SUPPORT

其他主要捐款:

- 睿亦嘉科技有限公司捐贈港幣300萬元,支持財務學系亞太金融市場中心的運作及研究項目。
- 上海通盛時富股權投資管理有限公司行政總裁聶樂輝先生捐贈港幣200萬元,支持電子及計算機工程系用作網絡研究的社交媒體實驗室,以進行研究和設計可用於未來網路的新一代社交媒體系統、網路和應用程式。
- 方樹福堂基金捐贈港幣 150 萬元,成立樹華內地實習計劃,三年內資助 150 名學生前往內地實習。
- 科大獲跨國科技公司惠普的惠普催化劑倡議聯盟捐贈15萬美元,贊助配備先進電腦的全新教學實驗室。

#### 校友關係

科大42,000多名校友遍佈世界各地,網絡日益壯大。除了舉辦20周年校慶校友聚會外,今年更成立新加坡分會,得到海外校友的踴躍支持,擴大科大的全球校友網絡,促進校友與母校的聯繫。

2010年11月,科大校董會批准成立科大評議會,由擁有科大學位的人士組成。評議會首個常務委員會由選舉產生,並由商學院校友林景昇出任創會主席。評議會旨在加強成員之間的聯繫、並與母校交流集思,促進大學與公眾建立良好關係。林景昇先生作為大學校董會的當然委員,體現了校友對大學管治的參與。

新任校友會主席高家玉女士和校友同心協力舉辦多項活動,包括社交活動和社會服務,加強校友 之間的凝聚力。

年內,科大校友在世界各地舉辦多次聚會,校長陳繁昌教授和副校長(大學拓展)翁以登博士 親臨主持,增加校友對母校的歸屬感。聚會地點遍佈全球,包括紐約、波士頓、三藩市、北京、 香港、上海、深圳、新加坡及瑞士。

過去20年,科大培育的畢業生在不同領域卓有成就。今年推出的「校友見面」網站,讓校友在網上向其他校友、科大學生及公眾展示他們的成就。 🗓



#### Other major donations:

- Rega Technologies Limited pledged \$3 million to support the Center for Asian Financial Markets in the Department of Finance. The donation will be used to support the Center's operation and research projects.
- Mr Bill Nie, Chief Executive Officer of TS First Fortune
   Asset Management, pledged \$2 million to support
   the Social Media Laboratory in the Department of
   Electronic and Computer Engineering. The Social Media
   Laboratory is a new initiative to carry out networking
   research on, for example, social media systems and
   application networks in future cyber-physical societies
   or environments.
- Fong Shu Fook Tong Foundation donated HK\$1.5
  million to HKUST to set up Mainland internship
  program and to support 150 students over three years
  to seek internship on the Mainland.
- HKUST received a generous grant of US\$150,000 from leading technology multinational Hewlett Packard as part of the HP Catalyst Initiative. The grant will support a new teaching laboratory with high-end computers.

#### **ALUMNI RELATIONS**

With more than 42,000 alumni around the world, the HKUST network is moving from strength to strength. Along with the series of 20th Anniversary reunions, the year saw the establishment of the non-local alumni chapter in Singapore. With the enthusiastic support of alumni there, the chapter extends our global alumni network and cultivates closer connections among them and with their alma mater.

In November 2010, the University Council approved the formation of the HKUST Convocation, with members comprising all degree holders of HKUST. Its first Standing Committee was elected, with Mr Sean Lin, an alumnus of the Business School, becoming the Founding Chairman. The Convocation aims to promote goodwill among members of the Convocation as well as between the Convocation and the University, provide ideas to the University and facilitate good relations between the University and the general public. By being an ex-officio Council Member, Mr Lin embodies alumni involvement in University governance.

The HKUST Alumni Association saw a new chapter unfold when Ms Laura Cozijnsen came on board as President. With dedicated team members, the Association organized a wide array of programs to draw alumni together, from social networking to social services, educational development to supporting education.

During the year, this spirit of belonging was nurtured by a series of alumni gatherings around the world attended by President Tony F Chan and Dr Eden Y Woon, Vice-President for Institutional Advancement. Cities that saw these receptions included New York, Boston, San Francisco, Beijing, Hong Kong, Shanghai, Shenzhen and Singapore. There was also a get-together in Switzerland. Over the past two decades, HKUST has fostered graduates who have gone on to demonstrate their distinguished capabilities in a variety of arenas. The launch of the Alumni Faces website during the year now provides an online platform to showcase the accomplishments of alumni to fellow alumni, students, and the community.



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## 內地聯繫

#### MAINLAND PRESENCE

一步加強與內地的廣泛聯繫。科大繼續把握國家在教 育、科學及技術方面的實力及投資,成立創新的夥伴及合作 項目、將教育及研究基地拓展至內地,以及鼓勵科大師生增 強對外聯繫。科大憑著與內地的緊密關係,繼續把握機遇, 致力為內地社會及經濟發展作出貢獻。

科大與內地學術機構、政府部門及業界合作,在內地奠定了 多個平台,提供更多研究及培訓機會。這些平台包括設於深 圳虛擬大學園國家大學科技園的科大深圳生產、教學及研究 大樓,深圳北京大學香港科技大學醫學中心,以及位於南沙 的霍英東研究院。

#### 香港科技大學霍英東研究院

位於南沙的香港科技大學霍英東研究院大樓繼續成為科大在 珠三角及內地的重要平台,為科研人員及研究生提供直接參 與業界研究項目的機會。其課程獨特之處,在於鼓勵學術界 與業界的合作,強調跨學科的教育模式。

#### 科大深圳產學研大樓

在研究、技術培育及培訓領域,科大與深圳十多年來合作無 間。隨著科大深圳產學研大樓的落成,科大將擴大在珠三角 地區的活動,創造更卓越的科研成就。

大樓的用戶包括科大師生及校友成立的研發公司;大樓設有 用以進行重點研究項目的實驗室,包括獲國家科技部批准成 立的分子神經科學國家重點實驗室,進行神經科學的前沿研 究。大樓同時為科大的行政人員工商管理碩士課程提供教育 及培訓設施。

科大深圳產學研大樓落成後,科大將為香港及區內的經濟、 研究及技術發展作出更大的貢獻。

#### 北京大學香港科技大學醫學中心

北京大學香港科技大學醫學中心由深圳市政府、北京大學與 科大共同成立。中心的成立目的,是結合兩所大學的研究實 力、教育臨床服務、以及業界專才,從而培育臨床醫學、生 命科學、生物科技及生物醫學的人才。醫學中心共有30多 名科研人員和教職員,提供醫學及哲學博士雙學位課程。

#### 浙江香港科技大學先進製造研究所

科大在內地的另一個重要基地,是位於杭州市的浙江香港科 技大學先進製造研究所。該研究所由科大、浙江省科學技術 廳及杭州市余杭區政府於2004年共同成立,與當地夥伴合 作進行先進設計及製造技術的研發項目。研究所現已成功推 出行政人員培訓課程及技術轉移項目,並為科大與長江三角 洲建立聯繫的重要里程碑。研究所與浙江省政府合作,為內 地業界領袖舉辦工作坊,出席者均為公司行政總裁及首席營 運總監。



It is part of HKUST's long-term goal to capitalize its I presence on the Mainland and to strengthen its wideranging connections with Mainland China. By forming innovative partnerships and collaborations, extending our education and research base to Mainland China and encouraging outreach by our faculty members and students, HKUST continues to leverage on the nation's strengths and investment in education, science and technology. Building on these solid links, the University opens up opportunities and work towards its vision of contributing to the Mainland's social and economic development.

Working together with Mainland academic institutions, government partners and industry, HKUST has established several platforms on the Mainland to extend the University's research and training opportunities. These include the HKUST Shenzhen Industry, Education and Research (IER) Building in the Shenzhen Virtual University National University Science and Technology Park; the PKU-HKUST Shenzhen Medical Center; and the Fok Ying Tung Graduate School in Nansha.

#### **HKUST FOK YING TUNG GRADUATE SCHOOL**

HKUST Fok Ying Tung Graduate School (FYTGS) in Nansha continues to be HKUST's important platform in the Pearl River Delta and on the Mainland. It gives researchers and postgraduate students the unique opportunity to work directly on research projects with industry. This academicindustry combination and interdisciplinary education makes the FYTGS program unique.

#### **HKUST SHENZHEN IER BUILDING**

HKUST had been collaborating with Shenzhen in research, technology incubation and training for over a decade. With the completion of the HKUST Shenzhen Industry, Education and Research (IER) Building, HKUST will continue to reach new heights as it extends its presence in the Pearl River Delta Region.

Occupants of the Building include incubating companies set up by faculty, students and alumni. It houses laboratories for high-impact research activities. One of them is the State Key Laboratory of Molecular Neuroscience at HKUST, which was approved by The Ministry of Science and Technology of China to advance frontier research in neuroscience. It also provides education and training facilities for HKUST's Executive MBA program.

With the HKUST Shenzhen IER Building, HKUST aspires to make a greater contribution to the economic, research and technological development of Hong Kong and the region.

#### THE PKU-HKUST SHENZHEN MEDICAL **CENTER**

The PKU-HKUST Shenzhen Medical Center is a joint venture between the Shenzhen Municipal Government, Peking University and HKUST. The Center aims to leverage on the strengths of the two universities to integrate research, education clinical service and industry expertise to nurture talents in clinical medicine, life science, biotechnology and biomedicine. With over 30 faculty, research and staff members, the Center offers MD and PhD dual degree for

#### **ZHEJIANG ADVANCED MANUFACTURING** INSTITUTE

HKUST has another important presence on the Mainland in the Zhejiang Advanced Manufacturing Institute (ZAMI) in Hangzhou. ZAMI was co-established by HKUST, Zhejiang Provincial Science and Technology Department and Hangzhou Yuhang District Government in 2004 to collaborate with local partners in R&D projects related to the advancement of design and manufacturing technology. ZAMI has now successfully developed executive training programs and technology transfer, and provides HKUST with a solid bridge head in the Yangtze River Delta. Working with the local government in Zhejiang Province, ZAMI launched workshops for Mainland industry leaders. Attending the workshops were CEOs and chief operating officers from companies.

#### HANGZHOU IoT INTELLIGENT TECHNOLOGY **CENTER**

In 2011, in association with six engineering school departments and 11 research laboratories, ZAMI successfully started the HKUST Hangzhou Internet of Things Intelligence Technology Center. It is jointly established by HKUST and the government of Yuhang, Hangzhou. This will seek to integrate capabilities and create breakthrough core technologies and applications for the Internet of Things (IoT) by developing basic and applied technology for an "Intelligent IoT Integrated System", which integrates HKUST's RFID smart tag technology, sensor technology, RFID reader technology, nanostructured material and sensor technology, and pervasive computing and database

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### 內地聯繫

MAINLAND PRESENCE



#### 杭州物聯網智能技術中心

2011年,香港科技大學先進製造研究所與六個工學院學系及11個研究實驗室合作,成立科大杭州物聯網智能技術中心。該中心由科大和杭州市余杭區政府共同成立,將結合彼此的力量,開創物聯網的突破性核心技術及應用,包括開發物聯網智能綜合系統的基本及應用技術。該綜合系統結合科大的射頻識別智能標籤技術、感應器技術、射頻識別讀卡器技術、納米結構物料及感應器技術,以及普適計算機與數據庫技術。國家已在「十二五」規劃中將物聯網工業列為重點策略性行業之一。

#### 科大 LED-FPD 工程技術研究開發中心

科大與佛山市政府2010年在廣東省佛山市共同成立科大LED-FPD工程技術研究開發中心。中心針對LED的高能源效益和環保特性,致力進行LED應用研究、開發包裝及製造技術,令當地工業受惠。佛山市政府將提供人民幣2,500萬元的種子基金,並於南海區提供1,800平方米的場地。中心以LED包裝技術作為核心技術,現正計劃成立六個技術小組,包括設計及模擬小組、產品分析及逆向工程小組、物料研發及描述小組、流程發展及原型小組、產品驗證及標準化小組,以及可靠度及故障分析小組。

科大將透過這些研發基地,繼續進行具協同效益及互惠互利 的策略性計劃。

#### 可持續發展

環境學部與華南理工大學合作進行的珠三角空氣污染研究已 圓滿結束。該研究項目獲傅德蔭基金資助,採用最新的地區 空氣質素模型系統,並參考香港及內地政府最近提供的空氣 排放數據,以更準確地模擬香港及珠三角的空氣質素。

環境學部的模型小組亦與北京大學合作,為深圳市環境保護 局開發實時空氣質素預測系統。

#### 夥伴及合作項目

年內,科大透過參與大學聯盟、簽訂培訓及研究、及院系合作協議等,繼續加強與內地的關係。

另外,科大已成為中俄工科大學聯盟的成員。該聯盟的成員 來自15所內地大學及15所俄羅斯大學,致力促進中俄兩國 的科技及經濟發展,加強技術教育及培育科研人才。

工商管理學院與清華大學經濟管理學院簽訂策略性合作框架協議,進一步加強兩所商學院的合作,並共同成立工商業及 管理研究中心。

人文社會科學學院亦簽訂協議,成立兩間研究所。該學院與 上海交通大學人文學院簽訂備忘錄,成立上海交通大學中國 東北歷史與社會研究中心。此外,科大與北京大學及弗吉尼 亞大學成立北京大學一香港科技大學一弗吉尼亞大學聯合研 究所,開辦聯合培訓及研究課程。 technologies. The Internet of Things industry is listed as one of the most significant strategic industries in China's 12th Five-Year Plan.

## HKUST LED-FPD TECHNOLOGY R&D CENTER

HKUST and the Foshan Municipal Government jointly established the HKUST LED-FPD Technology R&D Center at Foshan, Guangdong in 2010. Leveraging on LED's high energy efficiency and nature of being environmentallyfriendly, the Center aims to perform applied research on LED and develop packaging and manufacturing technologies to benefit local industries. The Foshan Municipal Government will be providing a start-up funding of RMB 25,000,000 as well as providing 1,800 sq m space in the Nanhai District. With LED packaging technologies being its core competence, the Center is planning six technology groups, namely Design and Simulation Group, Product Analysis and Reverse Engineering Group, Material Development and Characterization Group, Process Development and Prototyping Group, Product Qualification and Standardization Group and Reliability and Failure Analysis Group.

During the year, all these bases continued to support HKUST's strategic plans for synergistic development and mutually beneficial engagement.

#### **SUSTAINABLE DEVELOPMENT**

Joint research between the Division of Environment and South China University of Technology saw the successful completion of an air pollution study of the Pearl River Delta (PRD). The projection, funded by the Fu Tak lam Foundation, included application of an updated regional air quality modeling system to provide better air quality simulation over Hong Kong and the Pearl River Delta after taking advantage of recently available emission inventory data from the Hong Kong and Mainland governments.

The modeling team of the Division of Environment also collaborated with Peking University to develop a real-time air quality forecasting system for Shenzhen Environmental Protection Bureau.

#### PARTNERSHIPS AND COLLABORATIONS

During the year, relationships between HKUST and Mainland institutions continued to grow through University association

membership, the signing of agreements on co-operative arrangements for training and research, and departmental collaborations.

HKUST joined the Association of Sino-Russian Technical Universities, which comprises 15 Mainland universities and 15 universities from Russia. It aims to foster technological and economic advancement, technical education and to nurture scientific talents in China and Russia.

The School of Business and Management entered a Strategic Partnership Framework Agreement with Tsinghua University's School of Economics and Management to further co-operation between the two business schools and establish a Business and Management Research Institute.

Two institutes were set up under arrangements agreed with the School of Humanities and Social Science. The School signed a Memorandum of Understanding with Shanghai Jiaotong University's School of Liberal Arts to establish the SJTU Institute on the History and Society of Northeast China. The PKU-HKUST-UVA Joint Institute was also established by HKUST, Peking University and the University of Virginia to offer joint training and research programs.

In addition, the Department of Chemistry signed agreements with Xiamen University and Fuzhou University respectively on joint training of postdoctoral researchers in chemical sciences.

The Department of Industrial Engineering and Logistics Management (IELM) hosted the First Forum for the Council of Industrial Engineering Department Heads in Greater China. The meeting brought together 40 department heads from Mainland China, Taiwan and Hong Kong to promote the development of industrial engineering and related areas in Greater China and to strengthen exchange among industrial engineering departments in the region. IELM Head Prof Fugee Tsung was elected Founding President of the Council.

#### **MAINLAND DELEGATIONS AND STUDENTS**

HKUST is a popular study destination for Greater China students. University statistics show that the number of degree-seeking undergraduate students from Mainland China, Taiwan and Macau grew to 172 in 2010 from 151 in 2009, an increase of 13.9 per cent. At the postgraduate level there were 1,450 Mainland students enrolled, 796 undertaking research and 654 on taught programs. With

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## 內地聯繫

#### MAINLAND PRESENCE

此外,科大化學系分別與廈門大學及福州大學簽訂協議,共同培訓化學科學的博士後研究生。

科大工業工程及物流管理學系舉辦第一屆大中華區工業工程系主任聯合會董事會論壇,共有40名來自內地、台灣及香港的系主任參加,以推動大中華區的工業工程及其相關領域的發展,同時加強兩岸三地大學工業工程系之間的交流。工業工程及物流管理學系系主任宗福季教授獲選為第一屆董事會會長。

#### 代表團及內地學生

科大深受大中華區學生歡迎,數字顯示入讀科大學位課程的內地、台灣與澳門三地本科生人數,已由2009年的151人增至2010年的172人,增幅為13.9%。在科大修讀研究生課程的1,450名內地生之中,796名修讀研究學位課程,654名修讀修課碩士課程。科大與內地10所著名大學成立學生交換計劃,為科大學生提供交流機會,體驗內地的教育制度。

科大亦吸引內地重要代表團前來訪問。年內,科大接待來自內地的40多個政府代表團,其成員包括福建省委書記孫春蘭女士、中國科技部副部長陳小婭女士等;中聯辦副主任殷曉靜女士亦曾參觀科大。

#### 教育課程

理學院學生透過一系列服務計劃,包括粵北服務學習及文化 考察活動、四川社會服務計劃等,增進學生對內地民生的認 識。理學院更與華南精密製造技術研究開發院合作在佛山舉 辦暑期實習計劃,讓參與計劃的本科生將知識應用於高科技 製造業的實際環境中,同時加深對珠三角經濟發展的認識。



另外,三名科技及管理雙學位課程學生在長春吉林大學舉行的第七屆挑戰杯創業計劃競賽中贏得銅獎。科大和哈爾濱工業大學更合辦哈爾濱遊學團,18名來自工商管理學院、工學院及理學院的學生參加。

#### 國家表揚

2010年,科大多名教授憑著傑出的科學成就獲國家教育部 頒發獎項。

科大副校長(研發及研究生教育)李行偉教授及其研究團隊獲國務院頒發「國家科學技術進步獎」二等獎。

科大亦獲國家教育部頒發高等學校科學研究優秀成果獎(科學技術)自然科學界別的兩項一等獎及三項二等獎,是本港高等院校中獲頒最多獎項的大學。

計算機科學及工程學系倪明選教授、劉云浩教授及李默先生 憑「基於非測距的無線網路定位理論與方法研究」先進研究 項目,榮獲自然科學一等獎。這項研究有助設計全球其中一 個最早應用無線射頻識別技術的非測距定位系統,為無線 感應系統及物聯網無法即時確定物件位置的問題找到解決 方案。

科大化學系楊世和教授連同北京航空航天大學和北京大學的 科研人員,憑「過渡金屬納米材料的可控制備、微結構和相 關特性」研究,榮獲自然科學一等獎。他們研製出過渡金屬 及其氧化物和化合物的單佈性納米材料的製備方法,如納米 顆粒、納米棒、納米線、納米管等。

生命科學部詹華強教授及多名北京大學教授榮獲自然科學二 等獎。他們的研究名為「遠志屬藥用植物化學成分、生物活 性、品質控制及體內代謝研究」,運用現代化技術從多方面 深入鑽研遠志科植物,從而了解其化學成分、生物活性、品 質控制和體內代謝情況。

生命科學部薛紅教授及其研究團隊憑「以伽瑪氨基丁酸受體為靶點攻克人類神經精神疾患」的研究,榮獲自然科學二等獎。該研究致力探討如何利用甲型伽瑪氨基丁酸受體治療人類神經病患,為醫治人類精神病患提供新機制及推進藥物發展。

數學系邵啟滿教授及荊炳義教授榮獲自然科學二等獎,其「自正則化極限理論及其應用」研究在學生氏統計量方面取得了重大突破。他們不但豐富了概率的極限理論,更對統計學應用產生深遠影響。前

10 prestigious universities as exchange partners on the Mainland, HKUST provides ample opportunities and encourage students to experience Mainland's education system.

The University also draws many delegations from the Mainland. During the year, the University hosted over 40 delegations from Mainland government officials, including Ms Sun Chun-lan, Secretary of Fujian Provincial Committee and Ms Chen Xiaoya, Vice Minister of the Ministry of Science and Technology. Ms Yin Xiaojing, Liaison Office of the Central People's Government in the HKSAR also visited HKUST.

#### **EDUCATION PROGRAMS**

School of Science students learned more about different aspects of Mainland life through a number of service projects, namely the Northern Guangdong Service Learning and Cultural Inspiration Tour and the Sichuan Social Service Program. The School also organized summer internship opportunities in Foshan with the South China Institute of Precision Manufacture. Undergraduate interns were able to apply their knowledge in a practical setting in the hitech manufacturing base. In addition, they enhanced their understanding of economic development in the Pearl River Delta region.

Other student activities on the Mainland saw three Technology and Management Dual Degree students participate in the 7th Challenge Cup "Business Plan Competition" in Jilin University, Changchun, winning a bronze award. HKUST and Harbin Institute of Technology also co-organized a study tour to Harbin. Eighteen undergraduate students from the Schools of Business and Management, Engineering and Science took part.

#### NATIONAL RECOGNITION

A number of HKUST professors received the Outstanding Achievement Award in Science, organized by the Ministry of Education in 2010.

Prof Joseph Hun-wei Lee, Vice-President for Research and Graduate Studies, and his research team were presented with a State Scientific and Technological Progress Award (Second Class) by the Chinese State Council.

HKUST reaped two First Class and three Second Class awards in the Awards for Research Excellence in Natural Sciences presented by the Ministry of Education. This was the biggest harvest among Hong Kong's tertiary institutions.

Prof Lionel Ni, Prof Yunhao Liu and Mr Mo Li, Department of Computer Science and Engineering, received a prestigious First Class honor for their cutting-edge project on "Range-free Localization and Localizability for Wireless Network and IoT: Theory and Practice". It led to the design of one of the world's earliest range-free localization and localizability systems using RFID. They found a solution to the problem of accurately obtaining real-time object locations in a wireless sensor network and the Internet of Things.

Prof Shihe Yang, Department of Chemistry, and researchers from Beijing University of Aeronautics and Astronautics and Peking University received a First Class Award for their project titled "Bottom-up engineering and properties of nano-structures of transition metals and their oxides and compounds". They developed methodologies for synthesizing monodispersed manomaterials (such as nanoparticles, nanorods, nanowires and nanotubes) of transition metals and their oxides and compounds.

Prof Karl Tsim in the Division of Life Science, together with professors from the Peking University, reaped the Second Class Award. They worked on the project "Study on the chemical constituents, biological activities, quality control and metabolism *in vivo* of medicinal *Polygala* plants" which used modern technology to explore Polygala species, to understand their chemical constituents, biological activities, quality control and their metabolism within the human body.

Prof Hong Xue, also from the Division of Life Science, and her research team won Second Class Award with the project "Fighting Mental Disorders with GABAA receptor as the Target" which explored how to use the GABAA receptor to cure human psychotic diseases. They aimed to provide a new framework for curing human mental disorders, and to promote the development of the drugs.

Prof Qiman Shao and Prof Bingyi Jing, Department of Mathematics, received Second Class Awards. They have achieved major breakthrough in the research entitled "Self-Normalized Limit Theory and its Applications" on Student-t statistic. They have enriched the limit theory in probability, with far reaching influence for the statistical practice.

# 全球網絡

**GLOBAL NETWORK** 

**過** 去20年,科大以高度國際化的視野和影響力得到國際認同。科大於2010-2011年致力鞏固及深化科大與全 球的聯繫、推動校園國際化,以及為學生帶來更國際化的體

#### 建立環球聯繫

2010-2011年,科大接待多個海外學術機構及其他組織的代 表團及訪客,互相交流及增進認識,締造合作機會。

代表團成員包括大學代表及政府官員,來自美國、英國、加 拿大、法國、澳洲、匈牙利、沙地阿拉伯、埃及、日本、韓 國及越南等地。

為慶祝創校20周年,陳繁昌校長在校園主持了兩場講座, 分別與加州理工學院校長 Jean-Lou Chameau 和劍橋大學校 長Leszek Borysiewicz對談,探討大學在高等教育邁向全球化 的時代所面臨的新挑戰。

此外,科大領導層透過外訪,與海外學府建立關係。今年5 月,陳繁昌校長與副校長(大學拓展)翁以登博十卦美訪問波 士頓、華盛頓及紐約等地的著名大學,包括麻省理工學院、 哈佛大學、塔夫斯大學弗萊徹學院、喬治華盛頓大學、美國 天主教大學、馬里蘭大學、布魯金斯研究院、約翰霍普金斯 大學高級國際問題研究院、紐約大學及哥倫比亞大學。

訪問期間,他們與美國學府的領導層分享科大與內地和海外 學府合作的情況,以及四年制改革的最新發展。他們並向當 地大學的師生介紹香港及內地的發展機會,同時得到不少有 用的意見。

2010-2011年,科大诱過交流活動、簽訂備忘錄及其他協議 與海外大學建立更緊密的聯繫,合作夥伴遍佈美國、英國、 台灣、韓國、俄羅斯、日本、意大利、德國、法國及加拿大 等地的重點大學。

年內,科大工學院與美國普林斯頓大學簽訂備忘錄聯辦國際 暑期研究本科生交流計劃,令兩間大學的學生可以成為對方 的交換生。科大人文社會科學學院與北京大學及弗吉尼亞大 學成立北京大學-香港科技大學-弗吉尼亞大學聯合學院, 開辦聯合培訓及研究課程。該學院同時就學術合作及學生交 換計劃與加州大學洛杉磯分校達成協議。

科大20周年校慶獲世界各地逾100所大學、高等院校及政府 機構致賀辭,各地領袖更踴躍出席校慶慶祝大會。

#### 區域聯繫

陳繁昌校長現為東亞研究型大學協會主席。這個匯聚17間 研究型大學的區域聯盟於2010年10月在北京清華大學舉行 周年大會及董事會會議,並於2011年4月在台灣清華大學舉 行另一次董事會會議。協會為東亞地區著名研究型大學的校 長提供交流切磋的平台,為高等教育及研究以至區域發展作 出貢獻。

環太平洋地區大學協會由包括科大在內的42所著名研究型 大學組成。2011年3月,科大副校長(大學拓展)翁以登博 士出席該協會在泰國朱拉隆功大學舉行的高級教職員會議。 陳繁昌校長與翁以登副校長亦於2011年4月出席在北京清華 大學舉行的年度校長會議。該協會推動教育、研究及創業方 面的合作,共同為太平洋地區的發展作出貢獻。



O ver the past 20 years, HKUST has gained global distinction with its highly international orientation in focus and impact. To consolidate and extend our international reach, in 2010-2011 the University has been seeking to build its presence through extending outreach to the wider international community, fostering internationalization on campus, and providing our students the opportunity to gain international exposure.

#### **BUILDING WORLDWIDE TIES**

Further links were established with different parts of the world during 2010-2011, through the numerous overseas visitors and delegations from academic institutions and other organizations. These visits created the opportunity for exchanges of views and enabled members of the education community outside Hong Kong to strengthen their knowledge of the University and its achievements, and to create opportunities for collaboration.

Among the delegations were representatives from universities and government officials from the US, UK, Canada, France, Australia, Hungary, Saudi Arabia, Egypt, Japan, Korea and Vietnam.

Two enlightening dialogues took place on campus between President Tony F Chan and the President of Caltech Prof Jean-Lou Chameau and Vice-Chancellor of Cambridge University Sir Leszek Borysiewicz. The talks, part of the 20th Anniversary celebrations, focused on the new challenges that universities face in the era of global education.

In addition, senior members of the University engaged in relationship-building through visits. In May, President Tony F Chan and Dr Eden Y Woon, Vice-President for Institutional Advancement, made a trip to the US where they went to top institutions in Boston, Washington DC and New York. These included Massachusetts Institute of Technology, Harvard University, The Fletcher School at Tufts University, The George Washington University, The Catholic University of America, The University of Maryland, The Brookings Institution, Johns Hopkins School of Advanced International Studies, New York University and Columbia University.

During these visits, they met senior administrators and shared the latest developments at HKUST on collaborations with Mainland and overseas institutions and the change to the four-year degree system. They also held meetings with students and faculty members about opportunities in Hong Kong and on the Mainland, and gained useful feedback.

In 2010-2011, overseas ties were increased through exchange, Memoranda of Understanding and other agreements signed between HKUST and major institutions from the US, UK, Taiwan, Korea, Russia, Japan, Italy, Germany, France and Canada.

Examples include the School of Engineering's International Summer Research Undergraduate Student Exchange Program Memorandum of Understanding with Princeton University. The agreement enables a number of students from each University to study at the other University. The School of Humanities and Social Science linked up with Peking University and University of Virginia to establish a PKU-HKUST-UVA Joint Institute which will offer joint training and research programs. The School also entered into an academic collaboration and student exchange agreement with the University of California, Los Angeles.

Over 100 universities, institutes and governments from across the globe have sent congratulatory messages to HKUST as it celebrates its 20th Anniversary. The Grand Celebration for the 20th Anniversary was well attended by leaders from around the world.

#### **REGIONAL ENGAGEMENT**

President Tony F Chan is the current chairman of the Association of East Asian Research Universities (AEARU), a regional alliance of 17 research universities. The Association held its annual general meeting and board of directors meeting at Tsinghua University in China in October 2010. It held another board meeting in April 2011 at Tsing Hua University in Taiwan. The Association provides a forum for the presidents of leading regional research universities and a platform for exchange. The Association seeks to contribute to development of higher education and research and to the advancement of the region.

The Association of Pacific Rim Universities, a consortium of 42 leading research universities including HKUST, held a senior staff meeting at Chulalongkorn University in Thailand in March 2011 which was attended by Vice-President for Institutional Advancement Dr Eden Y Woon. President Tony F Chan and Dr Woon attended the Annual Presidents Meeting at Tsinghua University

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工學院獲邀成為 Asia-Oceania Top University League on Engineering (AOTULE) 的創會成員,該策略聯盟由亞太區 11 所在工程學有卓越表現的大學組成。為表揚科大對會務的積極貢獻,AOTULE於 2010 年向科大頒發學生交換計劃傑出推廣獎項。

#### 面向世界

去年,科大繼續在香港舉辦國際會議,讓來自海外學術機構的科研人員共聚一堂,探討最新學術發展,開展新的研究與合作項目。

- 科大蒙民偉納米科技講座系列由物理學系沈 平教授領導的團隊主持,參與者包括12名來 自亞洲著名大學的高級科研人員、博士後研 究生與研究生。
- 6月,科大與國際電機電子工程師學會(IEEE) 及香港應用科技研究院合辦首屆IEEE科技領 袖研討會,探討新生科技及其發展狀況,議 題包括無線通訊技術、生物醫學科學、議 人為本的智能社會,以及有機電子物質 而「環球研發領袖會議」則是另一個重要議 題。開幕禮的主禮嘉賓包括財政司司長曾 俊華先生,而科大工學院院長李德富教授 則擔任研討會籌備委員會聯席主席。研討 會吸引來自世界各地200多位電機電子專家 參加。



held in China in April 2011. The Association promotes cooperation between its members in education, research, and enterprise in order to contribute to Pacific Rim development.

The School of Engineering was invited to become a founding member of the Asia-Oceania Top University League on Engineering (AOTULE), a strategic alliance of 11 leading engineering universities in the Asia-Pacific region. HKUST received "The Excellent Promotion of Exchange Student Programs" award from AOTULE in 2010 for active contribution to the organization's activities.

#### DRAWING THE WORLD TO HONG KONG

International conferences that bring together researchers from other institutions and countries are extremely useful in helping scholars to stay on top of the latest developments in their fields and develop new research leads and collaborations. Over the year, HKUST continued to show its ability to draw and organize significant conferences and symposia in Hong Kong.

- The William Mong Seminar Series on Nano
   Science and Technology, which was organized by a
   committee chaired by Prof Ping Sheng, Department
   of Physics, involved 12 senior researchers, their
   post-doctoral research associates and postgraduate
   students from leading universities across Asia.
- HKUST joined together with the Institute of Electrical and Electronics Engineers (IEEE) and the Hong Kong Applied Science and Technology Research Institute (ASTRI) to launch the first IEEE Technology Time Machine Symposium in June. The high-powered event looked at potentially high impact emerging technologies, their current maturity, and scenarios for the future. Radio access technology, biomedical sciences, human-centric intelligent societies and organic electronic materials were among the topics discussed, with "Global R&D Leaders" being another key theme. Among those officiating at the opening ceremony was Hong Kong's Financial Secretary Mr John Chun-wah Tsang. The general co-chair of the organizing committee was Dean of Engineering Prof Khaled Ben Letaief. The Symposium brought 200 experts from around the world to Hong Kong.

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#### **GLOBAL NETWORK**

- 2010年12月,人文社會科學學院文化研究中心舉辦「香 港的表述:在地與比較視角」國際會議,由社會科學部谷 淑美教授擔任籌備委員會主席。協辦機構包括美國西北 大學、卜智大學及香港大學。會議由海外與本地著名社 會科學與人文學者主講,探討香港要維持21世紀一流的 環球城市所要面對的挑戰。
- 2011年1月,120多名代表出席第二屆 POMS-HK International Conference。為期兩天的會議以「POM in the Economic Recovery」為題,由工業工程及物流管理學 系、科大物流與供應鏈管理研究所及生產與運作學會香 港分會舉辦,取得美滿成果。

科大積極參與本港的教育發展,在大型活動中擔當重要角 色。科大校長陳繁昌教授作為大學校長會召集人,積極參 與大型年度國際教育大會「Going Global Conference」。該 會議由英國文化協會贊助及在香港舉辦,吸引1,000多名 學術界及業界領袖參加。陳校長與來自世界各地的地區代 表以「World Education: the New Global Powerhouse?」 為題 於開幕禮發表演説。科大兼任教授及首席副校長高級顧問 高彥鳴教授亦於分組會議上就三年制與四年制的優點發表 演説。

#### 校園國際化及學生交換計劃

科大加強取錄國際學生及增強與海外的聯繫,吸引世界各地 的年輕人才,建立校園多元共融的特色。科大的非本地本 科生人數由 2009 年的 242 人增至 2010 年的 302 人,增幅為 24.8%。302名非本地生之中,171名來自內地、台灣和澳 門,其餘131名來自世界各地。

科大重視學生交換計劃,讓學生加深對不同文化的認識及豐 富他們的國際體驗。科大的國際學生交換生計劃為全港最具 規模的有關計劃之一,其規模和管理質素獲2010年教資會 質素保證局評審小組讚賞。

科大與全球150多間著名學府建立學生交換計劃,讓學生得 以前往各地學習。2010年在海外修讀一個學期的科大學生 人數增至737人,相等於本科生數目的38%,亦較之前一年 增加11.7%。科大接待的海外交換生由2009年的535人增 至548人,增幅達2.4%,促進科大校園的多元文化。

科大鼓勵學生到各地參賽,以進一步擴闊國際視野及網絡。 科大學生於年內取得多項成就,包括在麻省理工學院主辦的 2010年國際基因工程機器大賽中贏得金獎;科大機械人團 隊在休士頓美國太空總署Johnson Space Center舉行的2011 年國際水底機械人大賽中奪得最佳設計獎;科大工商管理碩 士生在荷蘭舉行的RSM私募股權案例競賽中贏得第二名。 而工商管理碩士生在紐約市舉行的著名霍特全球案例挑戰賽 中,成為成功躋身決賽的六支國際隊伍之一。前



- The Center for Cultural Studies in the School of Humanities and Social Science held an international conference in December 2010, titled "Hong Kong Representations: Local and Comparative Perspectives". Co-organizers included Northwestern University, Sophia University and the University of Hong Kong. The conference addressed critical issues related to the development of Hong Kong as an exemplary global city of the 21st century, with presentations by prominent overseas and local scholars from various social science and humanities disciplines. Prof Agnes Ku, Division of Social Science, was chair of the organizing committee.
- In January 2011, over 120 delegates attended the Second POMS-HK International Conference. The successful two-day event was organized by the Department of Industrial Engineering and Logistics Management, the HKUST Logistics and Supply Chain Management Institute, and the Production and Operations Management Society (POMS) — Hong Kong Chapter. It focused on "POM in the Economic Recovery".

As active members of the wider education sector in Hong Kong, members of the University also played a prominent role in major events. At the "Going Global Conference" in Hong Kong, a major annual international education conference for over 1,000 academic policymakers and industry leaders sponsored by the British Council, President Tony F Chan as Convener of the Heads of Universities Committee joined regional representatives from around the world in addressing the audience at the opening plenary on "World Education: the New Global Powerhouse?". Prof Edmond Ko, Adjunct Professor and Senior Advisor to the Provost at HKUST, also spoke in a break-out session on the relative merits of three-year and four-year degree programs.

#### CAMPUS INTERNATIONALIZATION AND STUDENT EXCHANGE

HKUST has been stepping up its recruitment and raising its profile overseas to attract talented young people from around the world to bring diversity to the campus. The number of non-local degree-seeking undergraduate students admitted in 2010 rises to 302 from 242 in 2009, an increase of 24.8 per cent. Among the 302 non-local students, 171 are from Mainland, Taiwan, and Macau, and 131 from the rest of the world.

HKUST emphasizes student exchange which nurtures students' cultural awareness and international experience. HKUST runs one of the largest exchange programs in Hong Kong and received a commendation from the 2010 UGC Quality Assurance Council's Audit Panel for "the scale and management of the student international exchange programme".

The extensive geographical reach of our exchange program enables HKUST students to make links around the world. In 2010, the number of students spending a term studying with one of the University's 150-plus exchange partners increased to 737, which represented 38 per cent of the undergraduate class and an 11.7 per cent increase on the previous year. Multiculturalism on campus was also boosted as the number of students who exchanged in from partner institutions increased to 548 from 535 in 2009, which represented growth of 2.4 per

HKUST students gained further international exposure and wider networks through competing in a variety of challenging contests around the world. Among their achievements during the year, HKUST students won gold at the 2010 International Genetically Engineered Machine Competition (iGEM) at the Massachusetts Institute of Technology (MIT); a HKUST robotics team received the Design Elegance Award for their vehicle in the 2011 International Student Remotely Operated Vehicle (ROV) Competition, held at NASA Johnson Space Center in Houston; a team of HKUST MBA students gained the first runner-up prize in the RSM Private Equity Case Competition in The Netherlands; and a group of HKUST MBA students became one of only six global teams to be represented at the prestigious Hult Global Case Challenge final in New York City.

# 人才與獎項

#### PEOPLE AND PRIZES

至2011年6月30日,科大共有3,127 名教職員。年內共委任3位副校長加入科大領導層。史維教授於2010年8月出任科大首席副校長。李行偉教授於2010年11月出任科大副校長(研發及研究生教育)。翁以登博士亦於同月出任科大首位副校長(大學拓展)。

科大委任葉玉如教授為理學院院長,葉教授為生命科學部講座教授及分子神經科學國家重點實驗室主任。倪明選教授獲委任為香港科技大學霍英東研究院院長,倪教授為計算機科學及工程學系講座教授。戴自海教授於2011年1月履新為高等研究院院長。

其他高層教職任命如下:

曾明哲教授

協理副校長(研發及創新)

高可齡教授

協理副校長(研究生教務)

歐德孟教授 物理系主任

陳澤強教授

環境學部創部主任

林振陽教授 化學系主任

Allen Moy教授 數學系主任

湯永亮教授

資訊、商業統計及營運管理學系主任

蘇基朗教授 人文學部主任

下列教授於卸任大學教授職位後 獲授予榮休教授名銜:

張慕聖教授

土木及環境工程學系

韓利強教授 化學系

張昭慶教授 物理學系 At 30 June 2011, there were a total of 3,127 members of staff in post at HKUST. During the year, three senior staff members were appointed to the University's leadership team. Prof Wei Shyy took office as the University's Provost in August 2010. Prof Joseph Hun-wei Lee joined as the new Vice-President for Research and Graduate Studies in November 2010. In the same month, Dr Eden Y Woon took up his post as the University's first Vice-President for Institutional Advancement.

The University appointed Prof Nancy Y Ip, HKUST Chair Professor in the Division of Life Science and Director of the State Key Laboratory of Molecular Neuroscience, as the Dean of Science. Prof Lionel M Ni was appointed Dean of HKUST Fok Ying Tung Graduate School (FYTGS) concurrent with his academic appointment as Chair Professor of Computer Science and Engineering. Prof Henry Tye was appointed as the Director of the Institute for Advanced Study with effect from January 2011.

Other appointments to senior academic positions are as follows:

Prof Mitchell M Tseng

Associate Vice-President for Research and Innovation

Prof Mordecai J Golin

Associate Vice-President for Postgraduate Studies

Prof Michael Altman

Head of the Department of Physics

Prof Chak Keung Chan

Founding Head of the Division of Environment

Prof Zhenyang Lin

Head of the Department of Chemistry

Prof Allen Moy

Head of the Department of Mathematics

Prof James Yeong Liang Thong

Head of the Department of Information Systems, Business Statistics and

Operations Management

Prof Billy Kee Long So

Head of the Division of Humanities

The following professors were awarded the title of Professor Emeritus on their retirement from the University:

Prof Moe Mo Shing Cheung

Civil and Environmental Engineering

Prof Richard Kingston Haynes Chemistry

Prof Zhaoging Zhang

Physics

#### 人才延攬

科大把握推行四年制學位課程的機會,強 化教學人才的陣容和加強教研實力。為繼 續延攬和挽留優秀人才,科大已展開招聘 計劃,於未來五年積極羅致教學人員,同 時全面檢討及優化教學人員的薪酬制度, 以達致具彈性及有國際競爭力的方案,參 考市場趨勢並嘉獎卓越成就。

#### 長期服務獎

長期服務獎是20周年校慶的首項活動。 科大向271名服務20年的教職員頒發長期 服務獎,以表揚他們對科大的支持和貢獻。

#### **FACULTY RECRUITMENT**

The four-year undergraduate curriculum offers a significant opportunity to further strengthen the size and distinction of HKUST's faculty. To ensure the University can continue to attract and retain top talents, HKUST has embarked on a proactive faculty recruitment plan over the next five years. In line with this, it is undertaking a comprehensive review of its faculty compensation system, with a view to moving toward a flexible and internationally competitive compensation structure that is market-driven and at the same time can reward excellence.

#### **LONG SERVICE AWARDS**

As the first of a series of celebrations for HKUST's 20th Anniversary, Long Service Awards were presented to 271 faculty and staff members who had served the University for 20 years in appreciation and recognition of their unfailing support and contribution.

### 獎項及稱譽 AWARDS AND RECOGNITION

 科大獲《QS 亞洲大學排名》列為亞洲排名第一的大學 HKUST is ranked No 1 in Asia by the QS Asian University Rankings.



 科大副校長(研發及研究生教育)兼土木及環境工程學系講座教授李行偉教授,榮獲國務院頒發2010 年度國家科學技術進步獎二等獎。李行偉教授的研究項目為「複雜環境下水力射流新理論、關鍵技術及應用」。

**Prof Joseph Hun-wei Lee**, HKUST Vice-President for Research and Graduate Studies and Chair Professor of Civil and Environmental Engineering, received a 2010 State Scientific and Technological Progress Award (Second Class) from the Chinese State Council for an environmental project entitled "Buoyant Jets in Complex Environments — Theory, Innovative Technology and Application".

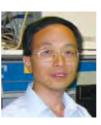
• 科大獲國家教育部頒發高等學校科學研究優秀成果獎(科學技術)自然科學界別中兩項一等獎及三項二等獎:

HKUST reaped two First Class and three Second Class awards in the Awards for Research Excellence in Natural Sciences presented by the Ministry of Education:



計算機科學及工程學系劉云浩教授、倪明選教授及李默先生有關「基於非測距的無線網路定位理論與方法研究」項目榮獲自然科學一等獎。

**Prof Yunhao Liu, Prof Lionel Ni** and **Mr Mo Li**, Department of Computer Science and Engineering, received a First Class honor for their cutting-edge project on "Range-free Localization and Localizability for Wireless Network and IoT: Theory and Practice";



■ 化學系**楊世和教授**的「過渡金屬納米材料的可控制備、微結構和相關特性」研究項目榮獲自然科學 一等粮。

**Prof Shihe Yang**, Department of Chemistry received a First Class Award for their project titled "Bottom-up engineering and properties of nano-structures of transition metals and their oxides and compounds";

### 獎項及稱譽 AWARDS AND RECOGNITION



■ 生命科學部**詹華強教授**的「遠志屬藥用植物化學成分、生物活性、品質控制及體內代謝研究」項目 榮獲自然科學二等獎。

**Prof Karl Tsim** in the Division of Life Science reaped the Second Class Award for the project "Study on the chemical constituents, biological activities, quality control and metabolism *in vivo* of medicinal *Polygala* plants";



 來自生命科學部的**薛紅教授**及其研究團隊的「以伽瑪氨基丁酸受體為靶點攻克人類神經精神疾患」 研究項目榮獲自然科學二等獎。

**Prof Hong Xue**, also from the Division of Life Science, and her research team won Second Class Award with the project "Fighting Mental Disorders with GABAA receptor as the Target";





數學系**邵啟滿教授**及**荊炳義教授**的「自正則化極限理論及其應用」研究項目榮獲自然科學二等獎。

**Prof Qiman Shao** and **Prof Bingyi Jing**, Department of Mathematics, received Second Class Awards for the project "Self-Normalized Limit Theory and its Applications".



生命科學部**彭大衛教授**獲裘槎基金會頒發優秀科研者獎,以表揚他在細胞生物學的傑出成就。

Prof David K Banfield, Division of Life Science, was awarded the prestigious Senior Research
Fellowship by the Croucher Foundation in recognition of his achievements in the field of cell biology.



生命科學榮休教授王學荊教授獲台灣中央研究院選為院士。

**Prof Jerry H C Wang**, Professor Emeritus of Life Science, was elected as an Academician of Academia Sinica, Taiwan.



• 物理系**童彭爾教授**因設計啟發性的實驗以解釋新的物理現象和對實驗物理學國際教研發展的 貢獻,榮膺2011年度美國物理學會院士。

**Prof Penger Tong**, Department of Physics, was elected Fellow of the American Physical Society in 2011 for his "insightful experiments to elucidate interesting new physics, and for his many contributions to the development of international research and education in experimental physics."

### 獎項及稱譽 AWARDS AND RECOGNITION



 理學院院長葉玉如教授同時榮獲兩家全球知名的神經科學及神經精神藥理學國際機構的理事會成員: 精神藥理學專業機構國際神經精神藥理學協會(CINP),以及由科學家和醫生組成致力推動腦部及 神經系統研究的美國神經科學學會(SfN)。葉教授是該美國學會歷史上首位獲選為SfN理事會的 國際會員。

Prof Nancy Ip, Dean of Science, was concurrently elected Councilor for two of the world's leading international organizations for neuroscience and psychopharmacology: Councilor of the Collegium Internationale Neuro-Psychopharmacologicum (CINP), the world's leading professional organization for psychopharmacology; and the Society of Neuroscience (SfN), the world's largest organization of scientists and physicians devoted to advancing understanding of the brain and nervous system. Prof Ip was the first international member being elected SfN Councilor in the history of this US-based Society.



化學系任能博教授及其研究團隊的「Biomarker for detection of viral infection — neopterin in combination with C-reactive protein」研究項目,在奧地利舉行的第30屆International Winterworkshops on Clinical, Chemical, and Biochemical Aspects of Pteridines, 贏得 Blair-Curtius-Pfleiderer-Wachter Award for Pteridine Research。

**Prof Reinhard Renneberg**, Department of Chemistry, and his team won the Blair-Curtius-Pfleiderer-Wachter Award for Pteridine Research on a project titled "Biomarker for detection of viral infection — neopterin in combination with C-reactive protein" at the 30th International Winterworkshops on Clinical, Chemical, and Biochemical Aspects of Pteridines held in Austria.



生命科學部副教授、尊衛理有限公司創辦人兼主席**黃允強博士**,於香港亞太區企業家大獎2011榮獲 最具潛力創業獎。該公司利用由黃博士實驗室研發的人體表皮生長因子(hEGF)作為主要成份,主力 開發化妝及醫療護理產品。

**Dr Wan-keung Raymond Wong**, the founder and Chairman of Gene-Vinate Ltd (GVN) as well as the Associate Professor of the Division of Life Science, was selected as the Most Promising Entrepreneurship Award Winner of the prestigious Asia Pacific Entrepreneurship Awards 2011, Hong Kong. GVN has focused on cosmetic and health care products using human epidermal growth factor (hEGF) developed in Dr. Wong's laboratory as the active ingredient.



 工學院院長李德富教授榮獲美國普渡大學頒發2010年傑出電機及計算機工程師獎。他獲湯森路透 選為計算機科學及工程學領域的ISI Highly Cited Researcher。這份精英科研人員名單包括在特定 學科及指定時間內發表論文獲最多人引述的首250名頂尖學者,佔全球有發表論文的科研人員 不足0.5%。

Prof Khaled Ben Letaief, Dean of Engineering, received the 2010 Outstanding Electrical and Computer Engineer Award from Purdue University in the US. He was also selected as ISI Highly Cited Researcher by Thomson Reuters in the field of Computer Science and Engineering. He joined an elite club of less than half of 1 per cent of all published researchers in the world who are recognized among the 250 top and most-cited researchers in a defined discipline within a specific time-period.



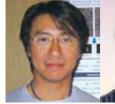
計算機工程學副課程主任**繆偉豪教授**獲國家自然科學基金委員會頒發 2010/11 年度海外及港澳學者合作研究基金。

**Prof Wai-ho Mow**, Associate Director of the Computer Engineering Program, was awarded the 2010/2011 Overseas and Hong Kong, Macau Young Scholars Collaborative Research Fund from the National Natural Science Foundation of China.

### 獎項及稱譽 AWARDS AND RECOGNITION



機械工程學系李世瑋教授榮獲國際微電子暨構裝學會頒發IMAPS-2010 John A Wagnon技術成就獎。 Prof Ricky Lee, Department of Mechanical Engineering, won the IMAPS-2010 John A Wagnon Technical Achievement Award presented by the International Microelectronics and Packaging Society.







計算機科學及工程學系**鄧智強教授、金成勳教授**及**易珂教授**因其 研究項目「利用二維未校正的圖片進行準稠密三維重建」(地理/測 繪 )、「Crash Reproduction」(軟件工程)及「基於 MapReduce 的統 計摘要計算方法」(資訊檢索、擷取及組織)而分別榮獲 Google 研

Prof Chi-keung Tang, Prof Sunghun Kim and Prof Ke Yi, Department of Computer Science and Engineering, each received a Google Research Award for their studies in "Quasi-Dense 3D Reconstruction from 2D Uncalibrated Photos" (geo/maps), "Crash Reproduction" (software engineering) and "Computing Statistical Summaries with MapReduce" (information retrieval, extraction and organization) respectively.



電子及計算機工程學系區子廉教授及其研究團隊對JCTVC作出貢獻,為新一代的錄像解碼訂下標準。 區教授的團隊提出了三項方案,並獲接納為HEVC標準的工作草案。區子廉教授亦獲撰為2009及 2010年電機及電子工程學會傑出講師,及IEEE信號處理學會多媒體信號處理技術委員會的2011年度 副主席,以及2012年及2013年度主席。

Prof Oscar Au, Department of Electronic and Computer Engineering, and his team contributed to the competitive Joint Collaborative Team on Video Coding (JCTVC), which is developing the nextgeneration video coding standard. Prof Au's team had three proposals accepted into the High Efficiency Video Coding (HEVC) standard's working draft. Prof Oscar Au was elected as an IEEE Distinguished Lecturer for 2009 and 2010. He was also elected Vice-Chair of the IEEE Signal Processing Society Multimedia Signal Processing Technical Committee (MMSP TC) for 2011 and the Chair in 2012 and 2013.



土木及環境工程學系**吳宏偉教授**獲國際岩土力學及土力工程學會會長委任為12位理事會成員之一, 成為首位獲委任為ISSMGE理事會成員的香港學者。

Prof Charles Ng, Department of Civil and Environmental Engineering, was appointed by the President of International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) to be one of the 12 executive members of the Board. He became the first Hong Kong academic to be appointed a Board Member of ISSMGE.



土木及環境工程學系**陳光浩教授**獲選為國際水協會院士,以表揚他在全球水研究的卓越貢獻。 Prof Guanghao Chen, Department of Civil and Environmental Engineering, was elected Fellow of International Water Association (IWA) in recognition of his extraordinary contribution to the world's water community.

### 獎項及稱譽 AWARDS AND RECOGNITION



土木及環境工程學系**梁堅凝教授**獲選為國際材料與結構研究實驗聯合會(RILEM)2011年度榮譽會長。 Prof Christopher Leung, Department of Civil and Environmental Engineering, was elected as the Honorary President of the International Union of Laboratories and Experts in Construction Materials, Systems and Structures (RILEM) for the Year 2011.





計算機科學及工程學系韓隸教授與李波教授獲選為電機及電子工程師學會院士 (IEEE) °

Prof Mounir Hamdi and Prof Bo Li, Department of Computer Science and Engineering, were elected Fellows of the prestigious Institute of Electrical and Electronics Engineers (IEEE).



電子及計算機工程學系Vijay Bharqava 教授獲選為IEEE 通訊協會2011年度候任會長,以及2012及 2013年度會長。

**Prof Vijay Bhargava**, Department of Electronic and Computer Engineering, was elected to serve as the IEEE Communications Society President-Elect during 2011 and as President during 2012 and 2013.



電子及計算機工程學系 Matthew McKay 教授及其博士生鄔月萍先生,在高通公司贊助舉辦的電機及 電子工程師學會全球通訊會議2010上,獲頒最佳論文獎。

Prof Matthew McKay and his PhD student Mr Yueping Wu, Department of Electronic and Computer Engineering, received the Best Paper Award at the IEEE Global Communications Conference (Globecom) 2010, sponsored by Qualcomm.



• 電子及計算機工程學系**丘立教授**獲選為國際自動控制聯盟(IFAC)院士,這是自動控制及系統工程領域

Prof Li Qiu, Department of Electronic and Computer Engineering, has been elected a Fellow of the International Federation of Automatic Control (IFAC), a prestigious international honor in the area of automatic control and systems engineering.



電子及計算機工程學系**須江教授**獲選為電機及電子工程師學會計算機學會傑出訪問學者。 Prof Jiang Xu, Department of Electronic and Computer Engineering, was elected by IEEE Computer

Society as a Distinguished Visitor.

### 獎項及稱譽 AWARDS AND RECOGNITION



電子及計算機工程學系曾兵教授及其2010年度博士畢業生伏晶晶博士(現於 Microsoft Research Asia 工作)的《方向性離散餘旋變換 — 一種全新的圖像編碼框架》,獲2011年國際電機及電子工程師學會 視訊技術期刊頒發最佳論文獎。曾教授亦憑著同一篇論文在巴西里約熱內盧舉行的IEEE 國際電路與系 統年會2011 上贏得最佳論文獎。

Prof Bing Zeng, Department of Electronic and Computer Engineering, and his 2010 PhD graduate Dr Jingjing Fu, now working at Microsoft Research Asia, were selected to receive the 2011 IEEE Transactions on Circuits and Systems for Video Technology – Best Paper Award for their paper "Directional Discrete Cosine Transforms: A New Framework for Image Coding". With the same paper, Prof Zeng also won the Best Paper Award at the IEEE International Symposium on Circuits and Systems 2011, held in Rio de Janeiro, Brazil.



電子及計算機工程學系陳文新教授及其研究團隊的「用於SOC設計的新一代納米級CMOS器件仿真模 型的研究和驗証 | 研究項目,榮獲深圳市科學技術協會頒發 2009 年度深圳市科技創新獎。

Prof Mansun Chan, Department of Electronic and Computer Engineering, and his team won the 2009 Shenzhen City Technology Innovation Award from the Shenzhen Science and Technology Association with the project "New Generation Nano-CMOS Device Model Research and Verification for SOC Design".



電子及計算機工程學系**馮雁教授**及其研究團隊的「3G車載語音控制娛樂信息系統」研究項目,獲頒 2010年深港技術創新大賽二等獎。

Prof Pascale Fung, Department of Electronic and Computer Engineering, and her team received a Second Class Prize in the Shenzhen/Hong Kong Technology Innovation Competition 2010 for their ITF/APAS project on a 3G automotive infotainment system.



工業工程及物流管理學系**洪流教授**與西北大學Barry L Nelson 教授合著的論文《Selecting the Best System when Systems are Revealed Sequentially》,榮獲工業工程師協會頒發「IIE Transactions Best Paper Award — Operations 2009 ] •

Prof Jeff Hong, Department of Industrial Engineering and Logistics Management, was awarded the IIE Transactions Best Paper Award-Operations 2009 for his paper "Selecting the Best System when Systems are Revealed Sequentially", co-authored with Prof Barry L Nelson of Northwestern University.



工業工程及物流管理學系**蘇孝宇教授**以其在人體工學方面的重大貢獻,獲選為Institute of Ergonomics and Human Factors院士。

Prof Richard So, Department of Industrial Engineering and Logistics Management, was elected a Fellow of the Institute of Ergonomics and Human Factors for his significant contributions to ergonomics.



工業工程及物流管理學系宗福季教授獲全球品質領域的著名國際機構國際品質學院撰為院士。

Prof Fugee Tsung, Department of Industrial Engineering and Logistics Management, has been elected Academician to the International Academy for Quality (IAQ), the most prestigious international organization in the field of quality.

#### 獎項及稱譽 AWARDS AND RECOGNITION



機械工程學系**趙汝恒教授**於2011年獲選為國際室內空氣質量與氣候協會院士。

Prof Christopher Chao, Department of Mechanical Engineering, was elected to the Academy of Fellows of the International Society of Indoor Air Quality and Climate in 2011.



資訊、商業統計及營運管理學系徐岩教授合著的電訊政策論文《建築物內網線的接入是本地固定網路 競爭的障礙:香港案例》,提出的新架構已獲香港電訊管理局採納,為政府2010年起的寬頻網絡互 聯方式。領導香港政府中央政策組的「兩岸三地高科技產業之合作互補,與香港高科技產業之應有對 策|研究項目。

Prof Yan Xu, Department of Information Systems, Business Statistics and Operations Management, co-authored a paper "Access to In-building Wiring as a Barrier to Local Fixed Network Competition: The Case of Hong Kong" in telecommunications policy. The paper proposes a new framework which has been adopted by the Office of the Telecommunications Authority (OFTA) of Hong Kong to review its broadband network interconnection since 2010. He had also led a project of the Central Policy Unit of the Hong Kong Government on "The Cooperation of Hong Kong, Mainland and Taiwan in High Technology Industry, and the Agenda of High Technology Industry Policy in Hong Kong".



市場學系 Anirban Mukhopadhyay 教授榮獲美國消費者心理學協會頒發新晉學者成就獎,表揚他對 科學的卓越貢獻。

Prof Anirban Mukhopadhyay, Department of Marketing, was honored with the Society for Consumer Psychology's Early Career Achievement Award for Distinguished Scientific Contribution.



經濟學系李瑤教授獲西安大略大學頒發最佳論文獎。

Prof Amber Li, Department of Economics, was awarded a Best Dissertation Prize by the University of Western Ontario.



管理學系朱靜教授榮獲管理學院(人力資源分部)頒發2011年度學術成就獎。

Prof Jing Zhu, Department of Management, was the winner of the Scholarly Achievement Award for 2011 from Academy of Management (HR Division).



社會科學部寶克教授與科大研究團隊向創新科技署提交題為「制訂框架以評估香港研究及創新活動的 經濟影響」的諮詢報告。研究團隊成員包括來自工商管理學院及社會科學院的易東萊教授、鄭國漢教 授、鄒偉業博士、林益民教授及白定邦教授。

Prof Erik Baark, Division of Social Science, led a HKUST research team and submitted a report titled "Consultancy Study to Develop a Framework to Assess the Economic Impact of Research and Innovation Activities in Hong Kong" to the Innovation and Technology Commission. The research team included Prof Tony Eastham, Prof Leonard Cheng, Dr William Chow, Prof Yi-min Lin and Prof Naubahar Sharif from the school of Business and Management, and Social Science.

### 學生成就 STUDENT ACCOMPLISHMENTS



來自生命科學、化學、物理、化學及生物產品工程的一年級學生組成科大隊在美國麻省理工學院舉行的全球最大合成生物學國際學生比賽 — 2010年國際基因工程機器大賽(iGEM)贏得金獎。

The HKUST Team won gold at the 2010 International Genetically Engineered Machine Competition (iGEM), the world's largest-scale international student competition in the field of synthetic biology held at the Massachusetts Institute of Technology (MIT). Team members included Year 1 students in Life Science, Chemistry, Physics, and Chemical and Bioproduct Engineering.



 由科大物理學系培訓的香港高中代表隊,在泰國舉行的第42屆國際物理奧林匹克中, 勇奪三金兩銀佳績。

The Hong Kong team of the 42nd International Physics Olympiad (IPhO) won 3 Gold and 2 Silver medals from Thailand. Students of the award-winning team were trainees of the Physics Enhancement Program under HKUST's Department of Physics.



• 由化學系本科生組成的隊伍,在2011年香港化學奧林匹克中贏得第二名。

A team of Chemistry undergraduate students won the First Runner-Up in the Hong Kong Chemistry Olympiad 2011.

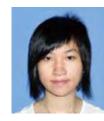


數學系本科生呂錦龍在Student Traders Trophy 2010中贏得亞軍。

**Mr Kam-lung Lui**, an undergraduate student in Mathematics, won the First Runner-up in the Student Traders Trophy (Hong Kong).



數學系本科生**吳梓榮**在德意志銀行舉辦的2010年 Carbon Credit Challenge中摘桂。
 Mr Tsz-wing Ng, an undergraduate student in Mathematics, was the winner in the Deutsche Bank's Carbon Credit Challenge Game in 2010.



生命科學部生物化學本科生李靜恩在2010年《科學一叮》香港區總決賽中贏得亞軍。
 Ms Katherine Ching-yan Lee, Division of Life Science, an undergraduate student studying biochemistry won the 1st runner-up at the FameLab Hong Kong 2010 Grand Final.

### 學生成就 STUDENT ACCOMPLISHMENTS



2010年8月於新西蘭威靈頓舉行的第9屆國際微生物學會議上,在科大錢培元教授的實驗室工作的生命科學部博士生王昊以微生物附生在苔蘚蟲方面的研究,榮獲最佳論立將。

Mr Hao Wang, a PhD student from the Division of Life Science and from Prof Peiyuan Qian's laboratory, won the best paper award at the 9th international larval biology conference held in August 2010 in Wellington, New Zealand for his work on larval transcriptions and proteomic analysis during larval settlement of the bryozoan Bugula neritina.



 科大機械人比賽隊伍代表香港遠赴美國休士頓美國太空總署詹遜太空中心,參加2011 遙控水底機械人大賽,並奪得最佳設計獎。

HKUST's Robotics Team represented Hong Kong to join the 2011 International Student Remotely Operated Vehicle Competition held at NASA Johnson Space Center in Houston. The team won the Design Elegance Award.



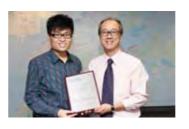
土木及環境工程學系博士生杜文琪贏得2011年度Arup研究獎。這個獎項由奧雅納工程顧問香港有限公司贊助,旨在推廣大學生的創意。

**Mr Wenqi Du**, a PhD student from the Department of Civil and Environmental Engineering, won the Arup Research Prize in 2011 which was funded by Ove Arup & Partners Hong Knog Ltd to promote creativity among University students.



• 計算機科學及工程學系學生**洪朝隆、陳啟峰**和**王珏軼**在IBM DB2 UDB大學賽中,贏得冠軍隊伍獎。

**Mr Desmond Hung, Mr Qifeng Chen** and **Mr Jueyi Wang**, students from the Department of Computer Science and Engineering won the Champion Team Award at the IBM DB2 UDB Inter-University Programming Contest.



IAU 國際天文聯會以機械工程學系學生**林俊禧**的名字為小行星命名,以表揚他在中學時期研究出塑膠回收再造的新方法。他是獲此殊榮的科大第二位工學院學生。

**Mr Michael Chun-hei Lam**, student of Mechanical Engineering, became the second Engineering student to have a minor planet named after him, as initiated by the International Astronomical Union, because of a research he conducted as a secondary school student to introduce a novel approach to recycling plastic.



• 下列工程系學生獲授電機及電子工程師學會論文獎:

The following Engineering students received Paper Awards at IEEE Conferences:

■ 姜弋
Mr Gabriel Yik Keung
計算機科學及工程學系博士生
PhD student of Computer Science and Engineering

### 學生成就 STUDENT ACCOMPLISHMENTS



伍君廷
 Mr Kwan-ting Ng

電子及計算機工程學系博士生 PhD student of Electronic and Computer Engineering



■ 王欣欣

Mr Xinxin Wang

電子及計算機工程學系碩士生 MPhil student of Electronic and Computer Engineering



■ 榮蘇江

Mr Sujiang Rong

電子及計算機工程學系博士生 PhD student of Electronic and Computer Engineering



■ 陳閩畔

Mr Vincent Man Pun Chan

電子及計算機工程學系博士生 PhD student of Electronic and Computer Engineering



敬小成

Ms Xiaocheng Jing

電子及計算機工程學系博士生 PhD student of Electronic and Computer Engineering



■ 詹陳長

Mr Chenchang Zhan

電子及計算機工程學系博士生 PhD student of Electronic and Computer Engineering

### 學生成就 STUDENT ACCOMPLISHMENTS



 作為科大機械人比賽隊伍的分隊,科大「火之龍」隊在全港大專生機械人大賽2011 中勇奪冠軍,並且是八支參賽隊伍中唯一能夠完成所有任務並取得滿分的隊伍。 HKUST's Robocon Team, a sub-team of HKUST's Robotics Team, was the champion in the Robocon 2011 Hong Kong contest. HKUST's Fiery Dragon, the champion team, was the only team among eight teams which was able to complete all required tasks and gain full marks.



環球商業管理課程學生**趙家琪、黃雅萍**及**黃寶儀**在滙豐海外獎學金計劃中脱穎而出,獲 得遠赴美國常春藤盟校的全額獎學金。

Ms Kristy Ka-ki Chiu, Ms Pinky Nga-ping Wong and Ms Sherwin Po-yi Wong, students of Global Business, were awarded the highly competitive HSBC Overseas Scholarship to study for one year at lvy League universities with full scholarship.



科大工商管理碩士生隊伍,成為全球六支晉身霍特全球案例挑戰賽的隊伍之一。這項賽事由 Hult 與 Clinton Global Initiative 和 Water.org 合辦。
A team of HKUST MBA students was one of only six teams internationally to enter the

A team of HKUST MBA students was one of only six teams internationally to enter the prestigious Hult Global Case Challenge organized in partnership with the Clinton Global Initiative and Water.org.



16名商學院學生獲頒2010-2011年利豐獎學金,前往海外留學。
 16 Business School students received Li & Fung Scholarships 2010-2011 which help to fund overseas exchanges.



 工商管理碩士生為德國雪糕製造商提供創新經營方案,在荷蘭舉行的RSM私募股權案 例競賽中榮獲亞軍。

A team of MBA students proposed a creative solution to a German ice-cream manufacturer and won 1st runner-up prize in the RSM Private Equity Case Competition held in The Netherlands.



 環球商業管理課程學生鄭其森和香俠笙,以及計量財務學學生梁茵瑜及會計學系學生 黃柏堯,以有關王朝酒業集團有限公司的研究計劃,在香港財經分析師學會投資研究 挑戰賽中摘冠。

Mr Cheney Cheng Ki Sum and Mr Kenneth Heung Hop Sang, students of Global Business, together with Ms Venus Leung Yan Yu, Quantitative Finance and Mr Kelvin Wong Pak Yiu, Accounting, nabbed the top prize in the HKSFA Investment Research Challenge with a research project on Dynasty Fine Wines Group Ltd.

#### HKUST 2010-2011 Annual Report

### 人才與獎項 PEOPLE AND PRIZES

### 學生成就 STUDENT ACCOMPLISHMENTS



• 2008年畢業的會計學系校友潘潔如在香港會計師公會舉辦的專業資格試中,奪得金 獎。考生達3,500名。

Ms Kit-yu Poon, an alumna of Accounting 2008, was a Gold Award winner in the Qualification Program exams held by Hong Kong Institute of Certified Public Accountants among 3,500 participants.



14名科大科技及管理雙學位學生及32名來自世界各地的尖子學生,參加今年夏季在巴 西舉行的C40大城市氣候峰會和國際科技及管理商業計劃比賽。

14 HKUST Dual Degree students together with 32 elite students from around he world gathered in Brazil this summer for the C40 Large Cities Climate Summit and the Technology and Management International Business Plan Competition.



科技及管理雙學位學生張鎧煇及其團隊以環保省錢的清潔劑項目,在2011青年企業家 發展局商校夥伴計劃中贏得亞軍,並獲贈總值港幣71,000元的獎品。

Mr Marco Cheung, Dual Degree Program in Technology and Management, and his team won the 1st-runner up in the YDC Entrepreneur's Challenge 2011 for a project about an eco-friendly and money-saving detergent. The team was awarded an in-kind prize valued up to HK\$71,000.



環境學部理學碩士研究生黃捷獲職業安全健康局頒發職安健最佳項目2010。 Ms Chit-kit Wong, MSc in Environmental Science, was awarded the "Occupational Safety and Health Best Project Award 2010" by the Occupational Safety & Health Council.



科技及管理雙學位課程學生 Kanishk Bali 在麻省理工學院全球創業工作坊 2011 中, 擊敗40多名參賽者,在電梯游説比賽獲得第三名。

Mr Kanishk Bali, student of Dual Degree Program in Technology Management, won Third Prize in the Elevator Pitch Competition, competing against more than 40 other entrants, in the MIT Global Startup Workshop 2011.



科技及管理學雙學位課程校友余立輝及其參賽隊伍,獲選參加在溫哥華舉行的 SIGGRAPH電腦圖像大會。他們研發的軟件應用程式「Make It Home」是由科大和美國加 州大學洛杉磯分校的師生共同開發

Mr Craig Yu, alumnus of Dual Degree Program in Technology and Management and his team have been accepted to the highly competitive SIGGRAPH Computer Graphics Conference held in Vancouver. The "Make It Home" software application was jointly developed by faculty and students of UCLA and HKUST.

### 榮譽博士及院士 HONORARY DOCTORATES AND FELLOWS

#### 榮譽博士 HONORARY DOCTORATES



#### 盧家驄博士 Dr Lo Ka Chung

富衡珠寶有限公司主席 Chairman, Foo Hang Jewellery Limited (左一 / 1st from left)

#### 夏佳理博士 Dr the Hon Ronald Joseph

(左二 / 2nd from left)

Arculli, GBM, GBS, JP 香港交易及結算所 有限公司主席 Chairman, The Hong Kong Exchanges and Clearing Limited

#### 史景遷教授 **Prof Jonathan** D Spence

耶魯大學榮休教授 Professor Emeritus, Yale University (中 / middle)

#### Raj Reddy 教授 Prof Raj Reddy

卡耐基梅隆大學計算機 科學與機械人學教授 Winner of Turing Award (1994);Professor of Computer Science and Robotics,

(右二 / 2nd from right)

#### John E Hopcroft 教授 Prof John E Hopcroft

**村林獎得**主(1994年) 村林獎得主(1986年) 康奈爾大學計算機科學教授 Co-winner of Turing Award Professor of Computer Science, Cornell University (右一 / 1st from right) Carnegie Mellon University

#### 榮譽院士 HONORARY FELLOWS



#### 沈向洋教授 Prof Harry Shum Heung-Yeung

微軟 Bing 「必應」 發展部 企業副總裁 科大計算機科學及工程學系 兼任教授 Corporate Vice President of Bing Development, Microsoft; Adjunct Professor in the Department of Computer Science and Engineering, HKUST

(左二 / 2nd from left)

### 關育材工程師

香港中華煤氣有限公司 執行董事兼營運總裁 **Executive Director and** Chief Operating Officer, Hong Kong and China Gas Limited

#### 金樂琦教授 Ir James Kwan Yuk-Choi, JP Prof Roger King

**HKUST** 

(右三 / 3rd from right)

東方海外(國際)有限公司 非執行董事 科大財務學系兼任教授 Non-Executive Director, Orient Overseas (International) Limited: (左三 / 3rd from left) Adjunct Professor in the Department of Finance,

#### 方潤華博士

Dr Fong Yun-Wah, SBS, MBE, JP 協成行集團主席 Chairman, Hip Shing Hong Group (右二 / 2nd from right)

### 人才與獎項 BEODLE AND BRIZES

### 科大獎項 HKUST MEDALS

#### 祁敖卓越教學服務獎章 MICHAEL G GALE MEDAL FOR DISTINGUISHED TEACHING



**易靄儀教授** Prof Michelle Yik 社會科學部副教授 Associate Professor of the Division of Social Science

#### 張鑑泉卓越學生服務獎章 STEPHEN CHEONG KAM-CHUEN MEDAL FOR DISTINGUISHED SERVICE TO THE STUDENT BODY



Mr Ivan Yik-ching So 科大 2009-2010 年度學生會署理會長 Acting President of the HKUST Students' Union 2009-2010

#### 校長杯競賽 PRESIDENT'S CUP



冠軍: WINNER:

宋怡璇 Ms Yixuan Song

生命科學部 Division of Life Science 金獎: GOLD AWARD:

蘇翊程同學

羅偉誠 Mr Weicheng Luo

化學工程及生物分子工程學系 Department of Chemical and Biomolecular Engineering

張雷霆 Mr Leiting Zhang

化學工程及生物分子工程學系 Department of Chemical and Biomolecular Engineering 建 废 Ms Yuan Zhong

化學工程及生物分子工程學系 Department of Chemical and Biomolecular Engineering 銀獎:

蔡亞雄

SILVER AWARD:

Mr Yaxiong Cai

Department of Mechanical

機械工程學系

Engineering

陸思婉 Ms Siwan Lu

科技及管理雙學位課程 Dual Degree Program in Technology and Management HKUST MEDALS

科大獎項

### MR ARMIN AND MRS LILLIAN KITCHELL UNDERGRADUATE RESEARCH AWARDS



冠軍: CHAMPION:

陳潤鈞 Mr Yun-kwan Chan

計算機科學及工程學系 Department of Computer Science and Engineering 亞軍: FIRST RUNNER-UP:

盧子軒 Mr Jeffrey Jenkin Kelu

生命科學部 Division of Life Science

張雷霆 Mr Leiting Zhang

化學工程及生物分子工程學系 Department of Chemical and Biomolecular Engineering 季軍: SECOND RUNNER-UPS:

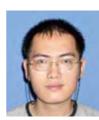
蔡亞雄 Mr Yaxiong Cai

機械工程學系 Department of Mechanical Engineering

張兆洋 Mr Siu-yeung Cheung

化學工程及生物分子工程學系 Department of Chemical and Biomolecular Engineering

#### 朱經武校長暨夫人研究獎 MAY AND PAUL CHU RESEARCH AWARD



**張良晟** 物理學系 **Mr Liangsheng Zhang** Department of Physics



**巫德剛** 物理學系 **Mr Degang Wu**, Department of Physics

**根** 據《香港科技大學條例》,科大的管治架構包括三個主 要機構,分別為顧問委員會(諮詢)、校董會(管治)及 教務委員會(教務)。大學籌備委員會的創會委員已就此三重 架構定位,各司其職,其委員名單詳見附錄。

#### 顧問委員會、校董會及教務委員會

#### 顧問委員會

遵照《大學規程》,顧問委員會須於每學年召開會議一次。 於報告期內,顧問委員會共召開兩次會議。其年度會議於 2010年12月13日舉行,並首次與校董會會議分開舉行,而 會議地點亦改於中環商業區,以鼓勵委員參與。

顧問委員踴躍出席2010-2011的年度會議,並就以「同一科 大」為本的五年策略發展計劃積極發表意見,委員一致認同 科大應保持這種「同一科大」的精神及發展動力。

#### 校董會

校董會是科大首個成立的「最高管治機構」,領導科大在學術 範疇以外的所有重要事務,肩負重任。校董會於年內共召開 三次會議,其轄下的常務委員會則舉行了五次會議。

科大新管理層履任後,校董會迅即檢視科大的策略方針,並 制訂科大2011-2016年的五年策略發展計劃。而具體的「主 要績效指標 | 亦納入於 「年度營運計劃 | 中,進一步落實各項 措施的進度。校董會同時審視內地發展策略的制訂,以配合 科大的國際化發展。

「學術發展建議書 | 為大學教育資助委員會(教資會)資源分 配的基礎。大學學術發展建議書(2012-2015年)是科大五年 策略發展計劃(2011-2016年)的重要部分,校董會常務委員 會在特別會議上就建議書進行討論,會上大學管理層闡釋建 議書如何配合教資會的一般規定,並重點介紹新四年制本科 課程的特點,當中包括重新編制新的主修課程等。

年內,校董會樂見多名新委員加入,並向退任委員致以衷心 謝意。部分委員於退任後加入顧問委員會,以另一身份貢獻 科大。校董會的全體27名成員現已履任,其中包括新當選 的科大評議會主席。校董會委員積極參與校董會下設七個委 員會的工作,並繼續與科大管理層緊密合作。

校董會在推廣良好企業管治和監察科大策略的推行方面,發 揮著關鍵性作用。校董會並將致力協助科大進一步提升校 譽、強化大學拓展。

#### 教務委員會

教務委員會是科大的「最高教務機構 |,除暑假外,每兩個月 均會舉行會議,今年亦不例外,先後召開了五次會議。

年內,教務委員會就廣泛的學術事宜作出討論,以下各項尤 為重要:

為迎接推行「三三四」學制帶來的挑戰及機遇,教務委員會檢 討並通過「三三四」新學制下的入學要求及各項課程的相關規 定,包括:多元化的核心課程、學院統一收生的基本要求、 及將大學現時的通識課程轉移到各項核心教育課程的安排。

為了推動跨學科學習及加強環境學部與科大其他學術部門的 合作,教務委員會亦就教職員任命及學術評審安排作出檢 討,並訂定聯合聘任政策。

教務委員會同時通過成立一個新學部:生物醫學工程 學部。該學部將以跨學科形式運作,負責協調及推廣 生物醫學工程領域的活動,包括跨學院與跨學系研究和教



The governance structure as provided in the University Ordinance consists of three major bodies: the Court (advisory), the Council (governing), and the Senate (academic). The founding fathers on the Planning Committee of the University referred to the three bodies as the three "supremes". Membership details are in the appendix.

#### **COURT, COUNCIL AND SENATE**

#### THE COURT

While it is mandated to meet annually, the Court convened twice during the report period. To facilitate participation, it has been decided to delink Court meetings from Council meetings. In addition, Court meetings are to be held off campus, in a central location in the heart of the business area. The 2010 annual Court meeting, held on 13 December in Central, has set the trend.

The attendance rate at both meetings of the Court in 2010-2011 was high. Court Members participated enthusiastically in exchanging views on the University's 5-year Strategic Plan, which crystallizes the concept of "1-HKUST". There is a common aspiration among the participants to keep up this encouraging momentum.

#### THE COUNCIL

As the "supreme governing body" and the first among the three "supremes" to have come into existence, the Council plays a pivotal role leading all important aspects of University affairs except those within the academic arena. The Council met three times during the year, while its Standing Committee conferred five times.

Shortly after the new senior management team was in place, the Council steered a review on the strategic direction of the University. The University's 5-year Strategic Plan for 2011-2016 was developed. For the first time, specific Key Performance Indicators were introduced into an Annual Operation Plan to track progress of strategic initiatives according to defined deliverables. The Council also monitored the formulation of Mainland Strategies bringing them in close alignment with the University's internationalization efforts.

Academic Development Proposals (ADP) formed the basis for resources allocation by the University Grants Committee (UGC). As part and parcel of the University's 5-year Strategic Plan (2011-2016), the ADP (2012-2015) was the subject of a special meeting of the Standing Committee of Council, when the Administration explained the design of the ADP in relation to UGC's generic requirements for the document.

At the meeting, the landscape of the new four-year undergraduate curriculum, which features new majors re-developed from existing programs, was explicated.

HKUST 2010-2011 Annual Report

During the period under review, the Council welcomed in a number of new Members and acknowledged with thanks those who stepped down. Some outgoing Council Members joined the Court to serve in another capacity. The entire complement of 27 Council Members is now firmly on board, and they include the newly elected Chairman of the Convocation. With active participation of Members in Council's seven Committees, which focus to work in specific areas, the Council has worked closely with the Management to oversee the affairs of the University.

The Council also played a pivotal role in promoting good corporate governance, and in monitoring the University's strategic initiatives. In particular, the Council promoted the brand name of the University and helped to strengthen its institutional advancement efforts.

#### THE SENATE

The Senate as the "supreme academic body" meets regularly every two months, except in summer. This year was no exception.

Of a wide range of academic matters deliberated by the Senate, the following is worth particular mention.

To meet the challenges and opportunities brought by the implementation of the 3-3-4 academic structure, admissions and program-related requirements have been reviewed and endorsed by the Senate, which include a broad-based core curriculum, the General Entrance Requirements, and the migration of the existing general education requirement to the new University Common Core structure.

To help promote and sustain interdisciplinary activities and collaboration between the Division of Environment and other academic departments of the University, the Senate has revised the faculty appointment and academic review arrangements for a Joint Appointment Policy.

During the year under review, the Senate has also approved the establishment of a new division. The new Division of Biomedical Engineering will serve as an interdisciplinary academic unit to coordinate and promote, across schools and departments, faculty collaboration in research and educational activities of direct interest to biomedical engineering. 0

# 大事紀要

#### CALENDAR OF EVENTS JUL 2010 ~ JUN 2011



### 2010

JUL

#### 周大福鄭裕彤基金慷慨捐贈

慷慨捐贈。

#### 方樹福堂基金慷慨捐贈

方樹福堂基金向科大捐贈港幣 150 萬 FOUNDATION 助150名學生前往內地實習。

## **8**月 **AUG**

### 學學會院士銜

一工業及應用數學學會頒授院士銜。

### 9月 SEP

#### 惠普捐款

腦配備先進的全新教學實驗室。

#### 俄鋁校長論壇

總裁歐柏嘉先生分享成功之道。

#### 三位數學大師對談

#### DONATION FROM CHOW TAI FOOK CHENG YU TUNG **FUND**

9,000 萬元, 資助興建新科研與教學大 HKUST received a HK\$90 million donation from the Chow Tai Fook 樓,大樓以鄭裕彤博士命名,以表揚其 Cheng Yu Tung Fund for the construction of a Research and Academic Building to be named in honor of Dr Cheng Yu Tung in appreciation of his generosity.

## **DONATION FROM FONG SHU FOOK TONG**

元,成立樹華內地實習計劃,三年內資 Fong Shu Fook Tong Foundation donated HK\$1.5 million to HKUST to set up Mainland internship program and to support 150 students over three years to seek internship on the Mainland.

#### 陳繁昌校長獲頒授工業及應用數 PRESIDENT SELECTED AS FELLOW OF THE SOCIETY FOR INDUSTRIAL AND APPLIED MATHEMATICS

陳繁昌校長獲全球著名數學學術組織之 President Tony F Chan was selected as Fellow of the Society for Industrial and Applied Mathematics (SIAM), one of the world's leading institutions in the field of mathematics.

#### **DONATION FROM HEWLETT PACKARD**

科大獲跨國科技公司惠普的惠普催化劑 HKUST received a generous grant of US\$150,000 from leading 倡議聯盟撥出15萬美元,用以支持電 technology multinational Hewlett Packard as part of the HP Catalyst Initiative. The grant will support a new teaching laboratory with highend computers.

#### **UC RUSAL PRESIDENT'S FORUM**

科大舉辦第一屆俄鋁校長論壇,由全球 HKUST hosted the first UC RUSAL President's Forum at which Mr Oleg 最大鋁生產商 — 俄鋁的創辦人兼行政 Deripaska, Founder and Chief Executive Officer of UC RUSAL, shared his road to success as the leader of the world's largest aluminium producer.

#### **DIALOGUE WITH MATHEMATICS GIANTS**

邵逸夫數學科學獎得主兼美國普林斯頓 Prof Jean Bourgain, Shaw Laureate in Mathematical Sciences and 高等研究院教授辛康 • 布爾甘教授、愛 Professor at the Institute for Advanced Study in Princeton, Prof Michael 丁堡大學榮譽教授兼阿貝爾獎及菲爾茲 Atiyah, Honorary Professor at the University of Edinburgh and winner 獎得主邁克 ● 阿蒂亞爵士,以及科大 of the Abel Prize and Fields Medal, as well as HKUST President Tony F 校長兼數學系講座教授陳繁昌教授,在 Chan, Chair Professor in HKUST's Department of Mathematics, discussed 「三位數學大師對談」中暢談數學真諦。 the essence of mathematics at the Dialogue with Mathematics Giants.



#### 三江高峰論壇

三江高峰論壇由科大商學院、香港電 辦。講者包括商學院院長鄭國漢教授、 萬科集團董事會主席及新任科大商學院 陳啟宗先生。

# **OCT**

#### 科大取錄32名博士研究生獎學 金計劃得主

課程。科大透過這個本港計劃取錄的博 number among local tertiary institutions. 士生數目,為全港大學中最高。

# NOV

#### 創業日

創業,同時讓有志創業人士與成功創業 者建立聯繫。

#### 頒授榮譽博士學位

科大向五位傑出學者和社會領袖頒授榮 譽博士學位,他們包括夏佳理博士、 John E Hopcroft 教授、盧家驄先生、 Raj Reddy教授,以及史景遷教授。

#### 花旗集團國際案例分析比賽

比賽由花旗集團與科大商學院合辦、由 花旗集團基金贊助,共吸引19支世界 各地知名商學院的精英隊伍參加。

#### 2010 氣候變化國際會議

環境學部協辦2010 氣候變化國際會 議,激得著名氣候學家及2009年卡爾 講者。

#### **SAN JIANG FORUM**

The San Jiang Forum was organized by the School of Business and 台、廣東電台新聞台及上海第一財經合 Management with Radio-Television Hong Kong, Radio Guangdong and CBN Radio. Among the speakers were Prof Leonard Cheng, Dean of Business and Management, Prof Shi Wang, Chairman of China Vanke 兼任教授王石教授,以及恒隆集團主席 Co Limited and new Adjunct Professor, and Mr Ronnie Chan, Chairman of Hang Lung Group.

#### 32 DOCTORAL STUDENTS ADMITTED THROUGH HONG KONG PHD FELLOWSHIP SCHEME

科大取錄 32 名來自四大洲 11 個國家的 HKUST admitted 32 doctoral students from 11 nationalities across 4 博士生,他們在研究資助局香港博士研 continents to pursue PhD programs under the Hong Kong PhD Fellowship 究生獎學金計劃的資助下來港入讀博士 Scheme offered by the Research Grants Council. This was the largest

#### **ENTREPRENEURSHIP DAY**

科大創業中心舉辦首屆創業日鼓勵師生 Entrepreneurship Center held its first Entrepreneurship Day to promote entrepreneurship and to facilitate networking among seasoned industry professionals and future entrepreneurs.

#### **CONFERMENT OF HONORARY DOCTORATES**

HKUST conferred honorary doctorates on five eminent leaders. They were Dr The Hon Ronald Joseph Arculli, Prof John E Hopcroft, Mr Lo Ka Chung, Prof Raj Reddy and Prof Jonathan D Spence.

#### THE CITI INTERNATIONAL CASE COMPETITION

The competition was jointly organized by Citi Hong Kong and HKUST's School of Business and Management, and sponsored by the Citi Foundation. 19 outstanding teams from top business schools around the world participated.

#### CLIMATE CHANGE — "ELEPHANTS IN THE ROOM" **WORKSHOP**

The Division of Environment organized the workshop and invited Prof 一 古斯塔夫羅斯貝研究獎章得主美國 James Hansen of NASA, a leading climatologist and recipient of the 太空總署 James Hansen 教授擔任主題 2009 Carl Gustaf Rossby Research Medal, to give a keynote seminar.

### 大事紀要

CALENDAR OF EVENTS Jul 2010 ~ Jun 2011



#### 質素保證局報告

序,將能繼續提升教學質素。

#### 科大傑出講座

外交部駐香港特別行政區特派員呂新華 AFFAIRS 演講。

## 合作協議

作關係。

#### REPORT FROM QUALITY ASSURANCE COUNCIL

香港教資會質素保證局發表報告,讚揚 The Quality Assurance Council released a Quality Audit report and 科大聲譽卓著及教職員全力支持大學的 commended that HKUST has achieved a strong reputation and has a 進一步發展。評審小組深信,科大憑藉 staff that is committed to supporting the further development of the 重視質素保證的文化及完善的質保程 University. The Panel is confident that with its strong quality assurance culture and robust processes, the University will continue to enhance the quality of its teaching and learning.

### **DISTINGUISHED LECTURE ON CHINA'S FOREIGN**

應科大邀請,以「當前國際形勢與中國 Commissioner Lu Xinhua of the Commissioner's Office of China's 外交政策」為題,在科大傑出講座發表 Foreign Ministry in the HKSAR spoke at a Distinguished Lecture titled "Foreign Affairs and China's Foreign Affairs Policy" at HKUST.

#### 清華經管學院與科大商學院簽署 TSINGHUA SEM AND HKUST BUSINESS SCHOOL STRATEGIC PARTNERSHIP

清華大學經濟管理學院與科大工商管理 Tsinghua University's School of Economics and Management and 學院簽署策略性合作框架協議,促進合 HKUST's School of Business and Management signed a Strategic Partnership Framework Agreement to foster co-operation.

### 2011

月 JAN

#### 嫦娥計劃首席科學家暢談中國探月 計劃

火星探測」為題的講座。

#### 國父孫中山先生銅像在科大揭幕

國父孫中山先生孫女兼孫逸仙和平教育基 金會主席孫穗芳博士及陳繁昌校長主持國 父孫中山先生銅像的揭幕儀式。

#### **CHANG'E CHIEF SCIENTIST SPOKE ABOUT CHINA'S EXPLORATION**

嫦娥探月計劃首席科學家兼中國科學院院 HKUST invited Prof Ouyang Ziyuan, Chief Scientist of China's Moon 士歐陽自遠教授,主持以「中國探月工程與 Exploration Project Chang'e and Academician of the Chinese Academy of Sciences, to give a lecture on China's exploration of the Moon and Mars.

#### DR SUN YAT-SEN STATUE UNVEILED AT HKUST

A bronze statue of Dr Sun Yat-sen was unveiled by Dr Lily Sun Suifong, granddaughter of the late Dr Sun Yat-sen and President of the Dr Sun Yat-sen Foundation for Peace and Education, and HKUST President Tony F Chan.



**FEB** 

#### 長期服務獎

科大向271名服務科大20年的教職員頒發 長期服務獎。

#### 齊展步 創•新視野

校慶活動「齊展步 創 ● 新視野 | , 同時為奧 比斯籌款,協助失明及視障人士重見光明。

# MAR

#### 工學院推出卓越研究獎

工學院首次設立卓越研究獎,表揚教研人 員的貢獻和成就。

#### 諾貝爾獎得主主講俄鋁總裁論壇

2010年諾貝爾經濟學獎得主 Christopher Pissarides教授在科大高等研究院舉辦的俄 鋁校長論壇上,分享他對均衡勞工市場的 研究心得。

#### 與普林斯頓大學合辦本科生研究交 流計劃

學學院合辦以研究為本的本科生暑期交流 計劃,為兩間學校的工程學學生提供國際 研究體驗。

#### 中國經濟發展論壇

工商管理學院舉辦中國經濟發展論壇,作 為科大20周年校慶活動之一,由四名傑出 講者主講,分別是世界銀行高級副行長兼 事務及庫務局局長陳家強教授。

#### **LONG SERVICE AWARD**

HKUST presented Long Service Awards to 271 faculty and staff members who had served the University for two decades.

#### **RUN FOR VISION**

逾 350 名科大師生和校友參加科大 20 周年 Over 350 students, staff and alumni took part in "Run for Vision", an activity to celebrate the University's 20th Anniversary and to raise funds for Orbis to provide treatment for the visually impaired.

#### LAUNCH OF RESEARCH EXCELLENCE AWARDS AT **ENGINEERING SCHOOL**

The School of Engineering established new research excellence awards for the first time to recognize the faculty's devotion and outstanding achievements.

#### **NOBEL LAUREATE SPOKE AT UC RUSAL PRESIDENT'S FORUM**

The 2010 Nobel Laureate in Economic Sciences, Prof Christopher Pissarides, shared his wisdom on labor market equilibrium at the UC RUSAL President's Forum organized by the Institute for Advanced

#### JOINT UNDERGRADUATE RESEARCH EXCHANGE PROGRAM WITH PRINCETON

科大工學院與普林斯頓大學工程及應用科 HKUST's School of Engineering and Princeton University's School of Engineering and Applied Science formed a partnership to launch a research-based undergraduate summer exchange program to provide engineering students with an international research

#### **CHINA ECONOMIC DEVELOPMENT FORUM**

The School of Business and Management hosted the Forum as part of HKUST's 20th Anniversary celebrations. The Forum featured four distinguished speakers: Prof Justin Lin, Senior Vice President and 首席經濟學家林毅夫教授、清華大學中國 Chief Economist of the World Bank; Prof David Li, Director of the 與世界經濟研究中心主任李稻葵教授、中 Center for China in the World Economy of the Tsinghua University; 國人民銀行副行長及國家外匯管理局局長 Prof Yi Gang, Deputy Governor of the People's Bank of China and 易綱教授,以及香港特別行政區政府財經 Administrator of the State Administration of Foreign Exchange; and Prof KC Chan, Secretary for Financial Services and the Treasury, HKSAR Government.

### 大事紀要

CALENDAR OF EVENTS Jul 2010 ~ Jun 2011





Conference 2011研討會上, 陳繁昌校長以 powerhouse?" 環球教育新動力為題發表演説。

#### 科大細胞生物學家獲頒裘槎基金會 優秀科研者獎

#### 福建省委書記訪問科大

學、華僑大學及商界。

#### 同一科大學生生活獎

科大設立「同一科大」學生生活獎,鼓勵科 The President's 1-HKUST Student Life Award was launched to 的「科大群賢會」講座。

**APR** 

#### 睿亦嘉科技有限公司捐贈

睿亦嘉科技有限公司捐贈港幣300萬元, 支持財務學系亞太金融市場中心的運作及 研究項目。

#### 社交媒體實驗室獲捐款

上海通盛時富股權投資管理有限公司行政 總裁聶樂輝先生先生捐贈港幣 200 萬元, 支持電子及計算機工程系用作網絡研究的 社交媒體實驗室,以進行研究和設計可用 於未來網路的新一代社交媒體系統、網 Engineering to carry out networking research. 路、應用程式。

#### 與加州理工學院校長對話

球高等教育發展的真知灼見。

#### PRESIDENT SPOKE AT GOING GLOBAL CONFERENCE

President Tony F Chan spoke at Going Global 2011 organized by the 在英國文化協會舉辦的 Going Global British Council at a panelist on "World education: the new global

#### HKUST CELL BIOLOGIST AWARDED CROUCHER **FELLOWSHIP**

生命科學部彭大衛教授獲頒裘槎基金會優 Prof David Karl Banfield, Division of Life Science, was awarded the 秀科研者獎,以表揚他在細胞生物學的傑 prestigious Senior Research Fellowship by the Croucher Foundation in recognition of his achievements in cell biology.

#### **VISIT OF FUJIAN PROVINCIAL SECRETARY**

科大接待由福建省委書記孫春蘭女士率領 HKUST received a delegation from Fujian led by Ms Chun-lan 的代表團,成員來自廈門大學、福州大 Sun, Secretary of the Provincial Committee in Fujian Province. The delegation was made up of representatives from the business sector, Xiamen University, Fuzhou University and Huagiao University.

#### PRESIDENT'S 1-HKUST STUDENT LIFE AWARD

大學生共同建立充滿活力的社群。3月,科 engage students to collaboratively develop a vibrant community at 大舉辦了「3月健行」遠足活動和啟廸思維 the University. A hiking event "March in March" and an inspirational seminar "UST Great Minds" were held in March.

#### **DONATION FROM REGA TECHNOLOGIES**

Rega Technologies Limited pledged \$3 million to support the Center for Asian Financial Markets in the Department of Finance. The donation will be used to support the Center's operation and research projects.

#### **DONATION TO SUPPORT SOCIAL MEDIA LABORATORY**

Mr Bill Nie, Chief Executive Officer of TS First Fortune Asset Management, pledged \$2 million to support the Social Media Laboratory in the Department of Electronic and Computer

#### **DIALOGUE WITH PRESIDENT OF CALTECH**

在科大校長論壇上,陳繁昌校長與加州理 HKUST President Tony F Chan had an inspiring discussion with 工學院校長 Jean-Lou Chameau 分享對全 President Jean-Lou Chameau of the California Institute of Technology at the Presidents Dialogue and shared insights on global higher education development with the audience.





#### 20 周年校慶慶祝大會

共和國全國人民代表大會常務委員會副委 員長韓啟德教授及香港特別行政區行政長 官曾蔭權先生親臨主持慶典。

#### 與劍橋校長對話

在科大校長論壇上,陳繁昌校長與劍橋大 學校長Leszek Borysiewicz暢談世界各地 的高等教育,反應熱烈。

#### 校長於博鰲亞洲論壇上發言

在博鰲亞洲論壇2011上,陳繁昌校長發表 演講,就大學校長與企業總裁之分別與其 他地區的領袖分享。

#### 風險管理及商業智能學研討會

第三屆風險管理及商業智能學研討會於 2011年舉行,為專家和年青人提供交換意 見的平台。

#### 侍學日

科大侍學日是科大全體師牛服務社會的日 子,700多名師生參加40項社會服務,幫 助有需要的人。

#### 科大有機同樂日及才華大賽

科大有機同樂日和才華大賽均為「同一科 大」學生生活獎的兩個項目,分別推廣有機 生活和才藝發展。

#### 愛因斯坦在科大

「愛因斯坦在科大」由高等研究院、理學院 和人文社會科學學院合辦,包括展覽與講 座等,讓學生認識愛因斯坦的生平和貢獻。

#### **GRAND CELEBRATION FOR THE 20TH ANNIVERSARY**

科大舉行20周年校慶慶祝大會,中華人民 HKUST hosted its 20th Anniversary Grand Celebration with Vice Chairman of the Standing Committee of the National People's Congress Mr Qide Han and the HKSAR Chief Executive Mr Donald Tsang officiating with a distinguished array of celebrities.

#### **DIALOGUE WITH VICE-CHANCELLOR OF** CAMBRIDGE

President Tony F Chan had a dialogue with Cambridge University Vice-Chancellor Prof Sir Leszek Borysiewicz at the Presidents Dialogue on higher education around the world which received enthusiastic response from the audience.

#### PRESIDENT SPOKE AT BOAO FORUM

President Tony F Chan spoke at Boao Forum for Asia Annual Conference 2011. He shared his insights as a panelist on "Rethinking Education: University Presidents vs Corporate CEOs" along with other global leaders.

#### SYMPOSIUM ON RISK MANAGEMENT AND **BUSINESS INTELLIGENCE**

The 3rd Symposium on Risk Management and Business Intelligence 2011 provided a platform for experts and young adults to exchange

#### **SERVICE LEARNING DAY**

HKUST Service Learning Day was a joint effort of all University members to engage with the community. Over 700 students and staff members rendered volunteer service in 40 projects to serve the

#### THE ORGANIC FUN DAY @ HKUST AND TALENT CONTEST

The Organic Fun Day @ HKUST and the HKUST Talent Contest, both being part of The President's 1-HKUST Student Life Award, were held to promote organic living and talent development respectively.

#### **EINSTEIN@HKUST**

Einstein@HKUST was the joint efforts of the Institute for Advanced Study. The School of Science and the School of Humanities and Social Science. A series of exhibitions, talks and activities were in place to enable students to learn about Einstein's life and contributions.

### 大事紀要

5月

**MAY** 

CALENDAR OF EVENTS Jul 2010 ~ Jun 2011



#### 創意間的親暱

暱」音樂會,邀請蜚聲國際的音樂家演出及 與享譽全球的新晉作曲家討論新樂曲。

#### Cosmology since Einstein 學術會議

高等研究院舉辦為期三天的「Cosmology 頂尖科學家,包括一位諾貝爾獎得主,探 challenges of cosmology. 討宇宙學的最新發展。

#### 科大亞洲排名第一

科大在《QS亞洲大學排名》位列亞洲第一, 是科大自創校以來首次榮登亞洲榜首。

#### 成立空氣質量研究超級站

環境學部成立首個空氣質量研究 超級站, 質和來源。

#### 科大2011年創業計劃大賽

者的健康報告。

#### 科大與韓國浦項工大合辦博士課程

科大工學院與韓國浦項工科大學工學院達 成學術及研究合作協議以合辦博十課程, 研究生可進行學術交流。

#### 高等研究院院長就職講座

講座。

#### THE INTIMACY OF CREATIVITY SERIES

科大人文社會科學學院舉辦「創意間的親 The series of rehearsals and concerts, hosted by HKUST's School of Humanities and Social Science, presented world-famous musicians from overseas to play and discuss new music with world-famous and emerging composers.

#### **CONFERENCE ON COSMOLOGY SINCE EINSTEIN**

The Institute for Advanced Study held a three-day conference at which 24 top scientists around the world, including a Nobel since Einstein」學術會議,匯聚24名全球 Laureate, explored the most up-to-date developments and

#### **HKUST RANKED ASIA'S NO. 1 UNIVERSITY**

HKUST was ranked No. 1 in Asia by the QS Asian University Rankings, the first time since its establishment.

#### LAUNCH OF AIR QUALITY SUPERSITE

The Division of Environment launched the first Air Quality Research 收集大氣中顆粒物的實時數據以了解其性 Supersite which enables real-time characterization of ambient particulate matter in the air to strengthen understanding of the nature and sources of fine particles.

#### **HKUST 2011 ENTREPRENEURSHIP COMPETITION**

學生與校友提交創新的業務計劃,盡展創 The competition attracted bright ideas and brilliant business plans 意和商業專長。冠軍由華健公司奪得,其 from across the university community, showcasing the innovation 頭髮測試技術可在短時間內準確提供測試 and business expertise. The championship was Wah Kin Holdings Ltd and its hair-testing technology provides fast, accurate reports on people's health.

#### JOINT PhD PROGRAM BY HKUST AND POSTECH

HKUST's School of Engineering and the College of Engineering at Pohang University of Science and Technology (POSTECH), Korea, reached an agreement for academic and research collaborations, under which the two institutions will establish a joint degree PhD program allowing students to conduct academic exchange at both universities.

#### **INAUGURAL LECTURE BY IAS DIRECTOR**

理論物理學家兼新任高等研究院院長戴自 Prof Henry Tye, a theoretical physicist and the new Director of the 海教授主持以「宇宙有開端嗎?」 為題的就職 Institute for Advanced Study, gave his inaugural lecture on "Does the Universe Have a Beginning".



**6**月 JUN

#### 科訊廊納米科技展覽

在香港科學館舉行的展覽展示科大科研團 隊在納米技術方面的研究成果及應用納米 技術提升牛活質素。

#### 羅伯特 • 恩格爾教授的諾貝爾學人 講座

高等研究院、科大商學院、以及科大商學 院與紐約大學斯特恩商學院環球金融理學 碩士課程合辦諾貝爾學人講座,由諾貝爾 經濟學獎得主紐約大學羅伯特 • 恩格爾教 授就環球金融穩定性與長遠風險發表演說。

#### 工業工程師學會亞洲會議

工業工程師學會在上海舉行首個亞洲區會 **CONFERENCE** 議,由科大工業工程及物流管理學系共同 贊助,與會者分享對亞洲工業工程研究及 其應用的看法。

#### 成立科大惠理投資研究中心

科大與惠理集團有限公司共同宣布成立科 大商學院惠理投資研究中心,是香港首間 理集團捐贈近港幣 1,000 萬元。

#### IEEE科技領袖研討會

科大夥拍國際電機電子工程師學會(IEEE) 及香港應用科技研究院合辦首屆IEEE科 技領袖研討會,以展望2020年的科技為 主題。

#### 頒授榮譽院士

科大向四名傑出領袖頒授榮譽院士,包括 方潤華博士、金樂琦教授、關育材工程師 及沈向洋教授。

#### NANOTECHNOLOGY IN SCIENCE NEWS CORNER **EXHIBITION**

The exhibition, held at the Hong Kong Science Museum, displayed the work of HKUST research teams on nanotechnology and their success in applying nanotechnology to improve the quality of living.

#### NOBEL LECTURE BY PROF ROBERT ENGLE

The Institute for Advanced Study, the HKUST Business School and the HKUST-NYU Stern MS Program in Global Finance jointly organized a lecture by Nobel Laureate in Economic Sciences Professor Robert Engle of New York University. Prof Engle spoke on "Global Financial Stability and Long Run Risks".

### **INSTITUTE OF INDUSTRIAL ENGINEERS ASIAN**

Co-sponsored by the Department of Industrial Engineering and Logistics Management, the Institute of Industrial Engineers had its first regional conference IIE Asian Conference held in Shanghai to share insights on industrial engineering research and its applications in Asia.

#### LAUNCH OF VALUE PARTNERS CENTER FOR **INVESTING AT HKUST**

HKUST and Value Partners Group Limited jointly announced the 推動投資管理研究及培訓的學術中心,惠 launch of the Value Partners Center for Investing at the HKUST Business School - the first academic center of its kind in Hong Kong to support research and training on investment management. Value Partners contributed close to \$10 million to jointly launch the Center.

#### **IEEE TECHNOLOGY TIME MACHINE SYMPOSIUM**

HKUST joined hands with the Institute of Electrical and Electronics Engineers (IEEE) and Hong Kong Applied Science and Technology Research Institute to launch the first IEEE Technology Time Machine (TTM) Symposium with the theme "Technologies beyond 2020".

#### **CONFERMENT OF HONORARY FELLOWSHIPS**

HKUST conferred Honorary Fellowships on four distinguished leaders. They were Dr Fong Yun-Wah, Prof Roger King, Ir James Kwan, and Prof Harry Shum.

### 學生 • STUDENTS

#### 學生人數(截至2011年9月30日) STUDENT ENROLMENT (AS OF 30 SEPT 2011)

		本科生 Undergraduate		完生 aduate	總計 Total
學院 / 所屬範疇 School/Area		Ondergraduate	論文研究生 Research	修課碩士生 Taught	
理學院	Science	1511	381	114	2006
工學院	Engineering	2384	796	781	3961
商學院	Business and Management	2211	92	1231	3534
人文社會科學學院	Humanities and Social Science	35	105	156	296
香港科技大學 霍英東研究院	HKUST Fok Ying Tung Graduate School	_	22	_	22
跨學科課程	Interdisciplinary Programs	298	47	55	400
總數	Total	6439	1443	2337	10219

#### 非本地學生 NON-LOCAL STUDENT ENROLMENT (2010-11)

		本科生 Undergraduate		院生 aduate	總計 Total
國家 Home Country			論文研究生 Research	修課碩士生 Taught	
中國內地	Mainland China	497	976	654	1947
其他亞洲國家	Other Asian Countries	192	46	109	346
其他國家	Rest of the World	51	17	128	197
總數	Total	740	1039	891	2490

本科生交流計劃 UNDERGRADUATE EXCHANGES (2010-11)					
目的地區域 Host/Destinatio	on Region	來港交流生 Exchange-in	百分比 %	赴外交換生 Exchange-out	百分比 %
中國內地	Mainland China	29	5.2	72	10.1
亞洲	Asia	71	12.7	124	17.4
北美洲	North America	232	41.6	254	35.7
中南美洲	Central and South America	2	0.4	5	0.7
歐洲	Europe	218	39.1	250	35.1
澳洲及新西蘭	Australia and New Zealand	6	1.1	7	1.0
總數	Total	558		712	

# 畢業生人數 GRADUATE NUMBERS (2010-11)

		本科生 Undergraduate		院生 aduate	總計 Total
學院 / 所屬範疇 School/Area			論文研究生 Research	修課碩士生 Taught	
理學院	Science	468	90	64	622
工學院	Engineering	754	171	510	1435
商學院	Business and Management	698	21	609	1328
人文社會科學學院	Humanities and Social Science	_	29	162	191
香港科技大學 霍英東研究院	HKUST Fok Ying Tung Graduate School	_	1	6	7
跨學科課程	Interdisciplinary Programs	26	25	24	75
總數	Total	1946	337	1375	3658

## 就業 EMPLOYMENT (2010)

		本科生 Undergraduate	研究生 Postgraduate			
			哲學博士 學位 PhD	哲學碩士 學位 MPhil	修課碩士課程 (工商管理碩士 除外) Taught Master (Except MBA)	工商管理 碩士 MBA
就業狀況						
Employment	Situation	%	%	%	%	%
受聘	Employed	88.3	81.1	58.0	74.5	88
深造	Further Studies	8.8	2.5	27.0	8.9	1.5
回國或移民	Returned to Home Country or Emigrated	0.5	13.9	9.5	10.9	7.5
其他	Others	2.4	2.5	5.5	5.7	3.0
就業界別狀況 Employment	Situation by Industry	%	%	%	%	%
商界	Commerce and Business	64.7	12.0	45.8	54.4	86.2
工程及工業界	Engineering and Industry	23.0	14.7	16.9	35.5	12.1
教育界	Education	8.1	69.3	33.9	7.3	1.7
政府	Government and Related Organizations	2.7	2.7	0	0.5	0
社會服務界	Community and Social Services	1.5	1.3	3.4	2.3	0

# 資料一覽 FACTS AND FIGURES

### 教員 • FACULTY

教員人數 (截至 2011 年 6 月 30 日 ) FACULTY MEMBERS (AS OF 30 JUN 2011)					
學院/所屬範疇 School/Area		常任 Regular	訪問 Visiting	總計 Total	
理學院	Science	104	21	125	
工學院	Engineering	144	22	166	
商學院	Business and Management	126	25	151	
人文社會科學學院	Humanities and Social Science	56	3	59	
跨學科課程	Interdisciplinary Programs	7	1	8	
總數	Total	437	72	509	

### 研究 • RESEARCH

新研究項目數目及經費 NO. OF NEW RESEARCH PROJECTS & FUNDING (2010-11)					
		數目 Number	經費 Funding (in HK\$M)		
大學教育資助委員會	UGC	204	75.7		
研究資助局	RGC	214	127.7		
其他	Others	230	205.8		
總數	Total	648	409.3		
專利項目 NO. OF PATENTS					
受理中	Filed		150		
已授權	Granted		47		

### 國際排名 • INTERNATIONAL RANKINGS

	MAL KANKINGS
全球第40位 (2011/12《QS全球大學排名》全球 頂尖700所大學排名榜)	NO. 40 IN THE WORLD (World's Top 700 Universities, QS World University Rankings 2011/12)
全球第62位 (2011/12《泰晤士報高等教育》全球 頂尖 400所大學排名榜)	NO. 62 IN THE WORLD (World's Top 400 Universities, Times Higher Education World University Rankings 2011/12)
全亞洲第1位 (2011《QS亞洲大學排名》全亞洲 頂尖200所大學排名榜)	NO. 1 IN ASIA (Asia's Top 200 Universities, QS Asian University Rankings 2011)
全香港排名第2位,全亞洲第15位 (2011《QS亞洲大學排名》全亞洲 頂尖200所自然科學大學排名榜)	NO. 2 IN HONG KONG, NO. 15 IN ASIA (Asia's Top 200 Universities in Natural Sciences, QS Asian University Rankings 2011)
大中華區第1位,全球第28位 (2011/12《泰晤士報高等教育》全球 頂尖 50所工程及科技大學排名榜)	NO. 1 IN GREATER CHINA, NO. 28 IN THE WORLD (World's Top 50 Universities in Engineering and Technology, Times Higher Education World University Rankings 2011/12)
全香港排名第1位,全球第22位 (2011/12《QS全球大學排名》全球 頂尖400所工程及科技大學排名榜)	NO. 1 IN HONG KONG, NO. 22 IN THE WORLD (World's Top 400 Universities in Engineering and Technology, QS World University Rankings 2011/12)
大中華區第1位,全球第21位 (2011《上海交通大學》全球 頂尖100所計算機科學大學排名榜)	NO. 1 IN GREATER CHINA, NO. 21 IN THE WORLD (World's Top 100 Universities in Computer Science, Academic Ranking of World Universities by Shanghai Jiao Tong University 2011)
大中華區第2位,全球第36位 (2011《上海交通大學》全球 頂尖100所工程/技術與計算機科學 大學排名榜)	NO. 2 IN GREATER CHINA, NO. 36 IN THE WORLD (World's Top 100 Universities in Engineering/Technology and Computer Sciences, Academic Ranking of World Universities by Shanghai Jiao Tong University 2011)
Kellogg-科大 EMBA課程: <b>連續3年全球第1位</b> (2011《金融時報》全球EMBA課程 排名榜)	Kellogg-HKUST EMBA Program:  NO. 1 IN THE WORLD — THREE YEARS IN A ROW  (Global EMBA Rankings, Financial Times 2011)
全日制MBA 課程: 全球排名第6位及全球學術研究第14位 (2011《金融時報》全球MBA課程 排名榜)	Full-Time MBA Program:  NO. 6 IN THE WORLD AND NO. 14 IN RESEARCH RANKING IN THE WORLD  (Global MBA Rankings, Financial Times 2011)
全亞洲第1位,全球第45位 (2011《上海交通大學》全球 頂尖100所經濟學/商學大學排名榜)	NO. 1 IN ASIA, NO. 45 IN THE WORLD (World's Top 100 Universities in Economics/Business, Academic Ranking of World Universities by Shanghai Jiao Tong University 2011)
全亞洲第1位,全球第18位 (美國德克薩斯(達拉斯)大學全球頂尖 100所商學院排名榜(根據2006-2010 年間的研究成果))	NO. 1 IN ASIA, NO. 18 IN THE WORLD (University of Texas at Dallas (UTD) Top 100 World Rankings of Business Schools, based on research contributions in 2006-2010)
大中華區第1位,全球第52-75位 (2011《上海交通大學》全球 頂尖100所社會科學大學排名榜)	NO. 1 IN GREATER CHINA, NO. 52-75 IN THE WORLD (World's Top 100 Universities in Social Science, Academic Ranking of World Universities by Shanghai Jiao Tong University 2011)
	(2011/12《QS全球大學排名》全球 頂尖700所大學排名榜) 全球第62位 (2011/12《泰晤士報高等教育》全球 頂尖 400所大學排名榜) 全亞洲第1位 (2011《QS亞洲大學排名》全亞洲 頂尖200所大學排名榜) 全香港排名第2位,全亞洲第15位 (2011《QS亞洲大學排名》全亞洲 頂尖200所自然科學大學排名榜) 大中華區第1位,全球第22位 (2011/12《泰晤士報高等教育》全球 頂尖50所工程及科技大學排名榜) 全香港排名第1位,全球第22位 (2011/12《QS全球大學排名》全球 頂尖400所工程及科技大學排名榜) 大中華區第1位,全球第21位 (2011《上海交通大學》全球 頂尖100所計算機科學大學排名榜) 大中華區第2位,全球第36位 (2011《上海交通大學》全球 頂尖100所工程/技術與計算機科學 大學排名榜) Kellogg-科大EMBA課程: 連續3年全球第1位 (2011《金融時報》全球EMBA課程 排名榜) 全日制MBA課程: 全球排名第6位及全球學術研究第14位 (2011《金融時報》全球MBA課程 排名榜) 全亞洲第1位,全球第45位 (2011《上海交通大學》全球 頂尖100所經濟學/商學大學排名榜)

附錄一:顧問委員會、校董會及教務委員會 APPENDIX I: COURT, COUNCIL AND SENATE

#### 顧問委員會委員 COURT MEMBERSHIP

主席 陳祖澤博士

Chairman Dr John C C Chan, GBS, JP

榮譽主席

**Honorary Chairmen** Dr the Hon Sir Sze-Yuen Chung, GBM, JP

Dr Vincent H S Lo, GBS, JP

#### 當然委員 • EX-OFFICIO MEMBERS

校董會主席 張建東博士

Chairman of the Council Dr the Hon Marvin K T Cheung, GBS, JP

校董會副主席 麥海雄醫生

Vice-Chairman of the Council Dr Michael H H Mak, JP

夏理遜先生 Treasurer of the University Mr John B Harrison 大學校長 陳繁昌教授 President of the University Prof Tony F Chan

首席副校長 史 維教授 任期由2010年8月23日起 from 23 August 2010 Prof Wei Shyy 副校長(學術)(署理) 任期至2010年8月22日止 鄭紹遠教授

until 22 August 2010 Vice-President for Academic Affairs (Acting) Prof Shiu-Yuen Cheng

任期由2010年9月17日至2011年3月9日 President of the Students' Union Mr Johnny Chun-Yin Ho from 17 September 2010 until 9 March 2011

> 任期由2011年4月21日起 Mr Tim Ka-Long Tsang from 21 April 2011

校友會主席 任期至2010年11月30日止 關文亮先生

President of the Alumni Association Mr Kwan Man-Leung Almon until 30 November 2010

> 任期由2010年12月1日起 高家玉女士 Ms Laura Kar-Yuk Cozijnsen from 1 December 2010

教職員協會會長 朱力徑博士 任期至2011年6月10日止 Chairman of the Staff Association Dr Lijing Zhu until 10 June 2011

> 李志滿博士 任期由2011年6月10日起 Dr Chi-Moon Li from 10 June 2011

#### 榮譽委員 • HONORARY MEMBERS

Dr Christopher Cheng, GBS, OBE, JP

The Hon Sir David Akers-Jones, GBM, JP Dr Henry Cheng, GBS

陳有慶博士

鄭漢鈞博士 Dr Cheng Hon-Kwan, GBS, OBE, JP Dr Robin Y H Chan, GBS, JP

陳曾燾博士 鄭明訓先生 Dr Thomas T T Chen Mr Paul M F Cheng, JP

鄭維志博士 張永霖先生

Mr Linus W L Cheung, JP

#### 榮譽委員 ● HONORARY MEMBERS (續continued)

羅啟妍女士 Dr Raymond K F Ch'ien, GBS, JP Ms Kai-Yin Lo, SBS 周亦卿博士 羅友禮先生

Dr Chow Yei-Ching, GBS Mr Winston Yau-Lai Lo, SBS

陸恭蕙博士

Dr Kenneth H Fang, GBS, JP Dr Christine Loh Kung-Wai, JP

馮國綸博士 呂志和博士

Dr Lui Che-Woo, GBS, MBE, JP Dr William K Fung, SBS, JP

雷添良先生

Dr the Hon Hari N Harilela, GBM, GBS, OBE, JP Mr Tim Lui Tim-Leung, BBS, JP

蒙民偉博士 胡法光先生

Mr Hu Fa-Kuang, GBS, CBE, JP Dr William M W Mong, GBS

梁定邦博士 黃嘉純先生 Dr Anthony Neoh, SC, JP Mr Lester G Huang, JP

葉錫安博士 龐 廷先生 Dr Simon S O Ip, JP Mr David Teng Pong 金樂琦博士 單仲偕先生

Mr Sin Chung-Kai, SBS, JP Dr Roger King

唐驥千博士 郭炳湘先生 Mr Walter P S Kwok, JP Dr Jack C Tang 劉華森博士 黃至剛博士

Dr Lawrence T Wong Dr Lau Wah-Sum, GBS, JP 劉皇發議員 王英偉先生

The Hon Lau Wong-Fat, GBM, GBS, JP Mr Wilfred Y W Wong, SBS, JP

李業廣博士 楊敏德議員

Dr the Hon Charles Y K Lee, GBM, GBS, JP The Hon Marjorie Yang, JP

李兆基博士 葉謀遵博士

Dr the Hon Lee Shau-Kee, GBM Dr Geoffrey M T Yeh, SBS, JP

李國能博士 榮智健博士 Dr the Hon Andrew K N Li, GBM, SC Dr Larry C K Yung

#### 委任委員 • APPOINTED MEMBERS

歐肇基先生 周維正先生 Mr Alexander S K Au Mr Oscar V T Chow 陳黃麗娟博士 周文耀博士

Dr Anissa Chan, MH, JP Dr Paul M Y Chow, GBS, JP

陳聖澤博士 周振基博士

Dr Charles S C Chan, BBS, JP Dr Stephen Chow, SBS, JP

陳裕光博士 霍震寰先生 Dr Michael Y K Chan Mr Ian C W Fok, SBS, JP

陳啟宗博士 方文雄先生

Dr Ronnie C Chan Mr David Fong Man-Hung, JP

曹惠婷女士 范華達先生 Ms Ronna W Chao Mr Tim Freshwater 周厚澄先生 夏雅朗博士

Mr Chau How-Chen, GBS, JP Dr Aron H Harilela 謝建中先生 胡曉明先生

Mr Donald Chia, JP Mr Herman S M Hu, JP

趙曾學韞博士 許晉奎先生

Mr Victor Hui Chun-Fui, GBS, JP Dr Alice Chiu, BBS, JP

蔡冠深博士 洪小蓮女士

Dr Jonathan K S Choi, BBS, JP

Ms Katherine Hung Siu-Lin

任期至2010年7月21日止 until 21 July 2010

任期由2010年8月1日起

from 1 August 2010

任期由2010年8月23日起

from 23 August 2010

## 附錄

呂元祥博士

Dr Ronald Lu

#### 顧問委員會委員 COURT MEMBERSHIP (續 continued)

	委任委員 • APPOINTED	MEMBERS (續 continued)	
郭少明博士 Dr Kwok Siu-Ming, Simon, JP 羅義坤先生	任期至2011年4月30日止 until 30 April 2011	石禮謙議員 The Hon Abraham Shek Lai-Him, SBS, JP	任期由 2010 年 8 月 1 日起 from 1 August 2010
Mr Quinn Y K Law 李賢凱先生		丁午壽先生 Mr Kenneth Ting Woo-Shou, <i>SBS, JP</i>	
Mr Herbert S K Lee	(CHI)	王忠秣先生 Mr Ben Wong, <i>MH, JP</i>	
李家誠先生 Mr Martin Lee Ka-Shing	任期至2011年4月30日止 until 30 April 2011	王嚴君琴女士 Mrs Christine Wong, BBS	
梁國偉先生 Mr Winston Leong Kwok-Wai		黃凱明女士 Ms Christine Wong	
梁廣偉博士 Dr Humphrey Leung Kwong-Wai		王冬勝先生	
劉瑞隆先生 Mr Michael S L Liu		Mr Peter T S Wong, <i>JP</i> 王葛鳴博士	
盧楚鏘先生 Mr Colin Lo Chor-Cheong		Dr Rosanna Wong Yick-Ming, <i>DBE, JP</i> 伍淑清博士	
呂郭曉妍女士 Mrs Noelle Lu		Dr Annie S C Wu, <i>SBS, JP</i> 胡文新先生	

#### 教務委員會委任代表 ● APPOINTED SENATE RRPRESENTATIVES

Mr Thomas J Wu

Mr Lincoln C K Yung, JP

榮智權先生

陳家樂教授	任期至2011年5月12日止	韓利強教授	任期至2011年5月12日止
Prof Kalok Chan	until 12 May 2011	Prof Richard K Haynes	until 12 May 2011
陳炯林教授	任期至2010年10月31日止	葉玉如教授	任期由 <i>2011年5月13日起</i>
Prof Kwing-Lam Chan	until 31 October 2010	Prof Nancy Y lp, <i>MH</i>	from 13 May 2011
鄭國漢教授	任期由 <i>2011年5月13日起</i>	雷鼎鳴教授	任期由2010年11月1日起
Prof Leonard K Cheng, <i>JP</i>	from 13 May 2011	Prof Francis T Lui	from 1 November 2010
招捷達教授	任期至2010年10月31日止	吳宏偉教授	任期由2010年11月1日起
Prof Mohamed S Ghidaoui	until 31 October 2010	Prof Charles W W Ng	from 1 November 2010

#### 校董會成員 COUNCIL MEMBERSHIP

主席 張建東博士

Dr the Hon Marvin K T Cheung, GBS, JP Chairman

副主席 麥海雄醫生

Dr Michael H H Mak, JP Vice-Chairman

大學司庫 夏理遜先生 Treasurer of the University Mr John B Harrison

大學校長 陳繁昌教授

President of the University Prof Tony F Chan 首席副校長 史 維教授

副校長 鄭紹遠教授(學術)(署理) 任期至2010年8月22日止 Vice-Presidents Prof Shiu-Yuen Cheng until 22 August 2010

Academic Affairs, Acting

Prof Wei Shyy

李行偉教授(研發及研究生教育) 任期由2011年2月8日起 Prof Joseph Hun-Wei Lee from 8 February 2011 Research and Graduate Studies

黃玉山教授(行政) 任期至2011年2月7日止 Prof Yuk-Shan Wong, BBS, JP until 7 February 2011

Administration and Business

院長 鄭國漢教授(工商管理學院) 任期至2011年2月7日止 Prof Leonard K Cheng, JP until 7 February 2011 Deans

School of Business & Management

李中清教授(人文社會科學學院) 任期由2011年2月8日起 Prof James Lee from 8 February 2011 School of Humanities & Social Science

譚嘉因教授(學務長) Prof Kar-Yan Tam

Dean of Students

#### 教務委員會學術成員 ● ACADEMIC MEMBERS OF THE SENATE

夏耀祥教授 吳大琪教授 Prof Albert Y Ha Prof Tai-Kai Ng

#### 評議會主席 ● CHAIRMAN OF CONVOCATION

林景昇先生 任期由2011年4月1日起 Mr Sean Lin from 1 April 2011

#### 由全職僱員互選產生的成員 ● ELECTED STAFF MEMBER

朱力徑博士 Dr Lijing Zhu

Provost

#### 由全日制課程學生互選產生的成員 ● ELECTED STUDENT MEMBER

蘇翊程先生 任期至2010年10月31日止 曹石鼓先生 任期由2010年11月1日起 Mr Ivan So Yik-Ching until 31 October 2010 Mr Cao Shigu from 1 November 2010

石豁達教授

湯永亮教授

張國昌教授

詹華強教授

戴自海教授

Prof Henry Tye

Prof Karl W K Tsim

Prof Jaideep Sengupta

Prof James Y L Thong

Prof Guochang Zhang

## 附錄

陳健強先生

#### 校董會成員 COUNCIL MEMBERSHIP (續continued)

MEMBERS NOT BEING PUBLIC OFFICERS OR EMPLOYEES OF THE UNIVERSITY

Mr Anthony K K Chan, SC 鄭兆權先生

Mr Herbert S Cheng Jr 蔣麗婉女士

Ms Lai-Yuen Chiang 周胡慕芳女士

Mrs Susan Chow 霍震寰先生

Mr Ian C W Fok, SBS, JP until 31 July 2010 馮婉眉女士 任期由2011年5月1日起 from 1 May 2011

Ms Anita Fung Yuen-Mei

馮鈺斌博士 Dr Patrick Y B Fung, JP

馮葉儀皓女士

Mrs Yvette Yeh Fung

捷成漢先生 Mr Hans Michael Jebsen, BBS

簡基富先生 Mr Keith Graham Kerr, JP

until 31 March 2011 利承武先生 Mr Marcus C W Lee

李慧琼議員 The Hon Starry Lee Wai-King

廖勝昌先生 Mr Sing-Cheong Liu, JP

馬墉傑先生 Mr Maximilian Y K Ma

石禮謙議員 The Hon Abraham Shek Lai-Him,

SBS, JP 孫德基先生

任期由2010年8月1日起 黃達琛先生

任期至2010年7月31日止

from 1 August 2010

教務委員會委員 SENATE MEMBERSHIP

(根據2011年6月30日的紀錄 as of 30 June 2011)

主席 陳繁昌教授(校長) Prof Tony F Chan, President Chairman

首席副校長 史 維教授 Prof Wei Shyy Provost 副校長 黃玉山教授(行政)

Vice-Presidents Prof Yuk-Shan Wong, Administration and Business

翁以登博士(大學拓展)

Dr Eden Y Woon, Institutional Advancement

李行偉教授(研發及研究生教育)

Prof Joseph Hun-Wei Lee, Research and Graduate Studies

理學院 葉玉如教授(院長) School of Science Prof Nancy Y Ip, Dean

林振陽教授 吳大琪教授 Prof Tai-Kai Ng Prof Zhenyang Lin

雷明德教授 齊 眾教授 Prof Michael M Loy Prof Robert Z Qi

工學院

李德富教授(院長) School of Engineering Prof Khaled Ben Letaief, Dean 鄭紹榮教授

Prof Siu-Wing Cheng 韓 隸教授

穆樂思教授 Prof Mounir Hamdi Prof Ross D Murch 吳宏偉教授

梁堅凝教授 Prof Christopher K Y Leung Prof Charles W W Ng (根據2011年6月30日的紀錄 as of 30 June 2011)

Prof Siu-Fai Leung

李家濤教授

Prof J T Li

雷鼎鳴教授

吳麗萍教授

蘇基朗教授

黃善國教授

Prof Billy K L So

Prof Francis T Lui

Prof Angela L P Ng

教務委員會委員 SENATE MEMBERSHIP (續 continued)

工商管理學院 School of Business and Management

鄭國漢教授(院長)

人文社會科學學院

and Social Science

School of Humanities

**HKUST Fok Ying Tung** 

**Graduate School** 

香港科技大學霍英東研究院

任期由2010年8月1日起 from 1 August 2010

任期至2011年3月31日止

任期至2010年7月31日止

until 31 July 2010

任能博教授

王國彝教授

鄥振國教授

宗福季教授

袁銘輝教授

趙天壽教授

Prof Zhenguo Wu

Prof Fugee Tsung

Prof Matthew M F Yuen

Prof Tianshou Zhao

Prof Reinhard Renneberg

Prof Michael K Y Wong

Mr David Tak-Kei Sun, BBS, JP

Mr Wong Tat-Sum Samuel

Prof Allen Moy

羅康錦教授

麥高登教授

Prof Hong-Kam Lo

Prof Gordon McKay

學務長 譚嘉因教授 Dean of Students

教學人員選舉委員

**Elected Members of** Prof Jimmy Chi-Hung Fung the Academic Staff

> Prof Andrew L Miller 梅伯樂教授

Prof Jogesh K Muppala

教學人員增選委員 Co-opted Members of the Academic Staff

彭大衛教授 Prof David K Banfield

陳澤強教授 Prof Chak-Keung Chan

陳子亭教授 錢培元教授 Prof Che-Ting Chan

主任 區嘉麗博士(學生事務處處長) Directors Dr Grace Au, Student Affairs 白士柏先生(入學及註冊處處長)

Mr Robert Brashear, Admissions, Registration and Records

宋自珍博士(圖書館館長) Dr Samson C Soong, Library

**Student Representatives** 

學生代表

Mr Tim Ka-Long Tsang, President of Students' Union

Mr Johnny Chun-Yin Ho, Undergraduate Student Representative

Mr Kaushik Ramakrishnan, Postgraduate Student Representative(研究生代表)

梁兆輝教授

Prof Leonard K Cheng, Dean

陳家樂教授 Prof Kalok Chan

陳建文教授 Prof Kevin C W Chen

夏耀祥教授

Prof Albert Y Ha

李中清教授(院長) Prof James Lee, Dean

> 谷淑美教授 Prof Agnes S M Ku

Prof Raymond Sin-Kwok Wong

倪明選教授(院長) Prof Lionel M Ni, Dean

Prof Kar-Yan Tam

馮志雄教授

梅安祖教授

Prof Chi-Ming Chan 李曉原教授 Prof Xiao-Yuan Li

Prof Peiyuan Qian

陳志明教授

曾嘉朗先生(學生會會長)

何俊賢先生(本科生代表)

## 附錄

附錄二:校董會會議出席率

#### APPENDIX II: ATTENDANCE OF MEMBERS AT COUNCIL MEETINGS

會議日期 Date of meeting	校董人數 Total number of Council members	出席人數 Number of members present	出席率 Percentage of members present
2010年11月12日 12 November 2010	26	23	88%
2011年3月4日 4 March 2011	26	23	88%
2011年6月24日 24 June 2011	27	21	78%

附錄三:學術顧問委員會

#### **APPENDIX III: ACADEMIC ADVISORY COMMITTEES**

#### 理學院顧問委員會 SCHOOL OF SCIENCE ADVISORY COMMITTEE

#### **Dr Richard A Anthes**

President University Corporation for Atmospheric Research (UCAR) USA

#### **Professor Roger E Howe**

Professor Department of Mathematics Yale University USA

#### **Professor Horace H Loh**

Frederick and Alice Stark Professor; and Head of Pharmacology Department of Pharmacology University of Minnesota USA

#### **Professor Bjorn Engquist**

Department of Mathematics College of Natural Sciences The University of Texas at Austin USA

#### **Professor Michael R Landry**

Professor and Department Vice-Chair Scripps Institution of Oceanography Integrative Oceanography Division University of California, San Diego USA

#### **Professor Steven G Louie**

Senior Faculty Scientist Lawrence Berkeley National Laboratory Professor of Physics University of California, Berkeley USA

#### **Professor Edmond H Fischer**

Nobel Laureate in Physiology or Medicine Professor Emeritus of Biochemistry Department of Biochemistry University of Washington USA

#### **Professor Shin Lin**

Professor of Developmental and Cell Biology School of Biological Sciences University of California, Irvine USA

#### **Professor Myriam Sarachik**

Distinguished Professor Department of Physics City College of New York The City University of New York

#### **Professor Stanley C Froehner**

Professor and Chair Department of Physiology and Biophysics University of Washington USA

#### Professor Hung-Wen Liu

Professor of Chemistry and Biochemistry Professor of Pharmacy George H Hitchings Regents Chair in Drug Design Division of Medicinal Chemistry The University of Texas at Austin USA

#### Professor Edward S Yeung

Distinguished Professor in Liberal Arts and Sciences Department of Chemistry Iowa State University USA

#### 工學院顧問委員會 SCHOOL OF ENGINEERING ADVISORY COMMITTEE

#### Professor Eduardo D Glandt

School of Engineering and Applied Science Robert D Bent Professor of Chemical and Biomolecular Engineering University of Pennsylvania USA

#### Professor M Tamer Ozsu

Professor and Director David R Cheriton School of Computer Science University of Waterloo Canada

#### **Professor King-Ning Tu**

Professor

Department of Materials Science and Engineering Henry Samueli School of Engineering and Applied Science University of California, Los Angeles USA

#### **Professor Nicholas P Jones**

The Whiting School of Engineering The Johns Hopkins University

#### **Professor Vincent Poor**

Dean of Engineering and Applied Science Michael Henry Strater University Professor of **Electrical Engineering** Director, Princeton Center for Innovation in **Electrical Engineering** Princeton University IJSΔ

#### **Professor David Wu**

lacocca Professor and Dean P C Rossin College of Engineering and Applied Science Lehigh University USA

#### 工商管理學院顧問委員會 SCHOOL OF BUSINESS AND MANAGEMENT ADVISORY COUNCIL

#### Dr Fung Kwok Lun, William

**Executive Deputy Chairman** Li & Fung Limited

#### Ms Umran Beba

President Asia Pacific Region PepsiCo

#### **Professor Sally Blount**

Kellogg School of Management Northwestern University

#### Mr Louis McDaniel Bowen

Chairman and Chief Executive Officer Asia Capital Management Limited and China Advisors Limited

#### Mr Cheah Cheng Hye

Chairman and Co-Chief Investment Officer Value Partners Group Ltd

#### Mr Philip Chen

Managing Director Hang Lung Properties

#### Mr Chow Man Yiu, Paul

Chairman Hong Kong Cyberport Management Company Limited

#### Mr David L Cunningham Jr

President, Asia Pacific Division FedEx Express

#### Dr Fu Yuning

Chairman

China Merchants Group

#### Mr Hung Pi Cheng Benjamin

Executive Director and Chief Executive Officer Standard Chartered Bank (Hong Kong) Limited

#### Professor Dipak C Jain

INSEAD

#### Mr Hans Michael Jebsen

Chairman Jebsen & Co Ltd.

#### Mr Keith Kerr

Chairman The Development Studio Ltd

#### **Dr Raymond Kwok Ping Luen**

Vice Chairman and Managing Director Sun Hung Kai Properties Ltd

#### Prof Hau L Lee

Thoma Professor of Operations, Information and Technology Stanford Graduate School of Business

#### Mrs Margaret Leung

Vice-Chairman and Chief Executive Hang Seng Bank

#### Ms Heidi Miller

President of International JP Morgan

#### **Mr Christopher Dale Pratt**

Chairman Swire Pacific Limited

#### Professor Yingyi Qian

School of Economics and Management Tsinghua University

#### Mr James E Thompson

Crown Worldwide Holdings Ltd.

#### Dr Rosanna Yick-Ming Wong

**Executive Director** 

The Hong Kong Federation of Youth Groups

#### Mrs Betty Yuen So Siu Mai

Vice Chairman

CLP Power Hong Kong Ltd.

#### Mr Sing-Cheong Liu

My Top Home (China) Holdings Limited

Dr Vincent H S Lo

#### Chairman

Shui On Holdings Limited

#### Mr Shengman Zhang Chairman

Asia Pacific

#### Dr Wong Chi-Yun Allan

Chairman and Group Chief Executive Officer VTech Holdings Limited

## 附錄

#### 人文社會科學學院顧問委員會 SCHOOL OF HUMANITIES AND SOCIAL SCIENCE ADVISORY COMMITTEE

#### **Professor Hsin-Kang Chang**

Yeh-lu Xun Chair Professor Peking University

#### **Professor Shu-Hsien Liu**

Research Fellow Institute of Chinese Literature and Philosophy Academia Sinica Taiwan

#### **Professor Kenneth Pomeranz**

UCI Chancellor's Professor of History University of California, Irvine

#### **Professor Ian Holliday**

Dean of Social Sciences The University of Hong Kong Hong Kong

#### Professor Elizabeth Perry

Henry Rosovsky Professor of Government Harvard University USA

#### **Professor Andrew Walder**

Denise O'Leary and Kent Thiry Professor Department of Sociology Stanford University USA

#### **Professor Ping-Chen Hsiung**

Dean of Arts The Chinese University of Hong Kong Hong Kong

#### Professor Alain Pevraube

Chair Professor of Chinese Linguistics Ecole des Hautes Etudes en Sciences Sociales France

#### **Professor Meredith Woo**

Dean of the College of the Graduate School of Arts and Sciences University of Virginia

#### Professor Lydia Liu

Department of Comparative Literature Columbia University

#### 附錄四:財務 **APPENDIX IV: FINANCE**

#### 概況

2010/11年度是香港科技大學成功圓滿的另一年。踏進 20週年,大學於509,000,000元穩健的盈餘下(2009/10 年度為421,000,000元)持續運作。該盈餘主要來自大幅 增長的利息及投資回報343,000,000元(2009/10年度為 160,000,000元),為重組及擴大投資組合後的公允值盈 利。但在截至2011年9月30日這一季,由於環球市場的波 動,大學投資的價值下降約180,000,000元,於2011年6 月30日已確認的未實現盈利共254,000,000元,其大部分 被逆向鈎銷。預計投資市場於未來數月持續極度反覆。

#### 綜合收入及開支

基於上述較高的投資回報以及輔助及其他收入所得, 年度綜合收入增至3,186,000,000元(2009/10年度為 2,950,000,000元)。

本年度綜合開支增至2,681,000,000元(2009/10年度為 2.531.000.000元)。增加的開支主要用作準備2012年四年 新學制而增加的活動、進行中的研究項目及合約、以及一 般的薪金上升調整。

#### **OVERVIEW**

Year 2010/11 was another successful year for HKUST. In its 20th Anniversary, the University continued to operate with a healthy surplus of \$509 million (\$421 million for 2009/10). The growth was mainly attributable to the notable increase in interest and investment returns to \$343 million (\$160 million for 2009/10), representing fair value gains of the restructured and enlarged investment portfolios. However, in the guarter to 30 September 2011, due to the volatility of world markets, the value of the University's investments declined by approximately \$180 million reversing a large portion of the unrealised gains of \$254 million recognised as at 30 June 2011. The investment market is expected to remain extremely volatile in the coming

#### CONSOLIDATED INCOME AND EXPENDITURE

Consolidated income for the year increased to \$3,186 million (\$2,950 million for 2009/10) mainly due to the above-mentioned higher investment returns as well as higher auxiliary and other income.

Consolidated expenditure for the year rose to \$2,681 million (\$2,531 million for 2009/10). Increased spending was largely for the preparation for the planned increase in activities for the 4-year Undergraduate (UG) System in 2012, on-going research projects and contracts, as well as the upward general pay adjustment on salaries.

#### 分部結果

#### 教育資助委員會(「教資會」) 整筆撥款資助 之活動

雖然開支因準備實施四年新學制而增加, 但仍因 上文提及 的異常高的投資回報而錄得61,000,000元盈餘(2009/10年 度為34,000,000元)。此盈餘將保留在儲備中,用作支付來 年持續增長的日常支出及策略措舉。由於四年新學制下額 外年度的資助撥款僅為現時學生單位成本之62.5%,該等 盈餘對香港科技大學的成功具關鍵作用。

#### 籌募及有關活動

由於額外的投資回報及遲發放的政府配對撥款高於捐款下 降幅度,因此2010/11年度錄得233,000,000元的龐大盈餘 (2009/10年度為190,000,000元)。

#### 持續進修教育活動,研究活動及其他活動

自2009年,香港科技大學持續進修學院已開始縮減其日 常活動,直至2010年9月後全面停止運作。自負盈虧的 持續進修教育課程現時只局限於大學舉辦的研究生修課課 程及行政課程。預期此類自負盈虧的持續進修教育課程 將繼續穩步發展。加上其他研究活動、輔助服務及投資 回報收入,共錄得215,000,000元盈餘(2009/10年度為 197,000,000元)。

#### 資本支出

年中,現有學術大樓已完成擴建並開放使用。此外,於邊 界另一邊,科大深圳產學研大樓亦已竣工,為大學與位於 深圳及珠江三角洲的國內大學及機構之間的學術及研究合 作提供基礎設施。其它進行中的建築項目還包括: 李兆基 商學大樓、科大高等研究院學術大樓、新增教學及研究設 施及三棟新建學生宿舍。

於2011年6月30日,已批准之建築項目及其他資本項目的 資本承擔達1,975,000,000元。當中,1,305,000,000元來 自已獲批准但未收之教資會撥款,93,000,000元來自承諾 捐款,其餘來自大學現有儲備及遞延收益。

#### 展望

在2011/12新的學術年度開始之際,企業資源計劃系統成功 啟用。大學將繼續完成過渡安排,以確保從2012/13年度開 始的雙組本科生能順利並行運作。

新一輪的配對撥款計劃暫無消息,加上憂慮美國及歐元區 國家財務狀況而導致近期股票市場大幅波動,管理層預期 來年將要面對資金籌募及於投資市場獲取可觀的收入或收 益的挑戰。大學將繼續貫徹嚴謹的理財政策,竭力保持足 夠的儲備讓大學有能力應付其未來目標的投放所需。

#### **SEGMENT RESULTS**

#### UNIVERSITY GRANTS COMMITTEE ("UGC") BLOCK **GRANT-FUNDED ACTIVITIES**

While additional costs were incurred in preparation for the implementation of the 4-year UG System, a surplus of \$61 million (\$34 million for 2009/10) was recorded largely due to the exceptionally high investment returns noted above. The retained surplus kept under the reserve will be used for the increasing recurrent expenditure and strategic initiatives for the coming years. This will be critical to the success of HKUST given the reduced level of funding at 62.5% of the current student unit cost for the additional year under the 4-year UG system.

#### **FUND RAISING RELATED ACTIVITIES**

Extra investment returns and late allocation of the matching grant from the Government more than offseted the drop in donations, resulting in a higher surplus of \$233 million for 2010/11 (\$190 million for 2009/10).

#### SELF-FINANCING CONTINUING PROFESSIONAL EDUCATION PROGRAMS ("CPEP"), RESEARCH AND OTHER ACTIVITIES

From year 2009, the HKUST College of Lifelong Learning started to curtail its activities and finally ceased all operations after September 2010. Selffinancing continuing professional education programs are now confined to taught postgraduate programs and executive courses organized by the University. It is expected that these self-financing CPEP programs will continue to grow at a steady pace. Together with other income from research activities, auxiliary services and investment returns, a surplus of \$215 million was recorded (\$197 million for 2009/10).

#### **CAPITAL EXPENDITURE**

During the year, the extension to the existing academic buildings was completed and has been opened for use. Over the border, the HKUST Shenzhen IER (Industry, Education and Research) Building has also been completed, providing infrastructural support for academic and research collaborations with Mainland university and institutes in Shenzhen and the Pearl River Delta. Other construction projects, including the Lee Shau Kee Business Building, Institute for Advanced Study Academic Building, Additional teaching and research facilities, and three new student hostels are in progress.

As at 30 June 2011, the total commitments for the approved construction projects and other capital items amounted to \$1,975 million. Of which, \$1,305 million will be supported by approved but yet to be received UGC grants, \$93 million by pledged donations and the rest by HKUST's reserves and deferred income on hand.

#### **OUTLOOK**

After the successful go-live of the Enterprise Resources Planning system just before the start of the new academic year 2011/12, the University will continue to complete the transition to ensure the smooth operation of the double UG cohorts from 2012/13.

With no signs of a new round of Matching Grant Scheme, and amidst the recent volatility in the stock markets caused by ongoing financial concerns in the United States and the eurozone countries, Management foresees challenges in fund raising activities and ability to have any significant income or gains in investment markets in the coming year. The University will remain prudent in its financial management and strive to maintain adequate reserves to provide ability for the University to invest in its future goals.

# 綜合資產負債表

### CONSOLIDATED BALANCE SHEET

2011年6月30日 AS AT 30 JUNE 2011

		2011 百萬元 \$million	2010 百萬元 \$million
非流動資產	Non-Current Assets		
物業、機器及設備 無形資產	Property, Plant and Equipment Intangible Assets	3,617 47	3,459 35
持至到期日財務資產	Held-to-Maturity Financial Assets	1,423	499
可供出售財務資產	Available-for-Sale Financial Assets	19	17
按公平值透過損益記賬之財務資產	3	1,656	871
於聯營公司權益 於合資企業權益	Interest in an Associate Interest in a Joint Venture	57	52
到期日超過一年之定期存款	Bank Deposits with Maturity over One Year	198	301
	,	7,017	5,234
流動資產	Current Assets		
<b>持至到期日財務資產</b>	Held-to-Maturity Financial Assets	204	76
存貨	Inventories	1	1
應收賬款及預付款項	Accounts Receivable and Prepayments	234	140
原到期日超過三個月之 定期存款	Bank Deposits with Original Maturity over Three Months	759	1,740
現金及等同現金	Cash and Cash Equivalents	967	1,324
		2,165	3,281
流動負債	Current Liabilities		
應付賬款及應計費用	Accounts Payable and Accruals	323	302
教職員福利撥備	Provision for Staff Benefits	98	94
遞延收益 (T) (T) (T)	Deferred Income	701	696
應付税項	Tax Payable	2	2
		1,124	1,094
流動資產淨值	Net Current Assets	1,041	2,187
資產總值減流動負債	Total Assets Less Current Liabilities	8,058	7,421
非流動負債	Non-Current Liabilities		
教職員福利撥備	Provision for Staff Benefits	14	12
資產淨值	NET ASSETS	8,044	7,409
資本儲備	Capital Reserves	3,664	3,494
教資會整筆撥款儲備	UGC Block Grant Reserves	1,110	1,039
籌募及教資會配對撥款儲備	Donations and UGC Matching Grants Reserves	2,135	1,916
其他儲備	Other Reserves	1,130	958
投資重估儲備	Investment Revaluation Reserve	5	2
資金總額	TOTAL FUNDS	8,044	7,409

# 綜合全面收益表

### CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

截至2011年6月30日止年度 FOR THE YEAR ENDED 30 JUNE 2011

		2011 百萬元 \$million	2010 百萬元 \$million
收入	Income		
政府資助及撥款 學費、課程及其他收費 利息及投資收入 外界捐款 輔助服務及其他收入 轉撥自資本儲備	Government Subventions and Grants Tuition, Programmes and Other Fees Interest and Investment Income Donations and Benefactions Auxiliary Services and Other Income Transfers from Capital Reserves	1,701 676 343 39 277 150	1,534 650 160 232 229 145 2,950
開支	Expenditure		
	-		
學術及研究 教學及研究 圖書館 中央電腦設備 其他教學服務	Learning and Research Instruction and Research Library Central Computing Facilities Other Academic Services	1,754 79 80 55	1,631 79 84 57
校務支援	Institutional Support	1,968	1,851
校務交接 管理及一般事務 校舍及有關費用 學生及一般教育服務 其他活動	Management and General Premises and Related Expenses Student and General Education Services Other Activities	155 387 140 31 713	131 380 135 34
		2,681	2,531
本年度營運所得盈餘	Surplus from operation for the year	505	419
所佔聯營公司的經營業績	Share of Result of an Associate	4	4
本年度税前盈餘	Surplus for the year before taxation	509	423
税項	Taxation	0	(2)
本年度税後盈餘	Surplus for the year after taxation	509	421
年內之其他全面收益 於可供出售財務資產未實現之盈利 出售可供出售財務資產時被確認 之實現盈利及轉撥自投資重估	Other comprehensive income for the year Unrealised gain on Available-for-Sale Financial Assets Recognition of gain realised on disposal of Available- for-Sale Financial Assets transferred from Investment	3 0	1 (23)
儲備轉撥自資本儲備至綜合全面收益表	Revaluation Reserve Transfer from Capital Reserves to consolidated statement of comprehensive income	(150)	(145)
外幣換算之差額 於聯營公司所佔法定儲備之變動	Exchange differences arising from retranslation Change in share of statutory reserves of an Associate	10 1	3 (1)
		(136)	(165)
年內全面收益總額	Total comprehensive income for the year	373	256
轉撥至/(自): 資本儲備 大學教育資助委員會(「教資會」) 整筆撥款儲備	Transfers to / (from): Capital Reserves University Grants Committee ("UGC") Block Grant Reserves	(145) 61	(144) 34
等募及教資會配對撥款儲備 其他儲備 投資重估儲備	Donations and UGC Matching Grants Reserves Other Reserves Investment Revaluation Reserve	236 218 3	189 199 (22)
		373	256
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Most of the photographs used in this Annual Report are taken by our staff, students, members of the alumni, the Publishing Technology Center and our vendors.

Winning entries of the Annual Photo Competition 2011 are also included. Winners include Yan-kit Ng, Sai-kit Tsui, Yibin Jiang, Man-ho Luk, Yuk-yee Chan, Rong Zhang, Chun-mei Chau, Yat-fai Yuen, Kwan-chuen Law, Chi-hang Wong, Connie Tsang and Guancong Ma.

